



PHASE 5

DRAFT SDF

JULY 2017

REVIEW OF SPATIAL DEVELOPMENT FRAMEWORK JOHN TAOLO GAETSEWE DISTRICT

NORTHERN CAPE PROVINCE

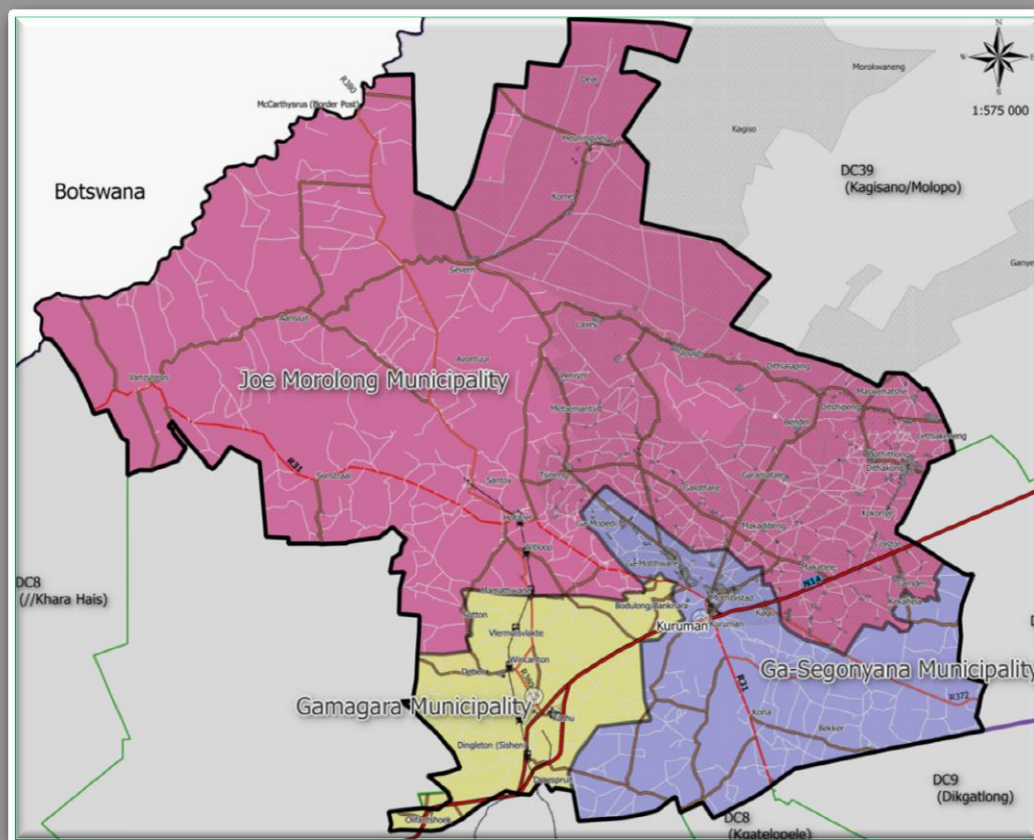


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CHAPTER 1

INTRODUCTION AND PROJECT INCEPTION

REVIEW OF JOHN TAOLO GAETSEWE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Synopsis: Chapter 1 The main purpose of this chapter is to illustrate the project background, stakeholder's engagement, methodology, project charter, structure of the document and implementation programme to review the John Taolo Gaetsewe SDF



1 INTRODUCTION

In August 2013, the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) referred herein as SPLUMA was enacted. The Act became effective from the 01 July 2015. The SPLUMA introduces the following key changes in planning legislation:

- Clarifies the role and responsibilities of each sphere of government where spatial planning is concerned.
- Requires the development of National, Provincial, Regional and Municipal Spatial Development Framework by each associated sphere of government and the application of development principles when developing a Spatial Development Framework.
- Assigns land development and land use management as the sole responsibility of municipalities (where municipal planning is concerned) and requires that all land development applications must be submitted to a municipality as authority of first instance.
- Requires the development of a single and inclusive land use scheme for the entire municipality, records and enforcement thereof.
- Requires the establishment and composition of Municipal Planning Tribunals and Internal Appeals structure by a municipality or joint municipalities to determine and decide on land development application.
- Specifies that, except as provided for by the SPLUMA, no legislation not repealed by the Act may prescribe an alternative or parallel mechanism, measure, institution or system on spatial planning, land use, land use management and land development in a manner inconsistent with the provision of the Act.
- Emphasises the importance of intergovernmental support and alignment of authorisations.

Section 24 of the SPLUMA specifies that a municipality must:

- adopt and approve a Spatial Development Framework (SDF)
- as well as a single Land Use Scheme (LUS) for its entire area within 5 years from the commencement of the Act.

John Taolo Gaetsewe District Municipality (JTGDM) has appointed SWM Holdings (Pty) Ltd on the 07 December 2015 to review the Spatial Development Framework to be inclusive of a Land Audit and Comprehensive Soil Capability Study and to be fully compliant with the provisions of SPLUMA.

The review of John Taolo Gaetsewe District Municipality Spatial Development Framework arises mainly from a concern that the current JTGDM SDF (2012) inadequately addresses issues related to the provision as outlined in Chapter 4 of the SPLUMA.

This report will be the concluding deliverable of the **Inception Phase**.



1.1 PROJECT TITLE

Review of John Taolo Gaetsewe Spatial Development Framework which is inclusive of a **Land Audit** and a **Comprehensive Soil Capability Study**.

1.2 PURPOSE AND PROJECT SCOPE

The main purpose of this chapter is to illustrate the project background, stakeholder's engagement, methodology, project charter, structure of the document and implementation programme to **review the John Taolo Gaetsewe SDF**. This report is the first step towards the Final Report and it will be shared for comments with the project committee. John Taolo Gaetsewe District Municipality requires a Revised Spatial Development Framework that:

- Is compliant with the provision of the Spatial Planning and Land Use Management Act, 2013 (**SPLUMA**)
- Gives interpretation of **implementation of IDP** on spatial level
- Be a road map for implementation of the IDP over the **electoral term** and beyond i.e. until **2030**
- Will provide an aligned framework for implementation of government policy and legislative directives
- Has a **Land Audit** to inform decision making
- Has a **Soil Capability Study** within the district area

JTGDM completed its Revised SDF in 2012. The adoption or development of the current JTG SDF preceded the SPLUMA enactment which was passed into law in August 2013.

Department of Rural Development and Land Reform (custodian of SPLUMA) conducted an assessment to establish the level of compliance of the current JTGDM SDF. DRDLR then issued a notice in terms of Section 9(1)(b) of the SPLUMA on assessment of the district SDF. Assessment came into a conclusion that the JTG SDF was partially compliant to the SPLUMA provisions with regard to the following sections:

- Process (Consultation & Preparation) – Sec 20 (3)
- Content – Sec 12 (1) (a - o), (2), (5), Sec 21 (a - p)
- Approval – Sec 20 (1)

In addressing this JTGDM through a competitive bidding process appointed SWM Holding (Pty) Ltd to review the JTG Spatial Development Framework.

Land Audit and **Soil Capability** would also form part of core components of the Revised SDF over and above the requirements of Section 21 of SPLUMA.



1.3 STUDY AREA

The John Taolo Gaetsewe District Municipality (JTGDM) is situated in the Northern Cape Province. JTGDM comprises of three Local Municipalities i.e. Gamagara, Ga-Segonyana and Joe Morolong. Kuruman town is the administrative seat of the district municipality.

JTGDM is the second smallest district in the Northern Cape, occupying only 6% of the Province i.e. 27 293 km². The John Taolo Gaetsewe District comprises of 186 settlements of which the majority (80%) are villages mainly located in the Joe Morolong Local Municipality.

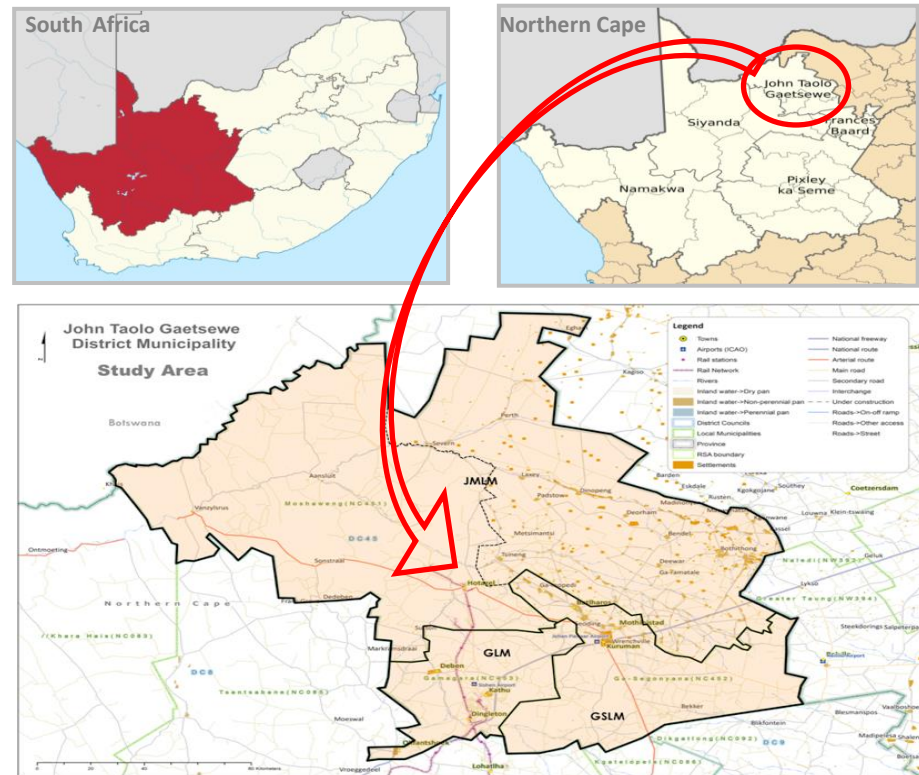
The population of John Taolo Gaetsewe District Municipality is 224799, an increase of 1.6% since the 2001 Census. The municipality constitutes 19.62% of the total population of the province which is 1 145 861. Its population growth is the second highest behind Francis Baard which is 1.66% (Census 2011).

JTGDM is characterised by a mixture of land uses, of which **agriculture** and **mining** (of manganese) are dominant. The district holds potential as a viable tourist destination and has numerous growth opportunities in the industrial sector.

The mining is the only sector with a comparative advantage in the John Taolo Gaetsewe District. Mining contributes 67.6% to the GVA of the JTGDM (JTG SDF 2012). This means that this sector produces products in excess of the local demand; therefore, it exports a considerable share of its outputs to another region bringing income for the local economy (JTG Integrated Development Plan 2012-17).

The weaker manganese price together with uncertainty off take from China's steel industry may have undesired effect in the mining sector. A look at other economic sectors and in particular agriculture and tourism would mitigate the negative impact that the mining could have within the district.

Government Strategy on Agri-Parks (a networked innovation system of agro-production, processing, logistics, marketing, training and extension services located at district level) will be the one of the focus areas since the JTGDM has been identified as a priority district.



1.4 PROJECT BACKGROUND AND DESCRIPTION

South Africa's planning history has seen a considerable array or plethora of legislation. Much of the legislation responsible for managing land uses in a municipality pre-dates 1994. In addition, the Constitutional Court found sections of post 1995 legislation (the Development Facilitation Act, 1995) invalid based on unconstitutionality. The Spatial Planning and Land Use Management Act (SPLUMA) of 2013 repealed the (Development Facilitation Act, 1995 (DFA) in its entirety. The objectives of the Act are as follows:

- Provide for a uniform, effective and comprehensive system of spatial planning and land use management for the Republic;
- Ensure that the system of spatial planning and land use management promotes social and economic inclusion;
- Provide for development principles and norms and standards;
- Provide for the sustainable and efficient use of land;
- Provide for cooperative government and intergovernmental relations amongst the national, provincial and local spheres of government; and
- Redress the imbalances of the past and to ensure that there is equity in the application of spatial development planning and land use management systems.

John Taolo Gaetsewe District Municipality requires a Revised Spatial Development Framework that:

- Is compliant with the provision of the Spatial Planning and Land Use Management Act, 2013 (SPLUMA)
- Gives interpretation of implementation of IDP on spatial level
- Be a road map for implementation of the IDP over the electoral term
- Will provide an aligned framework for implementation of government policy and legislative directives
- Has a Land Audit to inform decision making within the District Municipality
- Has a Soil Capability Study within the district municipal area.

A detailed Research Report will be submitted to the District Municipality providing a **Revised SDF** that complies with the following critical milestones/ phases (i.e. phase 1 – 5) as stipulated in the Department of Rural Development and Land Reform (DRDLR) SDF guidelines:

- Phase 0: **Project Inception** (Project Scope, Data and Institutional Arrangements).
- Phase 1: **Policy Context and Vision Directives** (Start Up, Issues and Vision and Review and Synthesise Legislative & Policy Context)
- Phase 2: **Spatial Challenges & Opportunities** (IDP & Sector Plans inputs, Spatial Analysis and Synthesis – key focus areas being on the Built Environment, Socio Economic and the Bio-Physical aspects. It will include a Comprehensive Land Use Audit together with a Soil Capability Study)
- Phase 3: **Spatial Proposals** (Spatial Concept & Final Vision, Spatial Strategies and Draft DSDF)
- Phase 4: **Implementation Framework** (Supporting Policies, Supporting Guidelines, Capital Investment Framework and Draft Implementation Framework)
- Phase 5: **Final DSDF** (Final SDF, Sector Plan Alignment, Priority Local Plans and Capital Investment Framework into IDP)



In terms of the guidelines for SDFs as compiled by the Department of Rural Development and Land Reform and the Terms of Reference of the Review of the SDF, the project will unfold in five (5) phases (1 – 5) as follows:

PHASES	ACTIVITIES	OUTPUTS
PHASE 0: Inception Report	<ul style="list-style-type: none"> ❖ Compile inception draft program, project charter, project scope, and institutional arrangement. ❖ Schedule Inception Report Presentation ❖ Collection of existing information 	<ul style="list-style-type: none"> ❖ Introduction to the relevant stakeholders ❖ Present and Submit inception report
PHASE 1: Policy Context and Vision Directives	<ul style="list-style-type: none"> ❖ Review and recompile policies and Legislation Framework ❖ Confirm Issues, Vision, Review and Synthesise Legislative & Policy Context 	<ul style="list-style-type: none"> ❖ Integration and alignment of all relevant legislation and policy context ❖ Inclusive of the SPLUMA
PHASE 2: Spatial Challenges & Opportunities	<ul style="list-style-type: none"> ❖ IDP & Sector Plans inputs, Spatial Analysis and Synthesis ❖ Review and updating of existing Data ❖ Data Interpretation & Analysis 	<ul style="list-style-type: none"> ❖ Gap analysis ❖ Cross-sectoral analysis ❖ An in-depth analysis of the priority issues
PHASE 3 Spatial Proposals	<ul style="list-style-type: none"> ❖ Enhancement of intensification and integration of residential development ❖ Enhancement of industrial and commercial development ❖ Development of municipal open spaces (Land Audit and proposals) 	<ul style="list-style-type: none"> ❖ Rural and Urban network system ❖ Nodal, corridor and spines development ❖ Confirmation of Urban Edge
PHASE 4 Implementation Framework	<ul style="list-style-type: none"> ❖ Relate implementation plan to the objectives and status quo analysis ❖ Provide a five (5) plan for project implementation and spatial planning ❖ Monitoring of the goals or key performance indicators, as well as the implementation of capital investment and policies. 	<ul style="list-style-type: none"> ❖ Capital investment plan ❖ 20 years horizon (spatial vision for the district municipality) ❖ spatial logic and an infrastructure logic informing future development processes
PHASE 5: Final District SDF	<ul style="list-style-type: none"> ❖ Sector Plan Alignment, ❖ Priority Local Plans ❖ Capital Investment Framework into IDP 	<ul style="list-style-type: none"> ❖ Final Revised SDF



1.5 PROJECT MANAGEMENT STRUCTURE

The project management structure will be as follows:

- ❖ Consultant Team
- ❖ Project Committee
- ❖ Project Steering Committee
- ❖ Municipal Council
- ❖ Focus Groups

Roles and Responsibilities for each of these committees are discussed below.

1.5.1 CONSULTANT TEAM

SPLUMA introduced a multidisciplinary approach to planning in the new requirements for Spatial Development Frameworks to be developed in South Africa. Simply put planning is no longer enough, it needs to be supported by demographics and socio economic analysis to understand who and what we are planning for. Planning requires environmental input to protect and integrate environmentally sensitive areas as well as areas with high potential agriculture. Planning proposals need to integrate infrastructure analysis to ensure that future development needs can be supported by infrastructure such as water, sanitation, electricity, roads etc. Finally, planning proposals need to be quantified in terms of the finance required to implement the proposals.

SWM Holdings (Pty) Ltd in partnership with Kago-Boswa Consulting Spatial Planners Cc has assembled a team to support the multidisciplinary aspect required by SPLUMA and will be responsible for:

- ❖ Review of SDF
- ❖ Collate and research data required for the stud
- ❖ Liaise with government officials, stakeholders and private companies to obtain reliable data for the project
- ❖ Be available if and when required to conduct a meeting or make presentations to other institutional structures
- ❖ Capacitate officials with skills of how to interpret and implement SDF



NAME	QUALIFICATIONS & REGISTRATIONS	PROJECT RESPONSIBILITY	SKILLS
Walter Rachidi Pr. Pln (A/1716/2013)	B Town & Regional Planning (University of Pretoria) Certificate in Contract Management (Boston City Campus) Registrations: Professional Planner (Pr. Pln) – SACPLAN Member of South African Planning Institute (SAPI)	Project Leader & Town Planner	Project Management, Policy Development, Transportation Planning, Human Settlement Plans, Township Establishment, Land Audits, Shopping Centre Development, Spatial Development Framework, Land Use Management, By-laws, Strategic Planning
Thabang Moselane Pr. Pln (A/1969/2014)	B. Art et Scien. in Urban & Regional Planning (NWU, Potch) M. Art et Scien. in Urban & Regional Planning (NWU, Potch) Certificate in Project Management Registrations: Professional Planner (Pr. Pln) – SACPLAN Member of South African Planning Institute (SAPI)	Town Planner	Human Settlement Plans, Township Establishment, Land Audits, GIS, Integrated Development Planning, Rural Development
Stephen Matjila Pr. Pln (A/1800/2013)	B Town & Regional Planning (University of Johannesburg) Diploma in Project Management (Damelin) B Tech in Business Administration (UNISA) Registrations: Professional Planner (Pr. Pln) – SACPLAN Member of South African Planning Institute (SAPI)	Town Planner	Project Management, Urban Management, Spatial Planning And Transportation Planning Project Management, IDP, Spatial Planning, Land Use, Bus Plans, Policy Development, Infrastructure Planning
Emile Hoffmann	B. Art et Scien. in Urban & Regional Planning (NWU, Potch) MSc Environmental Science (NWU, Potch)	GIS & Environmental Management Specialist	GIS Lecture at NWU-Vaal Campus, High Resolution Digital Elevation Model (DEM), Wonderfontein spruit Risk Study, Johannesburg Bank Study (GIS Setup & Analysis), Gerhardminnebron High Resolution DEM Setup & Study, World Health Organisation Uranium Risk Mapping Project
Watson Mokgosi	B. Art (NWU) M. Art (NWU) Certificate in Project Management	Project Liaison Officer	Social Facilitation, Project Management, Community Development

The above consultant team is not conclusive and will be guided by special areas of significance that might need specialist inputs e.g. geotechnical engineers, environmentalist, economist etc.



1.5.2 PROJECT COMMITTEE

The Project Committee will comprise of G. van der Westhuizen (Project Leader), T. Ditshetelo (Assistant Project Leader) including officials from DRDLR, MISA, COGHSTA (Spatial Planning) JTGDM PMU Manager (Engineer), all Town Planners in the District and the service provider (i.e. Consultant Team led by W. Rachidi – Project Leader). The Project Committee will meet at least five (5) times and also as and when necessary to consider the following:

- ❖ Technical details regarding the content and process of the project.
- ❖ Preparation for the Project Steering Committee and public meetings.
- ❖ Monitor progress and the budget.

The dates of the planned meetings are outlined on *section 4.1*.

1.5.3 PROJECT STEERING COMMITTEE

The composition of the Project Steering Committee will consist of Municipal Manager, Senior Managers, Mayoral Committee Member/s and Project Committee. Additional members will be invited to the meetings as and when needed. The roles and responsibilities of the Project Steering Committee will be as follows:

- ❖ To provide sectoral technical input to the project.
- ❖ To manage the process in accordance with the project charter.
- ❖ To guide the process and advice the district municipality accordingly.
- ❖ To evaluate the quality of reports and advice the municipality accordingly.

The roles and responsibilities of the non – technical group will be as follows:

- ❖ To represent the interests of the community on the ground
- ❖ To provide political direction when necessary throughout the project process.
- ❖ To assists the project team with mobilising the community members during public participation
- ❖ To actively participate in the stakeholders (focus groups) workshops that will be undertaken as part of this project.



Three (3) Project Steering Committee (PSC) meetings will be held during the SDF Review. The meetings will be linked to milestones. Schedule of meetings are outlined on *section 4.1 & 4.2*.

Arrangement for meetings will be as follows:

- ❖ Due to time limitations, invitations will be forwarded at least two weeks before the date of the meeting.
- ❖ All meetings will be held at the offices of John Taolo Gaetsewe District Municipality.
- ❖ Officials of District Municipality or his/her designate will chair all PSC meetings.
- ❖ All meetings will take not more than three hours unless previously arranged or declared as a workshop.
- ❖ Members are requested to indicate as early as possible if they are unable to attend a meeting.
- ❖ PSC meetings will be regarded as formal municipal meetings and will be recorded accordingly.
- ❖ Minutes of meetings will be sent to the PSC members in not more than a week after the date of the meeting.
- ❖ Reports for discussion will be forwarded to PSC members at least one week before the date of the meeting.

1.5.4 MUNICIPAL COUNCIL

The Mayoral Executive Committee will consider reports from the portfolio committee and make recommendations to Council for approval.

1.6 PARTICIPATION STRATEGIES

Participation strategies will be based on public meetings and stakeholder (focus group) engagement. The Final Document will also be made available for public comment by:

- ❖ Posting the document on the official website of the District Municipality
- ❖ Make the document available for public viewing at municipal libraries and offices for a period of 28 days

During engagements with the Focus Groups (*refer to section 4.1 & 4.2*) the following would be used to communicate concepts, proposals, framework/ plans:

- ❖ Posters and/ Brochures
- ❖ GIS Maps
- ❖ Visual Presentation using Projector



1.7 COMMUNICATION STRATEGY

When designing a communication plan for review of Spatial Development Framework, the Project Leader will consider communication with the Service Provider and other stakeholders. For the review of this District SDF, the most communication system that will be used for invites of meeting, workshop, etc., is through email and telephone. The one advantage of email system is that one can send working copies of documents, spread sheet, presentations, project information, etc.

1.8 PUBLIC PARTICIPATION

Public participation's objective in this project would be to influence and share control over development initiatives and the resources that affect communities and the people.

In terms of the legal requirements pertaining to public participation Section 152 (1) (e) of the Constitution of South Africa, 1996 (Act 108 of 1996), states that government must encourage the involvement of communities and community organisations in local government. Further to the Constitution, the Municipal Systems Act, 2000 (Act 32 of 2000) sets out the core principles, mechanisms and processes for municipalities in order to achieve development and move progressively towards participatory governance.

The MSA (Act 32 of 2000) also assists in the empowerment of municipalities to move towards the social and economic upliftment of communities. As such, this Act calls for public consultation through public participation. In order for public participation to be effective, conditions conducive for participation and the encouragement thereof is essential.

This District SDF review comprises a public and a stakeholder engagement process. The stakeholder engagement is on-going and takes place throughout project duration. Table below lists the various stakeholder engagement meetings that will contribute towards this SDF review process. Identification of stakeholders is paramount in ensuring a successful public participation process.



The following are the stakeholders that have been preliminary identified to be participatory vehicle and are constituted as follows:

STRUCTURE	COMPOSITION	ROLE
Council	Members of the Council (Councillors) (Chair: Speaker)	Political Oversight Approve/ Adopt the SDF
Project Steering Committee (PSC)	MMMC, MM, Senior Managers, CFO and Sectional Heads (Managers) Service Provider – <i>SWM Holdings</i> Project Committee Members (Chair: Mayor/ Municipal Manager)	Champion the Project Ensure that the Projects is executed in line with the Terms of Reference Provide technical expertise and support
Project Committee (PC)	Consultant Team District IDP/PMS Manager Town Planners in the District District PMU Manager Officials from Sector Departments (COGTA, DRDLR, MISA, COGHSTA, SALGA) Chair: Strategic Planning/ IDP/PMS Manager	Alignment, coordination and integration Provide technical expertise and support
Focus Groups	John Taolo Development Trust Gamagara Development Trust Traditional Authorities Mining Companies Business Community Property Developers Tourism Product Owners/ Agencies Rate Payers Association Agricultural Unions/ Communal Property Associations State Owned Enterprises Civil Society (NGO, CBO) Chair: MMC Planning & Development/ Delegated Cllr/ Official	Provide inputs on various aspects that affects them
Department of Cooperative Governance, Human Settlement & Traditional Affairs (COGHSTA) Department of Rural Development and Land Reform (DRDLR)		COGHSTA - Assess/ Evaluate the SDF, comment and monitor its implementation. Provide Support (Section 10 of SPLUMA) during the review of the SDF DRDLR – Confirm compliance in terms of Section 8 (2) G of SPLUMA & support and monitoring in terms of Section 9 of SPLUMA during the review of the SDF



Public participation for the Review of the SDF will include the following:

- Establishment of a Project Committee and Project Steering Committee at District level;
- Giving notice of the process of developing the SDF in the local newspapers and provincial gazette;
- Consultation with the Project Committee and Municipal Council during all 5 phases of the project;
- Consultation with the Project Steering Committee on completion of some phases of the project,
- Approval of the final Revised SDF by the Municipal Council;
- Approval of the final SDF by the Project Steering Committee; and
- Notice in the local newspapers inviting inputs and comments on the final Revised SDF from the general public.

During the introductory meeting on the 5th February 2016, much emphasis was placed on the importance of consultation and participation. It was resolved that a public participation plan must be in place to inform how stakeholder engagement will be conducted during the review of the SDF.

The role of the stakeholders during public participation is legislated as outlined hereunder:

Role Players	Roles & Responsibilities	Reference to SPLUMA/ Other Legislative Provisions
Municipal Council	Adopt & approve the Revised SDF	Section 20 (1) of SPLUMA
Traditional Council	Participate in the approval, adoption, implementation, monitoring & reviewing.	Section 212 of the Constitution, Section 23 (2) of SPLUMA, Section 3 of TLGFA, Section 81 of Municipal Structures Act, 1998
Local Community (Business, Mining, NGO, Rate Payers Assoc., Farmers Unions, Tourism)	Participate by guiding & and giving inputs on policies, frameworks & plans during review phases of the SDFs	As prescribed by the Spatial Planning & Land Use Management Act, 2013, Section 21A of Municipal System Act, 2000
	Commenting on land development application processes.	
	When necessary can participate during the hearing procedures as an interested & affected person or an objector.	

In addition, the Draft SDF Review will be placed at public libraries and traditional authority offices and advertised in local newspapers from 1 April 2017 to 5 May 2017 for public comment.

The comments/ inputs will be incorporated into the Final Revised SDF document which will be submitted to Portfolio Committee, Mayoral Committee and finally to Council anticipated to sit on 31 May 2017 for final adoption and subsequently published (Section 20 of the SPLUMA).



Meetings key to a successful project are listed hereunder:

Target Audience/ Stakeholder	Purpose	Date of the Meeting
Project Committee	Introductory Meeting	05 February 2016
Project Committee	Inception Report	18 March 2016
Project Committee	Policy Context & Vision	19 May 2016
Project Steering Committee		29 June 2016
Project Committee	Spatial Challenges & Opportunities	04 November 2016
Project Steering Committee		09 March 2017
Focus Group		01 – 31 November 2017
Project Committee	Spatial Proposals	17 February 2017
Project Steering Committee		09 March 2017
Focus Group		01 – 31 March 2017
Project Committee	Implementation Framework	29 March 2017
Project Steering Committee		30 March 2017
Council	Adoption of the Revised SDF	31 May 2017

The legislation provisions requires that accessible participatory structures should be created to allow interested and affected parties to express their concern or support on different issues within this project. The decisions that will be undertaken regarding this project should be made in the public domain. Hence, no decision will be undertaken behind closed doors and the affected parties shall have the right to access information pertaining to the recommendations of the project before it reaches the stage of adoption.

The project team is committed conduct public participation through the process of IDP compilation and the stakeholder's workshops whereby interested and affected members of the public and community organisations will participate in this project.



1.9 PUBLIC PARTICIPATION PLAN

STAKEHOLDER ENGAGEMENT PLAN	MONTHS															
	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017
Phase 0: Inception Report																
• Notification of Council's Intension to Review its SDF (Sec 20 (3) (a)) - Newspaper & Gazette																
• Project Committee (PC)																
Phase 1: Policy Context & Vision Directives																
• Presentation to Project Steering Committee (PSC) & Project Committee (PC)																
Phase 2: Spatial Challenges & Opportunities (Status Quo Analysis and Interpretation)																
• Presentation of Findings to PSC, PMT & Engage Focus Groups (FG)																
Phase 3: Spatial Proposals																
• Presentation to PSC, PMT, Focus Groups and Advertise Draft SDF for comments (Sec 20)																
Phase 4: SDF Implementation Framework																
• Presentation of Findings to PSC & PMT																
Phase 5: Final Spatial Development Framework																
• Presentation of Report to PSC, Portfolio/ Council																
• Council Approval/ Adoption (Sec 20 (1))																
• Publication of Council Decision to Adopt the SDF (Sec 20 (1)) - Newspaper & Gazette																

Key: Yellow – Project Committee (PC) & Project Steering Committee (PSC) and Bright Green – Focus Groups



1.10 STRUCTURE OF THE DOCUMENT

An SDF is reviewed within a very specific legislative and policy framework. Legislation plays an enabling role while policy directs planning within the framework of the constitutional obligations of local government. It is therefore necessary to understand the context within which development takes place. The realities of the development context within the framework of legislation and policies determines the objectives of the SDF and in this way leads to the development of a spatial concept that eventually translates into sustainable implementation strategies and programmes.

To enable logical sequence of the Revised SDF, the following document structure will be used and is graphically outlined on *page 18*.

Executive Summary:

- A summary and brief overview of the key challenges and opportunities findings, SDF proposals and implementation requirements

Background & Purpose:

- Confirm Terms of Reference / Project Objectives for the Review of the SDF
- Outline Methodology and Timeframes
- Provide an Overview of Municipality
- Outline the Document Structure

Policy Context & Vision Directives:

- Policy directives from the relevant strategic policy and legislative frameworks which currently constitutes the national, provincial and local planning agenda
- Focus on IDPs, Provincial, District & Local Municipality Plans, Rural Development Plans, National Development Plan, SPLUMA, CRDP, Back2Basics, Presidential Package on Distressed Mining Areas
- Confirm current SDF Vision

Context, Role & Issues:

- Strategic spatial analysis in terms of the 3 themes with the use of available/ existing data which includes the current JTG SDF, JTG Rural Development Plans
- Biophysical and the Built Environment Themes will also articulate on the Soil Capability and the Land Audit (ownership & land use)
- Demographics and Economic Sectors – changes on this will be reflected with respect to the mining and the demographic changes based on Community Surveys 2016

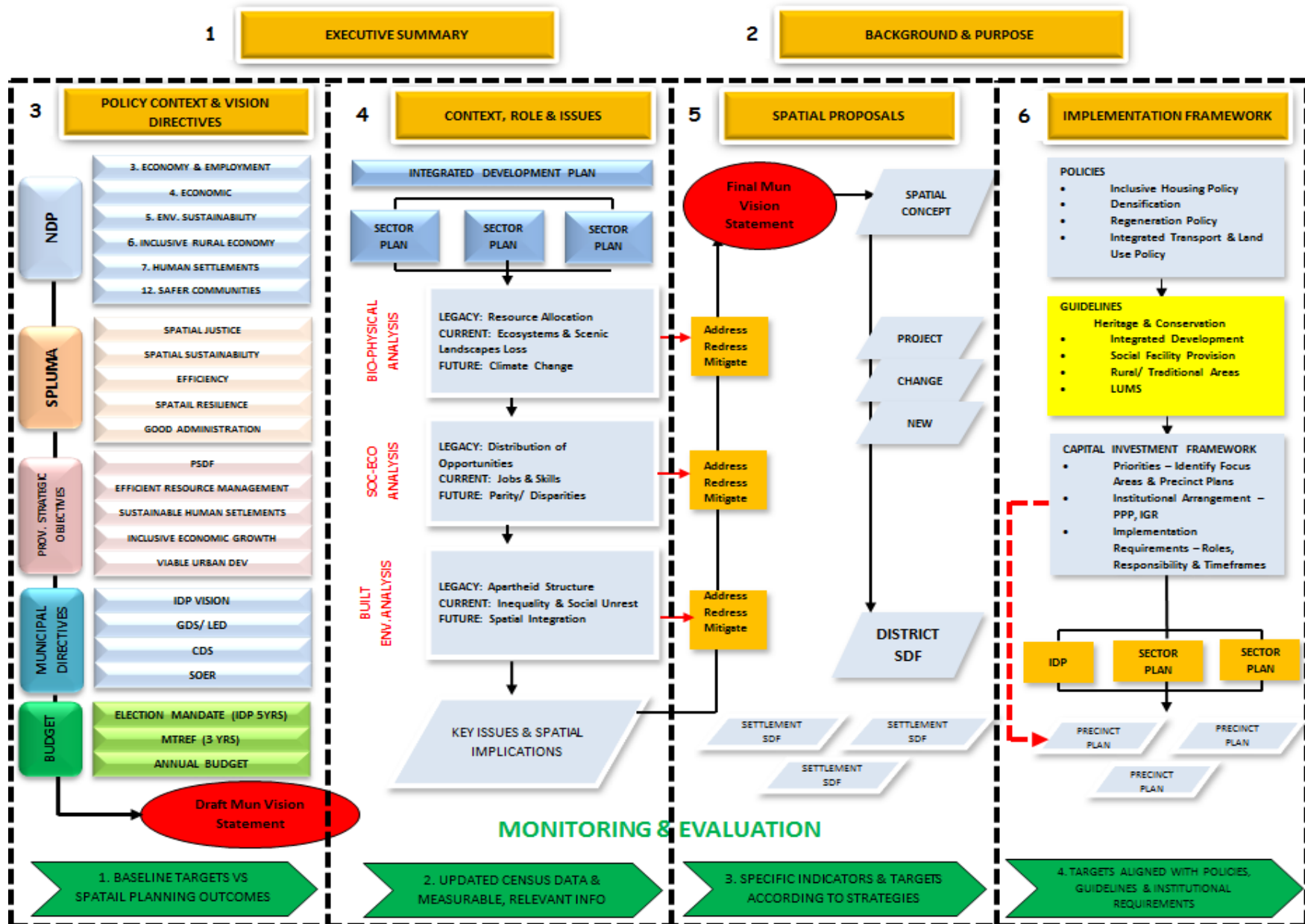
Spatial Proposals:

- Final spatial concept for the future development of the SDF area (based on current the vision).

Implementation Framework:

- High-level Implementation framework setting out the required institutional arrangements, policies and guidelines that will support adoption of the SDF proposals while aligning the capital investment and budgeting process moving forward. The outcome of this should influence the IDP.





1.11 IMPLEMENTATION PLAN

PROJECT ACTIVITIES/ MILESTONES	MONTHS																	
	Mar 2016	Apr 2016	May 2016	Jun 2016	Jul 2016	Aug 2016	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017		
Phase 0: Inception Report																		
• Set up DSDF PMT & PSC, Focus Groups, Service Level Agreement																		
• Client Expectations																		
• Notification of Council's Intension to Review its SDF (Sec 20 (3) (a)) - Newspaper & Gazette																		
Phase 1: Policy Context & Vision Directives																		
• Review and Synthesise Legislation & Policy Context																		
• Formulate Draft Spatial Vision																		
• Presentation to Project Steering Committee (PSC) & Project Management Team (PMT)																		
Phase 2: Spatial Challenges & Opportunities (Status Quo Analysis and Interpretation)																		
• IDP & Sector Plans Inputs																		
• Situational Analysis (Demographics, Biophysical, Socio-Economic and Spatial Analysis) Priority Issues																		
• Presentation of Findings to PSC, PMT & Engage Focus Groups																		
Phase 3: Spatial Proposals																		
• Spatial Concept & Final Vision																		
• Spatial Strategies																		
• Draft SDF																		
• Presentation to PSC, PMT, Focus Groups and avail Draft SDF Proposals for comments (Sec 20)																		
Phase 4: SDF Implementation Framework																		
• Supporting Policies																		
• Supporting Guidelines																		
• Capital Investment Framework																		
• Draft Implementation Framework																		
• Presentation of Findings to PSC & PMT																		
Phase 5: Final Spatial Development Framework																		
• Final MSDF																		
• Sector Plan Alignment																		
• Priority Local Plans (Local Plans & Precinct Plans)																		
• Capital Investment Framework into IDP																		
• Presentation of Report to PSC, Portfolio/ Council																		
• Council Approval/ Adoption (Sec 20 (1))																		
• Publication of Council Decision to Adopt the SDF (Sec 20 (1)) - Newspaper & Gazette																		
• Stakeholder Engagements																		





CHAPTER 2

POLICY CONTEXT

REVIEW OF JOHN TAOLO GAETSEWE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Synopsis: The main purpose of this chapter is to provide an overview of the relevant legislation, policies and planning frameworks for national, provincial, district and local government that impact on and direct spatial development in South Africa and in particular to John Taolo Gaetsewe District. Rather than replicating the contents of each piece of legislation, policy, or framework, the aim here is rather to achieve a concise but clear understanding of the intention and implications of these documents for the revision of the JTG SDF.



2 POLICY CONTEXT AND VISION DIRECTIVES

The planning and development in South Africa are governed by a national developmental agenda. This agenda aims to improve the manner in which urban and rural areas develop so as to increase the efficiency, sustainability, and investment potential of human settlements, better the conditions in which people live and conduct their daily lives and protect valuable resources from irresponsible consumption. This developmental agenda finds expression in numerous sets of national and provincial legislation and policy documents.

In order to ensure legitimacy, the John Taolo Gaetsewe Spatial Development Framework must be reviewed within the parameters of this institutional framework. In addition, the Spatial Development Framework is also affected by existing local strategic planning documents, such as the local and district Integrated Development Plans, that direct development of the district and its local municipalities.

The section below will provide an overview of the relevant legislation, policies and planning frameworks for national, provincial, district and local government that impact on and direct spatial development in South Africa and in particular to John Taolo Gaetsewe District. Rather than replicating the contents of each piece of legislation, policy, or framework, the aim here is rather to achieve a concise but clear understanding of the intention and implications of these documents for the revision of the JTG SDF.

The methodology that has been followed in this chapter is to:–

- Provide a brief summary of the objectives and principles/directives of the relevant acts, policies and frameworks (at national, provincial and local government)
- Include legislative and policy provisions that has been developed since 2012 and those that have not being covered in the current JTG SDF
- The influence of adjoining entities (i.e. neighbouring country, province, districts and local municipalities) on spatial planning of the JTG
- Draw a conclusion on the most pertinent directives for spatial planning and development as promoted by the various levels of government
- Progress that has been made on the implementation of current JTG SDF with specific reference to its twelve (12) objectives; and
- Derive a Draft Vision for the revised JTG SDF.



2.1 NATIONAL AND PROVINCIAL INSTITUTIONAL CONTEXT

There exist a multitude of acts and policies from national and provincial government that deals with spatial and physical development in some way or another, and it is impractical in the scope of a document such as this to deal with each and every one of these documents. This section therefore focuses on those legislation and policies that have a fundamental impact on the manner in which we address spatial and physical development in our settlements in South Africa.

The general intention of relevant directives/principles from the legislation and policies are dealt with in table format for easy reference. At the end of this section, a summary will be provided of the overarching principles that emerge from these documents and which have to be taken forward as founding principles of the John Taolo Gaetsewe Spatial Development Framework.

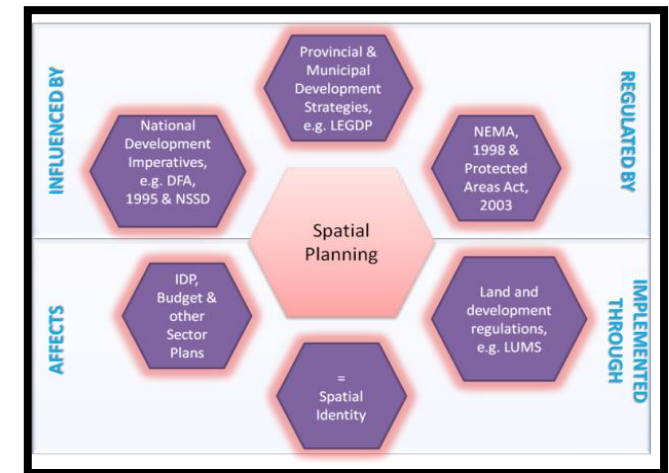


Figure 2.1: Spatial Planning Structure

2.2 NATIONAL LEGISLATION AND POLICY FRAMEWORK

There are number of legislation and policy framework that came into effect since the adoption of the current JTG SDF (2012). These changes have been reflected to the extent that they affect the JTGDm.

South African legislation is largely enabling in nature. It therefore does not prescribe to municipalities but creates the necessary legal environment within which development and planning can take place. Recognising local government as one of the three spheres of government put a specific emphasis on intergovernmental relations. The implication is that the Council is primarily responsible to do their own planning while considering the interest and demands of the communities and stakeholders. This happens within a reciprocal consideration of the planning done in neighbouring municipalities and the other spheres of government.

There are pieces of legislation and policy framework that governs the compilation or review of the SDF and those that influence spatial planning. The following table outlines these pieces of legislation and policy framework.

The Relevance of National Legislation to the Spatial Development Framework

National Legislation	Relevant Principles/ Directives
<p>Constitution of the Republic of South Africa, 1996 (Act 108 of 1996) The Constitution is the supreme law of the land. The Bill of Rights enshrines the rights of all people in our country and affirms the democratic values of human dignity, equality, and freedom.</p>	<p>Provides for the establishment of one government consisting of three spheres, including the local government sphere. Sets out the powers and functions of the three spheres and introduces the notion of a more developmental role for local government. Provides for cooperative government and binds all three spheres of government in its pursuit. Includes a Bill of Human Rights, which needs to be respected and advanced in spatial development planning and which impacts on an individual's use and enjoyment of his/her property.</p> <p><u>Significance to JTGDM:</u></p> <ul style="list-style-type: none"> ❖ Section 24 & 26 (1) advocates for right to an environment which is not harmful to people's health or their well-being and access to adequate housing. ❖ Section 152 sets out the objectives of local government as ensuring access to at least basic services and facilitating economic development within a framework of financial sustainability. ❖ Schedule 4 & 5 Part B: Powers and Function assigned to local government one of them being 'municipal planning' <p>The following plans must be in place and provide a framework within which the above could be advanced: Environmental Management Plans (EMP), Integrated Human Settlement Plans (IHSP), Local Economic Development (LED) Plans and Land Use Management Systems(LUMS)</p>
<p>Local Government: Municipal Structures Act, 1998 (Act 117 of 1998)</p> <p>Municipal Structures Act, 1998 (MSA) assigns and divides powers to and between district and local municipalities.</p>	<p>Provides for the establishment of different categories of municipality and the allocation of powers and functions between them. Includes provisions around the preparation and approval of IDPs, which are of relevance to SDFs, as they are components of IDPs. Mandates every District Municipality to (1) pursue the integrated, sustainable and equitable social and economic development of their district areas as a whole, and (2) conduct integrated development planning for the district municipality as a whole, which includes the preparation of a framework for the IDPs (and hence the SDFs) of the Local Municipalities that are located in its area of jurisdiction.</p> <p><u>Significance to JTGDM:</u></p> <p>The provision of bulk infrastructure and in particular Water & Sanitation vests with the District as a Water Service Authority (WSA) whilst the local municipality are Water Service Providers (WSP). The District Integrated Development Plan needs to provide a framework within which the local should identify projects and programmes for implementation within their respective jurisdiction.</p>



National Legislation	Relevant Principles/ Directives
<p>Municipal Systems Act, 2000 (Act 32 of 2000) The Act provides for the core principles, mechanisms and processes that are necessary to enable municipalities to move progressively towards the social and economic upliftment of local communities, and ensure universal access to essential services that are affordable to all.</p>	<p>Section 26(e) of Municipal Systems Act, 2000 first introduced the concept of the Municipal Spatial Development Framework (MSDF) as a component of the mandatory Integrated Development Plan (IDP) that every municipality has to adopt</p> <p>Local Government: Municipal Planning and Performance Management Regulations (MPPMR), 2001 further stipulates that all municipalities must prepare a Spatial Development Framework (SDF) as a core component of the Integrated Development Plan (IDP). The regulations provides for detailed contents of the SDF reflected on the municipal IDPs</p> <p><u>Significance to JTGDM:</u> The SDF is a core component of the IDP and gives a spatial interpretation of the objectives that the IDP seeks to achieve. The Review of the JTG SDF must guide the development, decision making, resource allocation, investment and prioritisation of project and programmes</p>
<p>Municipal Financial Management Act, 2003 (Act 56 of 2003)</p>	<p>To secure sound and sustainable management of Municipal financial affairs, and in particular the management and disposal of public assets, particularly land.</p> <p><u>Significance to JTGDM</u> Land Alienation in Gamagara & Ga-Segonyana should encourage investment and revenue enhancement. Care consideration on land alienation that could lead to land speculation in future.</p>
<p>Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) The Act provides for framework for the monitoring, coordination and review of the spatial planning and land use management system.</p>	<p>Chapter 2 of the Act makes provision for general 5 development principles which includes the following: (1) Spatial justice; (2) spatial sustainability; (3) efficiency; (4) spatial resilience; (5) good administration. Application of these principles is important as they are used as part of the criteria in the evaluation of SPLUMA compliant and credible SDFs.</p> <p><i>SPLUMA requires national, provincial, and municipal spheres of government to prepare SDFs that establish a clear vision which must be developed through a thorough inventory and analysis based on national spatial planning principles and local long-term development goals and plans. SDFs are thus mandatory at all three spheres of government.</i></p> <p><i>Chapter 4 Part A of SPLUMA sets out the focus and general requirements that must guide the preparation and compilation of SDF products at the various scales.</i></p> <p><u>Significance to JTGDM:</u> Careful consideration without being too rigid would be given to ensure the credibility of the revised SDF. The intention with this study and the SDF is not to draft or compile a Land Use Scheme, but to ensure that mechanisms are in place to ensure an effective regulatory system of land use and land use management. The SDF may propose/prescribe principles and policy directives to be contained in the scheme, if it is necessary and if the current land use scheme is regarded as insufficient.</p>

National Legislation	Relevant Principles/ Directives
National Environmental Management Act (NEMA), 1998 (Act 107 of 1998) Establishes principles for decision-making on matters affecting the environment.	Provides for the compilation of information and the preparation of maps that specify the attributes of the environment in specified geographical areas, including the sensitivity, extent, interrelationship and significance of such attributes which must be taken into account by every relevant government entity. These can be used as environmental management frameworks in the consideration of the environmental implications of authorisations in the areas to which they apply. <u>Significance to JTGDM:</u> Environmental Management Plans and Strategic Environmental Assessments should be developed to assist on informed land use and development decision making processes.
National Environmental Management: Protected Areas Act, 2003	Provides for the restriction or regulation of activities that may be inappropriate in a protected environment area given the purpose for which the area was declared. <u>Significance to JTGDM:</u> Areas of significance (wetland, heritage, and wildlife) need to be identified and declared protected areas where economic activity or mineral deposits or prospecting is to take place.
National Legislation	Relevant Principles/ Directives
National Environmental Management: Biodiversity Act, 2004 (Act 10 of 2004)	Provides for the management, conservation and sustainable utilisation of biodiversity throughout the Republic. <u>Significance to JTGDM:</u> There is a need to have sensitive areas mapped and clear and appropriate guidelines to guide their conservation.
Conservation and Agriculture Resource Act, 1983 (Act 43 of 1983)	Provide for control over the utilisation of the natural agricultural resources of the country in order to (1) promote the conservation of the country's soil, its water sources and its vegetation, and (2) combat weeds and alien invasive plants. <u>Significance to JTGDM:</u> High potential agricultural land must be identified and preserved. The district has comparative advantage on mining and agriculture. The two sectors rely on water which is a scarce commodity especially in Joe Morolong where reliance is on boreholes. EPWP must be used for land care programmes to deal with alien invasive plants and protection of water sources.
Subdivision of Agricultural Land Act, 1970 (Act 70 of 1970)	The Act makes provision for the control of the subdivision of agricultural land. <u>Significance to JTGDM:</u> The district area is earmarked for Agri-Park development. This implies that three local municipalities must be proactive on giving comments for any application made in terms of Section 4 of the Subdivision of Agricultural Land Act, 1970.



National Legislation	Relevant Principles/ Directives
<p>Mineral and Petroleum Resources Development Act, 2002 (Act 28 of 2002)</p> <p>The Act has the following preamble that it recognises that minerals and petroleum are non-renewable natural resources; acknowledging that South Africa's mineral and petroleum resources belong to the nation and that the State is the custodian thereof</p>	<p>The Act makes provision for equitable access to and sustainable development of the nation's mineral and petroleum resources.</p> <ul style="list-style-type: none"> ❖ Provides for the regulation of access to and sustainable development of the country's minerals and petroleum resources in an equitable way and provides for environmental protection and rehabilitation in the case of mine closure. ❖ An application for a mining or production right in terms of the Act must be accompanied by a Social and Labour Plan (Regulation 42 of the Mineral and Petroleum Resources Development Act 2002). The required content of such a Social and Labour Plan is set out in Regulation 46 to the MPRDA. A Social and Labour Plan lodged with the Regional Manager is valid until a closure certificate has been issued in terms of Section 43 of the Act (Regulation 43). <p>Draft Mining Charter, 2016. The Minister of Mineral Resources published the draft reviewed Broad Based Black Economic Empowerment Charter for the South African Mining and Minerals Industry, 2016 (the draft reviewed Charter) in the Government Gazette for public comments in April 2016.</p> <p>The draft reviewed Charter seeks to, inter alia, strengthen the efficacy of the Mining Charter developed in terms of Section 100 of the Mineral and Petroleum Resources Development Act, 2002 (Act No 28 of 2002) (MPRDA) as one of the tools for effecting meaningful transformation of the South African mining and minerals industry.</p> <p><u>Significance to JTGDM:</u></p> <p>The recent drop on steel prices in the global market will have undesired consequences which could adversely affect the commitments and plans made on the Social & Labour Plans (SLP) by mining companies.</p> <p>LED Plans must have clear guidelines on mining beneficiation/ participation of SMMEs in the mining industry.</p>
<p>National Housing Act, 1997 (Act No. 107 of 1997) and National Housing Code</p> <p>To provide for the facilitation of a sustainable housing development process and to lay down general principles applicable to housing development.</p>	<p>This Act expands on the provisions of the Constitution, prescribes general principles for housing development and defines the housing development functions of national, provincial and local governments. Accordingly, Government, at the national, provincial and local spheres, renews its commitment to a democratic, sustainable process of housing development.</p> <p><u>Significance to JTGDM:</u></p> <p>Integrated Human Settlement Plan should advance the provisions of the National Housing Act and the National Housing Code through various housing delivery programmes that are in place.</p>

National Legislation	Relevant Principles/ Directives
<p>The National Land Transport Transition Act (NLTTA), 2000 (Act 22 of 2000)</p> <p>The purpose of the act is to provide for the transformation and restructuring of the national land transport system of the country.</p>	<p>The NLTTA makes the following pronouncements that land transport planning must be integrated with the land development process, enhance the effective functioning of cities, towns and rural areas through integrated planning of transport infrastructure and facilities and give priority to infilling and densification along public transport corridors.</p> <p><u>Significance to JTGDM:</u> Current JTG SDF objective 6 (To develop a limited number of villages along a public transport corridor into Human Development Hubs) encourages the development of human settlement along the public transport in the Joe Morolong area.</p>
<p>Restitution of Land Rights Act, 1994 (Act 22 of 1994)</p>	<p>The Act provides for the restitution of rights in land to persons or communities dispossessed of such rights after 19 June 1913 as a result of past racially discriminatory laws or practices.</p> <p><u>Significance to JTGDM:</u> There are seven (7) land claims registered in JTGDM (i.e. 3 in Ga-Segonyana LM & 4 in Joe Morolong LM). A need for post settlement support through Section 42C for land restitution beneficiaries of Kono & Groot Vlaktefontein in Ward 2 (Ga-Segonyana LM). The Housing need of the beneficiaries needs to be established.</p>



The Relevance of National Policy/ Framework to the Spatial Development Framework

National Policy/ Framework	Relevant Principles/ Directives
<p>National Development Plan, Vision 2030 The National Development Plan, 2030 provides a new scope of focus for planning authorities which embrace a whole lot of other policies of government since 1994. The plan proposes a new focus for transformation of South Africa and focus much more on spatial planning issues as basis of development and economic progress, than in the past 17 years.</p>	<p>Chapter 8 of the NDP, focuses on the country's spatial planning system (human settlement), it requires that: all municipal and provincial SDFs are translated into 'spatial contracts that are binding across national, provincial and local governments'; the current planning system should 'actively support the development of plans that cross municipal and even provincial boundaries', especially to deal with biodiversity protection, climate-change adaptation, tourism and transportation; and every municipality should have an 'explicit spatial restructuring strategy' which must include the identification of 'priority precincts for spatial restructuring'.</p> <p>Currently, the NDP only provides in provisional Spatial Targeting Areas and concepts to be taken up in the NSF, of which the following should be taken cognisance of for purposes of this study, namely: Special Intervention Areas – which are areas which require particular forms of state support for specific periods, which include: Job Intervention Zones; Growth Management zones & Green Economy Zones.</p> <p><u>Significance to JTGDM:</u> NDP indicates that the SDF product should be binding, this implying that the IDP must strive to implement its objectives. Planning matters cross boundary are also encouraged, in the case of JTG would be Gamagara Corridor as well as the Eco-tourism Development corridor would need Regional SDF and Regional Cooperation for their advancement.</p>
<p>National Infrastructure Plan (NIP), 2012 The South African Government adopted the NIP in 2012 that intends to transform our economic landscape while simultaneously creating significant numbers of new jobs, and to strengthen the delivery of basic services. The plan also supports the integration of African economies.</p>	<p>The NIP provides a background on cabinet's decision to establish a body to integrate and coordinate the long-term infra-structure build known as the Presidential Infrastructure Coordinating Council (PICC)</p> <p>The PICC presents the spatial mapping of infrastructure gaps which analyses future population growth, projected economic growth and areas of the country which are not served with water, electricity, roads, sanitation and communication.</p> <p>Based on this work, eighteen (18) Strategic Integrated Projects (SIPs) have been developed and approved to support economic development and address service delivery in the poorest provinces.</p> <p>Each SIP comprises a large number of specific infrastructure components and programmes</p> <p><u>Significance to JTGDM:</u> SIP 3 (South-Eastern node & corridor development – Increase manganese rail capacity in the Northern Cape, SIP 5 (Saldanha-Northern Cape development corridor - Expansion of iron ore mining production and beneficiation.), SIP 6 (Integrated Municipal Infrastructure Project) and SIP 8 (Green Energy in support of the South African economy) has significance to the JTGD with specific reference to mining development, provision of basic infrastructure and green energy (i.e. solar energy) respectively.</p>



National Policy/ Framework	Relevant Principles/ Directives
<p>Medium Term Strategic Framework (MTSF) 2014 – 2019</p> <p>The Government's strategic plan for the 2014-2019 electoral term. It reflects the commitments made in the election manifesto of the governing party, including the commitment to implement the NDP.</p>	<p>The MTSF sets out the actions Government will take and targets to be achieved. It also provides a framework for the other plans of national, provincial and local government</p> <p>The MTSF highlights Government's support for a competitive economy, creation of decent work opportunities and encouragement of investment.</p> <p>This is the first MTSF to follow the adoption of the NDP in September 2012. The introduction of a long-term plan brings greater coherence and continuity to the planning system and means that the MTSF now becomes a five year building block towards the achievement of the vision and goals of the country's Long-term plan i.e. NDP</p> <p>The 2014-2019 electoral mandate focuses on the following priorities: (1) Radical economic transformation, rapid economic growth and job creation, (2) Rural development, land and agrarian reform and food security, (3) Ensuring access to adequate human settlements and quality basic services, (4) Improving the quality of and expanding access to education and training, (5) Ensuring quality health care and social security for all citizens, (6) Fighting corruption and crime, (7) Contributing to a better Africa and a better world, (8) Social cohesion and nation building.</p> <p><u>Significance to JTGDm:</u></p> <p>Creation of sustainable human settlements advances the objectives of the CRDP, provision of basic services to the community. The district and local municipalities' budget allocation must be geared towards priority areas of the MTSF.</p>
<p>The New Growth Path, 2012</p> <p>The New Growth Path is the country's vision to place jobs and decent work at the centre of economic policy.</p>	<p>The New Growth Path which seeks to place the national economy on a production led-growth trajectory in order to tackle the country's developmental challenges of unemployment, inequality and poverty through "<i>a restructuring of the South African economy to improve its performance in terms of labour absorption as well as the composition and rate of growth</i>".</p> <p>Provides an overview of the challenges facing government in the creation of jobs as a result of past policies and the current global recession. It includes a target of creating 5 million jobs by 2020. It recognises the importance of concerted intergovernmental action and the need to focus the State's actions on core priorities and targets, rather than dispersing the endeavours of the State across numerous efforts. It supports the deepening of the local market and identifies expansion in (1) the agricultural sector and the agricultural value chain and (2) the Green economy as key areas for investment to ensure rapid job creation.</p> <p><u>Significance to JTGDm:</u></p> <p>Construct a new compilation yard at Mamathwane, Northern Cape, as part of a broader project to expand the capacity of the existing manganese ore railway line from Hotazel in the Northern Cape to the Port of Ngqura in the Eastern Cape.</p>

National Policy/ Framework	Relevant Principles/ Directives
<p>National Industrial Policy Framework 2007, and the Industrial Policy Action Plan (IPAP) 8, 2016</p>	<p>IPAP 2016 envisages nothing less than a massive, concerted and focused national industrial effort, intimately involving all the key stakeholders and economic partners.</p> <p>This is to be built on four pillars: (1) Policy coherence and policy certainty across government; (2) A close collaborative effort between government, business and labour; (3) A commitment to ensure that the linkages between the primary and secondary productive sectors of the economy are maximised; and (4) A combined and constructive drive to overcome the key constraints to manufacturing-led, value-adding growth and labour-intensive manufacturing.</p> <p>IPAP 2016/17–2108/19: The 8 Key Focal Areas are:</p> <p>1. Public procurement, 2. A strong focus on spill-over and labour-intensive sectors, 3. Carefully targeted Industrial financing and incentives, 4. Leveraging the devaluation of the Rand, 5. Growing exports, 6. Automotives, 7. Gas-based industrialization, 8. Minimising red tape</p> <p><u>Significance to JTGDM:</u> Advancing entrepreneurship amongst the locals through procurement. Ensure regulatory compliance of SMMEs/ Cooperatives so they could participate on procurement. Industrial Parks in Khathu & Kuruman to service the local mining industry and manufacturing.</p>
<p>Expanded Public Works Programme, 2004</p>	<p>Provides Government's objective of mass skills development, the gaining of work-place experience, a reduction in unemployment and an increase in the capacity of participants to earn an income by increasing employment in four sectors, notably infrastructure provision, upgrading and maintenance, and the setting up of small businesses and cooperatives.</p> <p>Phase 3 of the EPWP introduced in March 2014 has focus on increasing the employment target to six (6) million by 2019 with specific focus on the sectors: infrastructure, environment and culture, social, non-profit organisation and community works programme (CWP).</p> <p><u>Significance to JTGDM:</u> The JTG and its local municipalities are currently implementing the Phase 3 of the EPWP by targeting indigent households. The EPWP provides an employment safety net. The implementation of the EPWP should be the immediate tool for infrastructure development & maintenance, food security and provision of portable skills to participants.</p>

National Policy/ Framework	Relevant Principles/ Directives
Integrated Strategy for the Promotion of Entrepreneurship & Small Enterprises, 2005, and the Enterprise Investment Programme, 2008	<p>Provides Government's objective of ensuring that all sector department policies incorporate measures and tools to support and build out small businesses. It is envisaged that in this way, the benefits to their operators and their contribution to the South African economy can be maximised.</p> <p><u>Significance to JTGDM:</u> Business incubation and SMME support to enable active participation on government procurement, mining and agricultural hubs. Considerable allocation of financial resources to SMMEs support through LED policies.</p>
Comprehensive Rural Development Plan (CRDP), 2009. To create a vibrant, equitable and sustainable rural communities	<p>Provides Government's aim of comprehensive, integrated and sustainable rural development by addressing the deep poverty and destitution in many of the country's rural areas, notably the former Bantustans, and creating sustainable rural communities throughout the country. In addition to this, it provides Government's wish to achieve social cohesion and development in rural communities through: (1) coordinated and integrated broad-based agrarian transformation; (2) an improved land reform programme; and (3) strategic investments in economic and social infrastructure in rural areas.</p> <p><u>Significance to JTGDM:</u> JTGDM is predominately rural and the CRDP provides a concept within which the rural economy and livelihoods could be advanced. The JTGDM Rural Development Plan has identified projects and programme.</p>
Cooperatives Development Policy and Incentives Scheme, 2004	<p>Provides Government's view on cooperatives and its support for these entities as vehicles to create jobs and grow the economy. It also sets out the ways in which Government will endeavour to support such enterprises and initiatives in cases where these enterprises could benefit disadvantaged groups and/or troubled/depressed geographic areas.</p> <p><u>Significance to JTGDM:</u> Cooperatives must form part of the mineral beneficiation and agri-parks development. The LED budget must be supportive to cooperatives programmes and funding.</p>
Breaking New Ground (BNG), 2004 This policy is fundamentally about the need to move away from a housing-only approach to a more holistic development of human settlements, including the provision of social and economic infrastructure.	<p>Provides Government's view on the provision of housing in such a way that the negative mode of post-1994 mass housing-provision in areas with limited potential for job creation is broken. Housing, the policy argues, has to be provided in areas where it can become an asset for the poor.</p> <p><u>Significance to JTGDM</u> Integrated Housing Sector Plans needs to be updated annually to reflect the housing status and access to basic services including proximity to employment areas. Land Acquisition (Ga-Segonyana & Gamagara) and Land Tenure upgrade (Joe Morolong) for human settlement purposes.</p>



National Policy/ Framework	Relevant Principles/ Directives
<p>Robust and Inclusive Municipal Economies: Policy Guidelines for Implementing Local Economic Development in South Africa, 2005</p>	<p>Provides Government's view on a (then) new approach to LED. As such it argues for break with earlier forms LED that sought to "<i>make isolated projects work</i>" to a "... <i>focus on supporting productive networks of enterprises that are linked into broader support initiatives and markets for the sale of produce</i>". As such, the document recognizes the need to cut through administrative boundaries when doing economic planning and implementation. In the same vein, the document stresses the need to harmonize and align planning for LED with other national, provincial and municipal development plans and strategies.</p> <p><u>Significance to JTGDM</u> Various economic strategies are outlined on the JTG Rural Development Plan and include industrial parks, agri-parks & farmer production support units and mining.</p>
<p>White Paper on Spatial Planning and Land Use Management, 2001. The policy document proposed to introduce new legislation to parliament that provides a uniform, effective and efficient framework for spatial planning and land use management in both urban and rural contexts</p>	<p>To show practical ways in which South Africa may move to an approach of integrated planning for sustainable management of land resources restructure spatially inefficient settlements. Promote the sustainable use of the land resources in the country. Channel resources to areas of greatest need and development potential, thereby redressing the inequitable historical treatment of marginalized areas.</p> <p><u>Significance to JTGDM:</u> Sparsely settlements with low density should be discouraged. Land use management mechanism (i.e. Land Use Scheme & By-laws) should be implemented to prevent sporadic uncoordinated settlements (including informal areas) especially in Joe Morolong and Ga-Segonyana. Infill (including densification) and settlement formalisation should be encouraged.</p>
<p>National Spatial Development Perspective (NSDP), 2006 The NSDP is an effort by National Government to find the best way of allocating scarce resources in the various geographic regions in the country.</p>	<p>The NSDP is to fundamentally reconfigure apartheid spatial relations and implement spatial priorities that meet the Constitutional imperative of providing basic services and alleviating poverty and inequality. It provides a set of principles and mechanisms for guiding infrastructure investment and development decisions. The NSDP serves as a tool for identifying key areas of tension and/or priority in achieving positive spatial outcomes.</p> <p><u>Significance to JTGDM:</u> Development of Kuruman town as a regional node, Expansion of the Hotazel Rail Infrastructure and Mamanthwane Handling Facility, Industrial Park in Kathu, Development of Nodes in Joe Morolong (Churchill, Bothithong, Heuningvlei, Blackrock, Hotazel, Mamanthwane and Vanzylsrus). SDF must clearly outlines settlement hierarchy and articulate on what needs to be done on growth points and other areas with low potential. Infrastructure to be strategically located so as to ensure compliance with above NSDP principles.</p>

National Policy/ Framework	Relevant Principles/ Directives
<p>Framework Agreement for a Sustainable Mining Industry, 2013</p> <p>Government, organised labour and business had on the 03 July 2013 signed the Framework Agreement for a Sustainable Mining Industry.</p>	<p>Twenty-two (22) mining towns in 6 provinces are party are included in the Framework Agreement. Municipalities within JTGDM form part of the 22 towns.</p> <p>The agreement sets out key steps and processes that will see all parties working together to ensure stability and sustainability of the mining sector for the future of South Africa's economy.</p> <p>Parties (i.e. Organised Business, Organised Labour and Government) to the Framework Agreement for a Sustainable Mining Industry recognise that the mining industry is central to South Africa's economy and job creation and those urgent steps are needed to strengthen the sector for it to withstand the current difficult global economic conditions.</p> <p>The parties have committed to improving processes and procedures as well as implementation of new measures that bring about lasting change while working together to sustain the sector. One of the commitments is accelerating the implementation of human settlement intervention to ensure that there is proper housing for mineworkers.</p> <p><u>Significance to JTGDM</u></p> <p>Government Human Settlements Mining Towns Strategy that is currently being developed would have to be incorporated on the Revised Integrated Human Settlement Plans (IHSP). IHSP should also be linked with the housing subsidies and grants offered to mineworkers by the mining companies.</p> <p>Focus will have to be on partnerships between government (National Housing Agency (NHA), NC Department of Cooperative Governance, Human Settlement & Traditional Affairs, other sector departments (e.g. human settlements, water and sanitation, trade and industry, economic development, small business development), mining companies and private sector.</p>
<p>Back to Basics, 2014</p> <p>The Back to Basics is built on the premise that to building a responsive, caring and accountable local government</p>	<p>There are 5 Key performance areas for the Back-to-Basics Approach i.e. (1) Basic Services - Creating decent living conditions, (2) Good Governance, (3) Public Participation - Putting People First, (4) Financial Management - Sound Financial Management and (5) Institutional Capacity - Capable Institutions and Administrations</p> <p><u>Significance to JTGDM:</u></p> <p>Governance issues are central to the Back to Basics principles as it advocates for improved communication, restoring confidence on local government institutions and clean audits outcomes. The implementation of the Back to Basics is critical to boosting investor confidence and positioning the district as the preferred destination for investment.</p>



2.3 PROVINCIAL POLICIES AND FRAMEWORKS

Provincial policies and frameworks have a more direct impact on local development. In the application of development frameworks or in considering development perspectives one should make a distinction between those aspects which lie within the control of the Council and those that affects the planning environment in the sense the Council must recognise and adopt its approach and strategies accordingly.

The Relevance of Provincial Legislation to the Spatial Development Framework	
Provincial Policy/ Framework	Principles/Directives
Northern Cape Planning and Development Act, 1998 (Act 7 of 1998)	<p>Provides for the preparation of a Land Development Plan (LDP), sets out the principles to be advanced through a LDP which is largely the same planning tool as an SDF, and the process to be followed in its preparation. Provides for the formulation and implementation of Zoning Schemes and Land Development Procedures and Regulations by municipalities to give effect to the implementation of the LDP. Provides for Land Development Procedures and Regulations to enable changes in the development rights on properties, the upgrading of informal housing settlements, the development and redevelopment of environmentally sensitive areas and urban renewal.</p> <p><u>Significance to JTGDM:</u> As with the SPLUMA, the District SDF should provide guidelines to assist the Local Municipality SDF to achieving these principles. It must be highlighted however that the local municipalities in the JTGDM has developed Spatial Planning and Land Use Management By-laws that will regulate amongst other the development or review of SDFs.</p>
Northern Cape Tourism Act, 1998 (Act 5 of 1998)	<p>The objectives of the Northern Cape Tourism Act 5 of 1998 are to provide for the establishment of the structures to develop, promote and market tourism, develop and operate tourist services in provincial reserves in the Northern Cape within the framework of government policy.</p> <p><u>Significance to JTGDM:</u> JTGDM and its local needs to develop Tourism Strategy that will advance tourism with the area more specifically development of current tourism facilities that includes amongst others <i>The Eye, Wonderwerk Cave & Rock Paintings, Robert Moffat Mission Station, Bothitong/ Kiangkop, Kuruman & Kathu Golf Club, Joe Morolong Game Farm, Kuruman Game Reserve and the investment in the eco-tourism development corridor in the north between Rietfontein and Vanrhynskrans linking northwards to the Kgalagadi Transfrontier Park.</i></p>



The Relevance of Provincial Policy/ Framework to the Spatial Development Framework

Provincial Policy/ Framework	Principles/Directives
<p>Northern Cape Spatial Development Framework 2012</p> <p>The vision of the Northern Cape SDF is ‘...enhancing our future...’ with the overarching goal of ‘sustainable development’. Which occurs at the intersection of the three global imperatives of:</p> <ul style="list-style-type: none"> • human well-being, • environmental integrity and • economic efficiency which can be achieved through the use of the inherent resources (capital) in the Northern Cape. 	<p>The key objectives of the Northern Cape PSDF, as a legal requirement of the Northern Cape Planning and Development Act 7 of 1998, and aligned with the Northern Cape Provincial Growth and Development Strategy (2004 – 2014) and the Municipal Systems Act 32 of 2000, are to:</p> <p>(a) facilitate coherent resource management in terms of bioregional planning principles; (b) provide a spatial rationale for sustainable development in the province which implies the enhancement of human well-being and environmental integrity through efficient use of the inherent resources of the province; (c) give spatial effect to the directives of the national government as expressed in the National Spatial Development Perspective; (d) give spatial effect to the provisions of the Northern Cape PGDS and guide implementation of anchor projects; (e) provide direction for the roll-out of national and provincial rural development programs in the province; (f) serve as a directive for the preparation and alignment of municipal SDFs; (g) provide spatial mechanism for the utilisation and enhancement of the competitive and comprehensive advantages of the province; (h) provide guidance to public and private infrastructure investment; (i) spatially coordinate and direct the activities and resources of the provincial government; (j) identify issues deemed to be of provincial and regional significance together with strategic intervention proposals; and (k) take cognisance of the provincial and regional spatial implications of provincial sector plans and frameworks (NCPSDF 2011, Vol. 1).</p> <p>The Northern Cape PSDF is based on principles that state that (1) sustainable development can only be achieved through positive interventions and with active participation from all involved, and (2) sustainable development should be ‘financed’ in an innovative manner. The latter refers to the view encapsulated in the PSDF that monetary capital is not the only form of finance, but that the Northern Cape also poses environmental, infrastructural and social capital and together these forms of capital form ‘sustainability capital’ which needs to be sustainably employed as ‘bankable currency’.</p> <p><u>Significance to JTGDm:</u></p> <p>In order to ensure that the Northern Cape’s scarce capital is distributed according to the development potential and associated human needs of specific settlements, a rigorous scientific and empirical evaluation of the 32 municipalities and 115 settlements in the province was undertaken. The settlements were classified according to their <i>growth and development potential</i> and the <i>level of human need</i>, which in turn determines the type of development and investment to be undertaken in each specific settlement (<i>NSDP planning approach</i>). However, the settlements exclude traditional rural settlements such as those found in the Joe Morolong LM, as they are not categorised as urban and stated that these areas needed to be given separate consideration. Gamagara LM was classified as having a ‘high development potential and a low level of human needs’ and as such investment should focus on infrastructure and basic services. Ga-Segonyana LM was classified as having a ‘high development potential and a high level of human need’ and as such investment should focus on infrastructure and social investment. Joe Morolong LM was classified as having a high development potential and a high level of human need and as such investment should focus on infrastructure and social investment.</p>



Provincial Policy/ Framework	Principles/Directives
<p>The Northern Cape Provincial Growth and Development Strategy 2009 – 2014</p> <p>To provide a framework for the development of the province over 10 years and provide common vision, goals and objectives that should be achieved over a ten year period.</p>	<p>The primary purpose of the NCPGDS is to provide a collaborative framework within which to drive and ensure effective and coordinated delivery and implementation in the Province. It provides the public and private sector and parastatals, as well as labour and civil society, with a strategic focus derived through consensus, to harness their collective efforts in promoting economic growth and social development. The vision of the NCPGDS is <i>'Building a prosperous, sustainable growing provincial economy to reduce poverty and improve social development for a caring society'</i>. As such, the Primary Development Objectives of the NCPGDS are:</p> <p><i>(1) Promoting the growth, diversification and transformation of the provincial economy; and (2) poverty eradication through social development. The achievement of these primary development objectives depends on the achievement of a number of related objectives that, at a macro-level, describe necessary conditions for growth and development. These are (1) developing requisite levels of human and social capital; (2) improving the efficiency and effectiveness of governance and other development institutions; and (3) enhancing infrastructure for economic growth and social development.</i></p> <p><u>Significance to JTGDM:</u></p> <p>NCPGDS identified strategic spatial interventions to provide some spatial guidance. These strategic interventions are focused on: (1) establishing growth centres; (2) emerging growth centres; (3) stagnating small towns; (4) developing of corridors and special resources areas; (5) land reform; and (6) regionalisation. Development of Nodes in Joe Morolong, Developing Kuruman as Regional Node, Industrial Park for Kathu must be focus area</p>
<p>Northern Cape Small Medium and Micro Enterprise Strategy (SMMEs)</p>	<p>The strategy states that although the Northern Cape's contribution to the national GDP is minimal, the province still houses the largest key economic vehicles namely mining and agriculture. It also includes a large proportion of the population. The strategy indicates that certain measures must be put in place to turn the Northern Cape economy around and to ensure a meaningful contribution by the province to the local economy.</p> <p><u>Significance to JTGDM:</u></p> <p>Investment in human development should be a priority in small nodes, i.e. education, health and other forms of human development.</p>
<p>The Northern Cape Manufacturing Strategy, 2004</p>	<p>The Northern Cape Manufacturing Strategy document was prepared in 2004 by the then NC Provincial Department of Finance and Economic Affairs. The strategy was prepared to better understand the issues and challenges faced by the province's manufacturing industry.</p> <p>The strategy recommends the following specific policy recommendations for the focus of the Northern Cape Provincial Government in order to evoke positive change that is very necessary in the manufacturing industry i.e. <i>establish a Manufacturing Development Centre for the province, Develop a Northern Cape Manufacturing Cluster and attain further support from the Department of Trade and Industry (DTI) with respect to the manufacturing sector in the Northern Cape.</i></p> <p><u>Significance to JTGDM:</u></p> <p>Studies must be conducted on processing of steel to gradually move away from exporting of raw material that has not been processed. Northern Cape Provincial Government (Department of Economic Development and Tourism) and The DTI need to explore on the raw mineral processing.</p>

2.4 KEY CONSIDERATION EMANATING FROM THE NATIONAL AND PROVINCIAL PLANNING CONTEXT

The above summary of the most important national and provincial legislation and policies that deal with spatial planning and development in South Africa collectively describes the new South African planning philosophy and approach. From the above, the following set of overarching guiding principles can be drawn which will inform the formulation of Revised John Taolo Gaetsewe Spatial Development Framework.

- ❖ Land development must support and facilitate economic growth and development that will contribute to a reduction in unemployment and halve poverty.
- ❖ Government investment must therefore focus on areas with economic growth potential.
- ❖ Land development must take place in an integrated manner, both spatially and institutionally.
- ❖ The use of existing resources and infrastructure must be optimised.
- ❖ Urban sprawl must be discouraged and more compact and efficient cities must be promoted. To achieve this, development must be channelled into nodes and corridors.
- ❖ Historically distorted development patterns must be corrected by means of physical and social integration and the redirecting of investments to areas of highest value and accessibility.
- ❖ The creation of socially and economically viable and sustainable human settlements must be ensured when dealing with housing development.
- ❖ Land development must support public transport infrastructure and services.
- ❖ Economically, socially and environmentally sustainable development must be encouraged.

The extent to which the Council can meet these requirements or adhere to the objects is determined in the next section as part of assessing the development context of the municipal area and its resource base to address such issues.

2.5 MUNICIPAL LEVEL POLICIES & FRAMEWORKS

The primary mechanism to ensure integration of activities and policies between the three spheres of government is the Integrated Development Plan (IDP). Preparation of the IDP is a statutory requirement of the Municipal Systems Act, 2000 (Act 32 of 2000). The IDP is the overall plan that directs development and management of the municipal area. The IDP is comprised of a number of subsidiary plans/ core components in terms of Section 26 of the Municipal Systems Act, 2000 (Act No. 32 of 2000).

Each service within the municipality draws up a plan which forms a component of the IDP. These plans are then collated and the information is given a spatial dimension. The Integrated Transport Plan (ITP) is of particular relevance to the access catalyst for the Revised JTG Spatial



Development Framework (SDF) which is the central component of the IDP as it provides the spatial direction for the provision of services and land use activities.

It must be noted that the functional differences as defined through the division of powers and functions determines the roles and responsibilities of the respective authorities. In terms of this relationship John Taolo Gaetsewe District Municipality has limited powers and functions. Its approach to spatial planning is therefore only a guiding and facilitating role in order to ensure a productive development relationship between the municipalities within the district. The following aspects are recognised as being central to the revision of a spatial framework for the municipal area.

However, within the realm of a cyclical planning process and the interrelationships of planning instruments, one should recognise that the revised SDF will also inform the Integrated Development Plans, budgets, infrastructure investment plans, and economic development plans of the District and other institutions of government.

Below is the brief analysis on the policies and development strategies that has relevance to the revision of the Spatial Development Framework.

The Relevance of Local Policy/ Framework to the Spatial Development Framework																	
District/Local Policy/Framework	Principles/Directives																
John Taolo Gaetsewe IDP 2012 – 2019 To provide a developmental municipal governance system for a better life for all	<p>The JTGD IDP was developed in terms of Section 25 of the Municipal Systems Act, 2000 (Act No. 32 of 2000). The JTG IDP (2012 – 2019) vision is: <i>“Working together for a better life for all in the district”</i>. The municipality has identified (9) Strategic Priorities for the district i.e.</p> <ul style="list-style-type: none"> (1) Water & Sanitation, (2) Roads & Transport, (3) Local economic development (LED), (4) Land development and reform, (5) Integrated human settlements, (6) Sustainable Development Orientated Municipality, (7) Environmental management and conservation and climate change management, (8) Promotion of health in the District, and (9) Disaster management <p>In addressing the above priorities, IDP Strategic objectives have been developed. Those specifically advancing spatial planning are:</p> <table border="1"> <tr> <td>1. To provide road and transport services</td><td>2. To provide bulk water and sanitation services</td></tr> <tr> <td>3. To provide adequate housing to the residents of the District</td><td>4. To implement the Spatial Planning and Land Use Management Act (SPLUMA)</td></tr> <tr> <td>5. To facilitate the coordination of CRDP</td><td>7. To ensure effective strategic integrated sustainable development planning in the District</td></tr> <tr> <td>6. To develop community facilities</td><td>10. To provide municipal health services to the communities of the District</td></tr> <tr> <td>8. To promote local economic development</td><td></td></tr> <tr> <td>9. To facilitate availability of land for Economic Development</td><td></td></tr> <tr> <td>11. To provide disaster management services</td><td></td></tr> <tr> <td>12. To enhance tourism development and Promote the District as a preferred Tourism Destination</td><td></td></tr> </table>	1. To provide road and transport services	2. To provide bulk water and sanitation services	3. To provide adequate housing to the residents of the District	4. To implement the Spatial Planning and Land Use Management Act (SPLUMA)	5. To facilitate the coordination of CRDP	7. To ensure effective strategic integrated sustainable development planning in the District	6. To develop community facilities	10. To provide municipal health services to the communities of the District	8. To promote local economic development		9. To facilitate availability of land for Economic Development		11. To provide disaster management services		12. To enhance tourism development and Promote the District as a preferred Tourism Destination	
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District/Local Policy/Framework	Principles/Directives
<p>Revised John Taolo Spatial Development Framework 2012</p> <p>Provide a high-level, strategic guidance with regards to desired land use patterns, intensities, densities and mixing in broad zones/categories.</p>	<p>A District Municipality Spatial Development Framework is a mid to higher-level strategic spatial development planning instrument. In terms of the current institutional and development planning framework, it occupies a unique, in-between place between (1) the Provincial SDF, and (2) the SDFs prepared by the Local Municipalities in the area of jurisdiction to which it applies.</p> <p>As such it seeks to:</p> <ul style="list-style-type: none"> • Give expression in the municipal sphere to the strategic objectives as set in the national and provincial spheres with regards to sustainable development, natural resource management, regional economic investment, job creation and poverty alleviation; • Provide a clear expression of the long-term sustainable economic development trajectory to be jointly pursued in the geographical area of the district by all three spheres of government, the private sector and the community; • Act as a bridge between the broader, strategic, longer-term socio-political, economic and ecological long-term analysis, thinking and strategizing in the provincial sphere and the more detailed short-to medium term land-use and infrastructure investment planning, regulation and implementation by Local Municipalities; • Act as conduit between the detailed spatial development analysis and planning done by Local Municipalities and that done in the provincial sphere, notably in the Premier's Office and in Sector Departments when preparing sector strategies, plans, programmes and budgets; • Provide an indicative framework for (1) infrastructure investment and development spending in regionally-significant nodes and corridors, (2) integrated rural development, (3) economic sectors to be targeted, and (4) environmental management, informed by provincial and national analyses within which the more detailed spatial development planning of Local Municipalities can be located; • Harmonize, coordinate and align the spatial development planning done in and by the Local Municipalities in the area of jurisdiction of the District Municipality; • Highlight areas of (1) real development potential, (2) dire need/ poverty and (3) bottlenecks in the realization of the development potentials and alleviation and eradication of poverty, in the district. <p>Emanating from the Spatial Development Vision, a set of twelve Spatial Development Objectives were set. <i>Section 9</i> outlines the progress that has been made on implementation of these spatial objectives.</p>



District/Local Policy/Framework	Principles/Directives
<p>John Taolo Gaetsewe Environmental Management Framework 2011</p> <p>The general aim of an Environmental Management Framework is to improve the integration of biodiversity into land use planning and decision making through a combination of activities including:</p> <ul style="list-style-type: none"> • engaging in institutional co-ordination mechanisms; • providing accurate, relevant information and reference materials; • providing appropriate training and targeted awareness raising; and • also guiding future land use and development within the municipality 	<p>JTGDM should impose buffer zones around heritage and cultural sites, to prevent or limit potentially harmful activities in the proximity of the sites.</p> <p>A Heritage Resources Inventory for JTGDM, as a sub-set of a Northern Cape Heritage Resources Inventory should be designed in a manner that will enable its compatibility with databases developed as part of the recording process for National Estate of heritage resources currently being undertaken by SAHRA</p> <p>The fact that large parts of this district are rich in minerals means that the heritage, which is a non-replaceable resource, is particularly under threat. Therefore urgency surrounds this matter and it is considered essential that the relevant department/s of government should provide infrastructure and personnel to carry out the necessary inventory and database management tasks. Locations of specific sensitive or endangered fauna & flora or habitats would require appropriate buffer areas.</p> <p>The on-going urbanisation will require intact ecological systems for their role in providing ecosystem services. These services include stormwater management, water purification, groundwater recharge, pest control, micro-climatic control, pollination, etc. In general, the biodiversity planning needs to consider the following components of a conservation plan:</p> <p>The district must develop an environmental management framework/ plan to align with the new legislative provisions and rapidly changing space economy.</p>
<p>John Taolo Gaetsewe Integrated Transport Plan 2014/2015</p>	<p>The public transport situation was recorded for the John Taolo Gaetsewe District Municipality in 2005 produced the following results:</p> <ul style="list-style-type: none"> • Demand for public transport: all information was obtained about the volumes of passengers and the conditions under which passengers access the public transport modes. • Supply of public transport services: routes, facilities and vehicle capacities were recorded. • Prepare an ITP according to the requirements of the NLTTA, including the following: <ul style="list-style-type: none"> ○ The land transport vision, goals and objectives, consistent with the National and provincial policy; ○ A prioritised list of projects with budgets for the next five years; ○ Include all modes and infrastructure; ○ A detailed land transport budget for the next financial year; ○ A Public Transport Plan; ○ A strategy for the provision, improvement and maintenance of roads and transport infrastructure. ○ Currently no passenger services serve the district. <p>Transnet has no documented plans to introduce passenger rail services to settlements within the district except for the upgrading and extension of transport corridors (i.e. railway lines in support of the mining sector)</p>



District/Local Policy/Framework	Principles/Directives
<p>John Taolo Local Economic Development Strategy (Known as Khulis'umnotho), 2009</p>	<p>The current Local Economic Development (LED) Strategy called Project Khulis'umnotho was developed in 2009.</p> <p><i>"It is important to realise that LED is an on-going process, rather than a single project or a series of steps to follow. LED encompasses all stakeholders in a local community, involved in a number of different initiatives aimed at addressing a variety of socio-economic needs in that community."</i></p> <p>The following sectors were identified as priority economic sectors in the LED Strategy: (1) Agriculture, (2) forestry, and fishing, (3) Mining, (4) Manufacturing, (5) Wholesale and retail trade, tourism, catering, and accommodation (6) Finance and business services (7) Community, social, and other personal services, (8) General government services</p> <p>Key Thrusts for John Taolo Gaetsewe District Municipality:</p> <ul style="list-style-type: none"> ○ Thrust 1: Institutional Development for Investor Readiness ○ Thrust 2: SMME Development (cutting across sectors, this is reflected in specific SMME opportunities). ○ Thrust 3: Agricultural Sector Development (this is reflected in the enabling public sector interventions and the implementation of new technologies as they become viable e.g. new biotechnologies, irrigation techniques and so on). ○ Thrust 4: Mining Sector Development (Improving the mining sector and the implementation of new technologies) ○ Thrust 5: Industrial Development (Programmes relating to the manufacturing projects identified and the associated enabling public sector interventions. Furthermore, general improvement in living conditions, infrastructure (particularly transport) and overall economic growth should serve to boost potential in this sector, by addressing supply and demand side factors) ○ Thrust 6: Tourism Development (the specific projects identified in the area, as well as SMME business opportunities and the enabling public sector interventions that will boost the economy and bring in more investments) ○ Thrust 7: Quality of Life Improvement (this is seen as an all-encompassing thrust with specific programmes aimed at improved infrastructure, overcoming backlogs in service delivery, providing education, health and safety services and so on. It should deal with the attractiveness of the area to investors in terms of quality of life and quality of labour and resources on the one hand, and the ability of locals to take advantage of economic opportunities on the other)

District/Local Policy/Framework	Principles/Directives
<p>John Taolo Gaetsewe Rural Development Plan 2016</p> <p>To provide a workable RDP for the JTGDM to grow its rural areas more efficiently, it is required that primary needs for rural communities be identified; hence informing programmes and policies to be formulated in addressing issues of rural poverty as well as underdevelopment.</p>	<p>The vision of the JTGDM Rural Development Plan is:</p> <ul style="list-style-type: none"> ○ <i>“To create vibrant, equitable and sustainable rural communities with emphasis on poverty alleviation, environmental protection, and economic development”.</i> <p>In working toward the vision realization, the following twelve (12) strategic objectives with their associated strategies were identified:</p> <ol style="list-style-type: none"> 1. Enhancing Agriculture and Rural Development as a Means to Fight Hunger and Poverty <ol style="list-style-type: none"> 1. To Improve Rural Economy 2. To Ensure Sustainable Management of Natural Resources in Rural Areas 3. To Strengthen Rural Institutional Capacity 4. To Provide Rural Areas with Social Services and Technical Infrastructure 2. Exploring and Exploiting Mineral Resources to the Benefit of the Communities <ol style="list-style-type: none"> 1. To increase mineral beneficiation and empower local communities 2. To reinforce the development of a mining supplier park 3. Promoting Tourism through Reviving Existing Sites and Identifying New Ones <ol style="list-style-type: none"> 1. To develop existing and new/dormant tourism attractions 2. Promote Tourism Marketing 3. To introduce Pro-Poor Tourism 4. To develop a multi-functional tourist centre 4. Providing all Communities with Engineering Infrastructure, Housing, Roads and Social Facilities <ol style="list-style-type: none"> 1. To provide electricity in communities 2. To provide water in local communities 3. To construct sewer in local communities 4. To construct roads in local villages 5. Developing and Promoting Small Medium Micro Enterprises (SMMEs) <ol style="list-style-type: none"> 1. Develop SMME Support Systems and Policy 2. Training and Development of Entrepreneurial Skills 6. Reviving the Economy of Kuruman and Kathu through Attracting New Businesses and Investments <ol style="list-style-type: none"> 1. Improve the spatial economy of Kuruman and Kathu, including through coordination and cooperation with the John Taolo Gaetsewe region. 2. Encouraging sustainable Informal sector businesses and their inclusion in the local economy of Kuruman and Kathu 3. Attracting business and industry growth through the adoption of a reliable and coordinated approach to local planning within Kuruman and Kathu 4. Expanding and encouraging sustainable mining and agricultural economic sectors of Kuruman and Kathu, while giving rise to other local businesses 7. Promoting Nodal and Corridor Oriented Development



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| <ul style="list-style-type: none"> 1. Containing and consolidating development within a defined nodal boundary 2. Promoting transit-orientated development (TOD) along major public transport corridors and appropriately managing land uses around them | <ul style="list-style-type: none"> 3. Support the development of a viable public transport system and improve accessibility, especially by the poor, to the District's resources and amenities |
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- 8. Building Capacity of Communities through Training and Skills Development**
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| <ul style="list-style-type: none"> 1. Ensure Access to Education and Training Facilities 2. Train People on Agriculture | <ul style="list-style-type: none"> 3. Provide Demand Oriented Skills Development Programmes 4. Development of Rural Entrepreneurial Skills |
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- 9. Improving Literacy Rate of Communities**
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| <ul style="list-style-type: none"> 1. Improve Access to Schools | <ul style="list-style-type: none"> 2. Improve Quality of Education |
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- 10. Growing the Local Economy and Creating Jobs**
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| <ul style="list-style-type: none"> 1. Comprehensive Rural Skills Audit & Local Business Linkages 2. Labour intensive job creation | <ul style="list-style-type: none"> 3. Enabling Economic Environment 4. Rural Development Forum |
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- 11. Establishing an Agri-Park in the JTG district consisting of an Agri-Hub in Kuruman and associated Farmer Production Support Units throughout the district**
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| <ul style="list-style-type: none"> 1. 10ha Feedlot 2. Abattoir 3. Auction Pens 4. Tannery & Taxidermy 5. Charcoal production (Blackthorn & Prosopis) | <ul style="list-style-type: none"> 6. Honey Bees 7. Skills Centre & Ecotourism 8. Fencing 9. Agri-Park Extension Service Programme 10. Acquire strategically located land |
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- 12. Protecting and Conserving the Natural Environment**
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| <ul style="list-style-type: none"> 1. Sustaining water resource management 2. Implement an Environmental Management Framework 3. Regulate the mining industry | <ul style="list-style-type: none"> 4. Implement Community Based Natural Resource Management Programme 5. Implement an Alien Invasive Clearing Programme |
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District/Local Policy/Framework	Principles/Directives
Integrated Human Settlements Sector Plan 2014- 2019	<p>The District Municipality completed an Integrated Human Settlements Sector Plan during the 2014/15 Financial Year, providing for the period 2014-19. The human settlements vision adopted through this plan is as follows:</p> <p>“By 2030, human settlements will have transformed to sustainable and efficient human settlements offering the residents access to adequate housing on well-located land, affordable services in better living environments, within a more equitable and functional residential property market.”</p> <p>This Vision is aligned to the District Vision of a “Better life for all in the District” and will contribute to achieving this Vision. The Hunan Settlements</p> <p>Vision adds sustainability and efficiency, as well as adequacy, affordability, equity and functionality to the District Vision.</p> <p>“The Integrated Human Settlements Sector Plan aims to provide the strategic direction for transforming human settlements in the John Taolo Gaetsewe District aligned to the Provincial Department. This transformation relate to accelerating human settlement delivery on well-located land, that provide opportunities to beneficiaries to access the property market and have sufficient access to social amenities and economic opportunities. This transformation will further support the integration of communities and the spatial restructuring of the towns and villages in the Municipal area.”</p>
John Taolo Gaetsewe Integrated Infrastructure Plan 2014/2015	<p>The Integrated Infrastructure Plan of the Municipality analyses the current needs and capacity of the district in terms of infrastructure requirements. It then provides the following implementation guidelines to facilitate adequate provision of infrastructure in the district:</p> <p>Step 1: Immediate impact (1) Address current backlogs to address the urgent 2012-2019 targets, as well as addressing maintenance backlogs that are seriously affecting the ability to provide the necessary services, and (2) Create financial viability by improving the revenue generation functions (if these are not successful at present), focusing on water and electricity</p> <p>Step 2: Medium term: (1) Build internal skills & capacities of staff, and (2) Address refurbishment needs of dilapidated assets</p> <p>Step 3: Longer term: (1) Once a successful income base has been established, use external financing (via banks – DBSA or commercial) to develop additional infrastructure</p>



District/Local Policy/Framework	Principles/Directives
Revised Joe Morolong Spatial Development Framework 2012	<p>The Joe Morolong Revised SDF outlines 5 development objectives:</p> <ul style="list-style-type: none"> • expansion of mining activities to benefit communities while also minimising its negative environmental impacts • development of economic centres around current small towns • development of human development hubs in high density areas • introduction of agricultural growth and development (including agro-processing) high density rural areas • retention of tourism initiatives (game farming) around low density rural areas <p>According to the IDP, the following are identified as priority realities, dynamics and issues in the municipality:</p> <ul style="list-style-type: none"> • the rural nature of the municipality, characterised by vast distances and a lack of resources to adequately sponsor public participation infrastructure; • the need to prioritise the most fundamental and pressing needs of the community, who are faced with major survival challenges, including access to clean, potable water within reasonable distance from homes, acceptable standards of sanitation facilities and shelter; • the need to promote the interest of special interest groups, such as women, the youth and persons with disabilities; • the need to fast-track the growth of the local economy, and, simultaneously, create employment opportunities; and • the need to transform the Municipality into an efficient vehicle for delivery.
Ga-Segonyana Spatial Development Framework 2008	<p>The main purpose of a Spatial Development Framework is to guide the form and location of future physical development within a municipal area in order to address the imbalances of the past. The urban environments of South Africa are characterized by unsustainable urban forms, which have been shaped by apartheid planning that was integrally linked to blueprint or “master” planning.</p> <p>The purpose of Ga-Segonyana Spatial Development Framework (SDF) for its community is to:</p> <ul style="list-style-type: none"> • Spatially reflect the vision of how the municipal areas (Kuruman, Wrenchville, Bankhara-Bodulong, Mothibistat and the tribal areas) should develop in a broad sense. • Reflect the needs of the community identified in the IDP process. • Integrate the strategies of various sector plans that form part of the IDP document. • Provide a legally binding spatial framework for Ga-Segonyana Municipality, which promotes sustainable economic- and social development within the community. • Set out objectives that reflect the desired spatial form of the area. • Serve as an information source and guide to inform and direct land use management. <p>It must be emphasised that it is not possible for the SDF to deal with every part of the municipal area at the same level of detail and thus the document focuses on focal areas and identified aspects of the IDP.</p>



District/Local Policy/Framework	Principles/Directives
Gamagara Spatial Development Framework 2010	<p>The Gamagara SDF has the following objectives:</p> <ul style="list-style-type: none"> • Integration of communities • Densification close to CBDs • Discouragement of uncoordinated planning • Promotion of integrated planning (public facilities, recreation, agriculture and conservation) in Kathu <p>In realising the SDF objectives the municipality has since developed SDF for Kathu, Dibeng and Olifantshoek.</p> <p>The IDP sets out the following objectives for integrated development of the Gamagara Local Municipality i.e.:</p> <ul style="list-style-type: none"> • to render quality, effective and sufficient services; • to promote the general wellbeing through a safe and healthy environment amongst all residents; • to promote equality and fairness in the allocation of resources; and • to promote sound and sustainable economic growth in the municipal area.

The following deductions on issues of significance emanating from the above outlined municipal policies and plans are:

- Advancing **Rural Development** through the JTG Rural Development Plan and within the framework of Comprehensive Rural Development Plan (CRDP)
- Improve **Transportation Networks** for public transport (particularly in the sparsely Joe Morolong area)
- Integrated Human Settlement (land tenure upgrade, land acquisition and spatial integration (through infill and densification)
- **Regional Integration/ Cooperation** (ZF Mgcawu & Republic of Botswana) with respect to Gamagara Corridor and Eco-Tourism Development Corridor
- Advancing **Local Economic Development** (LED) through public sector procurement, promotion of cooperatives, portable skills on labour sending areas
- **Budget Allocation** geared towards addressing priority issues
- **Tourism Development** (The Eye, Wonderwerk cave and rock paintings, the Robert Moffat Mission Station, Bothitong/Kiangkop, Kuruman & Kathu Golf Club, Joe Morolong Game Farm' and the investment in the eco-tourism development corridor in the north between Rietfontein and Vanrhynskrans linking northwards to the Kgalagadi Transfrontier Park)
- **Environmental Management** (heritage preservation, water resource management and invasive alien plant management)
- **Provision of infrastructure** that advances the economy and addresses basic services



2.6 SPATIAL LINKS TO ADJOINING ENTITIES

The John Taolo Gaetsewe District Municipality is one of the five (5) District Municipalities of the Northern Cape Province of South Africa. The other four (4) are: ZF Mgcawu, Frances Baard, Namakwa and Pixley ka Seme. The Gamagara Corridor “comprises the mining belt of the John Taolo Gaetsewe and ZF Mgcawu districts and runs from Lime Acres and Danielskuil to Hotazel in the north. The corridor focuses on the mining of iron and manganese” (NCPSDF 2012: 68).

The District Municipality (JTGDM) covers an area of 27 293 km² and shares an international border with the Republic of Botswana. In South Africa, JTGDM located towards the north east of Northern Cape Province adjoining borders with the North West Province attached to Dr Ruth Segomotsi Mompoti District Municipality.

Botswana government has formulated a long term strategy to ignite economic development and alleviate poverty called Vision 2016. In realising Vision 2016, the government formulated National Development Plan 10 (NDP 10) with the vision: “Accelerating Achievement of Vision 2016 Through NDP”. One of the development strategies of NDP 10 is to reduce the disadvantages of Botswana as a land locked country but to take advantage of export to neighbouring markets, and to export services with negligible transport costs. The R380 is a Regional Route that connects Kathu with the Republic of Botswana. The road will be very instrumental to ensure trade between South Africa and Botswana.

The North West Province borders the north-eastern boundary of the JTGDM. According to the North West PGDS, the province is experiencing the following challenges: (1) a slow population growth; (2) relatively low levels of private sector activity; (3) a low population density; (4) inadequate infrastructure and service delivery; (5) a predominantly poor population; (6) high levels of HIV/AIDS; and (7) the unequal distribution of resources.

As a result of these challenges, the PGDS has two main goals, one focusing on economic development and the other on poverty eradication and service delivery. On a spatial level, the PGDS and related North West Spatial Development Framework and Zoning Plan (2003) adopted the main spatial principles of the National Spatial Development Perspective. As such, future settlement and economic development is to be channelled into activity corridors and nodes that are adjacent to or link up with the main growth centres. The focus is on strengthening a series of identified corridors, viz. the Platinum Corridor, the Western Corridor and the Treasure Corridor (Revised JTG SDF 2012: 140).



The table below outlines issues of key importance from adjoining entities for consideration during the review of the JTG SDF.

Adjoining Entity	Significance for the Preparation/Review of this SDF
ZF Mgcawu District Municipality (ZFMDM)	<p>ZF Mgcawu District Municipality is located to the east of the JTGD and covers an area of over a 100 000 km² (almost 30% of the Northern Cape Province). However, almost 65 000 km² of the land is covered by the Kalahari Desert, the Kgalagadi Transfrontier Park and the Bushman Land. Due to the DM's environmental and agricultural characteristics, it is scarcely populated at approximately 1.7 people per square kilometre. Thus the provision of infrastructure and basic services is decidedly problematic for the DM.</p> <p>According to Siyanda (ZF Mgcawu) SDF 2012, the spatial vision for the district is "An exciting mix of: (1) Tourism, i.e. Cultural, wilderness, floristic, river tourism ranging from the Kgalagadi International Transfrontier Park to the culture of the Riemvasmak community to river tourism on the mighty Orange River; (2) Mining and mining beneficiation; (3) Agriculture: river bank vineyards and expansive stock and game farming in the Kalahari; (4) and Renewable energy technology opportunities."</p>
Tsantsabane LM (ZFMDM)	<p>According to the Tsantsabane Spatial Development Framework 2015, the SDF is prepared to support, inform and advise the Integrated Development Plan (IDP) of the local municipality. The vision and mission statements, objectives and strategies contained in the IDP were taken into account during the compilation of the SDF to seamlessly integrate and synthesise the goals of the municipality. The SDF is based on four main structuring elements, i.e. nodes, corridors, districts and open spaces with the main purpose of: (1) ensure that the SDF achieves the desired urban form; (2) it needs to link spatial objectives with clear implementation strategies; (3) ensure that infrastructure is carefully planned; (4) policy and institutional instruments are in place; (5) growth is appropriately managed; and (6) ensure that all relevant sectors are aligned to the plan.</p>
//Khara Hais LM (ZFMDM)	<p>A primary aim of the //Khara Hais SDF 2012 is to provide guidance to the Municipality, developers, landowners and individuals with regard to future development and urban restructuring. The objective of this is to: (1) enhance and preserve the unique characteristics and qualities of Upington and the rural settlements in //Khara Hais; (2) restore degraded places; and (3) create high-quality places in accordance with the principles of good 'place-making' and in terms of the principles of sustainable development. The Structuring Elements are practical tools to be used by all stakeholders to help shape Upington into a settlement that is sustainable and where a high quality for its inhabitants is ensured. The key functions of the Structuring Elements are to facilitate the following: (1) containment of urban sprawl; (2) promotion of urban and social integration; (3) promotion of acceptable higher densities; (4) creation of quality urban environments through urban renewal and landscaping; (5) reduction of the need for traffic movement and promotion of pedestrian and non-motorized movement patterns; (6) restoration and maintenance of a defined sense of place; (7) alleviation of poverty and inequality; (8) protection and enhancement of the properties and investment; and (9) enhancing and simplifying decision-making regarding development applications.</p>



Adjoining Entity	Significance for the Preparation/Review of this SDF
Kgatelopele LM (ZFMDM)	According to Siyanda (ZF Mgcawu) SDF 2012, Spatial Development Frameworks are only prepared for Khara Hais, Tsantsabane and Kgatelopele. The Kgatelopele SDF recommended that the following development objectives be adopted for the future growth and development of the Municipality and also to guide the SDF, i.e.: (1) the adoption of the Integrated Development Plan in order to transform specific distorted issues and land use patterns; (2) the introduction of development and land use nodes – urban nodes could be sued as “urban building blocks”; (3) introduce well planned transport movement system; (4) introduce a variety of suitable residential densities and housing typologies; (5) plan for and provide a broad spectrum of land uses and amenities; (6) implement a heritage sensitivity policy; (7) use urban planning and development in order to address safety and security; (8) provision of municipal services and infrastructure; (9) acknowledge environmental and physiographical elements; (10) introduce a land use management scheme; (11) support sustainable agricultural activities and promote agricultural growth; (12) enhance and promote the social wellbeing of families by providing sustainable livelihoods; and (13) stimulate and facilitate s steady and growing regional economy.
Frances Baard District Municipality (FBDM)	According to the Frances Baard SDF 2014, the spatial vision: “To be a municipality that strives for socio-economic freedom through holistic spatial redress, sustainable development and environmental consideration for all communities in the district.” An analysis of the Frances Baard Spatial Vision indicates the following basic elements: (1) socio-economic freedom for all communities; (2) economic freedom (economic development, job opportunities, skills training and the support of local economic development); (3) the reshaping of the existing spatial form in a holistic fashion (i.e. urban space including municipal services, transport corridors and land reform; rural space including conservation and heritage, agriculture, mining and building material; and peri-urban space).
Dikgatlong Local Municipality (Frances Baard DM)	Dikgatlong SDF 2014 kept continuity and alignment with the new Integrated Development Plan (2013/14) that was recommended that the vision statement be similar, with similar goals and objectives. In order to realise the Dikgatlong SDF vision, the following developmental goals have been identified: (1) give effect to the principles contained in the Spatial Planning and Land Use Management Act of 2013; (2) setting out objectives that reflect the desired spatial form; (3) defining strategies and policies to achieve these objectives which must indicate, amongst others (the desired pattern of land use, how spatial reconstruction will be addressed, providing strategic guidance in respect of the location, and the nature of development); (4) set out basic guidelines for Land Use Managements Systems; (5) set out a capital investment framework for development programs (this will mainly inform public sector investment priorities); (6) Identify programs and projects for development of land; (7) be aligned with neighbouring Municipal SDFs; and (8) provide a visual representation of the designed spatial form with the Municipality in the form of a map.



Adjoining Entity	Significance for the Preparation/Review of this SDF
Dr Ruth Segomotsi Mompoti District Municipality (DRSMDM)	According to Dr Ruth Segomotsi Mompoti DM IDP 2015/2016, the spatial vision is captured as “ensure integrated development planning by addressing key national, provincial and local priorities and focusing development support in areas in relation to their development potential”. The spatial objectives includes: (1) to give expression to and integrate the strategic objectives as set in the national and provincial spheres of government with regards to sustainable development, natural resource management, regional economic investment, job-creation and poverty alleviation; (2) to provide guidelines that could assist the District Council with regard to the “where” of strategic development interventions; (3) to assist the District Council to prioritize between strategic interventions in the various local municipal areas of jurisdiction; (4) provide specific guidelines to enable the District Council to fulfill its expected development role by guiding developers, investors and the public sector to appropriate locations and forms of development; (5) co-ordinate and align spatial development planning done in and by the Local Municipalities in the area of jurisdiction of the District Municipality; (6) provide guidelines for integrated rural development and land reform projects
Kagisano-Molopo Local Municipality (DRSMDM)	Kagisano-Molopo Local Municipality (NW397) is approximately 27 278 km ² in extent (57.46% of the total area of the Dr Ruth S Mompoti District Municipal Area), with an estimated population of 105 789 people (22.8% of the total population of the Dr Ruth S Mompoti District Municipal Area) The vision of Kagiso-Molopo LM is: “Developmental vehicle through with the need of the Community shall be achieved in a sustainable manner”. The IDP (2007-2012) and SDF (2007) focuses mainly on the provision of basic services, the upgrading of local and regional road networks, the protection of already degraded agricultural areas located on its border with the JTGD, the development of extensive agricultural operations in the eastern section of the DM and the promotion of tourism in the northern section of the LM.
Greater Taung Local Municipality (DRSMDM)	According to the Dr Ruth Segomotsi Mompoti DM IDP, the key focus areas for Greater Taung Local Municipality are: (1) Water; (2) Electricity; (3) Sanitation; (4) Housing; and (5) Social amenities. According to the DM SDF (2007), the southern section of the local municipality is cultivated agricultural land that should be better exploited.

The following deductions on issues of significance emanating from the above outlined adjoining entities are:

- Regional Integration/ Cooperation (ZF Mgcawu & Republic of Botswana) with respect to Gamagara Corridor and Eco-Tourism Development Corridor
- Positioning the John Taolo District as the preferred investment area for solar energy due to its proximity to the Solar Corridor in ZF Mgcawu DM
- Agricultural development (livestock) to augment initiatives in Dr Ruth Segomotsi Mompoti District (Kagisano-Molopo Local Municipality)
- Explore beneficial regional trade through the R380 that connects Kathu with the Republic of Botswana



2.7 KEY ISSUES FROM THE ASSESSMENT OF THE INSTITUTIONAL CONTEXT AND DIRECTIVE FOR SPATIAL PLANNING

All the issues described in the previous sections have either a direct impact on the planning process or should be considered when planning is done. However, the issues listed below are central and provides very clear and direct guidance to the broader spatial planning context. The following issues must be regarded as central to the review of JTG Spatial Development Framework.

Sectoral Category	Key Issue and Principles
Economic	<ul style="list-style-type: none"> • Encourage the participation of all sectors of the economy and promote partnerships (businesses in the mining, agriculture and retail sector) as to maximize development. • Economic growth should be explored in areas with a medium to high resource base and high human need. • Economic development should be supported by infrastructure investment where there is already a medium to high level of economic activity and where resource potential is medium to high (Hotazel, Kathu & Kuruman). • Beneficiation in the mining sector (Shareholding & Procurement)
Social	<ul style="list-style-type: none"> • Development shall optimize the use of existing social infrastructure (Housing development in Kathu. Sishen, Kuruman & Hotazel).
Financial	<ul style="list-style-type: none"> • Promote sustainable development within the fiscal means of the district. • Set out a capital investment framework for the district development programme (infrastructure that advances economic development and access to basic services).
Institutional	<ul style="list-style-type: none"> • Spatial Development has to inform, and be informed by the planning of other spheres of government, including sectoral/ departmental planning of line agencies. • Mutual alignment between National and Provincial principles, planning requirements, local needs and resources must be conducted in the spirit of co-operative governance. • Development and planning shall promote sustainable development within the institutional and administrative means of the Municipality and Province. • Meet the basic needs of all citizens in an affordable way. • Municipalities shall provide clear laws and procedures; and access to information, promoting trust and acceptance among those likely to be affected by it. • Planning and development procedures and discussions shall be consistent with the general principles as set out in National and Provincial Legislation.



Physical	
Land Management	<ul style="list-style-type: none"> • Promote more compact development of urban areas. • Limit urban sprawl: Urban Edges in Gamagara & Joe Morolong (although they must be reconsidered to accommodate new developments) • Spatial Integration: Sishen - Kathu, Kuruman - Wrenchville • Correction of historically distorted spatial patterns. • Promote integrated land development in rural and urban areas in support of each other. • Development and planning shall promote efficient and rapid development. • Development shall provide systems to manage the use of land to give effect to spatial development policies and to provide legal protection of land and development rights. • Indicate the desired patterns of land use in the district (current District & Local SDF makes provision) • Address spatial reconstruction of the district. • Provide strategic guidance in respect of location and nature of development. • Set out basic guidelines for a Land Use Management System in the district. • Development shall promote the integration of social, economic, environmental, institutional, infrastructural and spatial aspects of the development. • Identify programmes and projects for the development of land within the district.
Environmental	<ul style="list-style-type: none"> • Indicate a strategic assessment of the environmental impact within the district area. • Protection of agricultural resources (Environmental Management Framework). • Preserving of natural resources – water & the environment (Environmental Management Framework). • Safe utilization of land by considering biophysical factors.
Infrastructure	<ul style="list-style-type: none"> • Development shall optimize the use of existing engineering infrastructure. • Promote convenient access to infrastructure (public transport system).
Human Settlements	<ul style="list-style-type: none"> • Promote for the development of formal and informal settlements through various housing delivery programmes • Discourage the illegal occupation of land (in Ga-Segonyana) through land use control mechanisms.
Visual Representation (Precinct Plan & Strategic Target Areas)	<ul style="list-style-type: none"> • Indicate where public and private land development and infrastructure investment should take place. • Indicate desired or undesired utilization of space in a particular area. • Identify areas where strategic intervention is required. • Areas where priority spending is required (in line with the MTSF).



2.8 PROGRESS ON IMPLEMENTATION OF THE JTG SPATIAL DEVELOPMENT FRAMEWORK 2012

The table below outlines the progress that has been made with regard to the implementation of the John Taolo Gaetsewe Spatial Development Framework twelve (12) objectives and their alignment thereof with the legislation and policy framework directives.

The level of progress on implementation of the twelve (12) objectives is indicated by colour where green ■ is satisfactory, orange ■ is working towards achievement and red ■ being insignificant progress registered.

JTG Spatial Development Framework Objectives	Alignment to Framework/ Policy/ Legislation Directives	Progress to Date on Implementation
District-Wide Spatial Development Objectives:		
Objective 1: To enforce environmental and land-use management regulations	NEMA, SPLUMA, JTD EMF, IDP	<ul style="list-style-type: none"> Two of the local municipalities (Ga-Segonyana and Gamagara LMs) do have arrangements in place to enforce land use management regulations All the three local municipalities and the district will be reviewing / developing their Spatial Development Frameworks The three local municipalities have passed by-laws on Spatial Planning and Land Use Management in 2016 The District is aligning its SDF with the Spatial Planning and Land Use Management Act (SPLUMA), 2013 (Act 16 of 2013). All the Municipalities in the District will implement SPLUMA from 1 July 2015. The District Municipal Planning Tribunal and District Appeals Authority have been established to assist the Local Municipalities in deciding on development applications and appeals respectively. Review of the District Spatial Development Framework to ensure compliance with SPLUMA will commence in the 2015/16 financial year. The delay in establishing provincial legislation and the expected review of the Provincial Spatial Development Framework is likely to influence processes in the District.
Objective 2: To institute/do proper traffic and freight management	ITP, NTTLA, PSDF, PGDS	<ul style="list-style-type: none"> Various initiatives are planned to improve the roads network, traffic and freight management capacity of the district. This include ambitious plans to extent the road network to optimize economic benefits through accessibility and to maintain roads by re-directing heavy vehicles not to damage streets in the main towns. Due to a lack of funds it is however not foreseen that these initiatives will materialize during the period 2012-2019, and the IDP does therefore not include such projects. The district's Integrated Transport Plan was reviewed during 2014/15 and the final plan will be considered by Council in the 2015/16 financial year. The local municipalities have included objectives related to traffic and freight management and controls in their IDPs; which will enhance the district's ability to achieve this SDF objective. The Rural Roads Asset Management Strategy will also further unfold in the 2015/16 financial year.



Objective 3: To attract new business, especially manufacturers, to the district and retain existing ones	GSLM SDF, PGDS, JTG GDS	<ul style="list-style-type: none"> This objective is also included in the District Municipality's LED Strategy, but a lack of funds is a serious stumbling-block. In the case of the Ga-Segonyana LM, arrangements have been introduced to reduce rates and taxes to attract specific businesses to the area, and also to attract HDIs to establish businesses. Kuruman Mall, Car Dealerships, Tourist Accommodation Facilities and the Casino are the new establishments in the area The CSRDP is utilized by the Joe Morolong LM to promote the establishment of new businesses in its area of jurisdiction; with specific reference to cooperatives aimed at livestock farming. A meat processing plant is envisaged, but not included in this IDP at this stage. As soon as the project is adequately funded, it will be included as part of the annual IDP review processes. Unfunded projects will be included in the IDP to invite investments and funding where relevant. 	
Objective 4: To explore the viability of the Gamagara Corridor and a regional development corridor on the N14	ITP, NTTLA, PSDF, PGDS, JTG GDS	<ul style="list-style-type: none"> The viability of the Gamagara corridor and a regional development corridor on the N14 was investigated. The District Municipality envisages a Regional SDF to detail the Gamagara Corridor Development. 	
Joe Morolong Local Municipality Spatial Development Objectives:			
Objective 5: To rationalise the fragmented, scattered settlement pattern and build a new intensive agriculture and agro-processing economy in the area	SPLUMA, CRDP, JTD RDP, JMSDF, NSDP	<ul style="list-style-type: none"> JMLM has embarked on a process of establishing a Road Master Plan that would be specific to number of Km's within its area of jurisdiction Construction of 10 livestock handling facilities in Mosekeng, Adderley, Heiso, Pietbos, Manaangeng, Bunhill, Bendel, Deorham and Helifax by NC Department of Agriculture, Land Reform and Rural Development 	
Objective 6: To develop a limited number of villages along a public transport corridor into Human Development Hubs	ITP, NTTLA, JTG RDP, JMSDF	<ul style="list-style-type: none"> No projects (i.e. Colleges or Thusong Service Centres) have been included on development plans by government (municipal, district, provincial or national). 	
Objective 7: To develop Local Nodes in places like Churchill, Bothithong, Heuningvlei, Blackrock, Hotazel, Mamathwane and Vanzylsrus	GSDf, PSDF, JTG RDP, JTG GDS, NSDP	<ul style="list-style-type: none"> Phase 2 Internal Roads at Churchill & Esperanza have been planned (2016/2017 IDP) Municipal Traffic Offices in Churchill to be constructed (2016/2017 IDP) Transnet SOC (State-owned Company) Limited intends to construct a new compilation yard at Mamathwane, Northern Cape, as part of a broader project to expand the capacity of the existing manganese ore railway line from Hotazel in the Joe Morolong to the Port of Ngqura in the Eastern Cape from 12 Million tons per annum (Mtpa) to 16 Mtpa. 	
Objective 8: To manage, protect and further develop the existing extensive game and cattle-farming and tourism area to the west of the mining belt	JTG RDP, CRDP, JMSDF, PGDS, PSDF, NCWPT	<ul style="list-style-type: none"> Agricultural Projects in the Heuningvlei area that includes livestock infrastructure (equipping of boreholes & fencing) have been planned by Department of Agriculture, Land Reform and Rural Development and NC Department of Agriculture, Land Reform and Rural Development. Eco-Tourism Corridor Development - Refurbishment of the Joe Morolong Game Farm by NC Department of Environment, Nature and Conservation. 	



Ga-Segonyana Local Municipality Spatial Development Objectives:		
Objective 9: To redevelop and rejuvenate the Regional Node of Kuruman	GSLM SDF, PSDF, PGDS, JTG RDP, NSDP	<ul style="list-style-type: none"> The Department of Rural Development is intending to establish an Agri-park in Kuruman and it is envisaged that this will assist in strengthening Kuruman as the agricultural gateway of the District. Kuruman Mall, Car Dealerships, Casino. HDA supports the District area with the acquisition and assembly of land for human settlement purposes and should support Ga-Segonyana with the identification of well-located land for future settlement.
Objective 10: To develop Local Nodes in Mothibistat and Batlharos	GSLM SDF, NSDP, JTG RDP	<ul style="list-style-type: none"> Mothibistat and Batlharos are Priority 1 and 2 under the Ga-Segonyana National Upgrading Support Programme (NUSP) for housing delivery.
Gamagara Local Municipality Spatial Development Objectives:		
Objective 11: To manage land use and settlement expansion in Kathu and Sishen/ Dingleton, and amalgamate the two towns into a single Regional Node	GSDF, JTG RDP	<ul style="list-style-type: none"> A business plan has been submitted to construct 16,000 houses during the 2013/14 financial year. There is a problem with the resettlement of some settlements in the municipality because the earmarked land where the resettlements must take place is privately owned land. An agreement has been reached that the mine will fund the resettlement, with the municipality to assist. The development in Westwood has been increased from 3,000 to 6,000 houses.
Objective 12: To develop a Local Node in Olifantshoek	JTG SDF, GSDF, NSDP	<ul style="list-style-type: none"> Olifantshoek Local SDF in place. Development of 1,300 houses in Olifantshoek.

A significant progress on implementation of the twelve (12) objectives has been made with the exception of **Objective 6** where no significant progress has been registered. The following could be factors that could have contributed to non-achievement of this objective:

- Land Use Management – unplanned sporadic settlement due to lack of land use control mechanisms e.g. by-laws/ land use scheme
- Community unrest/ protest – The 2013 community protests might have impacted negatively on government commitment to the project
- Lack of funding and Project Specifics – the strategy did not outline the specific projects to be executed and the responsible sector department. Reference was made to the Northern Cape Provincial Government instead of specific departments e.g. Department of Higher Education (for TVET Colleges proposal), Department of Health (for health centres/ clinic), Department of Education (for schools), Department of Police (for police stations)
- The objective and the elaborative strategy is highly conceptualised as opposed to other objectives that have locality reference

The elaborative strategy on objectives needs to explicitly identify actual location, name of the project and the responsible implementing agent. It would have been ideal if the proposed Human Development Hubs could have outlined specific areas and required projects earmarked for implementation.





CHAPTER 3

SPATIAL ANALYSIS AND SYNTHESIS

REVIEW OF JOHN TAOLO GAETSEWE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Synopsis: *The aim of this chapter is to provide a spatial analysis with specific reference to the following thematic areas:*

- Institutional arrangements;
- Biophysical environment;
 - Demographics;
- Socio-economic environment;
 - Economic sectors; and
 - Built environment

A depth analysis within the context of the district is provided such that the planning can advance the needs of the community in a sustainable, efficient and progressive manner



3 SPATIAL ANALYSIS AND SYNTHESIS

There are numerous factors that influence where and how people settle and organise themselves in space. The following structuring elements impact directly on the formation and development of settlements in South Africa and in this context the community of John Taolo Gaetsewe District Municipality:

- Existence of governance or institutional arrangements
- Environmental factors such as resources, climate, landforms (topography) and water features i.e. agriculture, availability of minerals and metals, and rivers.
- Spatial characteristics and location e.g. the distance between activities, i.e. where people stay, play and work.
- Other factors including cultural factors, economies of scale, political and socio-economic systems.

The spatial analysis which entails the above will be unpacked under the following thematic areas:

- **Institutional arrangements;**
- **Biophysical environment;**
- **Demographics;**
- **Socio-economic environment;**
- **Economic sectors; and**
- **Built environment**

All the above mentioned information should be analysed and understood within the context of the district so that the planning can advance the needs of the community in a sustainable, efficient and progressive manner.

The South African policy and planning environment has, in recent years, been characterized by a renewed focus on the need for aligned, collaborative, as well as spatially coordinated and targeted investment

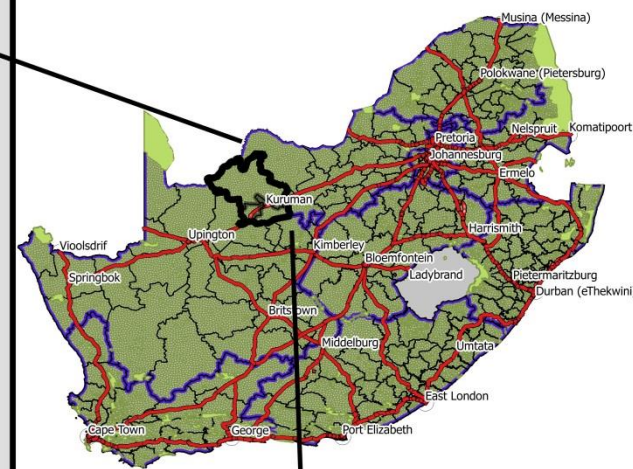
CSIR has developed the Geospatial Analysis Platform (GAP) referred here also as 'Mesozones' to demarcate, link and derive inter-operable datasets of spatial zones. These zones are on average 50 km² (or roughly 7 km x 7 km) in size, and nested within administrative and physiographic boundaries. These mesozones were developed using the geo-spatial analyses platform (GAP), a collaborative initiative between the CSIR, the DTI and The Presidency in 2006. GAP was developed to support regional economic planning.

For the purpose of this report, Geospatial Analysis Platform (GAP) or 'Mesozones' has been used to analyse data as shown on **Map 0** below.



CSIR/ GAP (Geospatial Analysis Platform) mesozones

Botswana



Legend

- National Roads
- Main Roads
- Secondary road
- Railways
- JTG local municipalities
- JTG district municipality
- Mesozone cells
- Local Municipalities
- Sanparks
- Provinces



1:575 000

25 0 25 km



JTGDM

3.1 INSTITUTIONAL ARRANGEMENT

John Taolo Gaetsewe District Municipality (JTGDM) is an establishment in terms of Section 12 (1) of the Municipal Structures Act, 1998 (Act 117 of 1998). The institutional structure of the District owes its origin from the negotiated settlement that led to the first Democratic Elections in 1994. This is enshrined in the Constitution of the Republic of South Africa. The Constitution makes provision for three spheres of government namely: National, Provincial and Local. The JTGDM is a product born out of this system.

3.1.1 PROVINCIAL OVERVIEW

The Province (Northern Cape) is a constitutionally created entity and approved by Parliament. The provincial boundaries were approved by Parliament. The Province shares borders with the North West Province in the North, with the Free State Province in the east, with Western Cape Province in the South, with the Republic of Botswana in the North West and with the Atlantic Ocean in the west.

3.1.2 MUNICIPAL AND WARD BOUNDARIES

John Taolo Gaetsewe (DC45) is one of the five (5) district municipalities namely Namakwa (DC6), Pixley ka Seme (DC7), ZF Mgcawu (DC8) and Frances Baard (DC9) in the Northern Cape Province. A total of 33 wards exist within the district area i.e. Gamagara (5 wards), Joe Morolong LM (15 wards) and Ga-Segonyana LM (13 wards). The JTGDM is adjoining Dr Ruth Segomotsi Mompati District to the north-east, Frances Baard District to the South, ZF Mgcawu to the south-west and the Republic of Botswana in the north-west. The table below gives an indication of districts characteristics within Northern Cape Province.

Table 3-1: Characteristics of the Northern Cape Districts

District	Seat	Area (Km ²)	Population (CS 2016)	Density (Population per Km ²)	Main Economic Sectors
Namakwa (DC6)	Springbok	126 836	115 488	0.9	Agriculture and Tourism
Pixley ka Seme (DC7)	De Aar	102 727	195 595	1.9	Finance and Business Services, Manufacturing, Trade and Accommodation
Frances Baard (DC9)	Kimberly	13 518	252 692	18.7	Agriculture, Forestry, Fishing, Mining and Quarrying
ZF Mgcawu (DC8)	Upington	102 524	387 741	3.8	Agriculture, Manufacturing, Mining and Quarrying
John Taolo Gaetsewe (DC45)	Kuruman	27 283	242 264	8.9	Eco-Tourism, Agriculture, Mining and Community Services



John Taolo Gaetsewe District Municipality (JTGDM) has three (3) local municipalities within its boundary i.e. Ga-Segonyana, Gamagara and Joe Morolong. The table below outlines the characteristics of these three local municipalities within JTGDM.

Table 3-2: Characteristics of the Local Municipalities within the JTGDM

Municipality	Main Areas	Seat	Wards	Traditional Authority	Area (Km ²)	Population (CS 2016)	Density (Population per Km ²)	Main Economic Sectors
Joe Morolong (NC451)	Hotazel, Churchill and Santoy	Churchill	15	7	20 172	84 201	4.2	Eco-tourism, agriculture, mining and community services
Ga-Segonyana (NC452)	Kuruman, Mothibistat, Batlharos and Bankhara-Bodulong	Kuruman	13	2	4 492	104 408	23.2	Mining, Agriculture and community services
Gamagara (NC453)	Kathu, Dibeng and Oliphantshoek	Kathu	5	None	2 619	53 656	20.5	Mining, game farming and business

It is clear from the table above that Gamagara LM is the smallest in terms of population and area. Ga-Segonyana has the highest population density. Only Joe Morolong LM and Ga-Segonyana LM have Traditional Authorities (refer to Map 1).

3.2 POWERS AND FUNCTIONS

The powers and functions of the district and its locals are legislative mandate in terms of Part B Schedule 4 and 5 of the Constitution, 1996 (Act 108 of 1996) and Municipal Structures Act, 1998 (Act 117 of 1998).

Section 83 of the Municipal Structures Act, 1998 (Act 117 of 1998) provides that a municipality has the functions and powers assigned to it in terms of Sections 156 and 229 of the Constitution (Act 108 of 1996). These functions and powers must be divided in the case of a district municipality and the local municipalities within the area of the district municipality, as set out in Section 84 of the Municipal Structures Act, 1998 (Act 117 of 1998) .

The table hereunder outlines these powers and functions by the district and its three local municipalities.

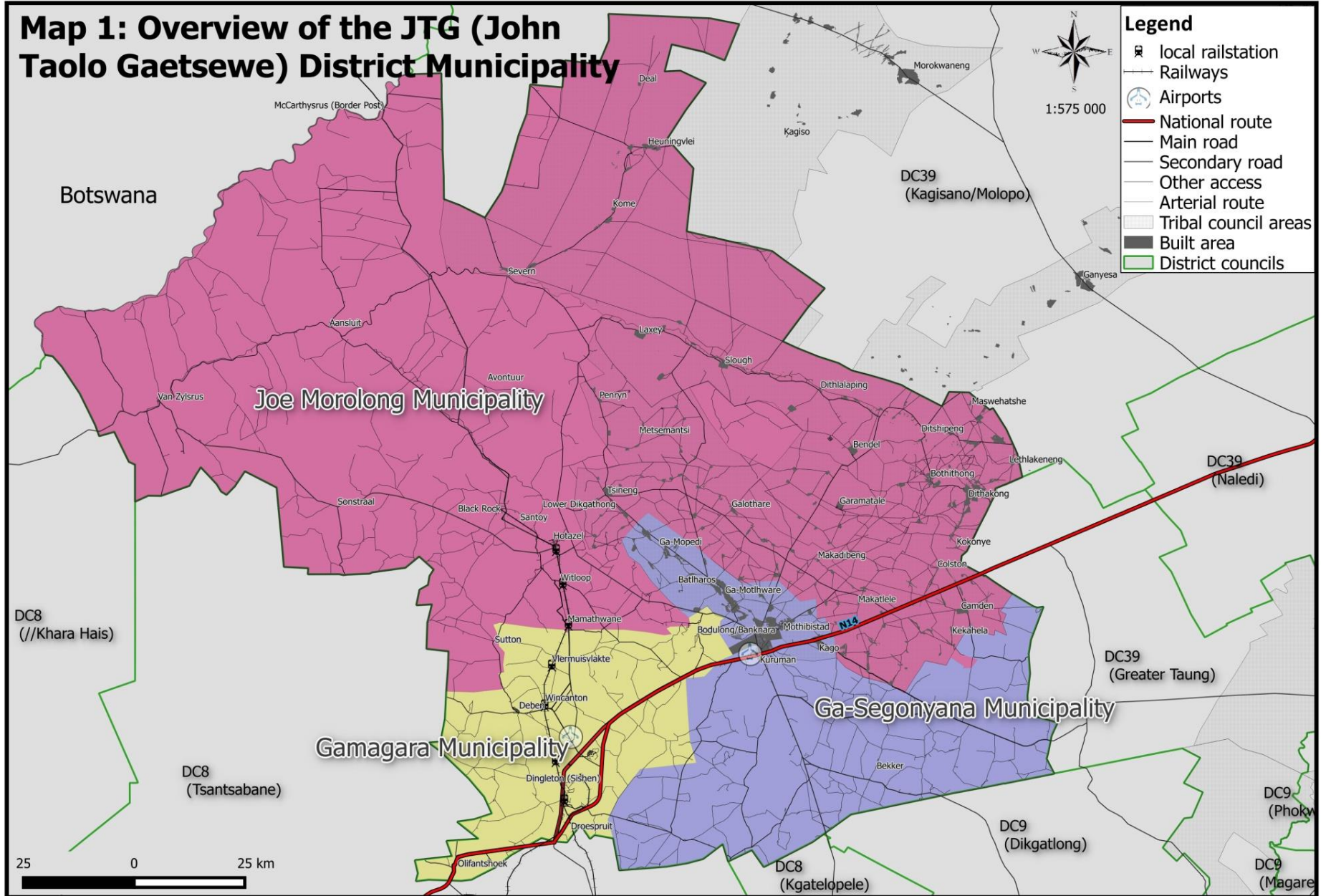


Table 3-3: Powers and functions of JTGDM and its three local municipalities

Functions in Part B of Schedules 4 and 5 of the Constitution (Act 108 of 1996)	John Taolo Gaetsewe District Municipality (DC45)				Joe Morolong (NC451)	Ga-Segonyana (NC452)	Gamagara (NC453)
	Integrated Planning and Development Facilitation	Promoting bulk infrastructural development and services for the district as a whole	Building the capacity of local municipalities in its area to perform their functions and exercise their powers where such capacity is lacking	Promoting the equitable distribution of resources between the local municipalities in its area to ensure appropriate levels of municipal services within the area			
Air pollution			✓				
Building regulations			✓		•	•	•
Electricity and gas reticulation		✓				•	•
Fire fighting services		✓			•	•	•
Local tourism	✓			✓	•	•	•
Municipal airports		✓				•	•
Municipal health services		✓		✓			
Municipal public transport		✓		✓			
Municipal public works only in respect of the needs of municipalities in the discharge of their responsibilities to administer functions specifically assigned to them under this Constitution or any other law		✓		✓	•	•	•
Stormwater management systems in built-up areas		✓		✓	•	•	•
Trading regulations			✓		•	•	•
Water and sanitation services limited to potable water supply systems and domestic waste-water and sewage disposal systems		✓		✓	•	•	•
Billboards and the display of advertisements in public places					•	•	•
Municipal planning	✓				•	•	•
Cemeteries, funeral parlours and crematoria		✓			•	•	•
Cleansing					•	•	•
Control of public nuisances					•	•	•
Control of undertakings that sell liquor to the public					•	•	•
Facilities for the accommodation, care and burial of animals							
Fencing and fences					•	•	•
Licensing of dogs					•	•	•
Licensing and control of undertakings that sell food to the public					•	•	•
Local amenities		✓		✓	•	•	•
Local sport facilities		✓		✓	•	•	•
Markets	✓		✓	✓			
Municipal abattoirs		✓		✓			
Municipal parks and recreation		✓		✓	•	•	•
Municipal roads		✓		✓	•	•	•
Noise pollution					•	•	•
Pounds					•	•	•
Public places					•	•	•
Property Rates (impose rates on property)					•	•	•
Refuse removal, refuse dumps and solid waste disposal		✓		✓	•	•	•
Street trading			✓		•	•	•
Street lighting		✓		✓	•	•	•
Traffic and parking		✓		✓	•	•	•

Source: JTG IDP, JMLM IDP, GSLM IDP and GLM IDP

Map 1: Overview of the JTG (John Taolo Gaetsewe) District Municipality



3.3 TRADITIONAL LEADERSHIP AREAS

There are nine (9) Traditional Authorities in the District distributed as follows; two (2) are in Ga-Segonyana Local Municipality and seven (7) are in Joe Morolong Local Municipality as shown on **Map 2** and listed hereunder. The below indicates the traditional authorities including their seats and leaders within the District.

Table 3-4: Traditional Authorities including their Seats and Leaders within the District

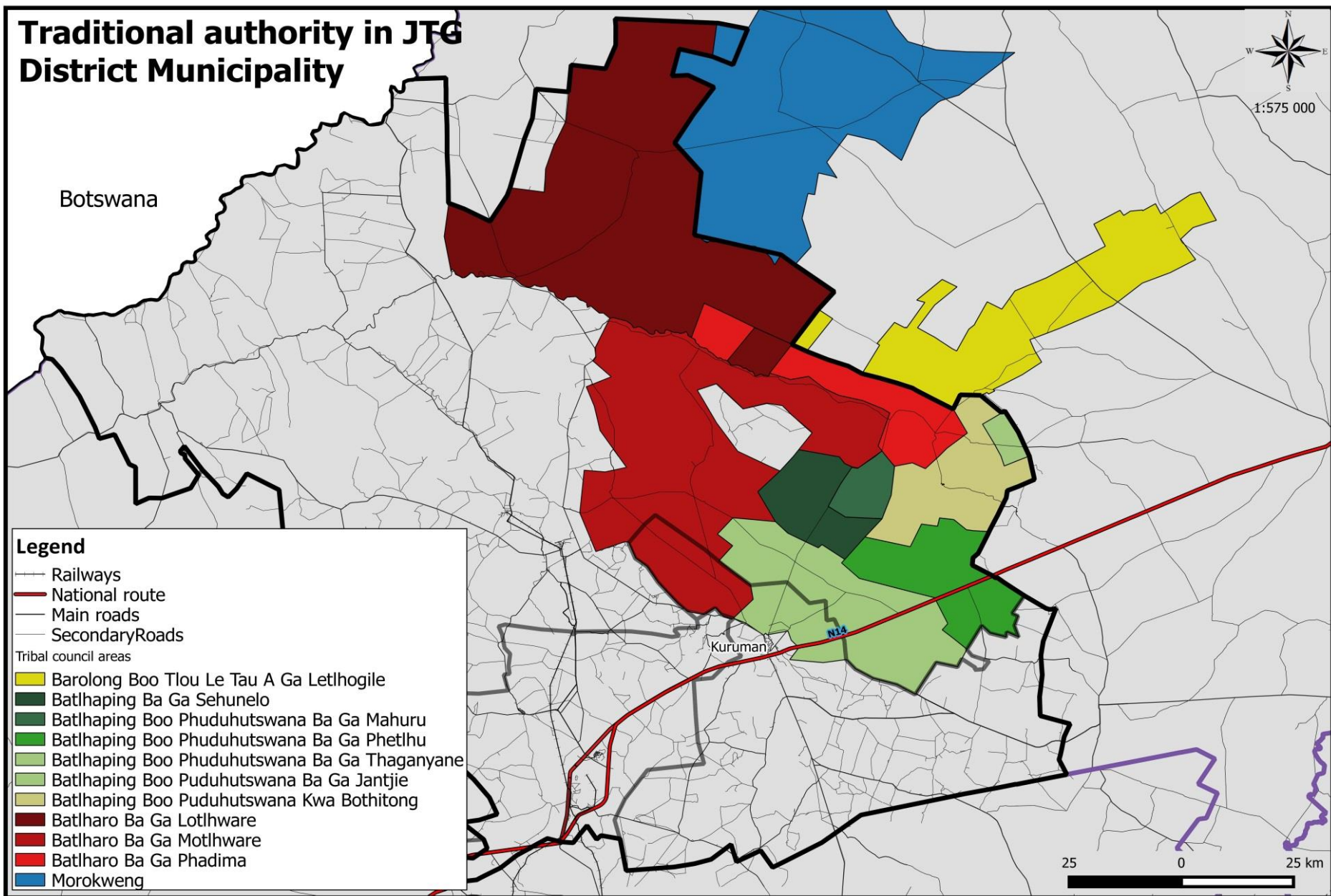
No.	Traditional Authorities	Local Municipality	Seat/ Main Offices	Traditional Leader
1.	Batlharo Ba Ga Phadima	Joe Morolong LM	Ga-Morona	Kgosi Dioka
2.	Batlhaping Boo Phuduhutswana Ba Ga Thaganyane	Joe Morolong LM	Cassel	Kgosi Thaganyane
3.	Batlharo Ba Ga Motlhware	Ga-Segonyana LM	Batlharos	Kgosi Toto
4.	Batlharo Ba Ga Lotlhware	Joe Morolong LM	Padstow	Kgosi Lotlhware
5.	Batlhaping Boo Phuduhutswana Ba Ga Phetlhu	Joe Morolong LM	Camden	Kgosi Phetlhu
6.	Batlhaping Boo Phuduhutswana Ba Ga Jantjie	Ga-Segonyana LM	Manyeding	Kgosi Jantjie
7.	Batlhaping Boo Phuduhutswana Ba ga Mahura	Joe Morolong LM	Deurward	Kgosi Mahura
8.	Batlharo Ba Ga Bareki	Joe Morolong LM	Ga-Tsoe (Heuningvlei)	Kgosi Bareki
9.	Batlhaping Ba Ga Sehunelo	Joe Morolong LM	Ga-Sehunelo	Kgosi Sehunelo

The Traditional Leaders (Dikgosi) are supported by Headmen (Dikgosana) who are given areas to look after and have to report to the Traditional Leader (Kgosi) through a Traditional Council system. The number of Dikgosana is determined by Kgosi and the Traditional Council. They assist the Traditional Leaders (Dikgosi) with customary administrative issues within the respective traditional areas. The numbers will differ from one Traditional Council to another.

About 80% of the land mass of Joe Morolong is Trust Land and is under the custodianship of Traditional Leaders. The importance of this type of administration is that they also take decisions on land ownership and development. If not consulted there could be serious conflicts that may frustrate the ideals of the Reconstruction and Development Programme (RDP). It is thus critical to have them appraised on the plan so as to solicit their buy in.



Traditional authority in JTG District Municipality



3.4 MUNICIPAL PLANNING TRIBUNAL

The district and its three local municipalities have resolved to form a Municipal Planning Tribunal for the district municipal area in line with Section 34 (2) of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013). The District Municipal Planning Tribunal (DMPT) has been established to assist the local municipalities in deciding on development applications. Each local municipality has appeals tribunal i.e. its Council. The service level agreement was signed on the 18 September 2015 and published on Kathu Gazette (16 April 2016). The DMPT was published on the 25 April 2016 on Northern Gape Provincial Gazette (Vol. No.2007) and Kathu Gazette on the 16 April 2016. The table below captures the constitution of the DMPT.

Table 3-5: Composition of the District Municipal Planning Tribunal (DMPT)

Municipality	John Taolo Gaetsewe	Gamagara	Joe Morolong	Ga-Segonyana
Council Resolution Date	29/05/2015	30/7/2014	01/10/2014	29/08/2014
Municipal Employees Members	2	2	2	2
External Members	4 (i.e. Legal Practitioner x 1, Environmentalist x 1, Engineer x 1 and Planner x 1)			

Determination of land use and land development applications are categorised in two i.e. those to be considered by the designated official/authorised official and those referred to be referred to the DMTP.

3.4.1 Determination of Land Use and Development Applications

Section 35 (3) of the Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) requires that a municipality must, in order to determine land use and land development applications in its area, categorise development applications to be considered by the authorised official and those to be referred to the Municipal Planning Tribunal. The table below outlines the categorisation of development applications within the district by its three (3) respective local municipalities.

Table 3-6: Categorisation of Land Use and Development Applications

Municipality	Category 1 Development Applications - Designated Officer/ Authorised Official	Category 2 Development Applications - District Municipal Planning Tribunal
Ga-Segonyana Local Municipality	Section 5 (2) (a) of Ga-Segonyana Land Use Management By-law, 2015	Section 5 (2) (b) of Ga-Segonyana Land Use Management By-law, 2015
Joe Morolong Local Municipality	Council Resolution: 262/2014/15	Council Resolution: 262/2014/15
Gamagara Local Municipality	Section 3 (x) – (z) of Gamagara Land Use Management By-law, 2016	Section 3 (a) – (w) of Gamagara Land Use Management By-law, 2016



3.5 STATUS ON HIGH LEVEL SECTOR PLANS

The district and its local municipalities has adopted several sector plans to guide its developmental agenda and in compliance to legislative prescripts which includes the following but not limited to the Municipal Systems Act, 2000 (Act 32 of 2000), Water Services Act, 1997 (Act 108 of 1997) and National Environmental Management Act, 1998 (Act 107 of 1998). Table below illustrates the Status of High level Sector Plans within JTGDM.

Table 3-7: Status of High Level Sector Plans within JTGDM

John Taolo Gaetsewe District			
Sector Plan	Status	Date Approved/ Resolution	Comments
Integrated Development Plan 2016 - 2019	Adopted	May 2016	New Council to develop its IDP in terms of Section 25 of the Municipal Systems Act, 2000 (Act 32 of 2000). The priorities of the district are: (1) Water & Sanitation, (2) Roads & Transport, (3) Local economic development (LED), (4) Land development and reform, (5) Integrated human settlements, (6) Sustainable Development Orientated Municipality, (7) Environmental management and conservation and climate change management, (8) Promotion of health in the District and (9) Disaster management
Revised Spatial Development Framework 2012	Approved	2012	12 Objectives were set and the current SDF is currently Under Review in line with SPLUMA. A significant progress on implementation of the twelve (12) objectives has been made with the exception of Objective 6 where no significant progress has been registered.
Rural Development Plan 2016	Adopted	2016	The RDP seeks to boost rural economies; government has initiated the establishment of Mega Agri-Parks throughout the country. The Mega Agri-Park initiatives are being developed in each of the identified districts to aid in the reduction of extreme poverty and underdevelopment. The Agri-Park concept refers to a combination of a working farm and a municipal park that is located at the urban edge. It serves as a transition or buffer zone between urban and agricultural uses. The RDP has identified 4 Functional Regions that would be key in the SDF review. Department of Rural Development and Land Reform is the implementing agent of the JTG RDP
Local Economic Development Strategy	Approved	2009	Need to be revised and aligned to the SDF and RDP. Emphasis should be placed on diversifying the district economy.
Integrated Environmental Management Plan	Approved	September 2011	Needs to be revised for alignment with current policy and legislative prescripts to assist with land use management and current economic activities. Framework should identify key programmes to deal with air quality, mining closures and rehabilitation, mitigating environmental impacts associated with mining and other industries.
Integrated Transport Plan	Revised (Draft)	2015/2016	SANRAL manages the N14 road. The most important provincial roads are the R31, which links Hotazel, Kuruman, Danielskuil and ultimately Kimberley, and the R380 from Black Rock to Hotazel, Kathu and Postmasburg. Local municipalities are responsible for the road networks within towns.
Integrated Waste Management Plan	Approved	-	Plans must be revised to take into consideration new development trends. Identify waste management strategies that will deal with landfill sites, refuse removal and recycling.



John Taolo Gaetsewe District			
Sector Plan	Status	Date Approved/Resolution	Comments
Integrated Human Settlements Sector Plan 2014- 2019	Approved	2014/2015	The IHSSP needs to be updated with the Framework Agreement for Sustainable Mining Industry 2013. The plans also needs to be updated annually to take establish the housing demand trends within the district.
Integrated Infrastructure Plan 2014/2015	Approved	2014/2015	To be aligned in such that it enhances Public Transport and Road Freight Management. Identification of strategic regional routes for possible transfer to SANRAL.
Infrastructure Investment Programme	-	-	Annually revised in line with the capital investment plan
Communication and Public Participation Strategy	Adopted	2016/2017	Revised Annually in line with the Governance Development Programme
Disaster Management Plan	Approved	2007	Needs to be revised in line with the newly identified risk and environmental issues as a result of key economic activities associated with mining and unplanned human settlements.
Integrated Tourism Plan (Kgalagadi DM, 2007)	Approved	2007	Review of Plan for Marketing & Branding of Tourism Plan. This is part of the RDP and Economic Diversification
Rural Roads Asset Management Strategy	Draft	-	To be aligned in such that it enhances Public Transport and Road Freight Management. Identification of strategic regional routes for possible transfer to SANRAL. Prioritisation of key economic connector roads.
Section 78 Assessment Report for Bulk Water	Draft	-	The report seeks to position the district as a Water Service Provider with the objective of taking the water and sanitation function from it three local municipalities
Section 78 Assessment Report for Air Quality Management	Draft	-	The report should put more emphasis on air quality monitoring so that risks associated with poor air quality be addressed.
Joe Morolong Local Municipality			
Sector Plan	Status	Date Approved/Resolution	Comments
Integrated Development Plan 2016/2017	Adopted	May 2016	New Council to development its IDP in terms of Section 25 of the Municipal Systems Act, 2000 (Act 32 of 2000). The priorities of the municipality are: (1) Water, (2) Sanitation, (3) Housing, (4) Promote the interest of vulnerable groups, (5) Grow the local economy, (6) Create employment opportunities and (7) Transform the Municipality into an efficient vehicle for delivery
Revised Joe Morolong Spatial Development Framework 2012	Approved	September 2012	Currently on review to comply with SPLUMA. The objective of the current SDF seeks to rationalise the fragmented, scattered settlement pattern, focus on agriculture and agro-processing economy in the area, human development hubs, develop local nodes, develop cattle and game farming and tourism area to the west of the mining belt.
Water Services Development Plan	Approved	December 2015	The plan ensures a holistic approach to water sector planning at the municipal level. The plan was submitted to the Department of Water and Sanitation
Integrated Human Settlements Sector Plan 2014/2015	Approved	August 2014	The IHSSP needs to be updated with the Framework Agreement for Sustainable Mining Industry 2013. The plans also needs to be updated annually to take establish the housing demand trends within the municipality.
Spatial Planning and Land Use Management By-law	Proclaimed	9 November 2015	Land Use and Development Application are dealt with in terms of the SPLUM by-law. Land Development Officer and District MPT are decision making structures.
Local Economic Development Strategy 2013/2013 – 2017/18	Approved	2012/2013	Need to be revised and aligned with the RDP. The plan must also identify other economic sectors to diversify the municipal economy.
Scheme Regulations	Proclaimed	2003	It Covers the former DMA which includes amongst other Hotazel, Black Rock, and Vanzylsrus. A need for a wall to wall Land Use Scheme to cover the entire municipal area.



Ga-Segonyana Local Municipality			
Sector Plan	Status	Date Approved/ Resolution	Comments
Integrated Development Plan 2016/2017	Adopted	May 2016	New Council to develop its IDP in terms of Section 25 of the Municipal Systems Act, 2000 (Act 32 of 2000). The priorities of the municipality are: (1) Water, (2) Sanitation, (3) Roads and transport, (4) Electricity, (5) Land development, (6) Housing (Human Settlements), (7) LED and Poverty Alleviation, (8) Health, (9) Communications, (10) Sport, recreation and community facilities, (11) Refuse collection, (12) Education, (13) Social welfare, (14) Municipal Capacity and Infrastructure, (15) Cemeteries, (16) Telkom and Postal Services and (17) Financial Viability
Spatial Development Framework 2008	Approved	July 2008	Some of the key provisions of the GSLM SDF include spatial vision on how the municipal areas (Kuruman, Wrenchville, Bankhara-Bodulong, Mothibistat and the tribal areas) should develop in a broad sense and serve as an information source and guide to inform and direct land use management. Currently Under Review in line with SPLUMA
Spatial Planning and Land Use Management By-law	Proclaimed	16 November 2015	Land Use and Development Application are dealt with in terms of the SPLUM by-law. Land Development Officer and District MPT are decision making structures.
Local Economic Development Strategy 2013/2013 – 2017/18	Approved	2012/2013	Need to be revised and aligned with the RDP. Emphasis must be put on diversifying the municipal economy.
Integrated Human Settlements Sector Plan 2014/2015	Approved	2014/2015	The IHSSP needs to be updated with the Framework Agreement for Sustainable Mining Industry 2013. The plans also needs to be updated annually to take establish the housing demand trends within the municipality.
Land Audit Report 2016	Draft	-	Draft finalised in June 2015. Strategically located land for disposal and acquisition for various purposes has been identified.
Water Services Development Plan	Draft	-	The plan ensures a holistic approach to water sector planning at the municipal level. The plan to be finalised and submitted to Department of Water and Sanitation.
Infrastructure Master, Operations and Maintenance Plan	Not Available	-	District with the locals are currently working on Roads Assets Management Systems (RAMS).
Environmental Management Plan	Adopted	2005	Needs to be revised for alignment with current policy and legislative prescripts to assist with land use management and current economic activities. Plan should identify key programmes to deal with air quality, mining closures and rehabilitation, mitigating environmental impacts associated with mining and other industries.
Road and Transport Operations and Maintenance Plan	Planned	-	The Plan has to be in place and be a maintenance plan/ programme as per Operational Budget Plans.
Integrated Transport Plan	Planned	2008	District should create a Transport Framework and Municipalities to develop Plan
Energy Master Plan	Approved	May 2016	The plan should deal with addressing the capacity and recapitalisation or upgrading of the municipal electrical infrastructure.
Integrated Waste Management Plan	Approved	2008	Plans must be revised to take into consideration new development trends. Identify waste management strategies that will deal with landfill sites, refuse removal and recycling.
Scheme Regulations	Approved	2003	The scheme only covers Kuruman, Mothibistat, Wrenchville and Bankhara-Bodulong. A need for a wall to wall Land Use Scheme.



Gamagara Local Municipality			
Sector Plan	Status	Date Approved/ Resolution	Comments
Integrated Development Plan 2016/2017	Adopted	May 2016	New Council to develop its IDP in terms of Section 25 of the Municipal Systems Act, 2000 (Act 32 of 2000). The priorities of the municipality are: (1) Water and Sanitation, (2) Electricity, (3) Roads and Sanitation/ EPWP Roads, (4) Mixed development Housing, (5) Construction of RDP Houses, (6) Revenue Enhancement, (7) Payment of services Street names and Renaming, (8) Ward committee system, (9) Developing of By-Laws, (10) Reviewing Organizational Structure, (11) Ablution facilities for cemeteries and beautification, (12) Skills development, (13) Parks and Recreation facilities, (14) Health Services, (15) Community Safety Forums, (16) SMME Development, (17) Job creation opportunities and (18) Women empowerment.
Local Economic Development Strategy 2010	Approved	Mach 2010	Need to be revised and aligned with the RDP. Emphasis must be put on diversifying the municipal economy.
Integrated Human Settlements Sector Plan 2014	Approved	2014	The IHSSP needs to be updated with the Framework Agreement for Sustainable Mining Industry 2013. The plans also needs to be updated annually to take establish the housing demand trends within the municipality.
Spatial Planning and Land Use Management By-law, 2016	Proclaimed	29 February 2016	Land Use and Development Application are dealt with in terms of the SPLUM by-law. Land Development Officer and District MPT are decision making structures.
Water Services Development Plan	Draft	-	The plan ensures a holistic approach to water sector planning at the municipal level.
Scheme Regulations	Proclaimed	2003	A need for a wall to wall Scheme aligned to SPLUMA and give effect to SDF.
Spatial Development Framework 2010	Adopted	2010	The SDF has the following objectives: Integration of communities; Densification close to CBDs; Discouragement of uncoordinated planning; Promotion of integrated planning (public facilities, recreation, agriculture and conservation) in Kathu. The SDF must be reviewed in terms of the provisions of the SPLUMA, 2013

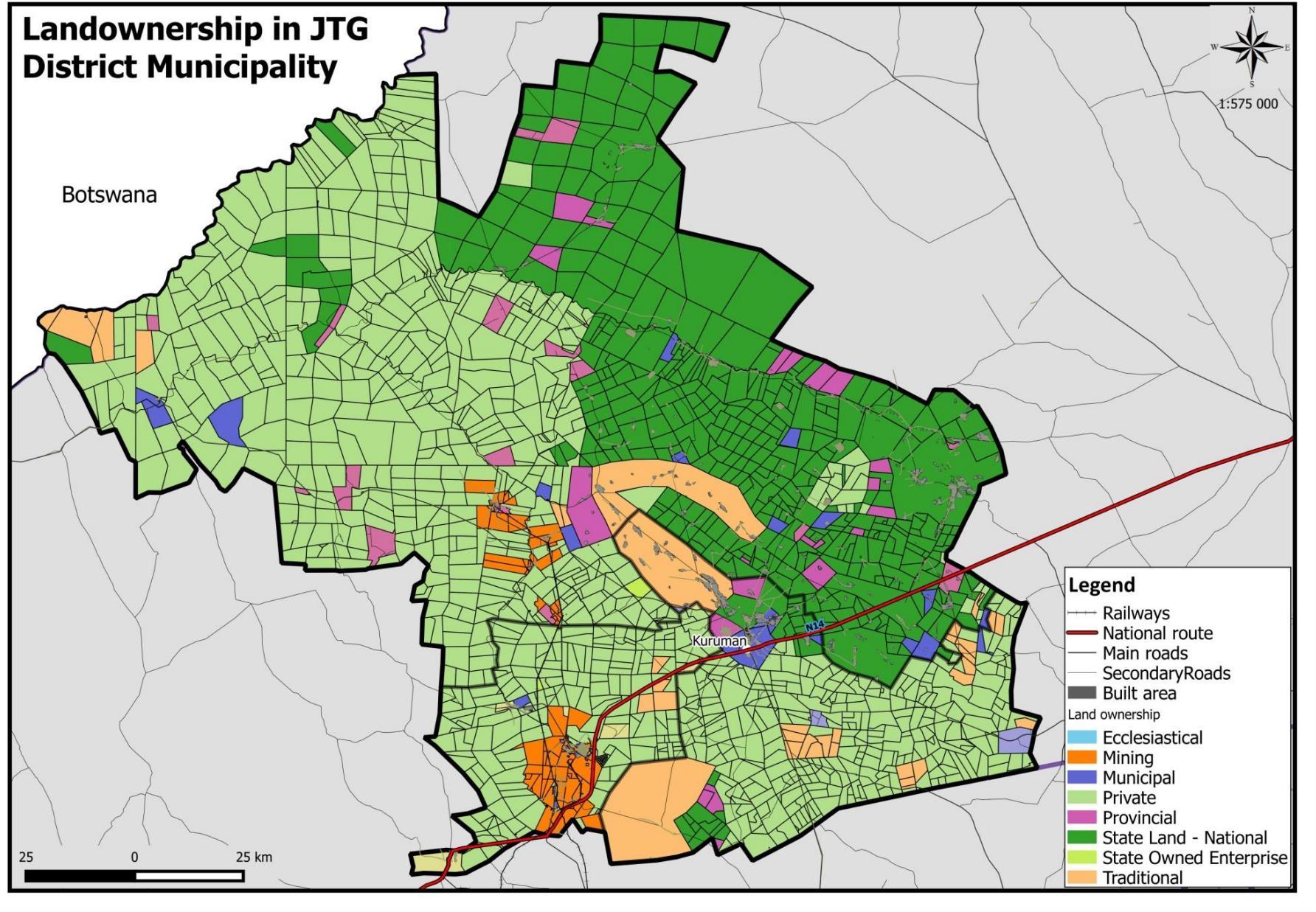
3.6 LAND OWNERSHIP DISTRIBUTION

Currently an estimated 60% of land within JTGDm is privately owned and the remaining 40% is state land. State land is made up of land controlled by nine traditional authorities, state owned land, PLAS (Proactive Land Acquisition Strategy) acquired land, LRAD (Land Redistribution for Agricultural Development) land and restored through the land restitution programme.

A huge proportion of the land within the District is privately owned. Land allocation that is not informed or aligned to the municipal development programme is also a common feature within traditional authorities. This practice is particularly prevalent in Ga-Segonyana LM and Joe Morolong LM. A general spatial distribution of land with regards to ownership is shown on **Map 3**.



Landownership in JTGD District Municipality



The figure below illustrates ownership/tenure status within JTGD with respect to Ga-Segonyana LM, Joe Morolong LM and Gamagara LM.

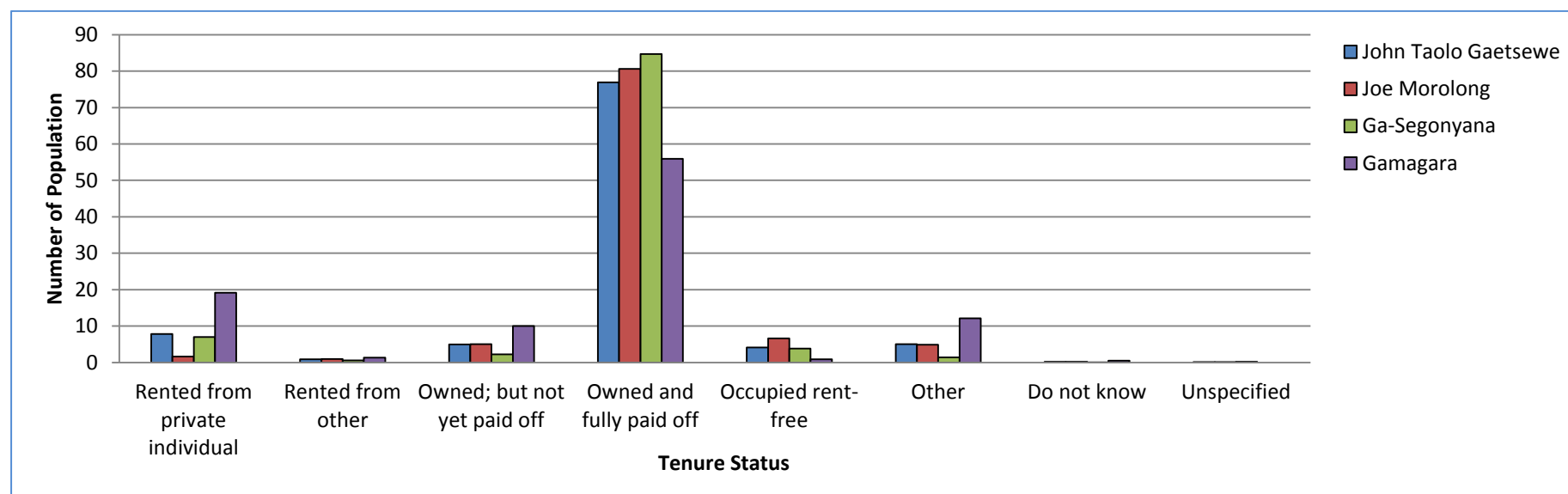


Figure 3-1: Tenure Status within JTGD

Source: Census 2016

It is clear from the tenure status above that the majority of the population within the district reside in properties that are owned and paid off in the Ga-Segonyana LM and Joe Morolong LM. It is only the Gamagara LM where most population reside in rented properties as compared to Ga-Segonyana LM and Joe Morolong LM respectively. This is most likely a function of a temporary, hostel-type and backyard dwellings accommodation generally associated with the mining sector and farming.

3.7 LAND CLAIMS WITHIN JOHN TAOLO GAETSEWE DISTRICT MUNICIPALITY

There are seven (7) land claims registered in JTGD (JTGD RDP, 2016). Four (4) are in Joe Morolong and three are in Ga-Segonyana. However, not all registered land claims have been resolved. This may have an effect on the final SDF. This is due to the fact that it cannot be known at this stage whether the land claims will constitute a resettlement or upheld the current land use status. It is thus advisable to devise a plan to prioritize the claims that falls within the JTGD area.



3.7.1 Ga-Segonyana Land Claims

The Ga-Segonyana IDP 2013/2014 lists the following land restitution projects:

- Relocate Kono residents (500)
- Groot Vlaktefontein Ward 2 land restitution
- Smouswane land restitution
- Gatlhose land restitution
- Dikgweng land restitution

Potential exists that these communities may be in need for housing at the restored land (GSLM IHSSP, 2014).

3.7.2 Joe Morolong Land Claims

The table below indicates a list of concluded land claims cases within the borders of Joe Morolong Municipality which has been submitted to the Department of Land Reform and Rural Development for processing and have been resolved.

Table 3-8: Concluded Land Claims

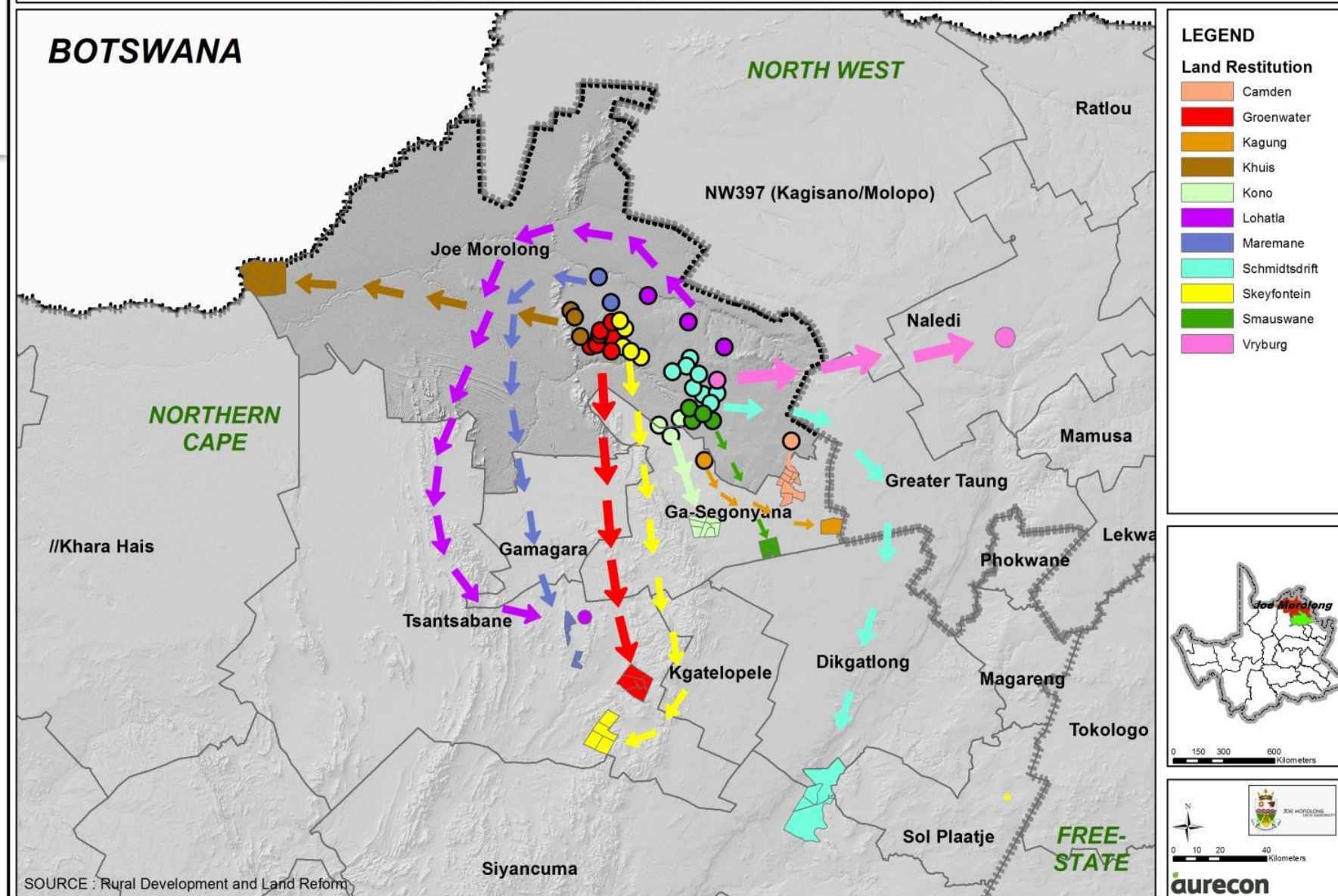
Claim	Areas affected (present villages)	Date claim resolved
Kono	Churchill, Esperanza, Klein Neira and Thamoyanche	1996
Skeyfontein	Wyk 7 – 10 and Samskolo	1996
Goenwater	Wyk 1 – 7 Metsimantsi	1996
Schmidtsdrift	Ga-Sehunelo Wyk 1 – 9 and Orabile (now Wyk 10)	1999
Kagung	Kagung Village	2002
Khuis	March, Bosra and Penryn	2003
Smauswane	Ellendale, Cardington, Kokfontein and Garadiatsoma	2004
Camden	Camden	2008
Maremane	Laxey and Padstow	2008
Gatlhotse	Slough, Deurham and Bendell	2010

Source: Joe Morolong Integrated Human Settlements Sector Plan 2014

The table above is graphically represented on **Map 4** below. Potential exists that these communities may be in need of housing at the restored land/ farms.



LAND RESTITUTION - JOE MOROLONG



Source: Joe Morolong Integrated Human Settlement Plan 2014



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3.7.3 Land Redistribution Programme

The Department of Rural Development and Land Reform in the Northern Cape Province has transferred farms to previously marginalized communities through the redistribution programmes. According to the JTG RDP (2016), the redistribution programme was achieved through the following sub-programmes:

- **Land Redistribution for Agricultural Development (LRAD)**

LRAD deals with the transfer of agricultural land with specific individuals or groups and commonage projects, which aims to improve people's municipal and tribal land. The grant allows for black South African citizens to access land specifically for agricultural purposes. The grant mainly covers expenses such as land acquisition, land improvements, agricultural infrastructure investments, capital assets, short-term agricultural inputs and lease options.

- **Pro-Active Land Acquisition Strategy (PLAS)**

It is based on the purchase of land with high agriculture potential. The main advantage of PLAS is that it accelerates the land redistribution process; ensure maximum productive use of land acquired.

- **Commonage**

It aims to improve people's access to municipal land for agricultural purposes. The subsistence farmer makes use of commonage to supplement income and to provide for household consumption. The emergent farmer makes use of commonage as a stepping stone, in which the gradual transition from subsistence to semi-commercial to commercial can be accommodated.

Unsuccessful willing-buyer willing seller process and the absence of a standard tool and framework that identify land suitability for land reform programme is hindering the success of land reform (DRDLR SP, 2015)

RLCC in the Northern Cape Province has settled 3719 claims since the inception of the Restitution Programme. Since July 2014, there are already more than 1000 land claims that have been lodged, 130 old ones still needs to be settled and are receiving priority attention for settlements (RLCC, 2015)

Fast track land claims through the identification of productive agricultural land and potential beneficiaries. Land redistribution is the most important component of land reform in the country, if they need to be resolved as soon as possible. The settlement of this claim will contribute to the reduction of poverty in that community members will be farming land that they own. It is thus advisable to devise a plan to prioritize the claims that fall within the JTGD area (DRDLR SP, 2015).



3.8 SIGNIFICANT ISSUES

Land Claims and Ownership

- Administer the new land claims and investigate them earlier. It must be noted that the Constitutional Court Judgement on the 28 July 2016 found that the Amendment Act (re-opening of land claims) was invalid. The Commission has been interdicted from processing land claims lodged after 1 July 2014.
- Pro-active establishment of the needs of the land claims beneficiaries (housing, economic aspirations and resettlements).
- Fast-track all the outstanding claims (those lodged between 1994 and 1998).
- Land developments to comply with Section 11 (7) (aA) of the Restitution of Land Rights Act, 1994 (Act 22 of 1994).
- Land tenure upgrade through settlement formalisation for significant nodes such as Churchill and Batlharos.

Powers and Functions

- The municipal functions assigned to JMLM, GSLM and GLM in terms of legislation as outlined in *section 2.3* could provide a significant revenue if performed. The District should develop the Revenue Enhancement Strategy to explore and identify new revenue streams. These could include air quality management and control, animal pounding, licensing of dogs and charges from bulk services.
- The local municipalities are responsible for a critical basic service delivery i.e. provision of water portable water. It is of paramount importance that the Section 78 Process be concluded with regard to bulk services..
- The senior managerial positions have been filled to enhance execution of powers and functions assigned to the municipality.

Land Use and Development Decision Making

- The implementation of the Joe Morolong and Ga-Segonyana Spatial Planning and Land Use By-laws in areas that were previous not regulated for land use and development could be a doting challenge. The said municipalities should explore the incremental implementation of their by-laws by allowing participation of traditional authorities in the decision making structures on observer status.



3.9 BIO-PHYSICAL ENVIRONMENT

This section will focus on the natural physical aspects of the area which will include amongst the other topography, hydrology, climate, geology, vegetation and biosphere within the JTGDM area.

3.9.1 TOPOGRAPHY AND HYDROLOGY

The landscape of the JTGDM is predominantly flat, with a ridge system bisecting the greater municipality along a north-south axis as portrayed by **Map 5**. This feature, the Kuruman hills, creates the only significant variation in the otherwise flat landscape of the municipality (van Weele, 2011 and AGIS, 2015)

The JTGDM area is situated in typical Kalahari surroundings. The topography alternates between elevated areas with poor developed soils to very deep developed soil type with poor differentiation between the different soil horizons in the plains. The biota of the area is closely interrelated with the parent rock, soil and land use and critically sensitive to unnatural disturbances (Low and Rebelo, 1996)

The JTGDM falls entirely within the Orange River Basin. Kuruman and Gamagara rivers are the main river systems within the district. The Kuruman hills also determine the drainage pattern of the Kuruman river system with the alignment of the ridge forcing the draining of water in the area northwards before turning sharply west. The Kuruman River is a tributary of the Molopo River which eventually converges with the Orange River (van Weele, 2011 and AGIS, 2015).

3.9.2 WATER RESOURCES

The JTGDM has a “flat” geomorphic profile, with the Kuruman hill’s ridge system bisecting the district along a north-south axis. The drainage pattern in the district is determined by this ridge system, channelling all streams northwards and then sharply westwards. Falling in the Lower Vaal Water Management Area, the most important catchment area in the JTGDM is the Korannaberg Mountains, from which the majority of the streams in the district spring and from where they drain into the Kuruman River system. The catchment has been classified as a “National Priority Freshwater Ecosystem” (**Map 6**). The catchment has, however, also been affected by overgrazing, which has accelerated erosion, increased surface run-off and reduced filtration to the groundwater system.

Although there are no perennial rivers in the district, there are a number of ephemeral systems, such as the Kuruman and Molopo Rivers.



The South African National Biodiversity Institution (SANBI) has conducted a research study on the National River Ecological Accounts completed In October 2015. In terms of the research, the Ecological Condition Index per Water Management Area (WMA) between 1999 and 2011 (as indicated on figure 3.1, 3.2 and 3.3) highlights that the index declined in all the nine WMAs. This is likely to reflect a widespread problem of poor water management (both in terms of failing infrastructure and poor operating capacity) and increasing development pressures from mining and agriculture (Nel and Driver, 2015). JTGDm falls under the Vaal Water Management Area as show on figure below.

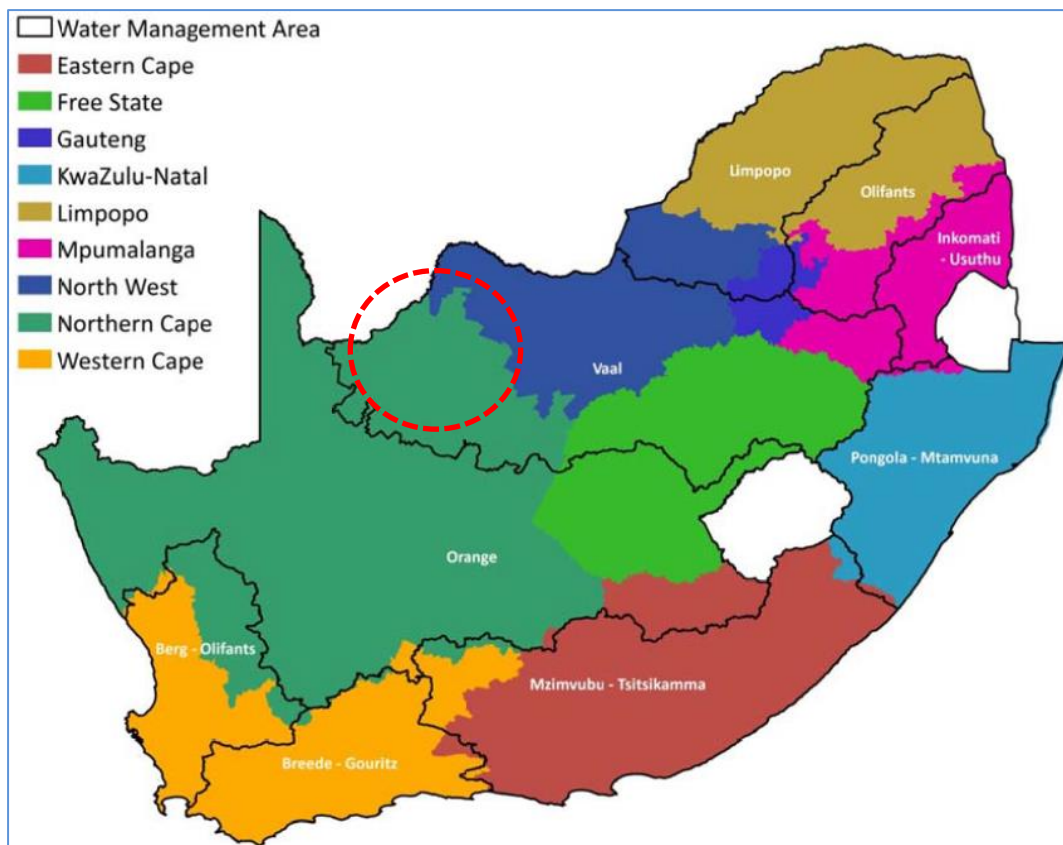


Figure 3-2: Map showing boundaries of Water Management Areas in relation to Provinces
Source: Nel and Driver, 2015

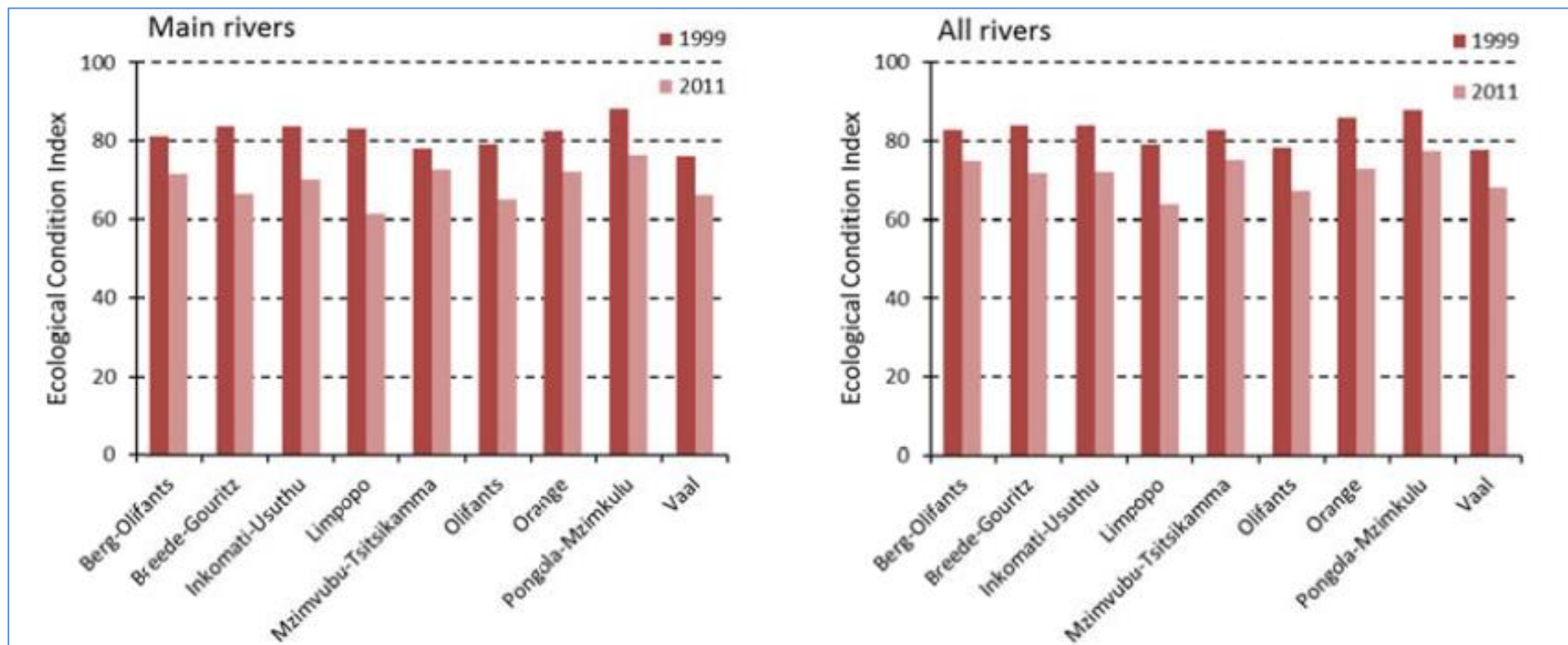


Figure 3-3: Graph showing change in Ecological Condition Index per Water Management Area (WMA) between 1999 and 2011
Source: Nel and Driver, 2015

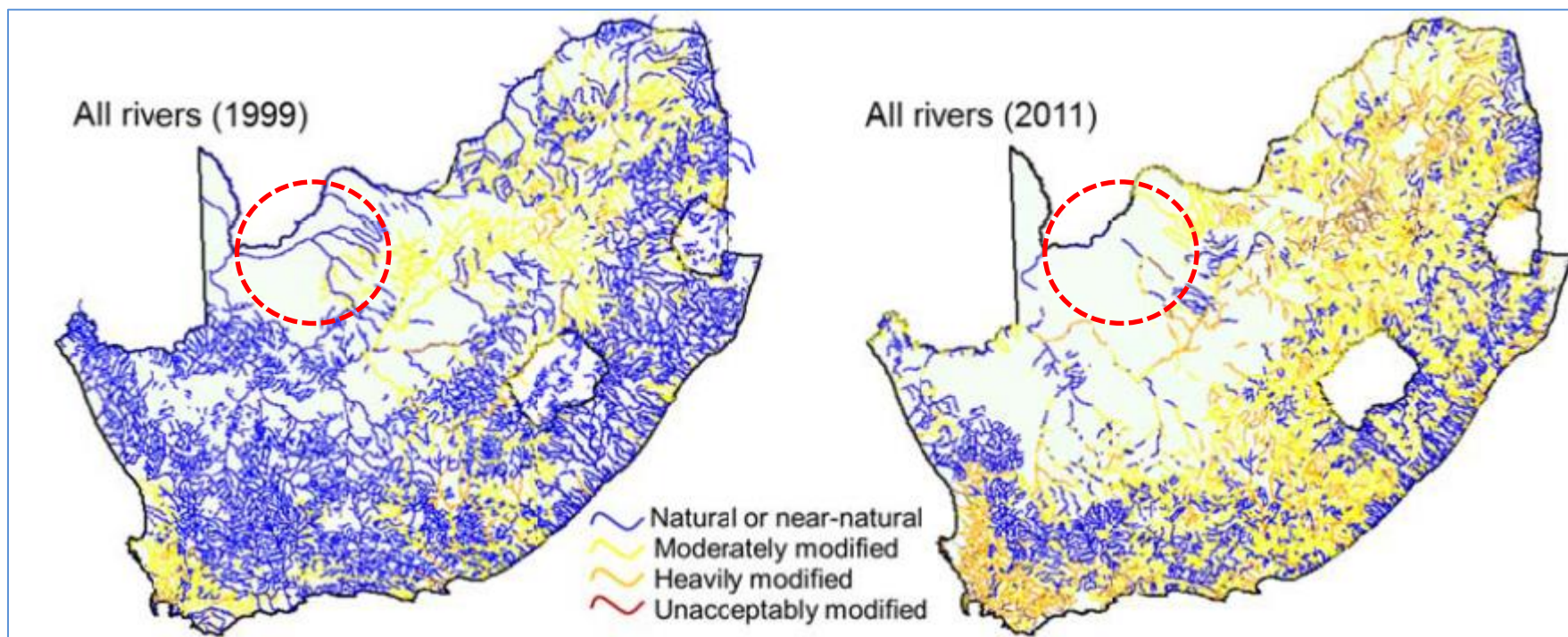


Figure 3-4: Map showing change in Ecological Condition Index per Water Management Area (WMA) between 1999 and 2011
Source: Nel and Driver, 2015

Unfortunately the areas through which these streams flow have been exploited for intensive an agricultural purpose, which has led to intensive degradation/transformation of these riverine habitats. In addition to this, the introduction of alien plant species has led to serious surface and groundwater resource depletion – e.g. one Eucalyptus tree consumes on average 700 litres of water per day. In addition to the impact of human beings on the water systems, birds have also been responsible for the in-movement of alien plant species by spreading seeds along water courses.

The wetlands in the JTGDM, except for Heuningvlei, are also ephemeral, only filling up briefly after the summer rains. A large number of these wetlands, including Heuningvlei, are classified as “National Priority Wetland Areas”. The Heuningvlei saltpan is fed by a number of permanent freshwater springs, with its north-western corner a permanent marsh-type wetland. These wetland areas attract a wide variety of birds, some of them Red List species and migratory birds covered by international treaties (e.g. Chestnut-banded Plover, Greater Flamingo and the Yellow-

billed Stork). These pans are used by wildlife for grazing and for salt-licking, and also by farmers for their herds. Unfortunately, overgrazing and trampling associated with the latter, is threatening the ecological integrity of these pans. In addition to this, these areas are threatened by direct industrial disturbances associated primarily with the mining activities in the area, which can have far more negative impacts than the agricultural activities. As a result of this, the JTGDM Environmental Management Framework (2011) argued for assessments to be done of the ecological condition of wetlands around industrial zones in the district.

Due to the low rainfall figures and highly variable run-off, very little usable surface runoff is generated, which has resulted in an ever-increasing use of groundwater resources for human and industrial needs. The Kuruman Eye, a spring that delivers 20 million litres of water per day, is the main source of water in the district. In total there are five “eyes” or fountains in the JTGDM. Two of these are associated with the Kuruman Eye, while another two (the Klein Koning and Groot Koning eyes) are located south of the R273, and another is located at Manyeding. Intensive agriculture takes place in the vicinity of most of these eyes, except for those in Kuruman, which have been developed for recreational purposes.

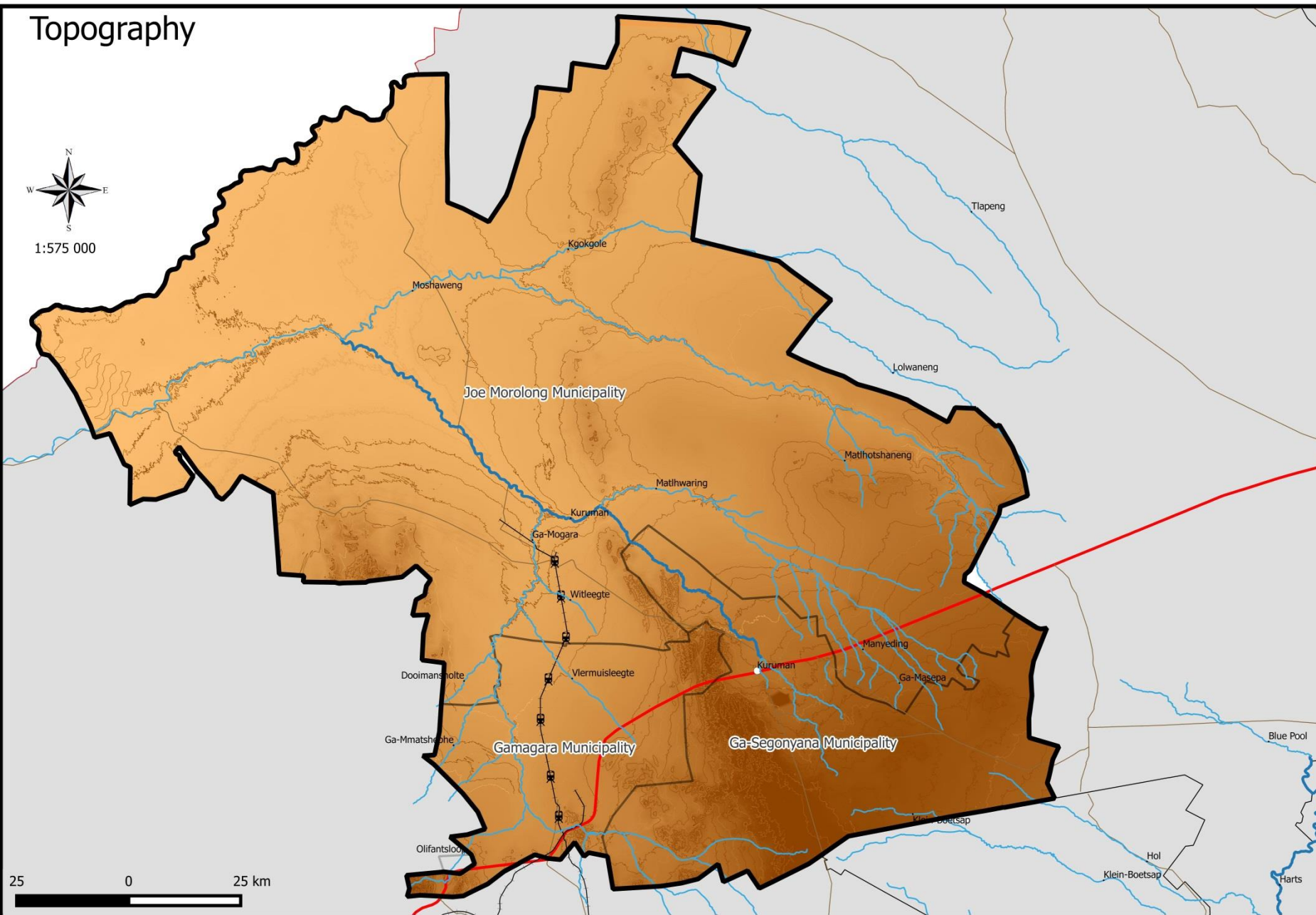
In addition to the extraction of water from the “eyes”, water for human consumption and irrigation is sourced from boreholes throughout the JTGDM. Due to the absence of a detailed groundwater resource data, there is no accurate information on the status of groundwater quality and reserves in the district, but it is generally accepted that this resource is hugely impacted upon, especially so in the areas where urban settlements and heavy industry are located (**Map 7**). A recently initiated study by the Department of Water Affairs into the availability of groundwater resources in the area may assist in filling the information gap, and in ensuring better managed and more sustainable use of the resource (JTG SDF 2012).



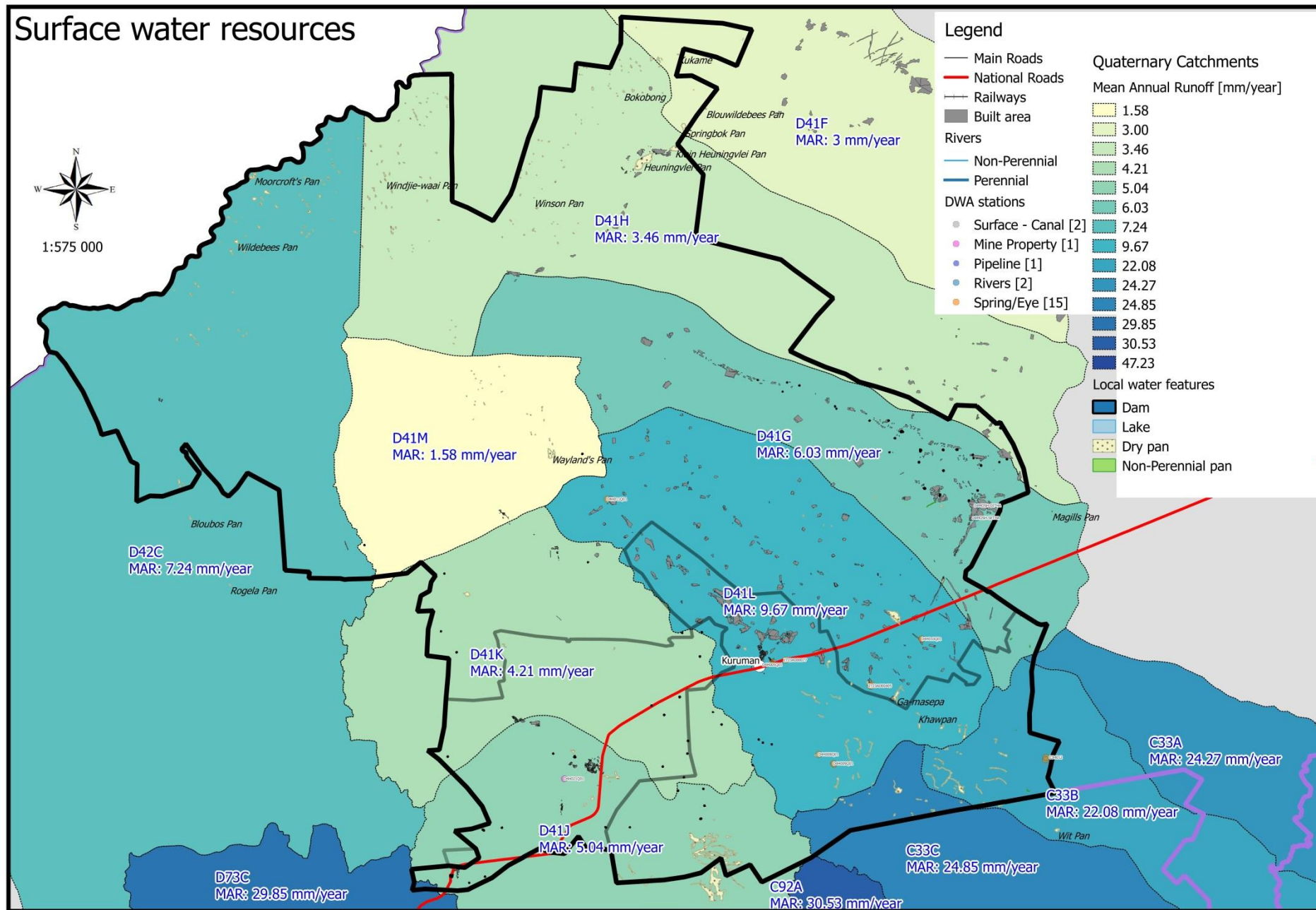
Topography

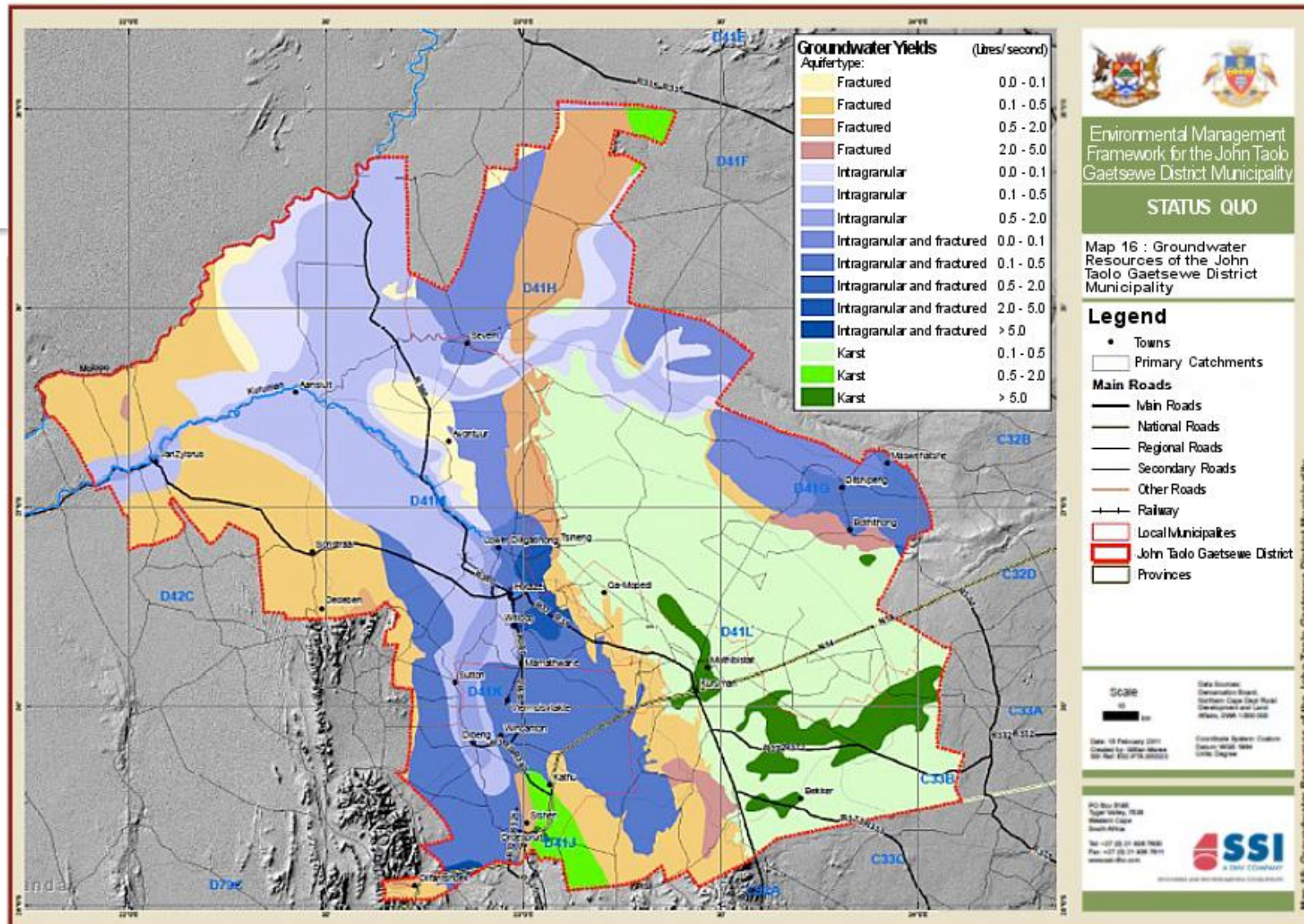


1:575 000



Surface water resources





Source: JTG Environmental Management Framework, 2011



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3.9.3 CLIMATE

Located in a semi-arid part of South Africa, the JTGDM receives between 500mm annual rainfall in the south-eastern and 200mm in the north-western part of the district. This is below the generally accepted average of 500mm per annum for dry land cropping. The already low precipitation is often concentrated in a few downpours, which have a tendency to occur towards the end of the summer season (notably in February) when temperatures and evaporation are high.

The mean annual minimum/maximum temperatures in the district range between 8°C and 28°C, with the mean annual temperatures ranging between 16°C and 20°C (EMF, 2011). As alluded to above, the harsh climate is accompanied by high evaporation rates due to the high summer temperatures, which limits the contribution of precipitation to the water reserves in the area.

Drought is a frequent occurrence in the Northern Cape Province, with extremely dry years occurring more frequently in the driest regions. Often periods of more plentiful rainfall are followed by severe droughts. This phenomenon of “intermittent extremes” makes (1) trend-analysis and (2) planning for the mitigation of droughts very difficult. These already challenging conditions will, according to future climate change scenarios, get worse, as climate variability is set to increase even more. According to these future scenarios, by 2050, higher temperatures of between 1 and 3°C will occur throughout South Africa, with the greatest increases in the arid zones in the central and western parts of the country, which include the JTGDM. These climatic changes are expected to have a bigger impact on groundwater resources than short-term weather variability, as groundwater is buffered against short-term variations in rainfall. In drier areas, where annual rainfall is less than 500mm per annum, a 10% decrease in rainfall could translate into as much as a 40% decline in the groundwater recharge rate in the area. This has serious implications for a district such as the JTGDM where rainfall is already low, and where groundwater is used as the main source of potable water.

The current low levels of rainfall, in combination with the projected future climate changes, and the huge dependence of JTGDM on groundwater, makes the conservation and sustainable management of water resources a key priority. This is also of crucial importance for the future economic development of the area, as the continued depletion of water resources presents a serious challenge to water-intensive activities such as mining and farming. As it stands, current water-utilisation and consumption patterns dictate against the continuation of the current set of economic activities in the area. Equally worrying, should the future projections about climate change materialise and current rates of water resource depletion continue, this could seriously constrain (1) the transformation of agriculture into a larger economic sector in the district; (2) the introduction of a high water-consumer like agro-processing to the area; and (3) the further expansion of mining activities in the wider region (JTG SDF 2012).



3.9.4 FAUNA AND FLORA

The JTDM falls entirely within the Savanna Biome. More specifically, the broad vegetation types for the area have been listed as Kalahari Thornveld, Kalahari Plains Bushveld/Shrubby Kalahari Dune Bushveld and Eastern Kalahari Bushveld. The ecological richness of the different “regions” in the area is located on the lower end of the national spectrum. On a finer grading scale, only the Mafikeng Bushveld is classified as ‘Vulnerable’. In a recent environmental assessment of the area (EMF 2011) it was noted that none of the conservation targets for the vegetation types present in JTGDm have been achieved. It was also noted that 25% of the Mafikeng Bushveld (located in the south east of the study area) has been transformed, mainly for cultivation and urban development purposes (EMF 2011).

Two Red Data Listed plants are present in the study area, *Acacia erioloba* and *Hoodia gordonii*, which are listed as ‘Declining’. They are, however, widespread and abundant in the study area. Three ‘Protected’ tree species are present in the study area, *Acacia erioloba*, *Acacia haematoxylon* and *Boscia albitrunca* (They are protected according to Government Notice No. 1012 under Section 12(1)(d) of the National Forests Act, 1998 (Act No. 84 of 1998). These trees, specifically *Acacia erioloba*, is extensively utilised in the area as firewood and in the production of charcoal (EMF 2011).

The majority of the larger mammals that occur in the study area cannot be considered as free-roaming, as they are confined to the private game reserves, lodges and hunting farms. Species that are free-roaming, such as the Kudu, have been hunted out, or displaced by stock farming.

Twenty-seven Red Data Listed mammal species have been recorded in the study area as free-roaming mammals, as well as in the game reserves, lodges and hunting farms. The primary threats to these mammal species are (1) habitat destruction/transformation; and (2) fragmentation by urban development, agriculture and mining activities.

A total of 32 conservation-worthy bird species have been recorded in the study area. Six are categorised as Red Data Listed species: Kori Bustard, Ludwig’s Bustard, Secretary Bird, Martial Eagles, Lappet-faced Vulture, Lanner Falcon and the Black Stork. However, the other species are considered ‘Priority’ species, because they (1) have special regional significance; (2) are raptors; and/or (3) have conservation status under the African-Eurasian Waterbird Agreement. Threats to bird species are (1) habitat destruction/ transformation by agriculture, urbanisation and mining activities; (2) collision with power lines; (3) electrocution of birds on pylons; and (4) poisoning.

Reptiles and amphibians are extremely sensitive to habitat destruction and transformation, and although the extent of the impact on these species is unknown, it can be assumed that overgrazing, urbanisation, mining activities and out of season fires have impacted negatively on these species. The only threatened amphibian species that is known to occur in the study area is the Giant Bullfrog and also, in this case, fragmentation, human predation and the deterioration of water quality (due to pesticides and pollutants) has resulted in the decline of local populations of this species. The presence of roads that cut across ecological corridors used by these species has also resulted in significant fatalities of migrating adult and juvenile bullfrogs (EMF 2011).



3.9.5 VEGETATION

The vegetation of the JTGDm is dominated by the Savanna Biome. The Savanna Biome is the largest Biome in Southern Africa, occupying 46% of its area, and over one-third of the area of South Africa. It is well developed over the lowveld and Kalahari region of South Africa and is also the dominant vegetation in Botswana, Namibia and Zimbabwe. It is characterized by a grassy ground layer and a distinct upper layer of woody plants. Where this upper layer is near the ground the vegetation may be referred to as Shrubveld, where it is dense as Woodland, and the intermediate stages are locally known as Bushveld as shown on **Map 8** (AGIS, 2015 and SANBI, 2015)

Two Red Data Listed plants are present in the study area, *Acacia erioloba* and *Hoodia gordonii*, which are listed as 'Declining'. They are, however, widespread and abundant in the study area. Three 'Protected' tree species are present in the study area, *Acacia erioloba*, *Acacia haematoxylon* and *Boscia albitrunca* (They are protected according to Government Notice No. 1012 under Section 12(1)(d) of the National Forests Act, 1998 (Act No. 84 of 1998)). These trees, specifically *Acacia erioloba*, is extensively utilised in the area as firewood and in the production of charcoal (JTG EMF 2011).

The environmental factors delimiting the biome are complex: altitude ranges from sea level to 2 000 m; rainfall varies from 235 to 1 000 mm per year; frost may occur from 0 to 120 days per year; and almost every major geological and soil type occurs within the biome. A major factor delimiting the biome is the lack of sufficient rainfall which prevents the upper layer from dominating, coupled with fires and grazing, which keep the grass layer dominant.

Summer rainfall is essential for the grass dominance, which, with its fine material, fuels near-annual fires. In fact, almost all species are adapted to survive fires, usually with less than 10% of plants, both in the grass and tree layer, killed by fire. Even with severe burning, most species can re-sprout from the stem bases (AGIS 2015 and SANBI, 2015).

The grass layer is dominated by C 4-type grasses, which are at an advantage where the growing season is hot, but where rainfall has a stronger winter component, C 3-type grasses dominate. The shrub-tree layer may vary from 1 to 20 m in height, but in Bushveld typically varies from 3 to 7 m. The shrub-tree element may come to dominate the vegetation in areas which are being overgrazed. Most of the savannah vegetation types are used for grazing, mainly by cattle or game. In the southernmost savannah types, goats are the major stock (AGIS, 2015 and SANBI, 2015).

Agro-climatologically JTGDm is characterized by low rainfall with an annual average rainfall of in the region of 201 to 400 mm per annum. The long-term average annual rainfall is 336.4 mm, of which 266 mm, or 79%, falls from October to March. The area is also characterized by a severe to very severe water scarcity and is classified as an arid zone. In terms of temperature the area is characterized by extreme temperatures with a fluctuation between 33.1°C as the mean annual maximum and 0.1 - 2.0°C as the mean annual minimum. The extreme high temperature that has been recorded is 41.6°C and the extreme low 7.5°C. The area is also prone to frost and the first frost occurs in the first weeks of May and last frosts in the first weeks of September (AGIS, 2015).



The agro-climatological characteristics suggest that the Municipality's agricultural capability is mainly confined to extensive rangeland production systems for livestock given that the area is arid, water is scarce and that the climate is not particularly conducive to any other production systems given the relative scarcity of water. Livestock production, notably extensive cattle production, is recognized as the primary agricultural enterprise in the District.

Due to both the harsh climatic conditions and the scale and intensity of human activities in the area, notably (1) the increased provision of livestock water points, (2) over-grazing, and (3) the use of previously undeveloped grazing areas, the natural vegetation in the area has not been able to re-vegetate adequately, especially after drier spells. This in turn has led to serious land degradation and an ever-greater loss of natural vegetation, and ever-more severe instances of wind and sheet erosion. Overgrazing has also led to a change in the composition of the plant community, notably the destruction of natural edible grasses and the encroachment of low-value shrubs and bushes. Due to the elimination of the grassy sward, managed fires, which are required to maintain community structure and species diversity, are made less frequently. This contributes to hugely damaging wildfires that are in many cases too intense for even trees to survive.

The iron and manganese mining in the JTGD, which is predominantly located in the area between Sishen/Dingleton and Hotazel, impacts directly on the vegetation through (1) the Sterilisation of soil underneath mine dumps while mines are operational; and (2) the absence of and low quality of land rehabilitation, should it be undertaken, after mine closure. The roads and railways associated with the mining activities also cause (1) fragmentation of natural habitats and ecological corridors, while (2) the dust and other hazardous emissions from mining operation and mining trucks, have a severely negative impact on the environment (JTGD SDF 2012).

The bulk of the transformation and degradation of the natural habitat has taken place in the eastern and northern parts of the JTGD (**Map 12**), with the western and southern regions experiencing a lower impact. Subsistence agricultural activities and sprawling, unplanned human settlement resulting in dense rural settlements are key contributors to these phenomena in the eastern part of the JTGD in the Ditshepeng and Bothithong areas (EMF, 2011). The desperate situation many of these communities find themselves in, leads to an ever greater frequency of survivalist-type coping strategies and farming activities, often involving livestock, which further worsens overgrazing and exploitation of the natural habitat in the area.

With a view to the sustainable future development of the area and the creation of economic opportunities for the huge number of not economically active and under- and unemployed persons in the JTGD, the following two issues around land and vegetation capability in the area need to be considered:

- The JTGD has relatively low levels of land capability, with only the Ga-Segonyana LM and the south-western section of the Joe Morolong LM being viable for grazing, but even this is limited (**Map 9**); and
- The areas with the highest levels of "grazing capacity" correspond with the "actual grazing" on the ground, which means that there are not really significant tracts of new, unused areas of land available for the expansion of livestock farming (**Map 10**).



3.9.6 SOIL POTENTIAL AND SOIL DEPTH

The soil potential of the district is illustrated in **Map 10**. As can be deduced from this map, only a very small area in western part of Joe Morolong is highly suited for arable agriculture, while similarly small areas are of intermediate suitability for this purpose in south-western Gamagara and southern Ga-Segonyana. The bigger bulk of the district municipal area is either not suitable or of poor suitability for arable agriculture and thus mainly suitable for grazing. As the area is not rich in fertile soils, cultivation is not very big issue and therefore the overuse or leaching of phosphates and nitrates, resulting from over-cultivation, is seldom a problem. Very little chemical soil information is available as soil analyses are normally expensive and seldom done (EMF, 2011).

Three basic soil depth classes **Map 13** can be distinguished of the John Taolo District Municipal Area, *i.e.*:

- *Shallower than (<) 450mm* - Central, southern and south-eastern regions, with small scatters in the west,
- *Deep 450 to 750mm* - Scattered, but restricted to the central, southern, western and far eastern regions, and
- *Deeper than (>) 750mm* - Largest part of the area – concentrated in the central, northern and western regions.



Biodiversity - Vegetation types



Legend

- Main roads
- Railways
- National road

Rivers

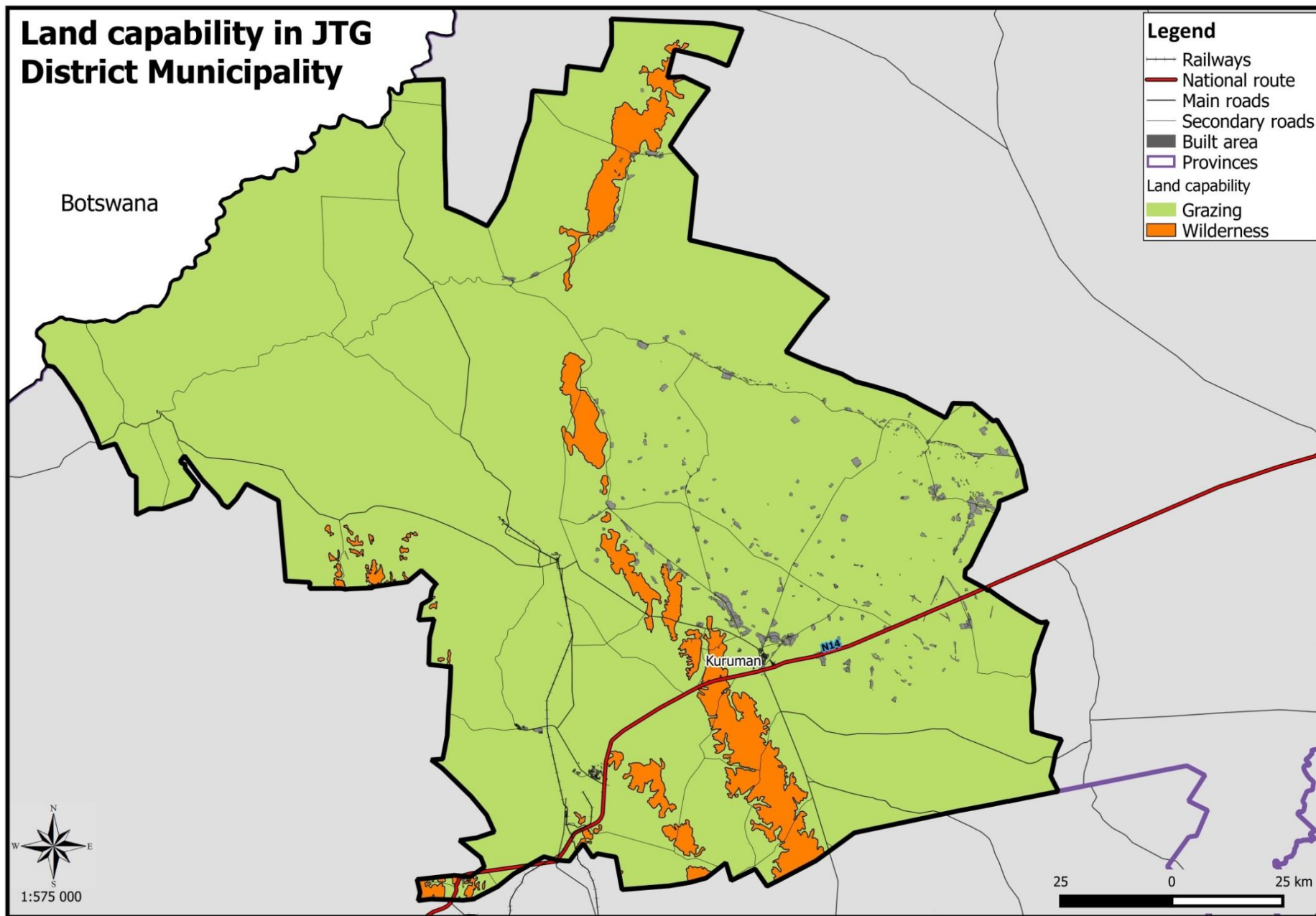
- Non-perennial
- Perennial

Vegetation types

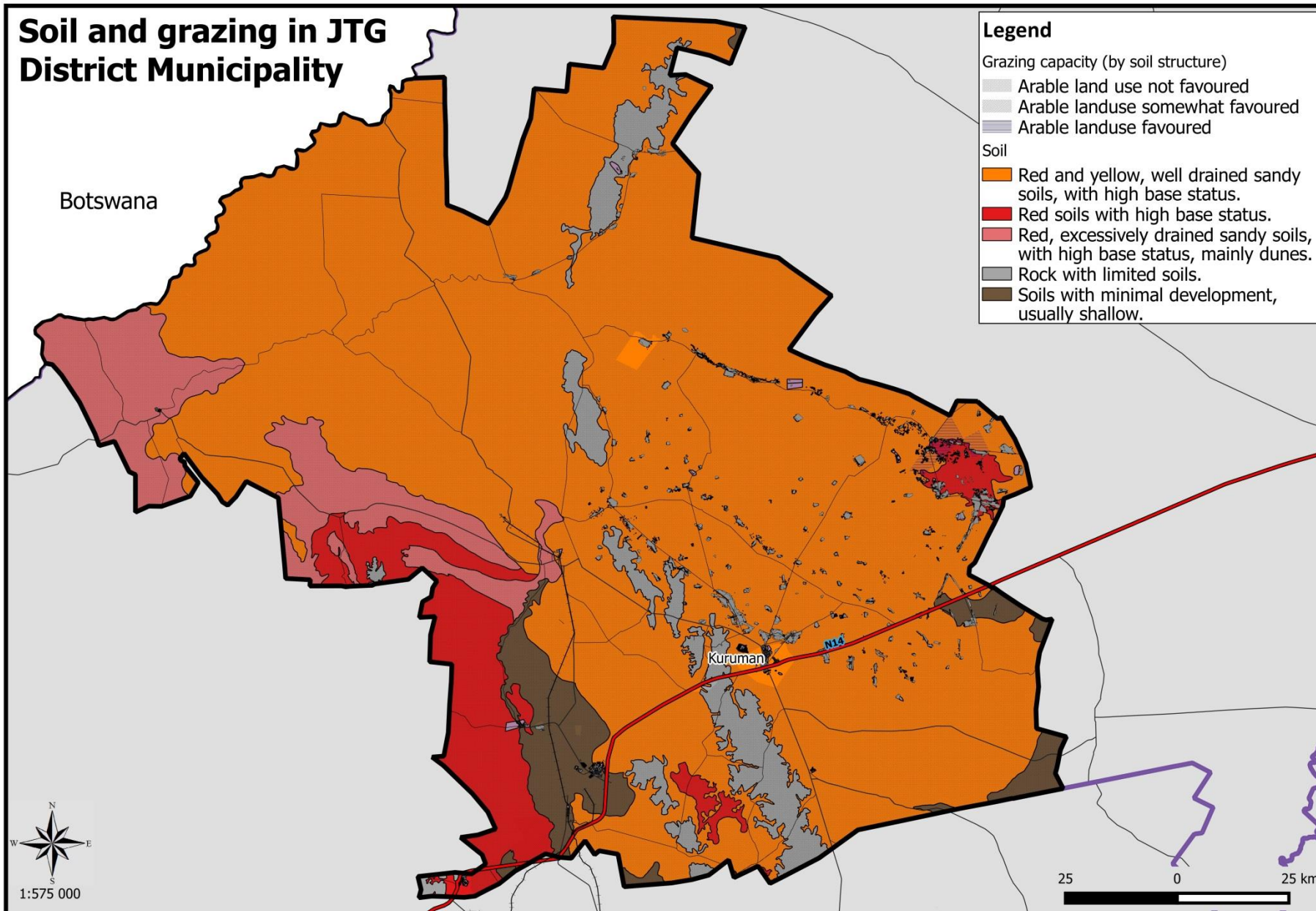
- Ghaap Plateau Vaalbosveld
- Gordonia Duneveld
- Gordonia Plains Shrubland
- Kathu Bushveld
- Koranna-Langeberg Mountain Bushveld
- Kuruman Mountain Bushveld
- Kuruman Thornveld
- Kuruman Vaalbosveld
- Mafikeng Bushveld
- Molopo Bushveld
- Olifantshoek Plains Thornveld
- Southern Kalahari Salt Pans
- Southern Kalahari Mekgacha



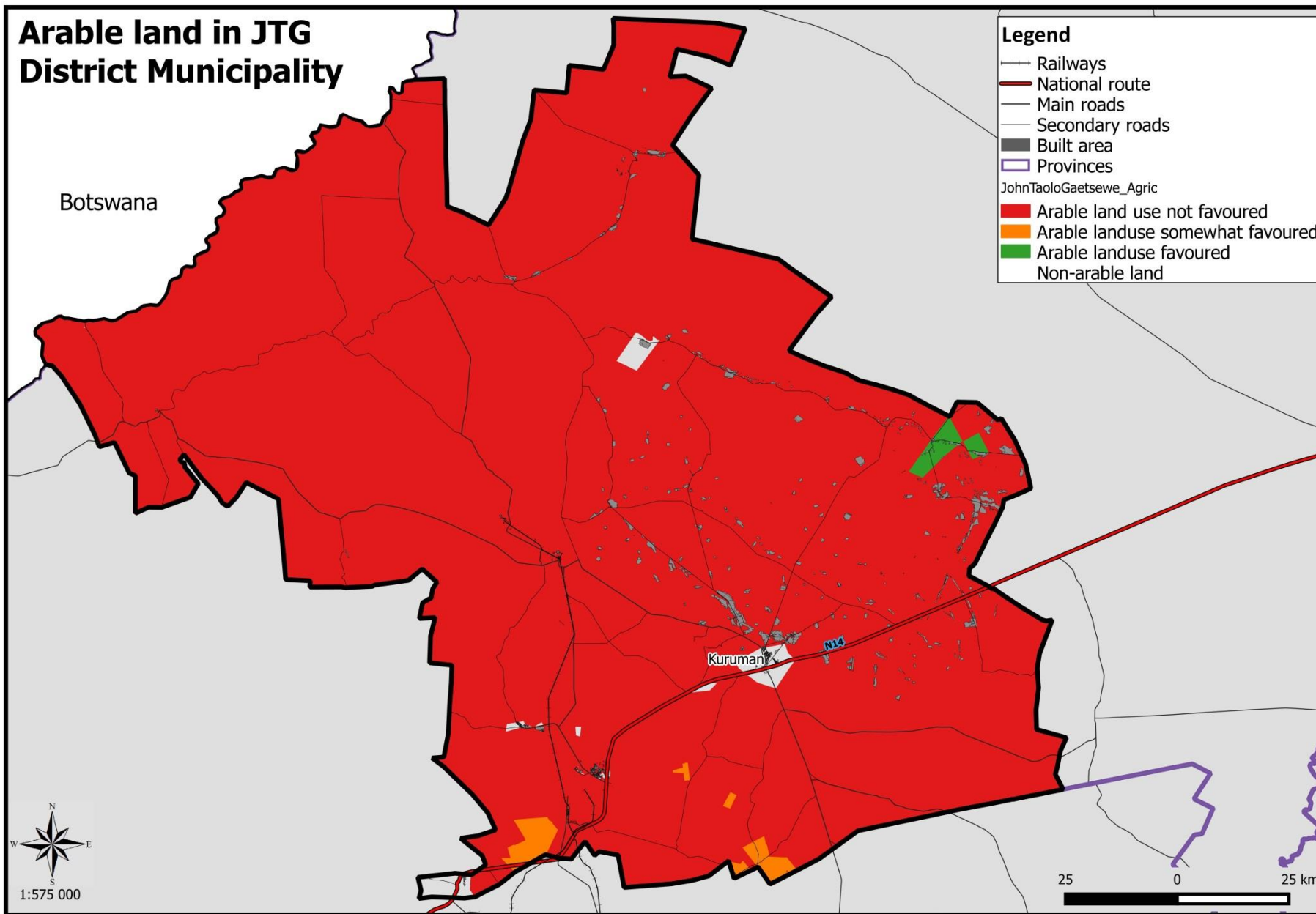
Land capability in JTGD District Municipality



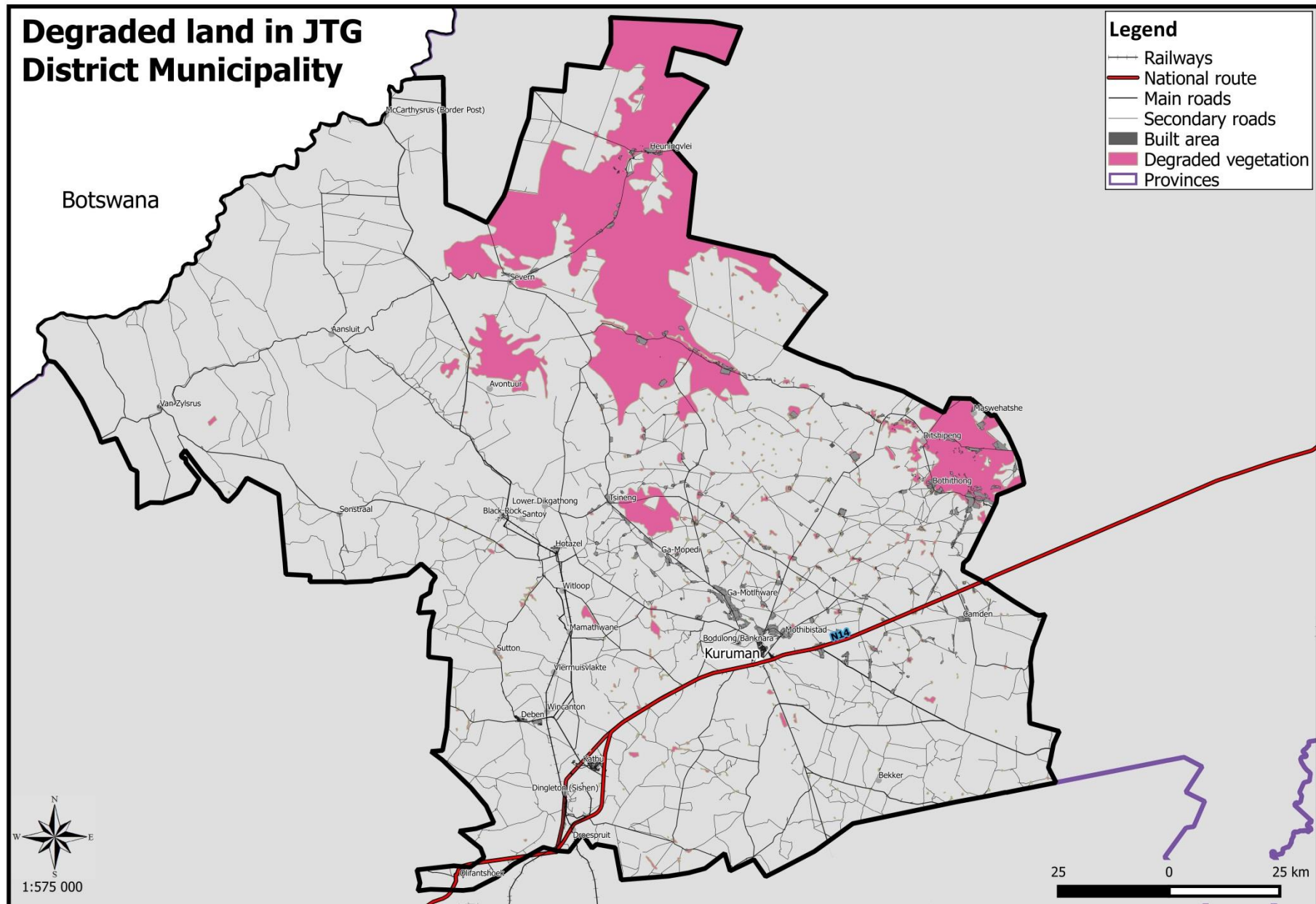
Soil and grazing in JTGD District Municipality



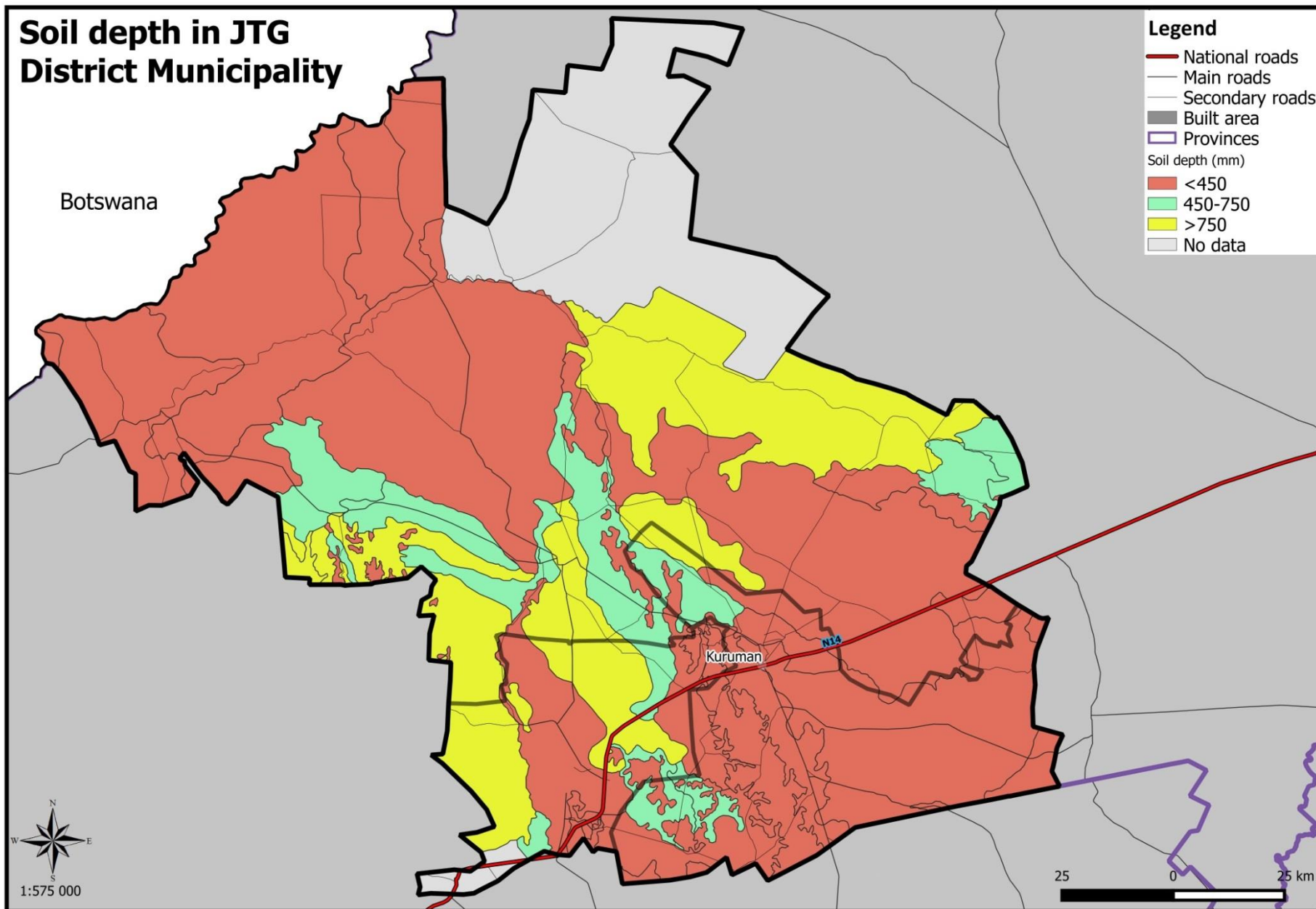
Arable land in JTGD District Municipality



Degraded land in JTGD District Municipality



Soil depth in JTGD District Municipality



3.9.7 GEOLOGY

In The Kalahari Basin, in which the JTGDM is located, is a flat, sand-covered, semi-desert region with (1) large pans north of Upington, (2) dry river beds, such as the Nossob and Molopo, and (3) dunes striking in a north-westerly direction. Outcrops are scarce in this sand-covered expanse.

The entire Early Proterozoic (2300 to 2100Ma) Kalahari manganese field (Gutzmer et al., 1997) in the Kuruman area (John Taolo Gaetsewe area) is covered by calcretized sediments of the Cenozoic Kalahari Group (Puchner, 2002). **Map 14** shows the distribution of the Kalahari Group across the John Taolo Gaetsewe District. The basin into which the Kalahari Group sediments were deposited is elongated in a north northeast to south southwest direction. The Kalahari Group comprises up to 20m of windblown, unlithified sand of the Gordonia Formation (Pleistocene to Holocene), which unconformably overlies calcified sand, and gravel. The upper section of the Kalahari Group has undergone pedogenesis to form a thick capping of calcrete. The Kalahari Group is up to 65m in thickness and unconformably overlies a 30m thick red clay layer. The red clay layer in turn unconformably blankets the Olifantshoek Supergroup (Puchner, 2002).

Figure 3.4 provides a simplified stratigraphic column of the geology present at The Olifantshoek Supergroup comprises shales and quartzites of the Lucknow Formation and is underlain by shales with quartzite bands of the Mapedi Formation. Un-conformably below this sequence lies the volcano genic-sedimentary jasperlites and maganiferous ore deposit of the Hotazel Member, which is contained in the Voelwater Formation. Both the Voelwater Formation and the underlying Ongeluk Andesite Formation form part of the Cox Subgroup, which in turn form part of the Griqualand West Supergroup. The Ongeluk lavas, which form the basal lithology of the area investigated, formed as a thick shallow-marine volcanic sequence of pillow lavas, massive flows and hyaloclastite. The volcanics attain a thickness of approximately 900m. Both the Griqualand West Supergroup, and the Lucknow and Mapedi Formations of the Olifantshoek Supergroup, are Vaalian in age (Puchner, 2002).

Map 13 and 14 shows the **stratigraphy** (defined as the branch of geology that seeks to understand the geometric relationships between different rock layers (called strata), and to interpret the history represented by these rock layers) and **lithology** (defined as a description of the physical characteristics of a rock unit or rock formation) of the geology that characterises the John Taolo Gaetsewe District



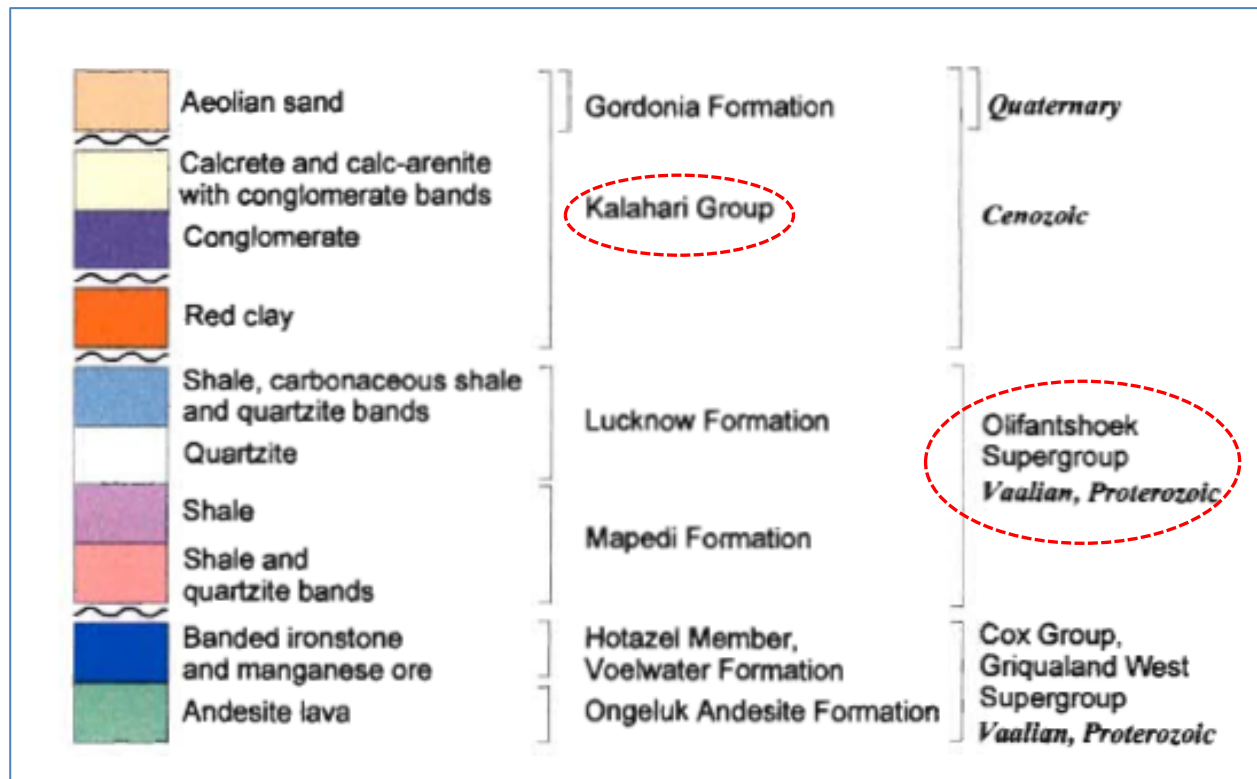
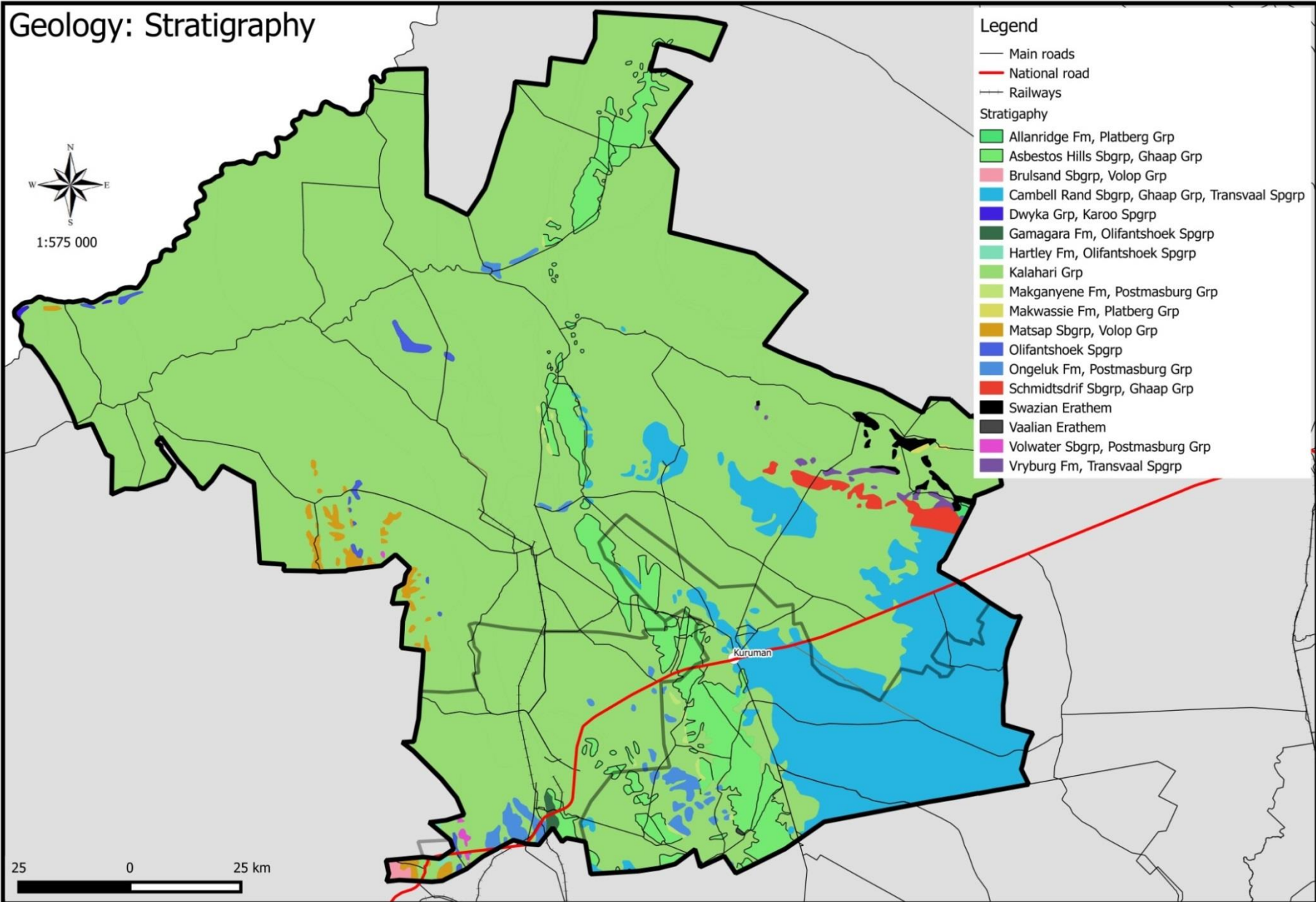
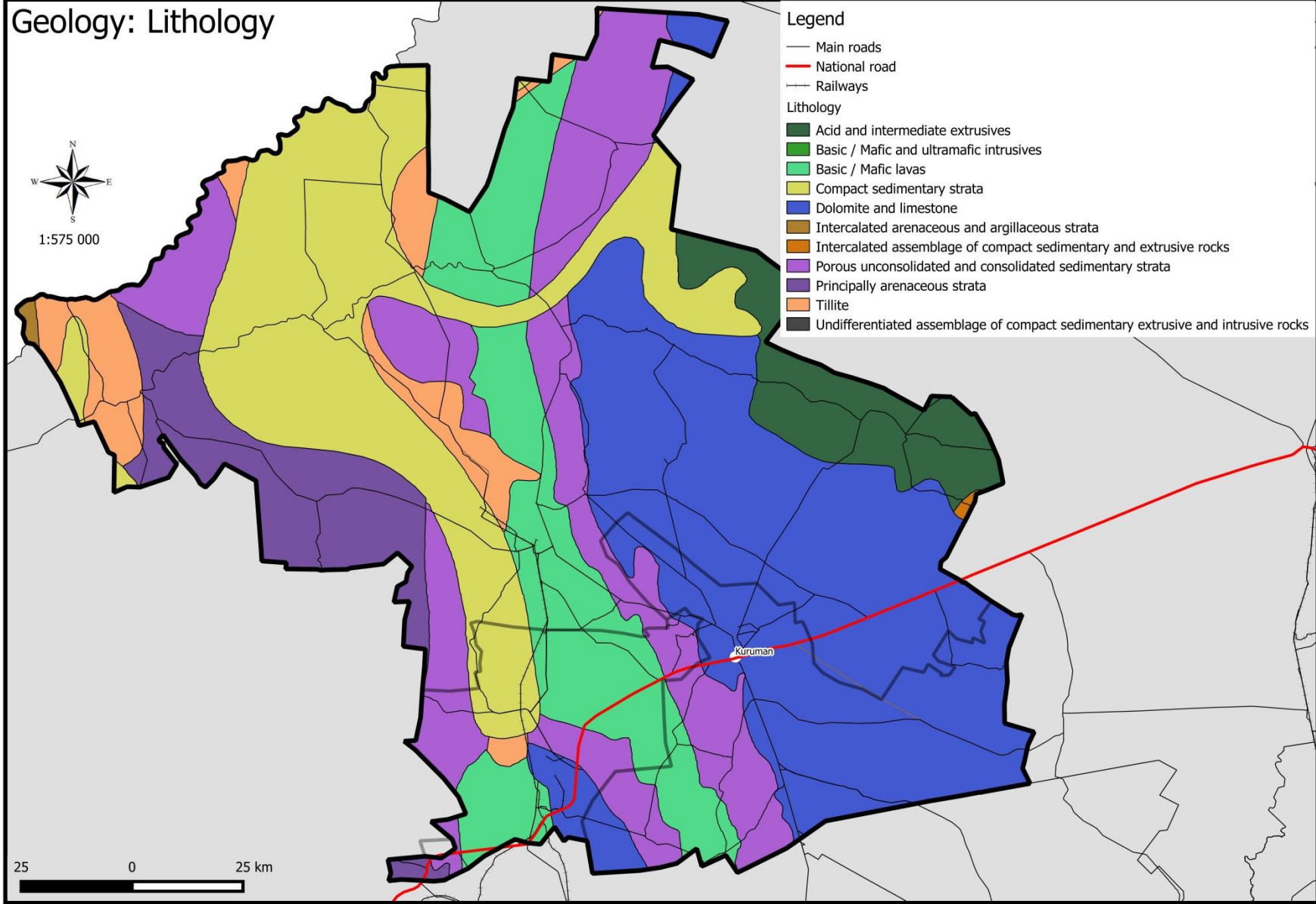


Figure 3-5: Simplified stratigraphic column of the geology encountered at Nchwaning Mine
Source: Puchner, 2002

Geology: Stratigraphy



Geology: Lithology



3.9.8 MINERALS

The JTGDMD used to be one of the richest mining regions in the Northern Cape until the 1980s, when a sharp decline in mining employment took place and the asbestos mining industry all but closed down. Currently, manganese ore, iron ore and tiger's eye are extensively mined in the area, with (1) the Sishen iron-ore mine being one of largest open-cast mines in the world, and (2) the associated iron-ore railway from Sishen to Saldanha being one of the longest iron-ore carriers in the world. A number of opportunities in the mining and associated beneficiation sectors exist in the area, notably the following (see **Map 22**, pg. 93):

- Vast, extensive manganese deposits, which can be exploited both by large companies and small-scale operators where deposits are not suitable for large scale operations;
- Iron and manganese smelters;
- Semi-precious stones (e.g. granite, Tiger's Eye); and
- Industrial minerals, such as clay, sand and salt (EMF 2011).



3.9.9 BIODIVERSITY, ENVIRONMENTAL SENSITIVITY AND PROTECTED AREAS

The JTGDM area comprises four, separate ecological regions, which extend beyond the region's boundaries. These are the Kalahari Thornveld, Ghaap Plateau, Rocky Hills and Ridges and Kuruman Sourveld. These ecological regions are reportedly not as rich in species as many such similar regions located outside of the area. However, at a more detailed level, accepting that the species composition, vegetation form and individual landscape units change over small distances, some 60 vegetation-landscape units which are unique to the District can be identified (van Weele, 2011).

The natural environment in JTDM is reportedly in a fair condition, although poor land management that has resulted in degradation of the resource base. Of particular concern is the deterioration of the natural vegetation through overgrazing, poor fire regimes, wood harvesting, misuse of wetlands, and encroachment by invasive plants and weeds. These factors are common to all veld types in Southern Africa, but the harsh climatic conditions and lack of surface water resources worsens the problems in the Northern Cape. They also contribute to a growing concern over the quality and quantity of the groundwater resources upon which much of the area depends (van Weele, 2011).

Land degradation is a major feature of specific parts of the JTGDM. The main cause of land degradation is poor land use management. Poor land use management is ascribed to a number of factors including overgrazing, alien and invasive species, overstocking, uncontrolled grazing, injudicious use of fire, limited awareness and urban development (van Weele, 2011).

Much of the land degradation and transformation in the JTGDM occurs in the eastern and northern parts of the JTGDM, whilst the western and southern sections are less impacted. It is argued that agriculture is most likely the greatest threat to the vegetation, in the form of overgrazing, which changes the plant community composition by eliminating certain species (generally palatable species) and encourages bush encroachment (van Weele, 2011).

The mining activity in the municipality also has a direct impact on vegetation by way of the physical destruction of vegetation within the mining footprint. The effects of dust particulate emissions from the plants as well as along the transport routes will also have an impact on the vegetation (van Weele, 2011).

Fire is an ecological disturbance which is required to maintain community structure and species diversity. Overgrazing eliminates the grassy sward and fires are carried less easily and frequently across the landscape. This encourages bush encroachment which further inhibits grass regrowth. Eventually, however, extreme wildfire conditions, i.e. drought and hot temperatures, lead to fires which are too intense for even trees to survive that can burn through encroached areas. Other disturbances to the natural vegetation cover are utilization in the form of collection of firewood and harvesting for charcoal production. *Acacia erioloba* (Camel Thorn), a protected tree species, is particularly targeted (van Weele, 2011).



Invasive alien plants are not well established in the JTGDM. The most dominant species is *Prosopis glandulosa* (Mesquite), which has the potential to invade vast areas, and poses not only a threat in terms of out-competing indigenous species, leading to another pathway of bush encroachment, and its concomitant impacts, but which can greatly impact ground water resources, which again has secondary impacts on vegetation cover. Invading alien organisms pose the second largest threat to biodiversity after direct habitat destruction (van Weele, 2011).

Apart from the Kathu Forest (2,245 ha) and Tswalu Private Nature Reserve (100,000 ha), no protected areas are present in the District. It could, however, be argued that game farms are private conservation efforts. It is noted that there were 22 hunting farms and lodges within the JTGDM in 2011 (van Weele, 2011).

It is noted that there are two Red List plants species occurring in the study area according to SANBI's POSA site, namely *Acacia erioloba* and *Hoodia gordonii*, which are listed as "Declining". Both are relatively widespread and abundant in the study area, with *Acacia erioloba* being a dominant species in the tree layer. Three protected tree species also occur in the JTGDM area, namely *Acacia erioloba*, *Acacia haematoxylon* and *Boscia albitrunca*.

These trees are afforded protection according to Government Notice No. 1012 under Section 12(I) (d) of the National Forests Act, 1998 (Act No. 84 of 1998). A distinct threat to *Acacia erioloba* is that it is heavily targeted for utilization as firewood and charcoal making (van Weele, 2011).

The wetlands in the JTGDM, except for Heuningvlei, are also ephemeral, only filling up briefly after the summer rains. A large number of these wetlands, including Heuningvlei, are classified as "National Priority Wetland Areas" (**Map 16**). The Heuningvlei saltpan is fed by a number of permanent freshwater springs, with its north-western corner a permanent marsh-type wetland. These wetland areas attract a wide variety of birds, some of them Red List species and migratory birds covered by international treaties e.g. Chestnut-banded Plover, Greater Flamingo and the Yellow-billed Stork (DRDLR, 2015). **Map 12** presents degraded land in the JTGDM.

The redundant Asbestos Mines and the Asbestos Industry left a huge scar in the area. Asbestos is the collective mineralogical term given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite and anthophyllite) that occur naturally in the environment. Asbestos fibres enter the air from the breakdown of natural deposits or man-made asbestos products. Fibres may remain suspended in the air for a long time, and can be carried a fair distance by the wind before settling. Asbestos fibres are not able to move through soil, are not broken down to other compounds, and will remain virtually unchanged over long periods of time.

Environmental exposure is still a concern as fibres from un-rehabilitated mine dumps can become airborne and may be inhaled by humans. The concentration of asbestos in ambient air is not known, as no monitoring is currently undertaken. In addition, very little is known about the impact of asbestos (prevalence of asbestosis and mesothelioma) in the Northern Cape. The Provincial Department of Health does not keep any statistics on these diseases, other than those from occupational exposure.



There are currently no operational Asbestos Mines in the Northern Cape and therefore no occupational exposure. However, asbestos is still perceived as an important issue because of the many un-rehabilitated mine dumps that still have the potential to pollute the environment and cause asbestosis or mesothelioma. The public also still has access to some of these dumps, and some individuals recover the asbestos for resale further increasing the potential hazard.

Secondary impacts of asbestos pollution are likely to occur in the Northern Cape, considering the use of materials contaminated with asbestos for a variety of purposes, including school playgrounds and sports fields, roads and buildings.

An indicator, “Rehabilitation of Asbestos Mines” is used to measure the number and location of un-rehabilitated asbestos mine dump sites in the Northern Cape. This was done by recording the Government’s response to issues of asbestos raised by stakeholders, because there is no existing state data in this regard. This indicator monitors the mitigation methods currently in place for the impacts of the previously high demand for asbestos.

The need for rehabilitation of asbestos pollution by quantifying the risk associated with a specific pollution site is a prerequisite for development in any asbestos polluted region. It is important to realise that the success of rehabilitation necessarily depends on the sustainability of the rehabilitative measures applied. The trend is in-situ rehabilitation. The main reason is associated with the disturbance of the asbestos, and the fact that the particles become loose again and the associated health risks.

The high risk areas are the areas where asbestos were mined, stored, used in industrial processes, and transported. Therefore a project in the area should be subject to a screening process which is specifically designated to identify high risk areas.

The Kalahari Asbestos Polluted Roads Prioritisation System report (KDC, 2002), has identified polluted areas and made the following finding that:

- Greater JTG area is polluted
- 300 km of roads are polluted
- Government property including 80 schools are located on asbestos areas (SOPA, 2016)
- Private property (residential and others) are polluted
- Some mines are rehabilitated others not

The KAPI (Kalahari Asbestos Polluted Roads Index) database serves as a good starting point from where one can address issues relating to the asbestos contamination problem. What is relevant is the recommendation to allow minimal land use activities on rehabilitated areas, which excludes the development of these areas to a great extent.



3.9.10 NATURAL PHYSICAL CONSTRAINTS

3.9.10.1 MINING

Map 23 shows the asbestos former mining areas that stretch from the north to the south within the district area. Asbestos Hills Supergroup (Banded Iron-formation) is the source of the 32 asbestos mines which used to operate in the district. The main minerals that were mined for asbestos fibres are illustrated in **Map 24** (mining and mineral map). The areas in this zone are not suitable for human settlement purposes and must be avoided until proper rehabilitation has been done to eliminate all the hazards. The poor state of rehabilitation of the asbestos industry made all previously contaminated areas a serious constraint for development due to the associated health risks.

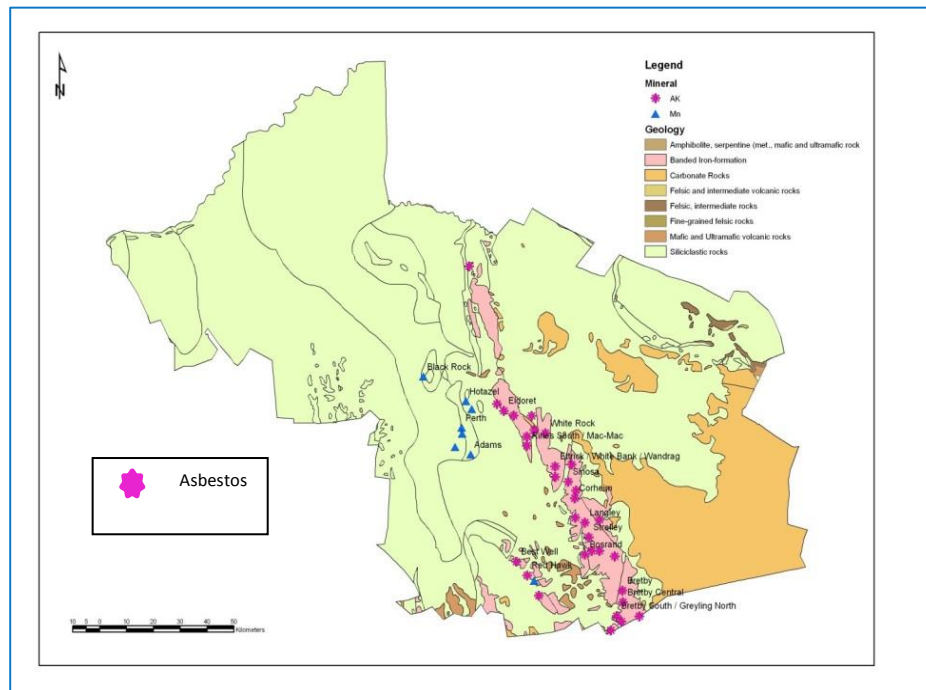


Figure 3-6: JTG District Geological Map indicating abandoned Mines
Source: JTG EMF 2011

The other physical constraints areas are active mining areas which are largely open cast operations. The other physical constraints areas are active mining areas which are largely open cast operations. The iron and manganese mining in the JTGDM, absence of and low quality of land rehabilitation, located predominantly in the area between Sishen/Dingleton and Hotazel have a direct impact on human settlements.

3.9.10.2 ECOLOGICAL SENSITIVE AREAS

Tswalu Game Reserve is a protected nature reserve. 1:100 year flood lines along the rivers are also ecological areas that are not suitable for human settlements. Wonderwerk Cave is also a national heritage site.

The location of Gamagara River and its flood plain in the central parts of Dibeng, poses a constraint regarding the development of the land parcels located in and around this area. This area also has a relatively high potential for agricultural development and can thus not be utilized for any other use.

The most important catchment area in the JMLM is the Korannaberg Mountains, from which the majority of the streams in the district spring and from where they drain into the Kuruman River system. The catchment has been classified as a “National Priority Freshwater Ecosystem”. There has to be river management area so that the human farming activities could be minimised along the riverine within the municipal area.

3.9.10.3 HILLS AND RIDGES

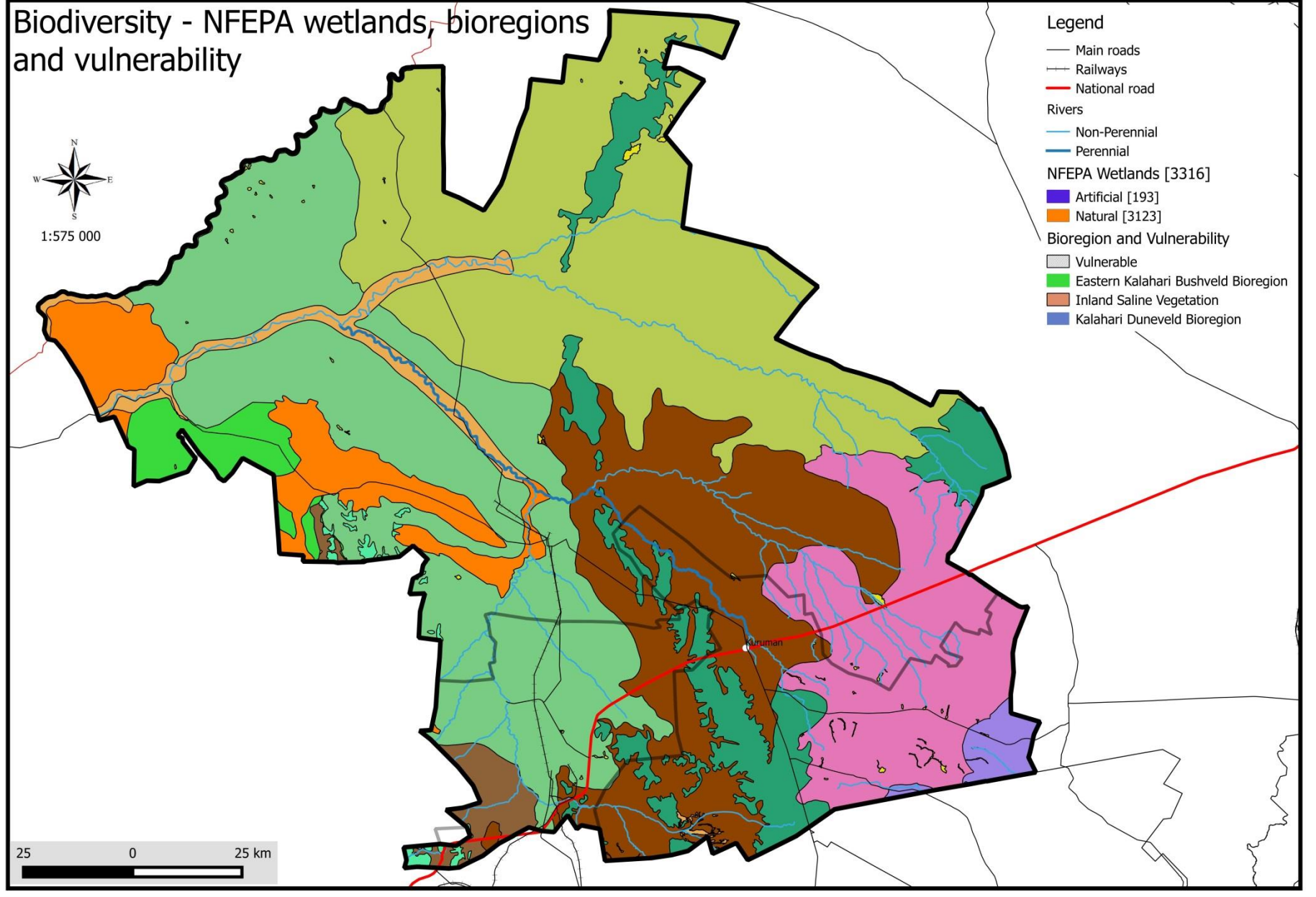
The JTGDM area comprises four, separate ecological regions, which extend beyond the region’s boundaries. These are the Kalahari Thornveld, Ghaap Plateau, Rocky Hills and Ridges and Kuruman Sourveld. The Rocky Hills and Ridges are located along the banded iron formation. The area here is steep and rocky with limited soil (**Map 5**) and not suitable for human settlement purposes.

3.9.10.4 INFRASTRUCTURE

The existing powerline (132kv) that crosses between Sesheng and Kathu poses a development barrier that must be taken into consideration. The servitude area surrounding the powerline (running in a north-westerly - south-easterly direction directly south of the industrial area) must always be taken into consideration when planning future erven in this area.



Biodiversity - NFEPA wetlands, bioregions and vulnerability



3.9.11 SIGNIFICANCE ON BIO-PHYSICAL ENVIRONMENT

- Development Planning needs to make provision for the adequate protection of sensitive natural features and conservation of the ground water resources upon which much of the Region depends and these includes management of the Kuruman and Gamagara river systems
- The water catchment has been affected by overgrazing, which has accelerated erosion, increased surface run-off and reduced filtration to the groundwater system
- Management of agricultural and mining activities on water usage and land degradation.
- Unplanned settlements, overgrazing and exploitation of the natural habitat in the north-eastern part district. Degradation of the natural habitat has taken place in the eastern and northern parts of the JTGDM. Bush encroachment is perceived to be the first priority concern in terms of veld de-gradation within the district, as it poses a serious threat to the plant species composition and grazing value of the vegetation
- Alien invasive plants are a serious threat to the natural vegetation of the district. The most common alien invader plants and declared weeds in the district includes amongst other: Prickly pear, Castor oil plant Red river gum, Mexican poppy
- Wetlands (primary water sources for human consumption and agricultural activities) must be effectively managed since they have been classified as - National Priority Wetland Areas. Assessments must be done on the ecological condition of wetlands around industrial zones within the district
- No accurate information on the demand and supply against the reserves (boreholes water sources) in the district. Recording mechanism to be put in place to establish and monitor use of groundwater resources for human needs and industrial purposes
- District area is subject to low rain fall (av. 500mm) and often periods of more plentiful rainfall (on less porous ground) are followed by severe droughts. Low rainfall impact on ground water which is primary water source.
- Use of wood for cooking and heating in most rural communities and industrial use for the production of charcoal, has negatively impacted on *Acacia erioloba*, which is a protected plant species according to Government Notice No. 1012 under Section 12(1)(d) of the National Forests Act, 1998 (Act No. 84 of 1998)
- Agricultural capability is mainly confined to extensive rangeland production systems for livestock given that the area is arid.
- Air quality which is affected by emissions from industries (mining and roads freight) and domestic activities (landfill sites)
- Heritage resources, some of which are not properly taken care due to lack of personnel and are thus under the threat of deterioration.
- Waste management issues which includes landfill sites permitting and proper management; eradication of illegal dumping sites; provision of essential resources for waste management (machinery, air quality monitoring stations; waste transfer stations etc.)
- Water scarcity which is worsened by pollution of water by domestic, agriculture and mining activities.
- Soil quality which is affected by natural resource exploitation, population mobility, population growth, climate change etc.
- The need for rehabilitation of asbestos pollution by quantifying the risk associated with a specific pollution site is a prerequisite for development in any asbestos polluted areas that include roads, mines and other properties



3.10 POPULATION DEMOGRAPHICS

A detailed discussion on demographic profile of John Taolo Gaetsewe District Municipality is contained on the IDP Review 2016. It is not the intention to repeat the detail contained in the JTG IDP Review 2016 but rather to cross reference and update where necessary the elements that are applicable to the review of the JTG SDF, since the SDF is one of the component of the IDP. The Community Survey 2007, Census 2011 and Community Survey 2016 data from Statistics South Africa have been used in this section for the situational analysis of the John Taolo District Municipality.

3.10.1 POPULATION COMPOSITION

The John Taolo Gaetsewe District Municipality (JTGDM) is situated in the Northern Cape Province. JTGDM comprises of three Local Municipalities i.e. Gamagara Local Municipality, Ga-Segonyana and Joe Morolong. The Northern Cape Province, although covering the biggest land area, has the smallest population of South Africa. The Northern Cape comprises approximately 36 283 393 ha or 362 833km² (± 30% of the surface area of South Africa) and has a population of approximately 1 193 780 people (StatsSA, 2016). The most significant areas of John Taolo Gaetsewe District Municipality's population are Kuruman and Kathu. The population of John Taolo Gaetsewe District Municipality has increased from 224 799 in 2011 to 242 264 in 2016 i.e. an increase of 17 465. The increase in population is experienced in Ga-Segonyana Local Municipality and Gamagara Local Municipality, with a decrease in population experienced in Joe Morolong Local Municipality. The table below illustrates the John Taolo Gaetsewe District Municipality population as captured in the Census 2011 and 2016 figures from Statistics South Africa.

Table 3-9: JTG Population Composition

Population/ Areas	2011		2016	
	Population	Contribution to JTG in %	Population	Contribution to JTG in %
Gamagara	41 617	19	53 656	22
Ga-Segonyana	93 651	42	104 408	43
Joe Morolong	89 530	40	84 201	35
John Taolo Gaetsewe	224 799	100	242 264	100
Northern Cape	1 145 861		1 193 780	

Source: StatsSA (2011 & 2016)

It is evident from the table above that the population of Ga-Segonyana LM has increase from 93 651 in 2011 to 104 408 in 2016 with the increase from 42% in 2011 to 43% in 2016 within the District context. Another increase within the John Taolo Gaetsewe District Municipality is



experienced in Gamagara LM where population has increased from 41 617 in 2011 to 53 656 in 2016 from 19% to 22%. A decrease in population is experienced in Joe Morolong LM with the population of 89 530 in 2011 to 84 201 in 2016 with a decrease from 40% in 2011 to 35% in 2016 within the District context. There is a movement of people is predominantly from the municipal jurisdiction area of the Joe Morolong Local Municipality to Ga-Segonyana LM and Gamagara LM, this is attributed to job opportunities in the mining sector within the district. Figure 3.1 below illustrates the population contribution of local municipalities within the JTGDM.

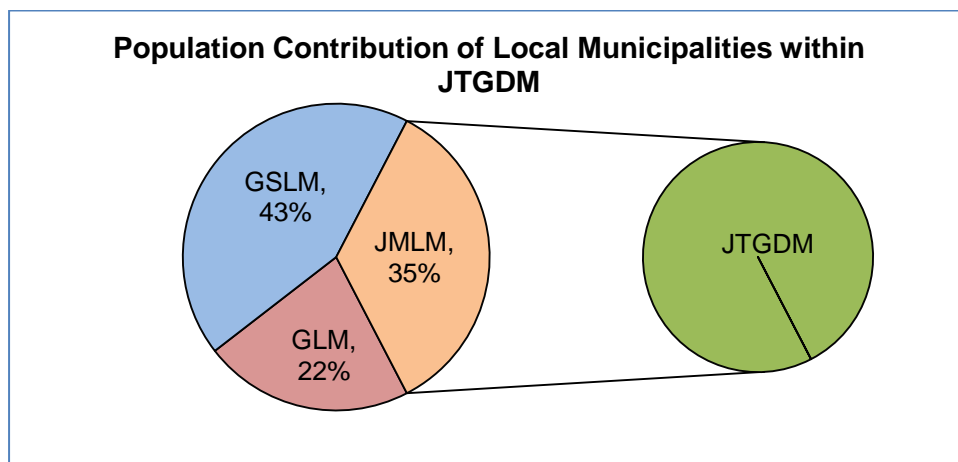


Figure 3-7: Population Contribution of Local Municipalities within JTGDM
Source: StatsSA 2016

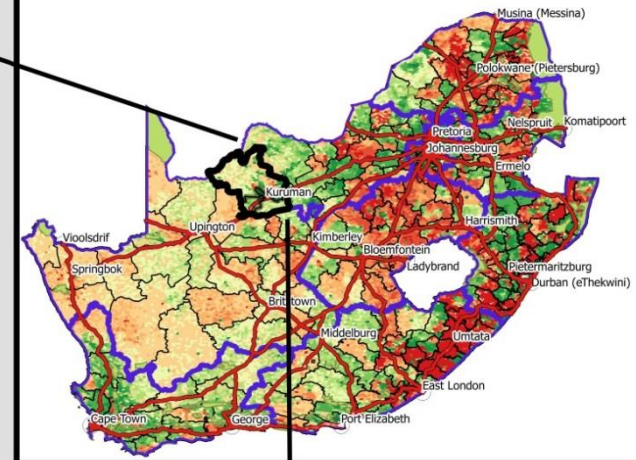
The population growth rate in John Taolo Gaetsewe District Municipality between 2011 and 2016 is 0.017 as compared to the 0.009 for the Northern Cape Province (StatsSA, 2016). The increase in population growth is attributed to in-migration and high fertility rate. It is clear that the trend in the district municipal area is towards a growing population. This is largely attributable to the mining activities around the District area.

The population change between 2007 and 2011 is consistent with **Map 17** which indicates population change illustrated per mesozones. The affected areas are largely the northern part of the JTGDM which is made up of Joe Morolong Municipal area. Ga-Segonyana LM, particularly the Traditional Authority areas that include settlements such as Magojaneng, Seoding and Batlharos have seen this change reflected by figure 175 – 5000 on **Map 17**.



Population change per mesozones (2007-2011)

Botswana



Legend

- National Roads
- Main Roads
- Secondary road
- Railways
- JTG local municipalities
- JTG district municipality
- Local Municipalities
- Sanparks
- Provinces

Change in population from '07 to '11

- 2500
- 2500 - -150
- 150 - -40
- 40 - -10
- 10 - -20
- 2 - 0.00
- 0.00
- 0.00 - 2
- 2 - 4
- 4 - 12
- 12 - 37
- 37 - 175
- 175 - 5000
- +5000



1:575 000

25 0 25 km



JTGD

3.10.2 HOUSEHOLD SIZE

The household size within John Taolo Gaetsewe District Municipality was calculated at both urban and rural settlements through Stats SA data 2011. Household as defined by StatsSA refers to "a group of people, who live together at least 4 nights per week, eat together and share resources or a single person who lives alone". The figure below illustrates the household size within John Taolo Gaetsewe District Municipality per each local municipality.

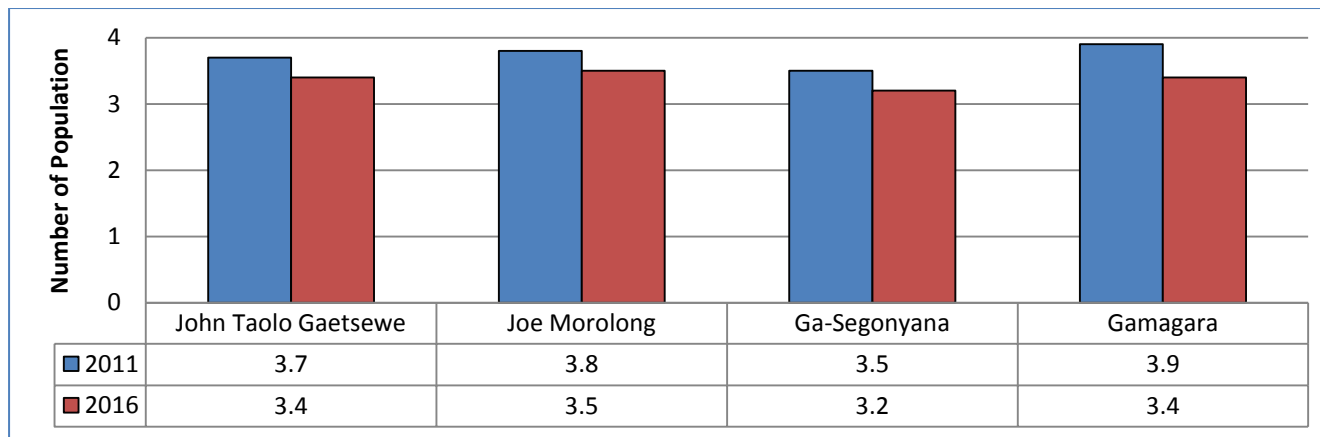


Figure 3-8: Household size within John Taolo Gaetsewe District Municipality
Source: StatsSA 2016

It is clear from figure above that the household size decreased from 2011 to 2016 in all local municipalities within the district. A huge decrease is experienced in Gamagara LM from 3.9 in 2011 to 3.4 in 2016, this may be due to the high number of rental accommodation status which includes the in-migration (within the district) and out-migration (from outside the district) arising from work opportunities in Gamagara Local Municipality. The low decrease in Joe Morolong LM and Ga-Segonyana LM is as a result of increase in number of households and high dependency due to level of poverty within the areas, especially in Joe Morolong LM where high number of outmigration is experienced.

3.10.3 GENDER RATIO

The migration statistics shows (refer to the “Migration” section 4.5 for details) that Gamagara LM has a large number of migrants. Generally male working population migrates to earn for the family. Probably due to the presence of large number of migrant workers in the Gamagara LM, the gender composition is slightly skewed towards the male. A similar conclusion can be drawn for Joe Morolong LM where both shares of migrated population and male population are lowest in the district. The figure below illustrates the information as captured above.

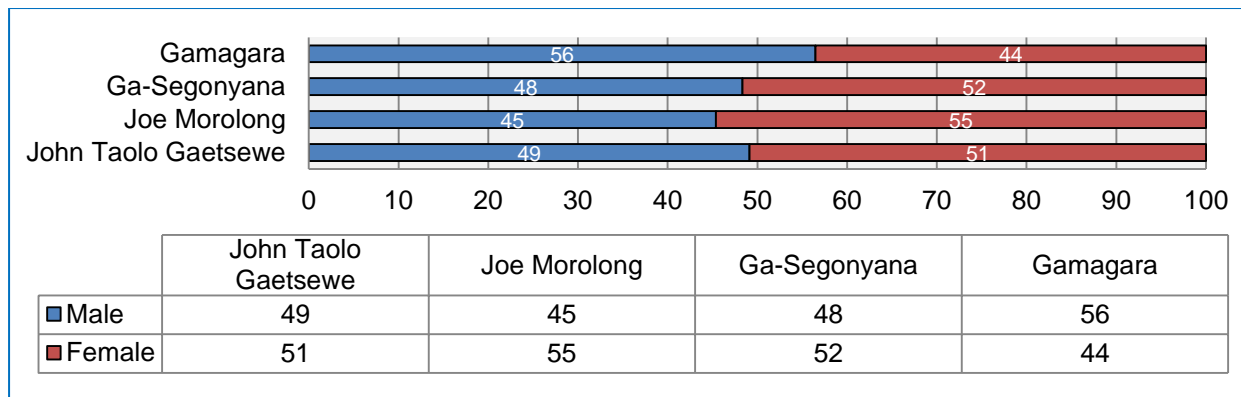


Figure 3-9: Gender Ratio within JTGDM

Source: StatsSA 2016

Female population contributes 51% of the total District population prevalent in Joe Morolong LM and Ga-Segonyana LM. This figure is slightly similar to the StatsSA 2011 national (51.35%) and provincial (50.69%) figures. The share of the female population is highest in Joe Morolong LM whereas it is lowest in Gamagara LM.

3.10.4 AGE COMPOSITION

The age composition is often demonstrated using population pyramid which graphically illustrates the distribution of various age groups in a population. Population pyramids are often viewed as the most effective way to graphically depict the age and sex distribution of a population including age dependency ratio, partly because of the very clear image these pyramids present. Age dependency ratio is the ratio of persons aged under 15 years and older than 64 years to those aged between 15 and 64 years in a population. This ratio has importance because it shows the ratio of economically inactive compared to economically active. Economically active people are expected to earn money, pay tax and



contribute to the overall economy whereas economically inactive people are considered as the bigger recipients of government spending e.g. education, social welfare grants and health care. Therefore, the lower the ratio the better is the situation. The figure below illustrates the population pyramid for John Taolo Gaetsewe District Municipality as captured in the Census 2011.

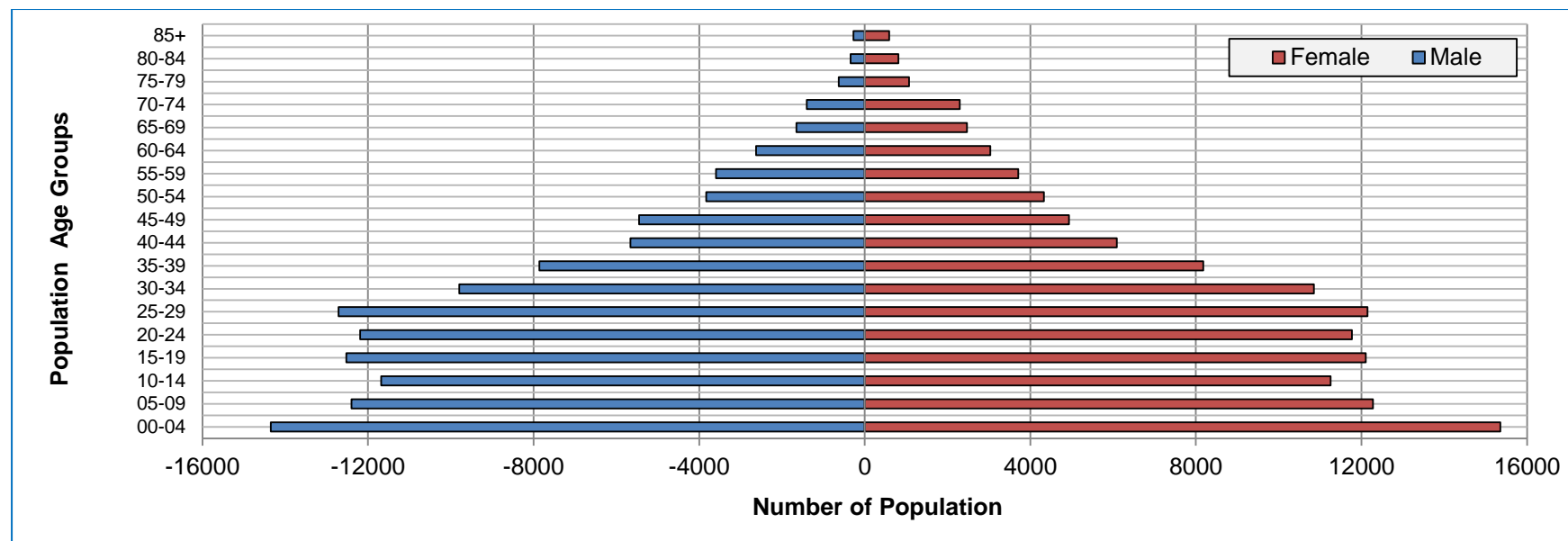


Figure 3-10: Illustrates the Population Pyramid for JTGDM
Source: StatsSA 2016

The age profile of the JTGDM is based on Community Survey 2016 as follows: 0 - 14 years: 31.92%; 15 - 64 years: 63.32%; and older than 65: 4.76%. It is not that different from the national profile on Census 2011 (i.e. 0 - 14 years: 31.03%; 15 - 64 years: 63.59%; and older than 65: 5.39%). The figure above shows a generally youthful population between the age segment 15 – 36 of 100 973 people i.e. 41.68%. The implication of this is that there should be equitable distribution of social facilities and development opportunities in line with gender proportions as per figure above.

3.10.5 POPULATION MIGRATION

We live in a rapidly changing world in which forced migration have a significant impact on the economic, political and social agendas. The figure below illustrates the level of migration regarding the province of previous residence.

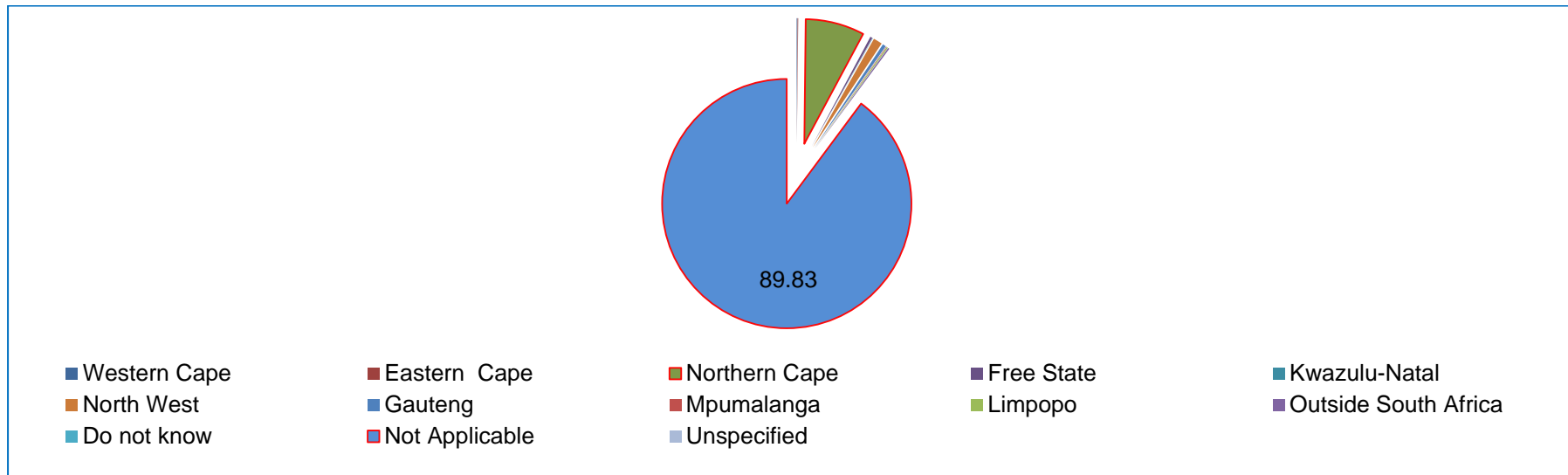


Figure 3-11: Province of Previous Residence within JTGDM.
Source: StatsSA 2016

It is clear from the figure above that 89.83% of the population originates and still stay in JTGDM. The figure above shows that 89.8% of the population in JTGDM were considered “not applicable”, due to the fact that they do not influence the migration patterns. Within the local municipalities, Gamagara LM (13.7%) experiences a high in-migration within district, with Ga-Segonyana LM (12.4%) and Joe Morolong LM (5%).

Migrated population within the JTGDM contribute approximately 10.17% to the total population, where most of this population originates from Northern Cape Province (7.65). The migration statistics roughly indicates that most of the economic activities are concentrated in the first two local municipalities and people have migrated there in search of jobs and better livelihood. However, JTGDM is experiencing mining closure which is one of the mining industry’s toughest sustainable development challenges.



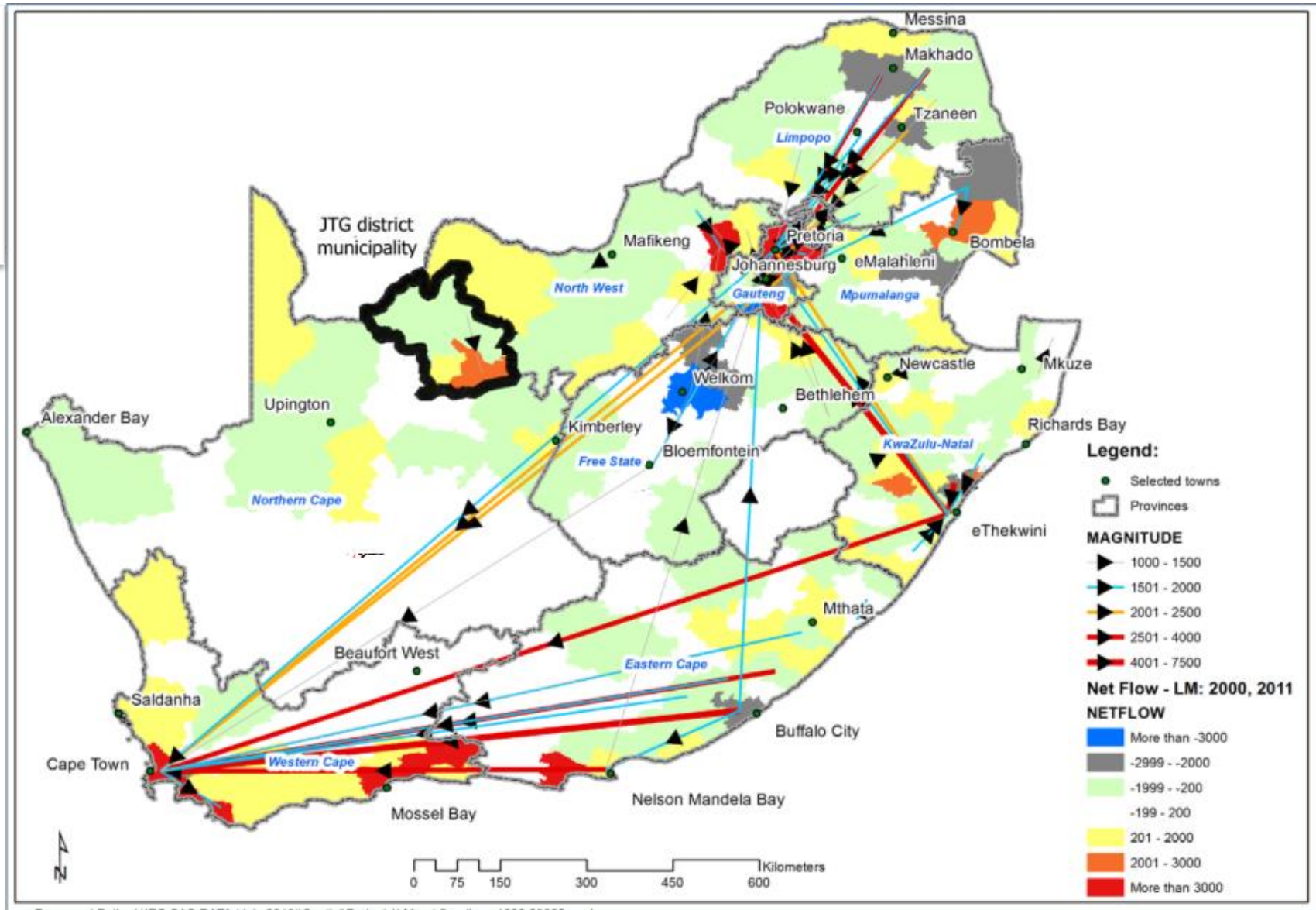
It is considered that effective mine closure involves multiple interrelated concepts, across the social, environmental and economic spheres of development (Coaltech, 2010), i.e.:

- Closure involves integrating the interests and agendas of all key role players
- Final land use planning must evolve throughout the life of the mine, and needs to be reviewed to fit within developmental, ecological, social and political imperatives as these change.
- Ultimately, integrated closure involves or requires inventive biological and engineering solutions, creative financial mechanisms to release diverse sources of funds, new legislative instruments to remove regulatory redundancies, benchmark research, best practice demonstration modelling and regeneration partnerships across the lines between the governmental, private and non-governmental sectors and, by no means least, quality consultancy in some countries where mining companies, communities and government lack capacity to act on an effective basis.

Population in most South African predominantly rural municipalities is not influenced by foreigners residing within their areas as in the case of Joe Morolong LM. Foreigners are more likely to be located at urban areas where development is at a high level. This movement of people is predominantly from the municipal jurisdiction area of the Joe Morolong Local Municipality to Ga-Segonyana LM and Gamagara LM. According to Census 2011 there are more males than females that have moved to John Taolo Gaetsewe District Municipality and this is attributed to job opportunities in the mining sector within the district.

Within the District, people migrate mostly to Ga-Segonyana LM and Gamagara LM as shown on the **Map 18** below. This is consistent with a recent CSIR research project, *Spatial and Temporal Evidence for Planning in South Africa* (StepSA), explored the use of voter registration information as an alternative source of migration data. Anonymised voter registration data were provided by the Independent Electoral Commission of South Africa for several consecutive elections covering a 12-year period. The data, once spatialised (and related to a single set of voting districts), could then be processed to extract movement trends between different election periods (Maritz and Kok, 2013).





Anonymised Voter Registration Data
Source: Maritz and Kok, 2013

3.10.6 POPULATION PROJECTIONS

A population projection refers to an extrapolation of historical data into the future, i.e. an attempt to describe what is likely to happen under certain explicit assumptions about the future as related to the immediate past. The District population growth as per Census 2011 and Community Survey 2016 shows a positive growth rate of 1.6 and 0.017 respectively. The figure below is an illustration of population projections of the JTGDM using the intercensal growth rate of 0.017 which shows an increasing population 268049 by 2022. This projection does not take into consideration other factors such as fertility, mortality and migration.

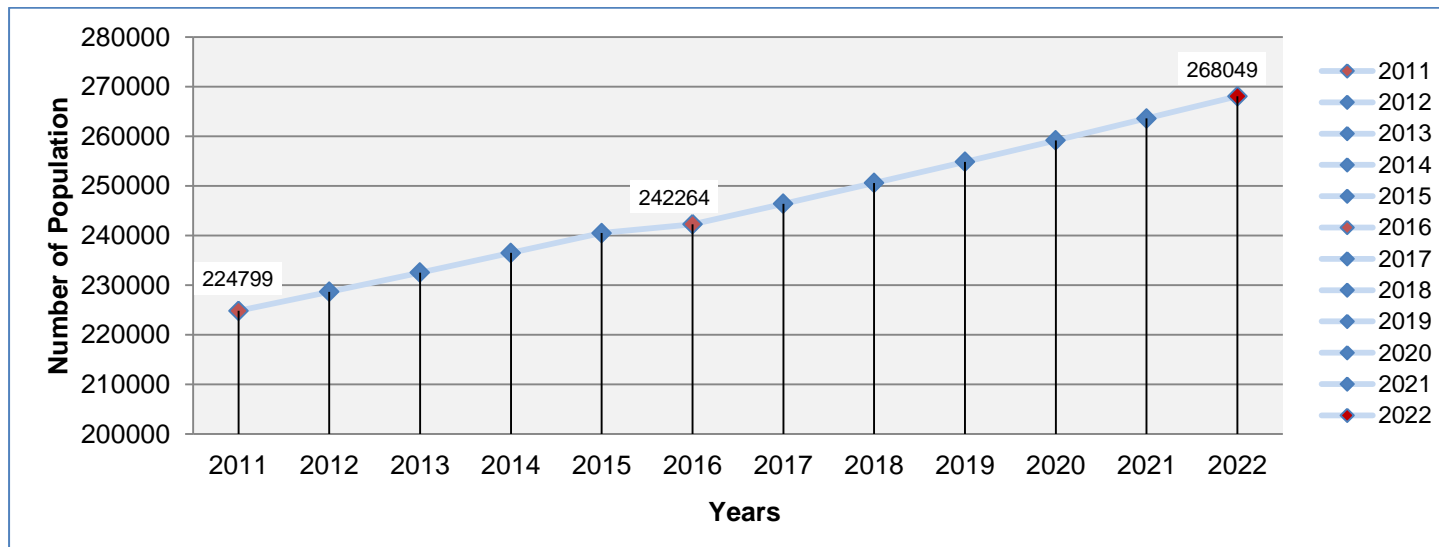


Figure 3-12: JTGDM Population Projection
Source: StatsSA (2011 & 2016)

If this population growth is realised, the implications are that there should be provision of houses, basic services, social amenities and social welfare grants.

3.10.7 SIGNIFICANCE ON DEMOGRAPHICS

- The increase in population is experienced in Ga-Segonyana Local Municipality and Gamagara Local Municipality, with a decrease in population experienced in Joe Morolong Local Municipality and development trend in the district area should take note of the population dynamics
- If this population growth is realised, the implications are that there should be provision of houses, basic services, social amenities and social welfare grants
- The impact on the carrying capacity (or design capacity) of basic services infrastructure (i.e. waste water treatment plant, water purification plants, water reservoirs, electrical substation, landfill sites, water) by the growing population should be taken into consideration. There has been moratorium already on development in certain areas e.g. Kuruman-Wrenchville (Galowe Integrated Human Settlement)
- Capital Funding for infrastructure development and upgrading should be priority in the district to cater for population increases.
- Development of Community Residential Units (CRUs) should be encouraged more in Gamagara LM and Ga-Segonyana LM considering the average household size between of 3.4 people per household within the district and also considering the higher percentage of male migrating to both municipalities for job opportunities. The Community Residential Units programme (CRU) aims to facilitate the provision of secure, stable rental tenure for lower income persons. Bulk services should also be available to enable this.



3.11 SOCIO-ECONOMIC ENVIRONMENT

Social-economic analysis will focus on the education, health, safety & security and the employment. In contrast, higher levels of education are the avenue to formal employment and higher annual earnings. The trend in South Africa is that for individuals to access employment opportunities with higher earnings, they are required to have more than Grade 12 education level.

3.11.1 EDUCATION PROFILE

Education, training and innovation are central to South Africa's long term development. A strong educational system spanning early childhood development, primary, secondary, tertiary and further education is crucial for addressing poverty and inequality (NDP, 2011). The figure below illustrates the level of education for population aged 5 - 24 years attending school within JTGDM and its local municipalities.

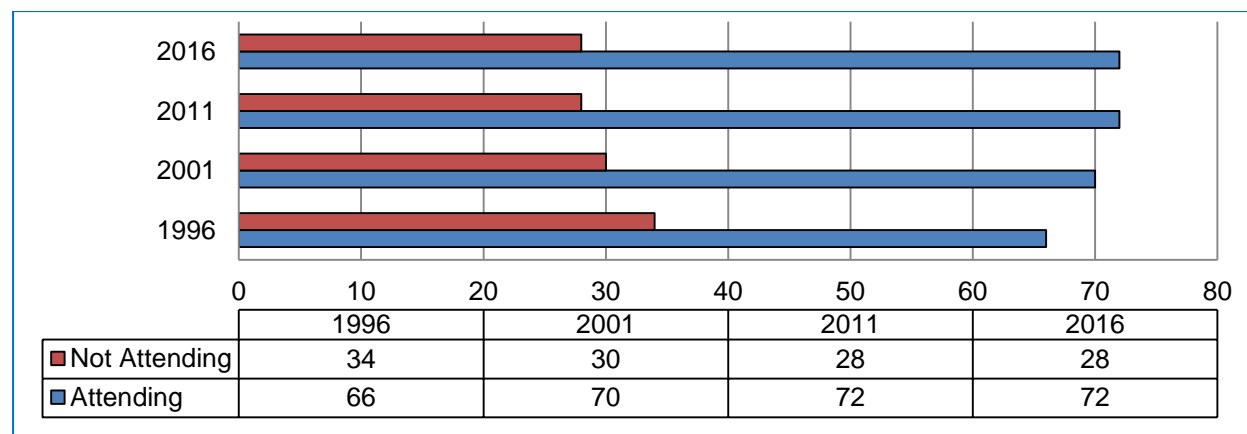


Figure 3-13: Level of Education for population aged 5 - 24 years attending school within JTGDM
Source: StatsSA 2016

There has been a remarkable improvement in number population aged 5 - 24 years attending school within JTGDM from 1996 at 66% to 70% in 2001 and it further increased from 2001 to 2011 at 72%. Between 2011 and 2016 there is no improvement in number population aged 5 - 24 years attending school within JTGDM at 72% same as in 2011. These unchanged figures is as a result of several factors including (1) school disruption on service delivery protest in 2012 where learners were barred from attending school for six months as the community demanded



tarred roads and (2) migration upon dropping out from school for ages between 16 - 24 to Ga-Segonyana LM and Gamagara LM for better employment opportunities. In addition, it may also be as a result of migration upon completion of grade 12 or dropping out from school for ages between 16 - 24 to Ga-Segonyana LM and Gamagara LM with a hope for better employment opportunities

Level of education has obvious implications for the employment potential and income of the people. It has, therefore, direct relationship with the local economy and the quality life of local people. In terms of the NDP (2011) it is clear that more needs to be done with respect to establishment of institution of higher learning such as TVET and distance learning. There must be other measures in place to discourage drop-out amongst school attending population. The figure below outlines the level of education with regards to population aged 20 years and older by level of education attained within JTGDm.

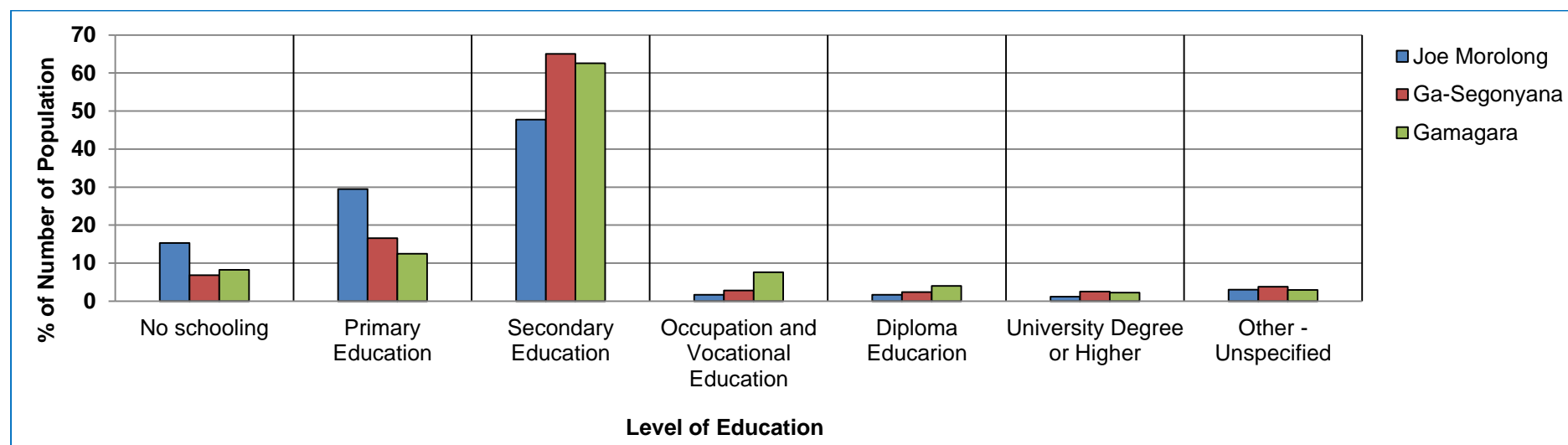


Figure 3-14: Level of Education for population aged 20 years and older within JTGDm

Source: StatsSA 2016

The education profile of the population aged 20 years and older within JTGDm especially in the Joe Morolong LM may have been influence by the prevalence of high levels of poverty and deprivation. It is clear from the figure above that Joe Morolong LM has the highest percentage of population aged 20 years and older with no schooling including primary education which is the status of most rural municipalities in South Africa. Ga-Segonyana LM has the highest number population aged 20 years and older with secondary education and university qualifications. This may be as a result that most business and public sector institutions found within Kuruman Town and most middle income class within the district have their houses in Kuruman. Most employees of mining sectors in South Africa have occupation and vocational type of education which includes skills development and training. Gamagara LM known as a mining area within the district municipal area has the highest



percentage of population aged 20 years and older with occupation and vocational type of education. However, basic education levels remain inferior to the average for the Northern Cape Province, and the figures of 22.8% of adults in Joe Morolong with no schooling and only 13.4% with a matric qualification are unacceptable by any standards (SEAT, 2014).

There are 175 public schools, staffed with 2.203 educators catering for 66,844 learners, in the JTG district. The total public budget spent on education for the district in 2012 was R44 420 million. The quality of education offered at schools, especially in the Joe Morolong Local Municipality with its large rural population, is an area of concern resulting in a migration of learners from the large number of rural schools to the few, better-resourced schools in urbanised areas. In Diben, Kathu, Kuruman and Mothibistad, admission and accommodation of new learners (many from rural areas) is a huge challenge. Kathu Primary school for example, enrolled 1,600 learners in 2014 and by September there were 100 learners remaining on its waiting list. This trend negatively impacts the teacher: learner ratio. While schools in Kathu are increasingly overcrowded, rural schools are experiencing decreasing numbers of learners and the Northern Cape Department of Education is closing down some of the schools in rural areas due to low numbers of learners.

As distances of up to 30km from the closest school hinder access to education in remote rural areas, the Northern Cape Department of Education provides transport for learners who live more than 3.5 km from the nearest school. There are 63 bus routes covering 4.965 learners and bringing the annual amount spent on learner transport to R27.5 million (SEAT, 2014).

3.11.2 HEALTH PROFILE

The district is grappling with a number of other health problems that affect child and maternal health in particular and are symptomatic of constraints such as geographical remoteness from facilities, the low-income status of many households and the inadequacy of some healthcare services. There is a high level of reliance on public health facilities as less than 13% of the district's population has medical aid cover. A further problem is the quality and integrity of healthcare data available, sometimes making it difficult to accurately monitor health trends (SEAT, 2014).

3.11.2.1 TB STATUS

The incidence of TB in the district is high. According to the Northern Cape District Health Barometer for 2012–13, the TB incidence was 370.2 per 100 000 of the population, the highest in the province and well above the national incidence of 235.7. Furthermore, both the TB treatment rate and the cure rate in the district were lower than the norm. At 72%, the treatment rate in 2011–12 was only slightly below the national rate of 75.4% but the cure rate, 55.1%, was the lowest in the province and well below the national rate of 74.5%.



3.11.2.2 HIV/AIDS STATUS

In the case of HIV/AIDS management, cause for concern is the sharp decrease in the male condom distribution rate. The national average in 2012 was 22.1 condoms per male 15 years and older, but the figure for the JTG district was only 5.4 condoms per male. Some progress has been made in expanding the diagnosis and treatment of HIV/AIDS in mothers-to-be and infants (i.e. PMTCT). This can be attributed to the improvement in access to clinics and mobile clinics, as discussed later in section 7. Early infant HIV diagnosis coverage in the district increased from 57.2% in 2011–12 to 72.7% in 2012–13, which is in line with the national rate of 73.9%. Similarly, the rate of antenatal client-initiated anti-retroviral treatment (ART) went up from 50.6% to 84.3% over the same period. There has also been a considerable increase in the number of adults and children under 15 remaining on ART (SEAT, 2014).

3.11.3 SAFETY AND SECURITY

There are 11 police stations/precincts in the JTG District Municipality, two of which are located in the Gamagara Local Municipality (Kathu, Dibeng and Olifantshoek), three in the Ga-Segonyana Local Municipality (Kuruman, Mothibistat, Wrenchville and Batlharos) and four in the Joe Morolong Local Municipality (Bothitong, Heuningvlei, Tsineng and Vanzylsrus). According to the statistics received from eight of the police stations, “Assault with intent to inflict grievous bodily harm” and “Common assault”, are the most common crimes in all three local municipalities in the district. The highest concentrations are in Kuruman (Ga-Segonyana Local Municipality) and Kathu (Gamagara Local Municipality). Serious crimes, such as “Murder” and “Attempted murder” are most prominent in Kuruman, although the levels are low in comparison to the national figures. The figure below illustrates the number of cases reported within JTGDm between the years 2013 - 2015

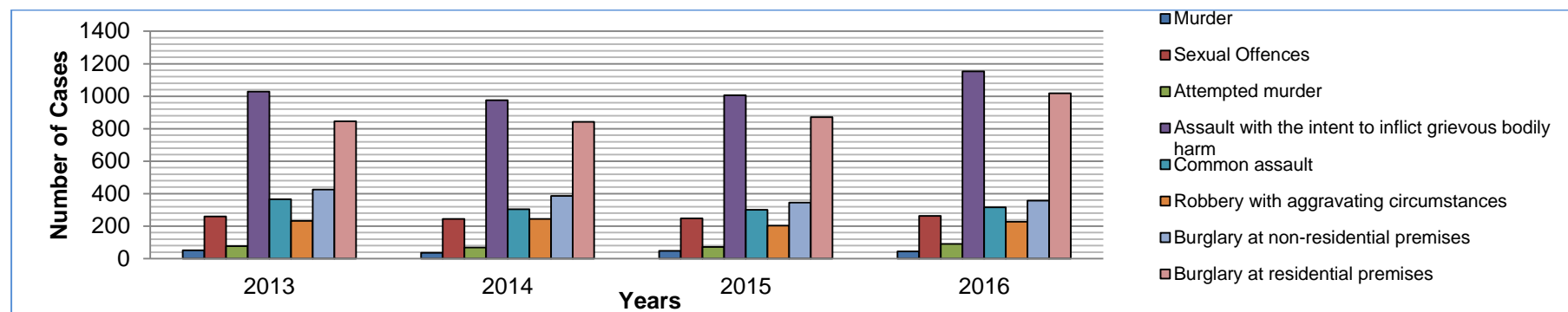


Figure 3-15: Number of Cases Reported within JTGDm
Source: SAPS Crime Reported, 2016



According to SEAT (2014), there has been a sharp increase in “Robbery with aggravating circumstances” in Kathu and Kuruman, and to a lesser extent in Deben. Similar sharp increases can be observed in “Burglaries at residential premises”, particularly in Kathu. “Sexual crimes” are most common in Kuruman, Kathu and Tsineng. However, three of these precincts, Kuruman and Tsineng, showed moderate decreases in the number of sexual crimes reported between 2013 and 2015, while there was a slight increase in the number of sexual crimes reported in Kathu.

3.11.4 EMPLOYMENT STATUS

The analysis in this section is based on population aged between 15 and 64 i.e. economically active as defined by StatsSA within the John Taolo Gaetsewe DM and its local municipalities.

3.11.4.1 EMPLOYMENT AND UNEMPLOYMENT RATE

Unemployment is one of the main reasons of poverty. The importance of employment in the reduction of poverty underpins the use of unemployment rate as a tool to gauge poverty. Thus, the unemployment rate has also been used as one of the indicators to measure poverty. The table below illustrates employment status of the population aged between 15 and 64 within JTGDM and its local municipalities.

Table 3-10: Status of the Employed and Unemployed Economically Active Population within JTGDM

Municipality	Employed			Unemployed			Unemployment Rate		
	1996	2001	2011	1996	2001	2011	1996	2001	2011
John Taolo Gaetsewe	26652	24230	42440	24766	17963	18309	48.2	42.6	30.1
Joe Morolong	10497	7126	7737	13956	6875	4891	57.1	49.1	38.7
Ga-Segonyana	9374	10175	19639	8571	8514	10095	47.8	45.6	34
Gamagara	6781	6929	15064	2239	2574	3323	24.8	27.1	18.1

Source: StatsSA 2011

Nearly one in every three persons between 15 and 65 years of age in the JTGDM (30.1%) were unemployed in 2011. This was the second highest figure out of the five DMs, 2% higher than the Northern Cape Provincial figure. Within the local municipalities, Joe Morolong LM has the highest unemployment rate at 38.7% in 2011 which may be as a result of the level of education as discussed earlier.



Unemployment rate in Ga-Segonyana LM and Joe Morolong LM is still a major concern, with the percentage of unemployed economically active population over 30% below the provincial figure of 28.1%. In 2011, StatsSA released information regarding the level of income within the economically active population. The figure below illustrates the level of income regarding the economically active population within JTGDm.

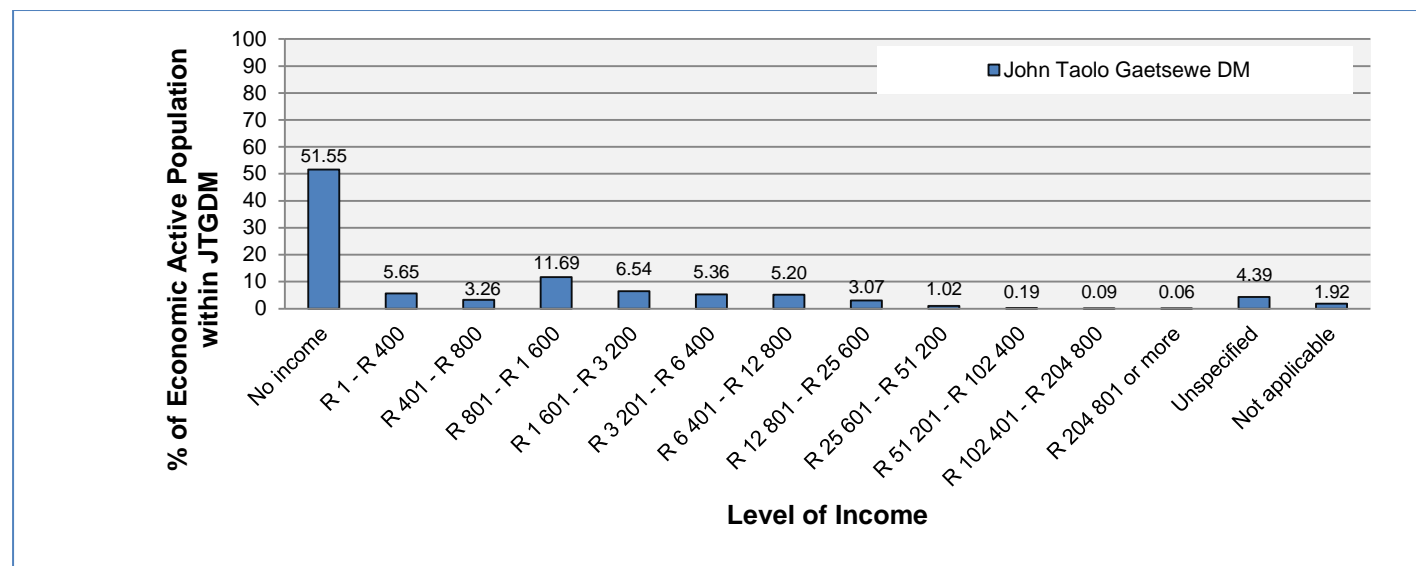


Figure 3-16: Level of Income v/s Economically Active Population

Source: StatsSA 2011

The income level in the JTGDm is reflected in the figure above, with 51.55% of the population of the JTGDm aged between 15 and 65, receiving no income. In terms of the spatial distribution of those earning no income aged between 15 and 65 in the district, 63.94% are resident in the Joe Morolong. Given that 35.29% of the total population aged between 15 and 65 are resident in the Joe Morolong LM, this municipality is overrepresented by 28.65% in the “no income” category. Gamagara LM has the higher rating of 25.99 of the population aged between 15 and 65 earning above R3200.00 per month, followed by Ga-Segonyana LM and Joe Morolong LM with 16.4% and 6.48. With regards to the wider provincial situation, the JTGDm is substantially over-represented by 6.22% in the “no income” category, whereas 16.47% of all the households in the Northern Cape Province are located in the JTGDm, 22.69% of all provincial households that earn no income are residents in the district. CSIR, 2011



3.11.4.2 GINI COEFFICIENT

Gini Coefficient is used to measure inequality in the distribution of income (0 being total equality and 1 being widest disparity). The NDP 2030 is targeting the fall from 0.69 to 0.6. Gini Coefficient of the district is 0.63 slightly below the national figure which is 0.64 (Quantec, 2015). The income levels in the mining sector for specialised skills are higher and are a contributing factor to this figure.

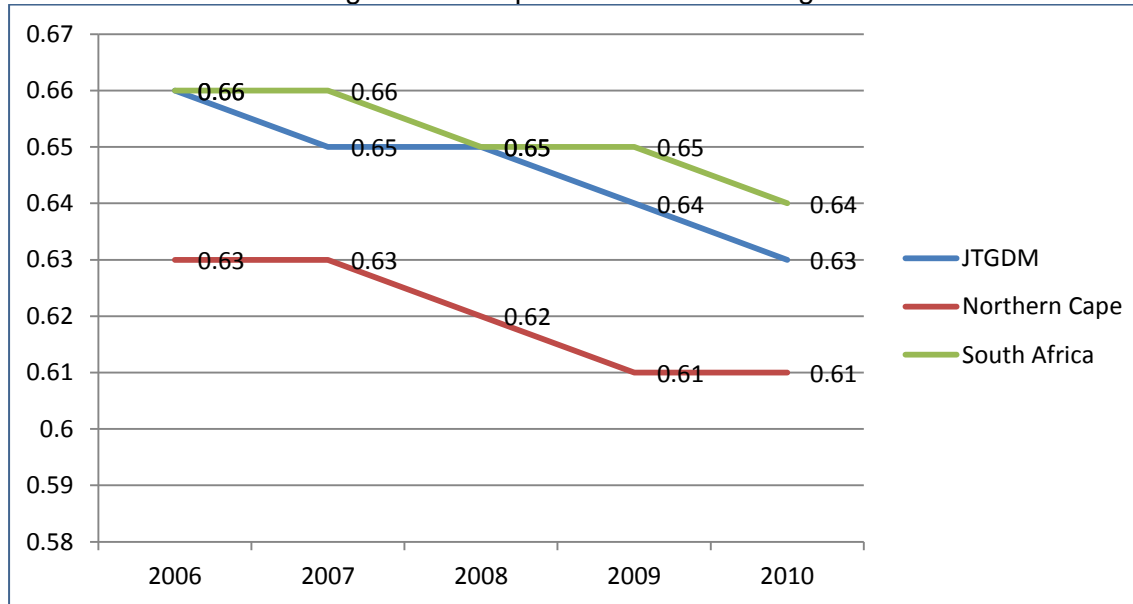


Figure 3-17: Gini Coefficient
Source: JTG RDP 2016

3.11.4.3 DEPENDENCY ON GRANTS AND SUBSIDIES

The type of grants and subsidy found in John Taolo Gaetsewe DM are Child Support Grant, Old Age Pension and Disability Grants. The figure below illustrates the grants and subsidies received as a % of total income within JTGD.



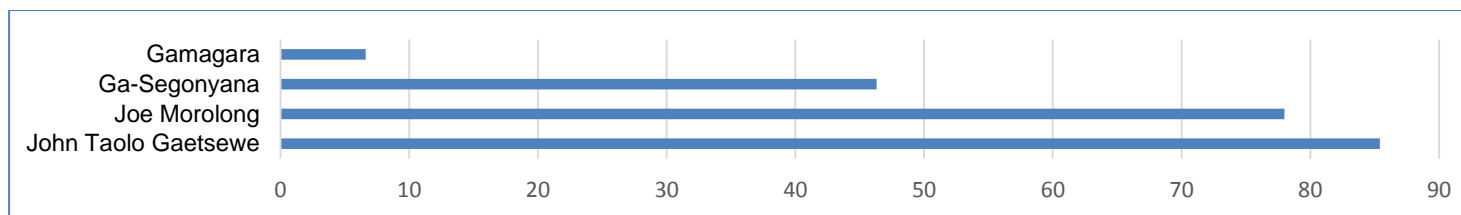


Figure 3-18: Percentage of population grants and subsidies received as a % of total income

Source: StatsSA (2016)

It is evident from the figure above that dependency of government grants and subsidies received as a % of total income within JTGDM is very high at 85%. This is mostly experienced in Joe Morolong LM and Ga-Segonyana LM where there are mostly rural areas. Joe Morolong Local Municipality is arguably worst off in terms of employment sectors and institutional capacity owing to its rural and remote location and poverty-stricken population. It has an almost complete lack of own revenue and huge dependency on government grants and subsidies at 78%, and its capacity to fund some key strategic initiatives is extremely limited. The situation in Ga-Segonyana LM is balancing with regards to the percentage of people receiving income from public and private sector, as compared to the population receiving government grants and subsidies at 46.3% received as a % of total income. This is as a result of high business sectors situated in Kuruman. Gamagara LM has a lower percentage with regards to population receiving government grants and subsidies at 6.6% received as a % of total income within the district, and this is attributed to job opportunities in the mining sector within the Gamaraga Local Municipality.

3.11.4.4 DEPENDENCY RATIO

The dependency ratio for the JTGDM has been decreasing since 1996 from 79.3 to 63.3 in 2011 as shown on the figure hereunder.



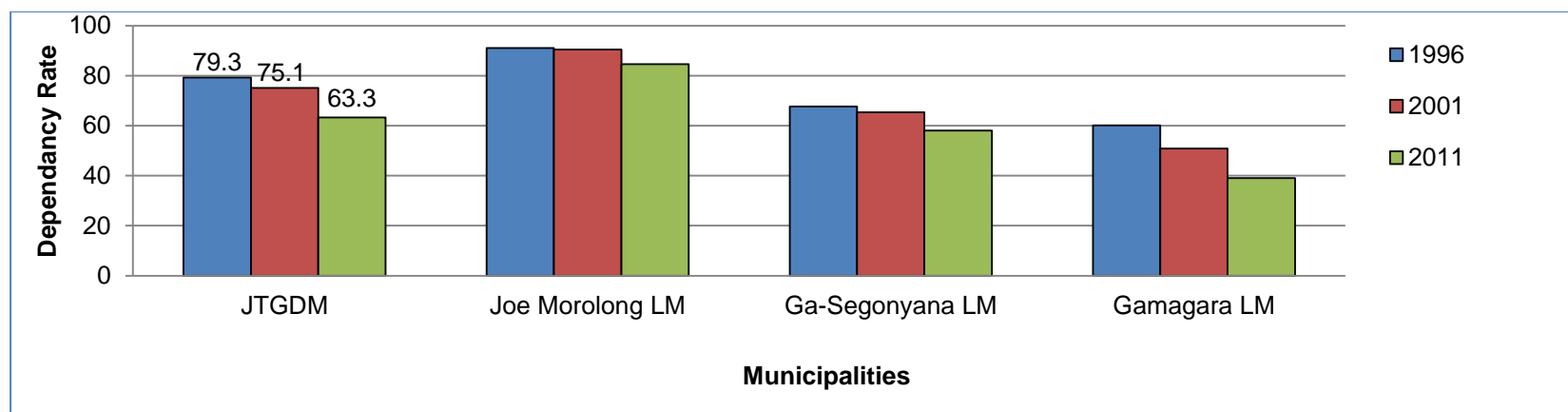


Figure 3-19: Dependency Ratio within JTGD
Source: StatsSA 2011

This is attributed to some employment opportunities for population aged between 15 – 64 years and the old aged pension for those that are 60 years and older. The age dependency ratio of John Taolo Gaetsewe population is 0.63 much higher than the national average (0.53) captured in 2011. The prime reason behind the higher dependency ratio is the substantial share (33.95%) of children population (aged under 15) in the total population.

3.11.4.5 EMPLOYMENT SECTOR

The employment sector can be divided in two sectors, i.e. the formal and informal employment sector. In this section, the employment sector will be discussed based on the formal employment sector. The figure below illustrates the percentage of population per employment sector within John Taolo Gaetsewe DM and its local municipalities.

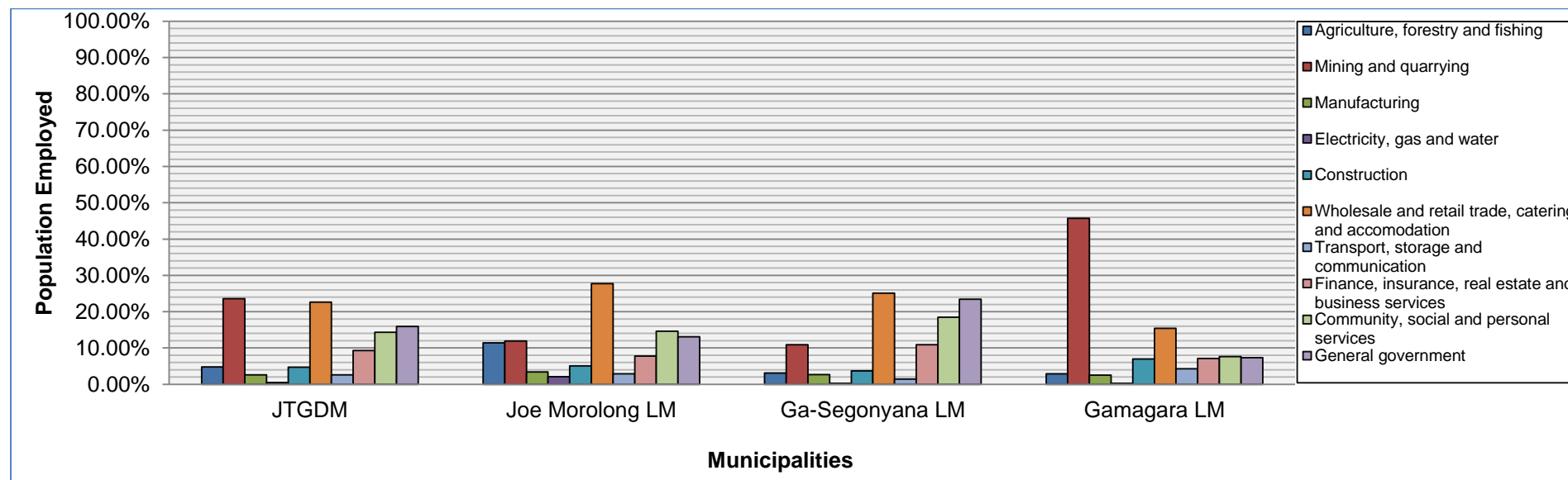


Figure 3-20: Percentage of Population per Employment Sector within JTGDM

Source: Quantec Data Research, 2015

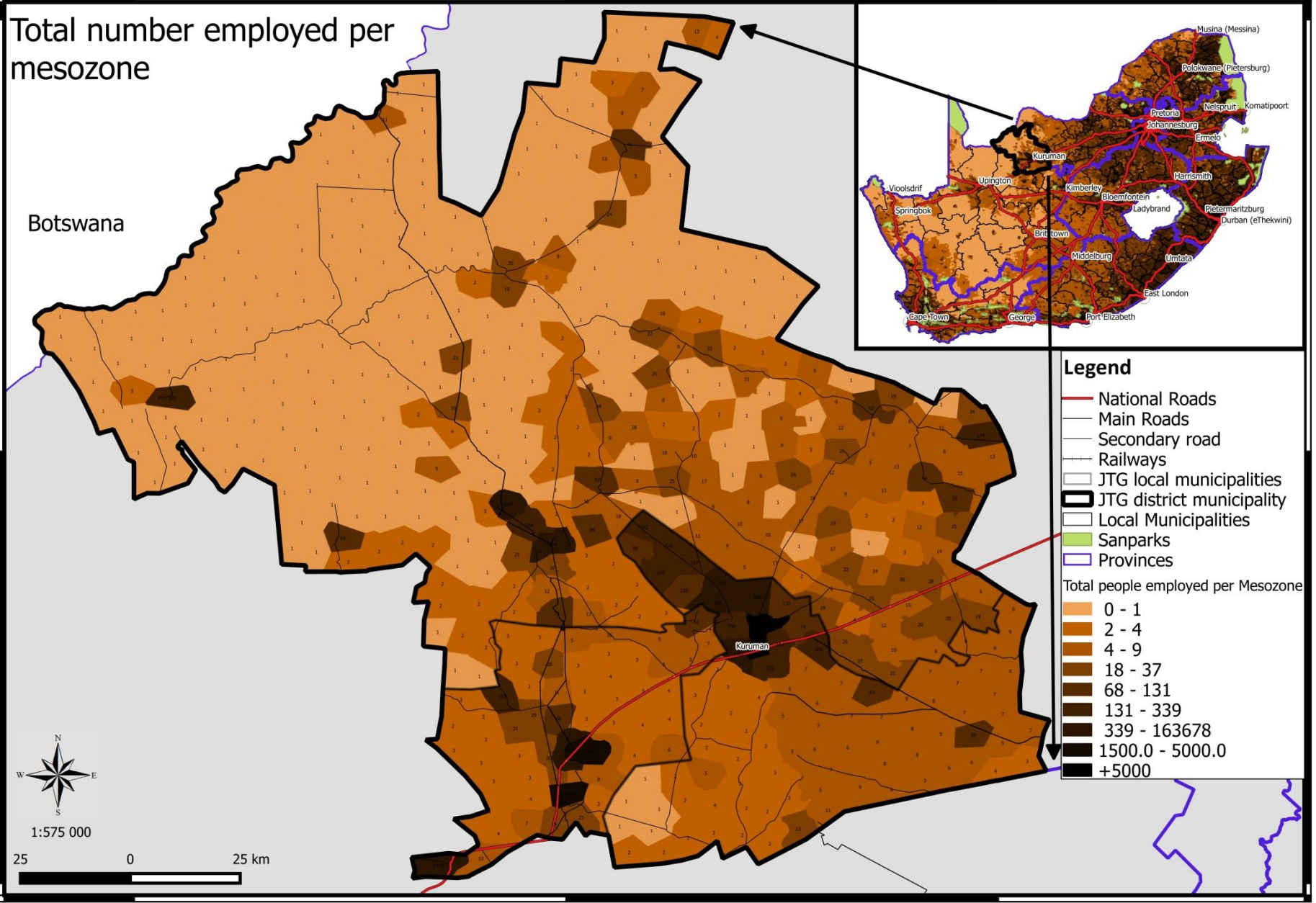
Interestingly enough, although Joe Morolong and Ga-Segonyana LM's main contributor to their GVA is mining, wholesale and retail is the biggest contributor towards employment. Gamagara LM's employment figures however show that not only is the GVA contribution largely dependent on mining but also for employment with 45.7% of workers active in the mining industry. Joe Morolong LM employment figures indicate that although agriculture doesn't contribute largely to the local GVA, it does employ 11.4% of the local workforce.

The GVA contribution per economic sector is discussed later under Section 6, however, **Map 19** below outlines the total people employed per mesozone or Geospatial Analysis Plan where most employment take place in the southern part of the district.



Total number employed per mesozone

Botswana



3.11.5 PROPERTY MARKET

Property market in the John Taolo Gaetsewe District was transformed in 2011. The 2011 was a golden year in this mining community's history. A soaring iron ore price meant that an employee share scheme dubbed 'Envision' paid out a lump sum of R500 000 to each and every employee involved, totalling about R2.7-billion. Two new malls were built in Kathu, sprung up, property values and rental prices increased.

According to Property 24 residential demand is strong due to the inflow of new residents employed at the mines, as well as in the commercial and industrial sectors. Homes priced at R1 million and less are in great demand, although stock in this category is virtually unobtainable. Most three bedroom family homes now sell for between R1 million and R2 million, while stock is more readily available in the R2 million to R3 million price range.

Moolman Group partnered with Kuruman Eiendomsontwikkelaars in 2013 to acquire then Shoprite Centre on Livingstone Street, situated in the heart of Kuruman in the Northern Cape. Currently the well-established 12 800m² centre is located across from a very prominent taxi rank. The Moolman Group, however, saw great potential and a clear gap in the market and quickly made the decision to redevelop the centre. Part of its attractiveness is that Kuruman has become a commerce hub not only for its residents, but also miners and farmers from surrounding areas and tourists too. Kuruman Mall's owners started with overhauling the existing shopping centre as part of the project's first phase, and then more than doubling its size to a 26 000m² centre for the project's second phase (Property 24, 2016).

The commercial and housing development in the main centres i.e. Kuruman and Kathu is also a major boast not only for job creation but also for revenue base of the Ga-Segonyana and Gamagara Local Municipality.

Private Property (2014) indicated that the lack of vacant land that is available for development in Kathu, is mostly due to private mining companies and developer interest. However, private residential estate development the area, has since 2012 enabled entry-level and first-time home buyers access to housing from R400 000 upward. In Kuruman these development has been done in Wrenchville.



3.11.6 MUNICIPAL FINANCES

The main source of revenue for the district is the Equitable Share (R62 967 000). The main sources of revenue for the local municipalities are: Property Rates, Equitable Share and Infrastructure Grants (i.e. Municipal Infrastructure Grant (MIG), Regional Bulk Infrastructure Grant (RBIG), Integrated National Electrification Programme (INEP) and Water Services Infrastructure Grant (WSIG)) The figure below is the operational budget of the district and its three local municipality for the Medium Term Revenue Expenditure Framework (MTREF) for 2016/2017, 2017/2018 and 2018/2019.

It is clear from the above that the successful implementation of the district's Spatial Development Framework will depend on its local municipalities who are implementing agents for various infrastructure programmes which include water & sanitation, electricity, roads and waste management. The deficits on the district budget is a concern and must be addressed through reprioritisation, cost cutting measures and assuming bulk services function once the Section 78 Assessments has been completed.

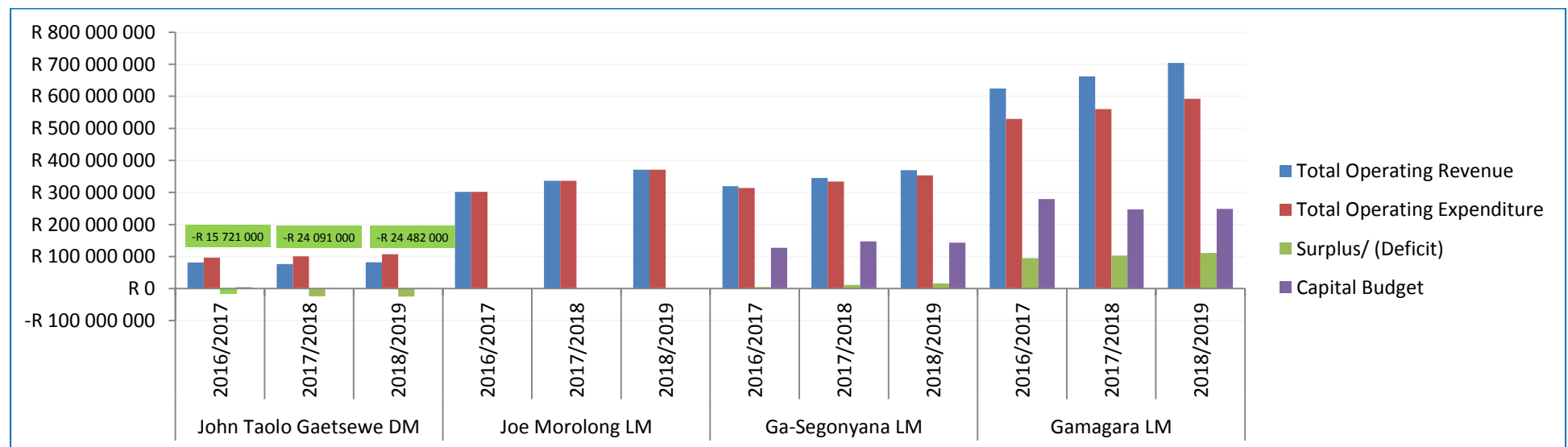


Figure 3-21: Budget of the District and its Local Municipalities
Source 2016/2017 Budgets for JTGD, JMLM, GSLM and GLM

3.11.7 CAPITAL TRANSFERS & GRANTS

The capital transfers and grants indicate the sources of income for the district and its local municipalities. The table below summarises the situation for the Medium Term Revenue and Expenditure Framework (MTREF) period i.e. 2016/2017, 2017/2018 and 2018/2019.

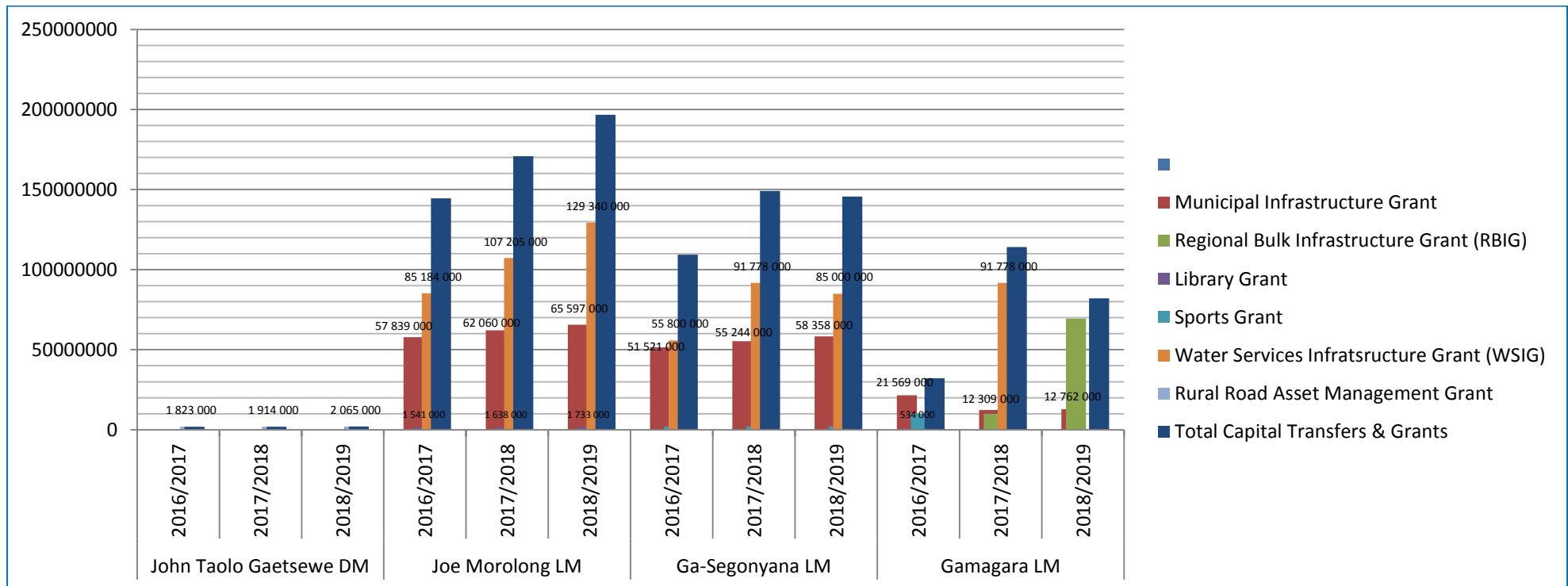


Figure 3-22: Capital Transfers and Grants
Source 2016/2017 Budgets for JTGD, JMLM, GSLM and GLM

3.11.8 PROPERTY RATES

The property rates revenue is a significant income source granted in terms of Section 229 of the Constitution, 1996 (Act 108 of 1996). The district does not have this revenue stream and only local municipalities and metros exercise this function. Revenue generated from property rates is showing a steady increase over the MTREF and its forms a significant percentage of the revenue basket for the three local municipalities. It is therefore imperative that these local municipalities must strengthen their debts collection to ensure that the revenue generated through the rates billing is collected so that it is available for the development agenda.

The drop in the rates revenue in the 2016/17 annual budget for Gamagara LM is due to the on-going dispute with the mines, and we only budgeted for what the mines committed to pay and not the entire valuation projected revenue (Gamagara IDP 2016/2017).

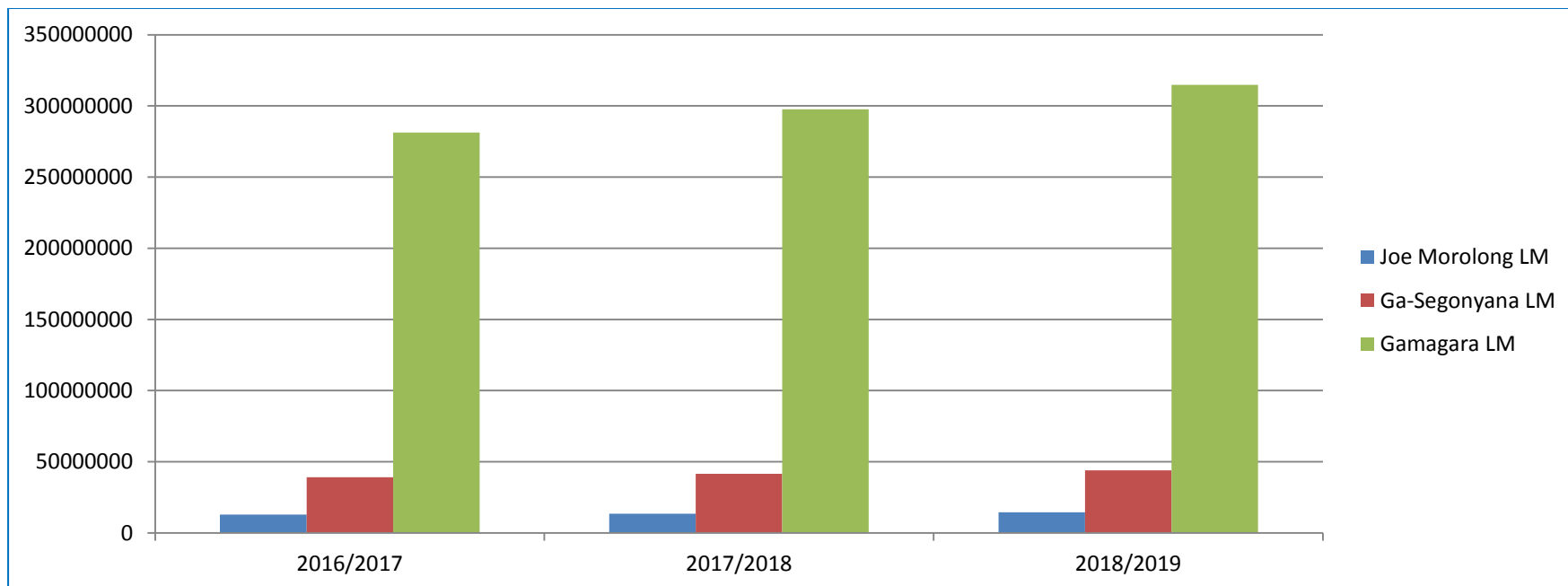


Figure 3-23: Property Rates Revenue
Source 2016/2017 Budgets for JTGD, JMLM, GSLM and GLM

3.11.9 SIGNIFICANCE ON SOCIO-ECONOMIC ENVIRONMENT

- The level of education has obvious implications for the employment potential and income of the people and it has a direct influence with the local economy and the quality life of local people, therefore, establishment of institution of higher learning such as Technical and Vocational Education Training (TVET) colleges and distance learning should be considered. Scholar transportation should be an interim arrangement with long terms goals of improving access
- Health issues and in particular TB and HIV/AIDS should be priority areas to safeguard the loss of human capital
- Safety and security: serious crime must be addressed in all the police precincts
- More than 50% of the economic active population within the district are unemployed and has no income, and unemployment is one of the main reasons of poverty, therefore more employment opportunities needs to be established through local economic development programmes (LED) to better the living standard of the JTG population.
- 50% of the employed economic active population is within the mining, wholesale and retail trade and hospitality (catering and accommodation) sector. As a result upliftment of other economic sectors e.g. agriculture and manufacturing sector should be considered to create work opportunities for the unemployed economic active population.



3.12 ECONOMIC SECTORS IN JOHN TAOLO GAETSEWE DISTRICT

The key economic sectors in the district are mining, social services, agriculture, tourism, manufacturing, and construction. Mining is the largest employer followed by the agricultural sector (StatsSA 2011).

Gross value added is the value of output less the value of intermediate consumption; it is a measure of the contribution to GDP made by an individual producer, industry or sector. (Definition used by Organisation for Economic Co-operation and Development). In principle the simplest expression of the GVA is therefore: Value of goods and services produced minus cost of production. An analysis of the GVA for Frances Baard and its constituent local municipalities indicates the following main characteristics of the local economy:

3.12.1 AGRICULTURE

John Taolo Gaetsewe District Municipality is characterized by extensive tracts of land well suited to extensive, livestock based agriculture. The rural land in the Municipality is used extensively for cattle, sheep, goat and game farming with limited intensive farming along some seasonal rivers. The area is also well known for its good commercial hunting in the winter (JTG RDP, 2016).

From a land-cover perspective, agriculture is the second most significant economic activity in the JTGD, comprising of large commercial livestock farms and subsistence grazing activities. Cultivation of land is mainly restricted to (1) the area stretching from Hotazel to Avontuur, (2) Aansluit, and (3) in tracts of land along the Molopo River. Agriculture does, however, not make a large contribution to the economy (**Map 20**), nor does it provide a substantial amount of employment – only 4.67% of the employed population is active in this sector.

The arid nature of the study area means that the carrying capacity for livestock production and potential for dry land cropping is low. Only (1) irrigated cultivation and (2) grazing at very low densities (as low as 0.06 large stock cattle units/hectare, i.e. 16 hectares/head of cattle) are possible. Despite these constraints, the area is known for its high-quality meat and meat products, and, due to its sizeable spatial extent, is an important land-use in the district.

With regards to the spatial location of types of agricultural production in the area, subsistence and survivalist farming predominate in the eastern half of the Joe Morolong LM. These activities consist mainly of livestock-keeping, poultry-rearing and planting of vegetables. Inefficient and inappropriate farming techniques and lack of exposure to skills-training, have, however, in many cases resulted in low yields. They have also been hugely detrimental to soils quality, land capability and grazing capacity and impacted in a very negative way on the environment.

Large commercial livestock farms are mainly located in the former District Management Area (i.e. the western half of the Joe Morolong LM) and the Ga-Segonyana LM. These farming activities are in general operated at close to break-even levels, with an estimated 2 to 4% return on



investment in good years. Livestock farming on these commercially-run farms consists of 80% cattle, 12% sheep, 4% goats and 4% game. Livestock is either sent to the Kuruman abattoir or to feedlots outside the district.

The Northern Cape Department of Agriculture, Land Reform and Rural development considers rural development as crucial to ensuring sustainable livelihoods and food security in the district. From this perspective, it has initiated a number of programmes to facilitate development in the sector. Amongst others, the Department instituted a study to investigate the availability of water sources in the district, which will be further enriched by the study, as noted in the section on “Water Resources” which the Department of Water Affairs has recently initiated into the availability of groundwater resources in the area. The Department also spent R10-million during the 2009/10 financial year in the district through the Comprehensive Agricultural Support Programme (CASP) on land-care by upgrading and installing new livestock water systems in Pender R, Netherway, Herstersgeluk, Maphiniki, Nyra, Adderley, Dithakong and Loopeng (IEMP 2011).

The table below gives an indication on the number of household involved in agricultural activities which has experienced a sharp decrease as compared to 2011. The number of agricultural households in the country decreased by 19,1% (550 595) from 2 879 638 in Census 2011 to 2 329 043 as recorded in Community Survey 2016. This is attributed to lack of interest or non-participation by the youth on the sector due to access to lack of access to land, low wages and high risk associated with the sector.

Table 3-11: Number of Agricultural Households by Province

Province	Agricultural Households				
	Census 2011	Community Survey 2016	% Change	Difference	% Contribution
Northern Cape	55 150	48 798	-11,5	-6 352	-0,2
South Africa	2 879 638	2 329 043	-19,1	-550 595	-19,1

Source: Census 2011 and Community Survey 2016

The table below shows the contribution per agricultural sub-sector within the province compared to national contribution.

Table 3-12: Number of Agricultural Households involved in a specific activity by province

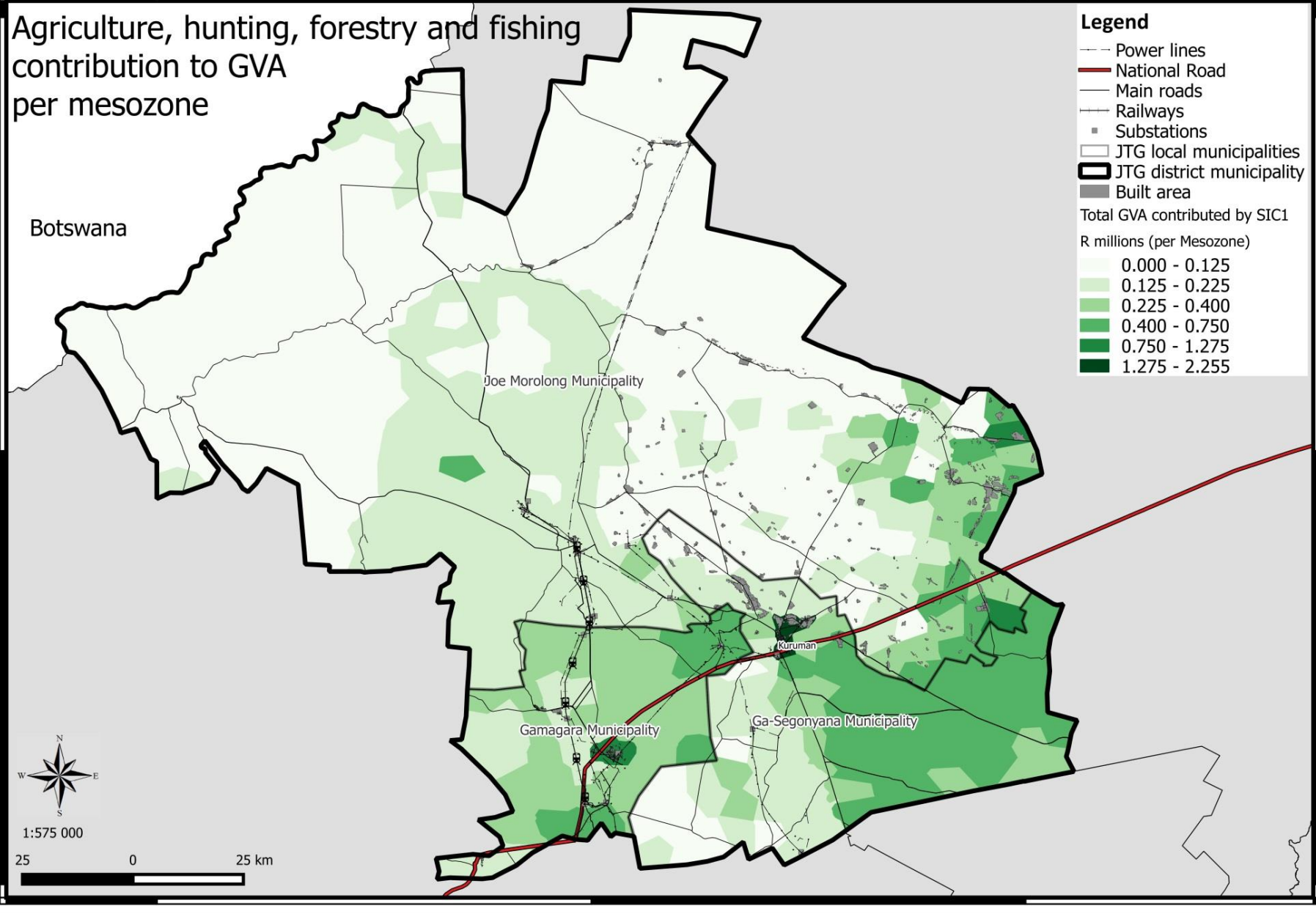
Province	Livestock Production	Poultry Production	Grain & Food Crops	Industrial Crops	Fruit Production	Vegetable Production	Other
Northern Cape	28 000	26 319	2 047	118	5 681	7 722	580
South Africa	990 210	1 120 233	574 684	10 956	399 151	873 355	44 917

Source: Community Survey 2016

Agricultural sector contribution to GVA is high in Gamagara LM and Ga-Segonyana LM contrary to the land size in Joe Morolong (**Map 21**). The agricultural activity in Joe Morolong within the traditional areas is of subsistence farming.



Agriculture, hunting, forestry and fishing contribution to GVA per mesozone



3.12.1.1 AGRICULTURE: RISKS AND CHALLENGES

The agricultural sector is beset by serious risks and faces a number of serious challenges in the area. These include the following:

- The semi-arid climate, with its very low seasonal rainfall and high evaporation levels, which limits the development of the agricultural sector. Without (1) sizeable transfers from other catchment areas, and (2) the introduction of very different, environmentally suitable farming practices, the available water supply will not be able to support large-scale agricultural expansion;
- Due to communities utilising more groundwater than is being replenished through precipitation and transfers, potable water sources in the district are running out;
- De-watering as a result of mining and related activities
- The salinity level of especially underground water sources in the area is constantly increasing, posing a serious threat to both human life and the environment;
- The low levels of socio-economic development in the area, and the lack of access to skills and high-tech farming technologies and equipment for arid areas, results in especially emerging farmers placing huge pressure on the already limited natural resources in the study area; and
- Global warming and climate change pose serious threats to agriculture in the district in four key respects:
 - Higher temperatures in the form of higher maximums and higher averages in an area that already has very high temperatures;
 - Lower annual rainfall figures in an area that already receives very little rain, and amongst the many other negative impacts, also worsens the already high salinity levels of the water resources in the region;
 - More erratic rainfall patterns, with a greater frequency of droughts, floods and freak thunderstorms, which can wreak havoc on soils, which have an already low vegetation cover and experience high levels of over-grazing; and
 - Vegetation change, due to lower precipitation, higher water-salinity levels, increased erosion and an increased prevalence of survivalist human-induced exploitation of the natural vegetation base.



3.12.2 MINING

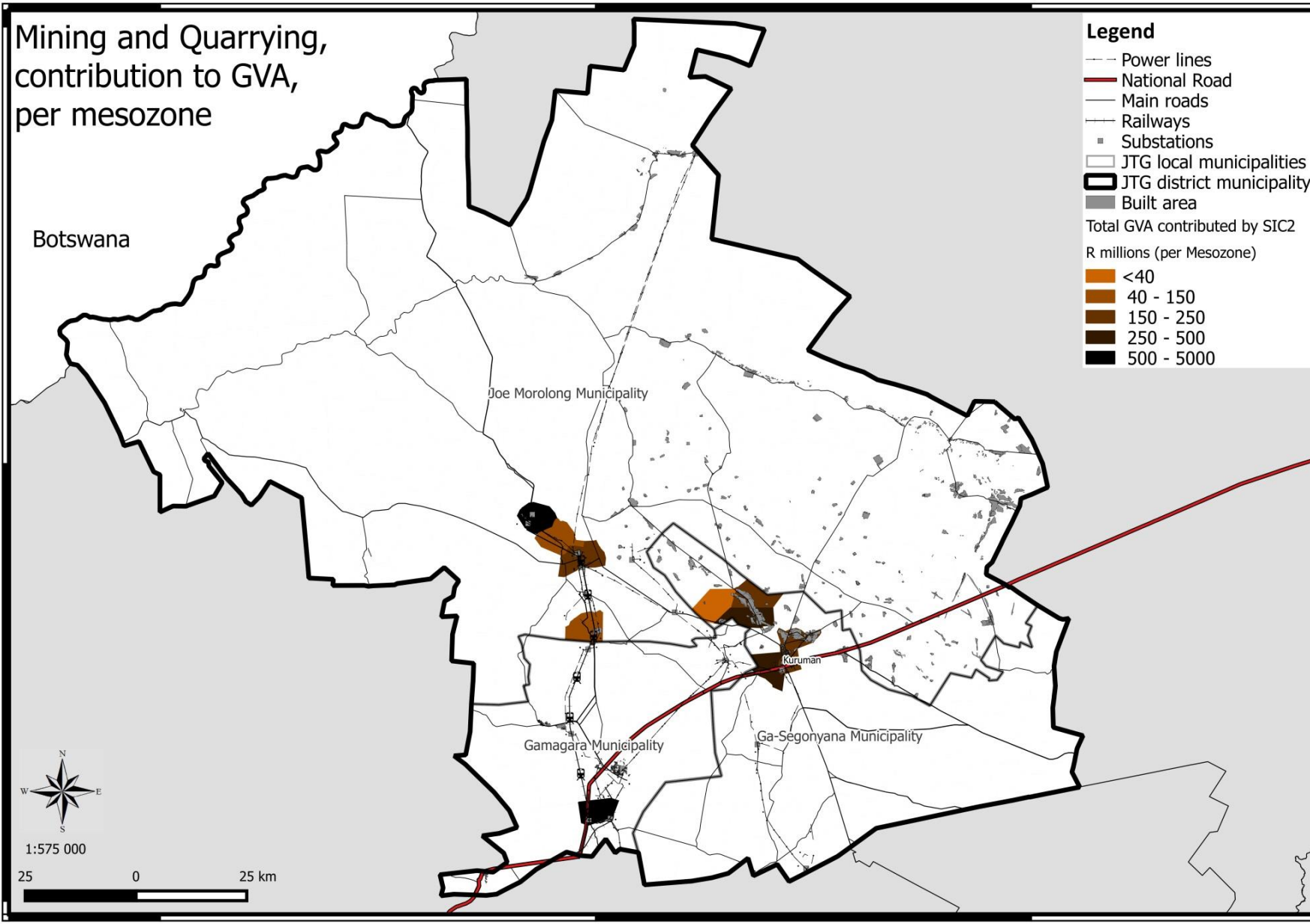
The main economic activity in the area is mining, followed by agriculture, tourism and retail. The JTGDM was the richest mining region in the Northern Cape until a decline in mining employment and the near extinction of the asbestos mining industry in the 1980s. Today, minerals mined include manganese ore, iron ore and tiger's eye. The Sishen iron-ore mine is one of the largest open-cast mines in the world and the iron-ore railway from Sishen to Saldanha is one of the longest iron-ore carriers in the world (van Weele, 2011).

Mining is clearly the largest contributor the JTGDM economy with 65% of GVA generated in the area gained from mining activities. Mining has been prevalent in JTGDM for a long period with the Sishen mine operating in the area since 1953 and has large open pit mining activities with Sishen mine the largest open pit mine in the world. Asbestos has also been mined in the northern area of JTGDM, but mining operations stopped in 1979. Minerals mined in the area are mainly iron ore and manganese, other minerals are also found within the area, the main mining activity however is with regards to these two minerals. The prevalence of these resources is indicated in **Map 22** showing the mining potential below.

The mining sector has potential in the JTGDM and also for the Northern Cape with massive expansion of mines to the south in Postmasburg that is evident as a result of the availability of minerals. South Africa is 7th globally on the production of iron ore with 78 000 mega tons for 2014, with almost half of those reserves originating from the Sishen mine alone (Mining Weekly, 2013). Although South Africa is 7th on the list for production of iron ore, most of this is exported, while South Africa only produced approximately 6.5 million metric tons of crude steel for the year 2014 (Quantec Data Research, 2015)



Mining and Quarrying, contribution to GVA, per mesozone



3.12.2.1 MINERAL OCCURRENCES WITHIN THE JTGDM

A number of opportunities in the mining and associated beneficiation sectors exist in the area, notably the following:

- Vast, extensive manganese deposits, which can be exploited both by large companies and small-scale operators where deposits are not suitable for large scale operations;
- Iron and manganese smelters;
- Semi-precious stones (e.g. granite, Tiger's Eye); and
- Industrial minerals, such as clay, sand and salt (JTG SDF, 2012).

Map 22 below indicates existing mining permits as well as the locality of mines within the JTGDM.



Mining and minerals

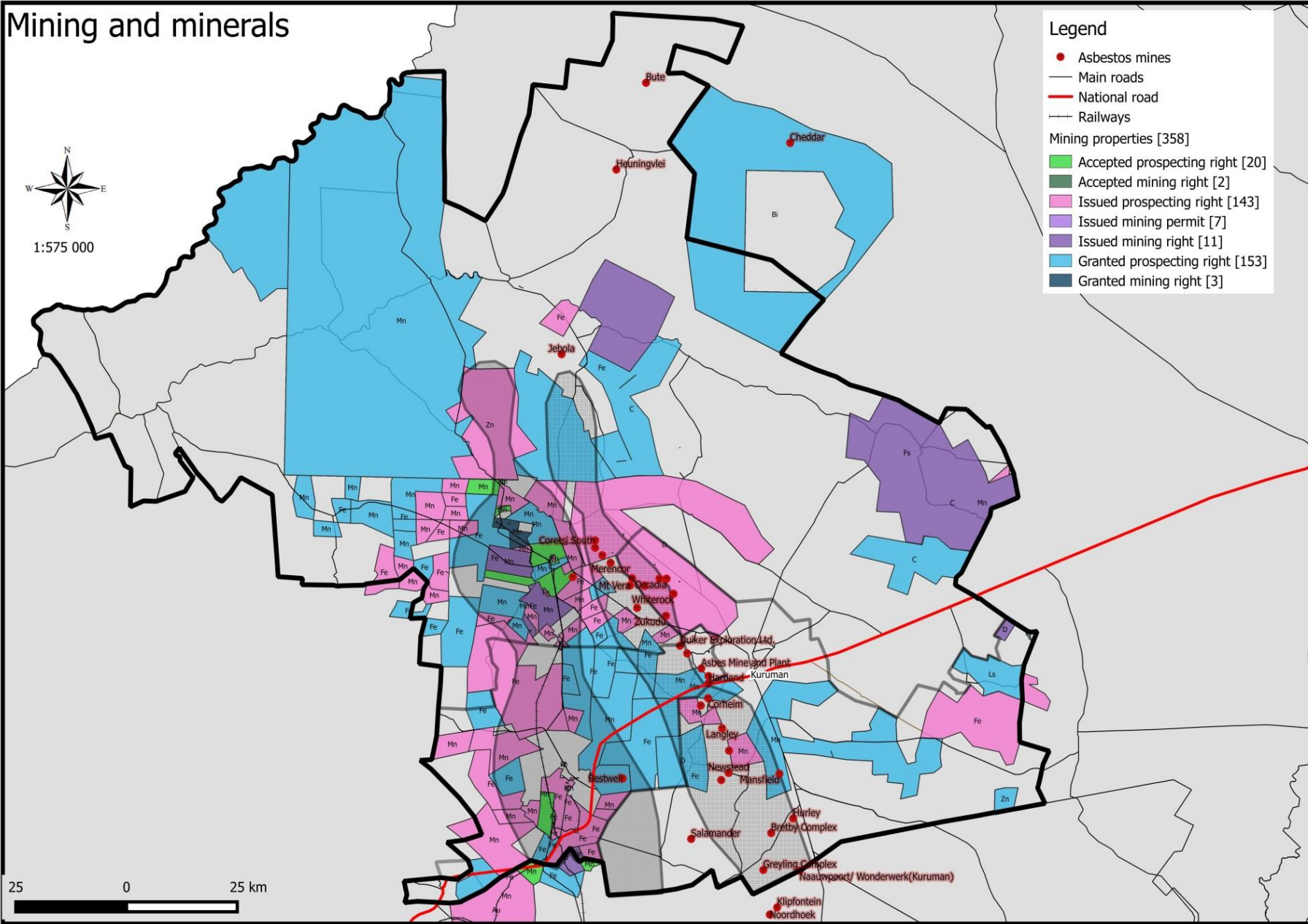


1:575 000

25 0 25 km

Legend

- Asbestos mines
- Main roads
- National road
- Railways
- Mining properties [358]
 - Accepted prospecting right [20]
 - Accepted mining right [2]
 - Issued prospecting right [143]
 - Issued mining permit [7]
 - Issued mining right [11]
 - Granted prospecting right [153]
 - Granted mining right [3]



3.12.2.2 MINING COMPANIES OPERATING WITHIN THE JTGDM

The main mining companies in the area are BHP Billiton, Assmang, Kumba, Kudumane Manganese Resources, UMK, Aquila and Amari. The major operational mines in the area are: Hotazel manganese mine, King mine, Khumani mine, Nchwaning, Gloria mine, UMK mine, Kalagadi mine, Black Rock mine, Sishen, Wessels mine and Mamatwan mine (**Map 22**). Two of the biggest mine houses in the area are Kumba and Assmang. Sishen Mine in Kathu is owned and operated by Kumba Iron Ore, and is one of the world's seven largest open pit mines. 38 Small-scale Kieselguhr mining takes place at Olifantshoek.

The Northern Cape Department of Economic Development and Tourism SMEC Report 2013 identify the following three distinctive mining areas that will have a bearing on future urban developments of the John Taolo Gaetsewe District Municipality:

- Avontuur Mining Field in the North: Gravenhage Manganese by Aquila Steel.
- The Kalahari Manganese Field between Kathu and Hotazel/Blackrock and home of the Assmang and BHP Billiton Mines such as Mamatwan Wessels and Nchwaning mines as well as quite a number of new mines such as Kudumane, UMK, Amari, Kalagadi Manganese and Tsipi Borwa Mines.
- The northern tip of the Postmasburg Managanese Field around and just south of Kathu: Mostly iron ore mines such as Kumba's Sishen Iron Ore, Khumani and Burke Mines.

Currently, the Northern Cape provincial government, in collaboration with the national government, municipalities, communities and private sector role-players in the area, is exploring the possibility of developing a mining corridor along the main mining deposits and activities in the region. This is part of the two Strategic Integrated Projects (SIPs) i.e. SIP 3 (South-Eastern node & corridor development – Increase manganese rail capacity in the Northern Cape) and SIP 5 (Saldanha-Northern Cape development corridor).

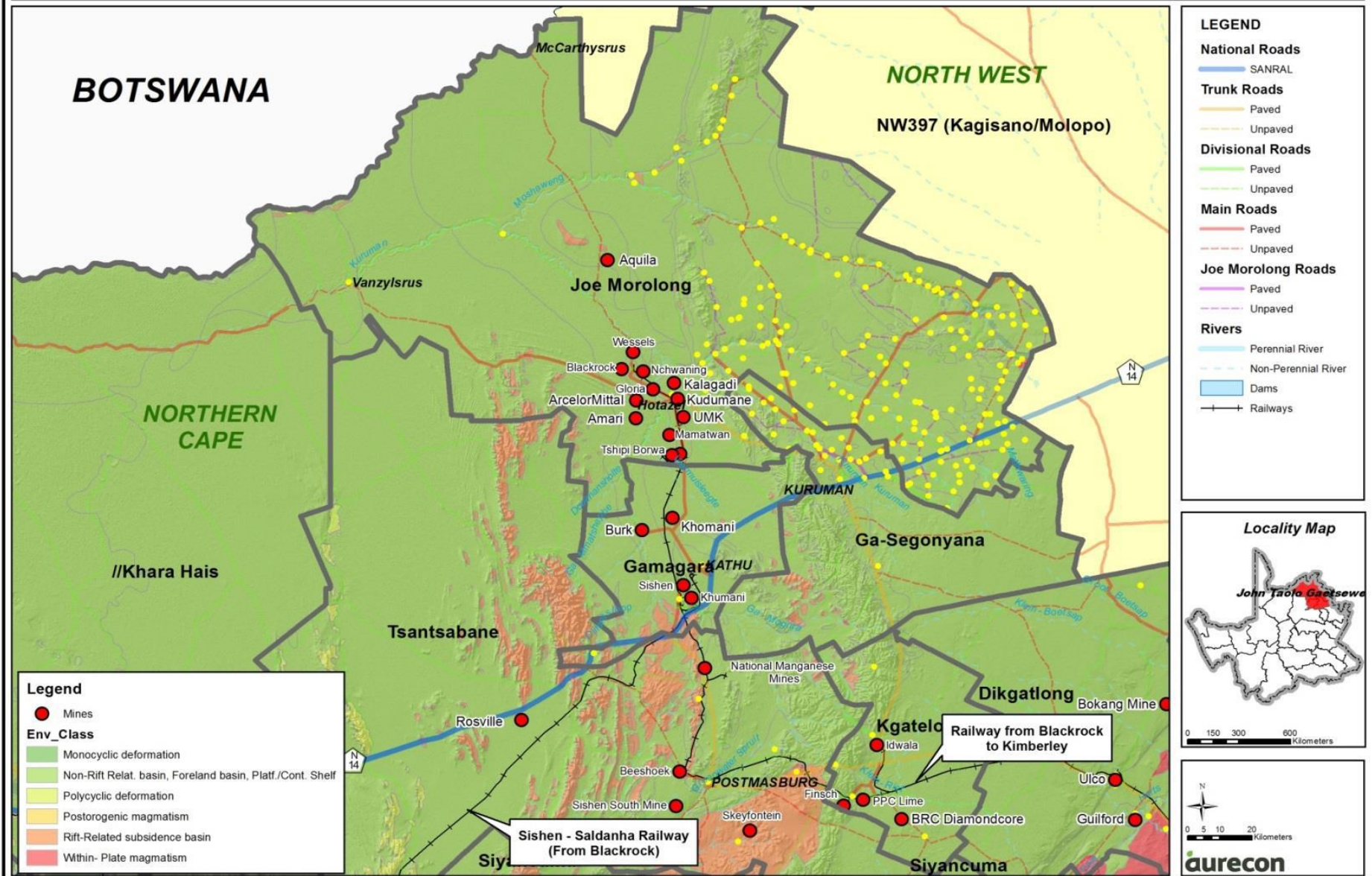
SIP 3 and SIP 5 are two of the eighteen (18) Strategic Integrated Projects (SIPs) which is a government programme i.e. National Infrastructure Plan to support economic development and address service delivery in the poorest provinces.

SIP 3 involves the South-Eastern node & corridor development – Increase manganese rail capacity in the Northern Cape whilst SIP 5 is regarding the Saldanha-Northern Cape development corridor, known as Gamagara Corridor which holds enormous potential for:

- Responsible mining that benefits everyone in the region;
- The development of a much bigger mining-beneficiation sector in the area;
- Agricultural production and agro-processing and the establishment and expansion of cooperatives in these sectors;
- The setting up and expansion of light industrial and service industries in the area; and
- Cooperative, integrated and sustainable human settlement planning and development in the wider region.



LOCALITY OF MINES - JOHN TAOLO GAETSEWE



Source: JTGDMD RDP 2016



JTGDMD

3.12.2.3 STATUS ON MINING COMPANIES PERFORMANCE/ OPERATIONS

New manganese mines around in the JTGMDC in the Northern Cape, many of them owned by BBBEE entities with foreign partners, are starting to produce their first ore.

Billions of Rands have been invested in these mines and their supporting infrastructure: roads, housing, water, rail upgrades and port expansions. But it may have been too much, too quickly. New production is coinciding with a weaker manganese price and may even help to explain that weakness, in combination with uncertain off take from China's steel industry.

SA has about 80% of the world's manganese resources. Manganese is an industrial metal which is used to strengthen to steel.

The two oldest manganese producers in the Northern Cape are Assmang, which is jointly owned by African Rainbow Minerals (ARM) and Assore; and Samancor Holdings, which is 60% owned by BHP Billiton and 40% by Anglo American (Financial Mail 2014).

After amendments to the Mineral & Petroleum Resources Development Act, 2002 (Act 28 of 2002) opportunities have been created for new entrants who include companies such as United Manganese of Kalahari (UMK), Kalagadi Manganese, Tshipi é Ntle and Kudumane Manganese Resources put together the funding and expertise to build substantial mines.

To support the new production, Transnet has committed to expand the export network, including rail line capacity to 16Mt/year by 2020 from around 5Mt and matching handling capacity at the port of Ngqura in the Eastern Cape. This is SIP 3 (i.e. Saldanha-Northern Cape development corridor) one of 18 Strategic Infrastructure Projects (SIPS) on implementation in line with the National Infrastructure Plan (NIP) 2012.

Samancor has no known expansion plans at its manganese mines in the Northern Cape but Assmang's owners have approved the Black Rock Mine Expansion Project to increase saleable production to 4,6Mt per annum from 3,2Mt (Financial Mail, 2014).

ARM Ferrous approved funding which is focusing on the projects sustainability, including new underground infrastructure to improve cost efficiencies, and the expansion projects will follow later. An increase in output will be synchronised with Transnet's plans to increase capacity on the rail line and at the port.

Transnet is currently implementing its Manganese Export Capacity Allocation (Meca) 2, an interim arrangement to allocate the capacity on the rail line amongst producers in the period up to 2019. After that, Meca 3 will be implemented, to allocate the expanded capacity as it starts to come on stream. Transnet has already increased the capacity on the existing line to 7.2Mt/year through a range of initiatives. Up to 10Mt/year of new manganese is being targeted by four groups.



UMK is a 51:49 joint venture between a BEE group, Majestic Silver Trading (in which Chancellor House is a shareholder), and Renova Manganese Investments. Its website says it was producing 2,04Mt run of mine (ROM) manganese by 2010 but it did not respond to a request last week for an update.

Kalagadi Manganese is 50% owned by Arcelor Mittal, 40% by Kalahari Resources and 10% by the Industrial Development Corporation (IDC). The mine is targeting up to 3Mt/year of 36% grade ROM ore. There are also plans to build a sinter plant which will upgrade this to 46% manganese, producing 2.4Mt/year. Some will be exported and some will feed a planned smelter at Coega IDZ to produce 320 000t/year of high carbon ferromanganese (Financial Mail 2014).

Kudumane Manganese Mine, which was targeting first phase production of 1.5Mt/year by the end of last year, rising to 2.5Mt by 2019, is owned by Dirleton Minerals and Northern Cape Manganese. Asia Minerals of Japan owns 49% of each of those companies. Kudumane's ultimate production target is 2.5Mt/year. It also failed to respond to e-mailed questions.

Tshipi Borwa mine is owned by Tshipi é Ntle, whose shareholders are a BBBEE consortium, Ntsimbintle Mining, Pallinghurst through Jupiter Mines, and Korean steel company Posco. Tshipi é Ntle mine is now operating at nameplate capacity (2,4Mt/year) and work on the plant is continuing. Most of the ore is being railed and some is being trucked to a transshipment hub at Johannesburg, where it is taken by rail in containers to the ports of Durban or Port Elizabeth.

Transnet has put a lot of high-quality planning into its target of increasing capacity on the manganese line. The introduction of new Chinese-designed locomotives may also increase efficiencies on the rail line. Manganese ore prices have dropped 16% - 20% in the 3rd quarter of 2014 as a result of increased production from South Africa, high stocks in China and uncertainty over Chinese steel production (Financial Mail 2014). In South Africa, production from the new mines developed by Tshipi é Ntle, UMK, Kalagadi Manganese and Kudumane together represents an additional 4Mt - 5Mt of production this year, taking current production to almost double the volumes of a few years ago (Financial Mail 2014).

3.12.2.4 MINING: RISKS AND CHALLENGES

The mining commodities are hugely affected by global markets. Below is some of the risk and challenges that have been faced by the mining companies operating within the JTG area.

KUMBA Iron Ore, SA's largest producer of the crucial steel ingredient, is slashing the workforce at its flagship Sishen mine by nearly half to cope with weak iron ore prices. The Sishen mine, the largest source of iron ore in SA for decades, has undergone a major change because of the enormous amount of waste that had to be moved to expose ore. The change has not been quick enough and majority shareholder Anglo American told investors in December 2015 a decision had been taken to shift focus away from volumes and instead focus on cutting costs,



reducing capital expenditure and boosting cash generation. The production forecast was lowered to 26-million tonnes a year at a unit cash cost delivered on board ships in Saldanha port of less than \$30 a tonne this year, giving a breakeven price of landing ore in China at below \$40 a tonne (Business Day, 2016).

As part of this new plan, the workforce would have to be cut, Kumba said. Of the 5,840 employees at Sishen, Kumba aims to reduce the number by 2,633 and cut 1,300 of 3,000 contractor jobs. Sishen is the largest single source of jobs in Kumba, which employs 7,434 people after it stopped mining the Thabazimbi mine last year, removing 1,160 jobs. In July last year, Kumba told the unions it wanted to cut 175 jobs at its Northern Cape mines i.e. Sishen and Kolomela (Business Day, 2016).

In 2016, Its Kolomela mine produced 2.7-million tonnes for the first quarter, a decrease of 9% the March quarter last year and 5% on the December quarter, due to a safety stoppage following a fatality that occurred at the mine in January. KUMBA Iron Ore slashed production by 27% to 8.9-million tonnes in the March quarter, the Anglo American subsidiary said in a production update on Thursday. Total export sales volumes fell 18% from the matching quarter last year and 11% from the December quarter. Domestic sales volumes of 1.2-million tonnes were off 19% year on year but doubled quarter on quarter, based on customer requirements. Kumba said its Sishen mine's production fell 34% to 5.8-million tonnes. This reduction was in line with the mine's lower-cost pit configuration, the statement said. "Sishen continues to experience feedstock constraints, which have been exacerbated by higher levels of rainfall experienced during the quarter. Solutions are being implemented to increase mine flexibility" (Kumba, 2016).

Sishen remains under pressure as commodity prices show no signs of recovery. Currently, according to the Financial Mail Edition (2 May 2014), prices for low-grade manganese (37% or less) have weakened, and at prices below US\$4 per dry metric ton unit (DMTU) it will be very difficult for many new manganese miners to realise a profit from exporting. Logistical costs can be as much as mine operating costs. Longer-term prices, on which projects were based, are around \$5/DMTU. At these prices, some producers may have to slow down their project plans.

According to the SMEC Report (2013), the largest impact will be on Kathu and its satellite towns, Dibeng and Olifantsfontein, as well as Hotazel in Joe Morolong Local Municipality. Both will grow dramatically fast over the next 8 years, stay on that high level for a further 7 - 8 years and then downscaling will hit Kathu from 2027 onwards. Hotazel may not be affected negatively as the Manganese Mines will still continue with ample reserves to mine (SMEC REPORT 2013).

Mining investment is negatively impacted largely due to the lengthy processes associated with the acquiring of mining permits, environmental authorisations and resistance by advocacy groupings and labour related issues over and above the globally volatile commodity.



3.12.3 TOURISM

The JTGDM has a unique array of tourism and heritage resources that not only have to be protected, but can also, if managed wisely, serve as a strong attraction for tourists to the area (**Map 25**). These resources/attractions are the following:

- *World Heritage Site*: The Wonderwerk Cave (situated on portion of Portion 23 of the farm Block AA 689 RD) was declared a National Heritage Site in terms of the South African Heritage Resources Agency Act, 1999 (Act 25 of 1999) in March 2010
- *Tourist Accommodation*: International and domestic tourists on their way to and from the interior provinces, notably Gauteng and Mpumalanga, and the West Coast and Namibia, often use Kuruman as stopover point. While this is a welcome source of income for the guest houses and lodges in the area, it would add a substantial injection into the local economy if such stopovers could be extended to two or three nights. This would of course require that tourists are made aware of the attractions in the wider area and that the nodes in which the guest houses are located are developed and managed with such tourists in mind.
- *Other attractions in the district area*: There are a number of attractions that could be used to enhance the attractiveness of the area for tourists. These include (1) the Kalahari Raptor Rehabilitation Centre; (2) the Kuruman Eye, which is the largest natural fountain in the southern hemisphere; (3) the Wonderwerk Caves; and (4) the Kuruman Moffat Museum. Again, the utilisation of these sites as tourist attractions would require strong management and in some cases upgrading, better signage and marketing.
- *Undeveloped potential tourism attractions*: Bothitong and Kiangkop
- *Opportunities for adventure and 'green tourism'*: While these two associated tourism segments have not been extensively utilised in the area, the western parts of the Joe Morolong LM do have pristine natural environments, which are ideal for such activities (Tswalu Game Reserve).

3.12.3.1 ECO-TOURISM

The activities listed as eco-tourism in JTGDM can be listed as camping, game drives, hunting, indigenous wildlife, natural springs and caves, etc. Most of these activities are situated in the east and north east of JTGDM. Some of the main eco-tourism attractions include the following:

- The Eye: This is a geological feature bringing water from deep underground to the surface in the Kalahari Desert. The Eye is the biggest natural fountain in the southern hemisphere, proclaimed a national monument in 1992.
- Khai Apple Recreation Resort: situated in the Gamagara Municipality, the resort offers outstanding accommodation, camping and caravanning facilities, fishing and horse riding
- The Kalahari Raptor Trail: Kuruman, Kathu, Olifantshoek, Upington, Keimoes, Kakamas and the Augrabies Falls National Park fall within the Kalahari Raptor Trail.



- The Camel Thorn tree *Acacia erioloba* forest is one of only two in the world with the other being between Mariental and Rehoboth in Namibia. Its uniqueness was recognized in the early 1920s when it was declared a State Forest. In 1995 it was registered as a Natural Heritage Site. The Kathu forest is approximately 4000 hectares in size and these Camel thorns trees provide support for large Sociable Weaver's nests and are used by many other bird and animal species. In fact surveys has shown a moderate to high diversity in animal and plant species, including several Red Data, endemic and protected species in and around the forest. Bigger trees in the forest are reckoned to be older than 300 years.



'The Eye' in Kuruman town

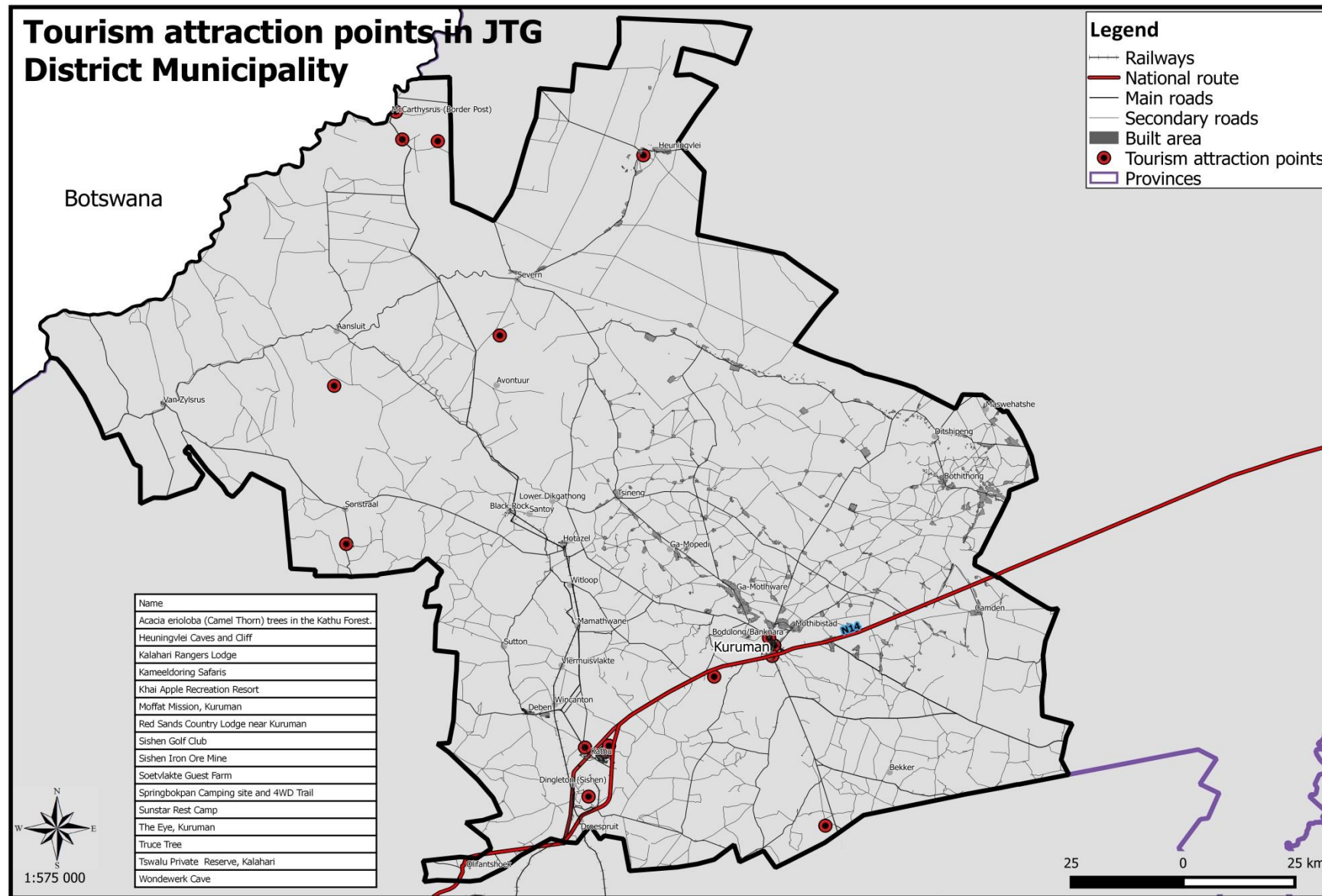


Robert Moffat Mission



Kathu Forest

Tourism attraction points in JTGD District Municipality

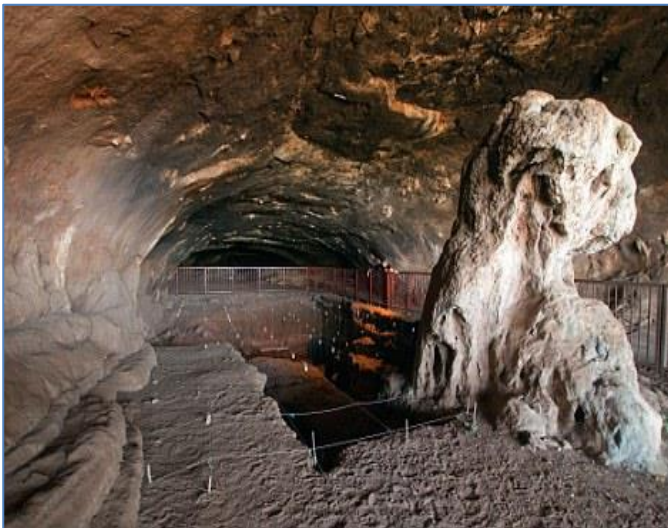


3.12.3.2 CULTURAL TOURISM

Cultural tourism can be defined as the subset of tourism concerned with a country or region's culture, specifically the lifestyle of the people in those geographical areas, the history of those people, their art, architecture, religion(s), and other elements that helped shape their way of life (JTG RDP: 151).

The cultural tourism attractions within the area are:

- Wonderwerk Cave (National Heritage Site): one of the longest-inhabited caves in the world, with San rock paintings in areas near its mouth
- Moffat Mission: established in 1820 by Scottish missionary, Robert Moffat, in Kuruman, the mission church was declared a national monument in 1993.
- Truce Tree: a treaty was signed under this tree by General JC Kemp surrendered to Capt. JP Frylinck on 8 November 1914.
- Dithakong is a well-known significant historical site, as two recognised battles took place in the area. In 1823, the Tswana mission settlement was saved from raiding Mantatee refugees by missionaries and Griquas that came to their aid. Later, in 1878, during the Griqualand West Rebellion, the BaTlhaping were shelled in their defensive positions amongst the ancient stone walls. During the Langeberg Rebellion of 1896-7, a major siege was enforced by British forces at Luka/Gamasep, located north of Olifantshoek in the eastern Langeberg, during which Kgosi Luka Jantjie was killed. There is a strong possibility that the site will be declared a Provincial Heritage Site.



Wonderwerk Cave



3.12.3.3 EDUCATIONAL TOURISM

Educational Tourism has received little attention as a vehicle for raising academic standards. The notion of travelling for educational purposes is not a new and its popularity is only expected to increase. The tourism motivated by desire to learn, has prevailed for millennia. Educational tourism is a program through which 'participants travel to a location as a group with the primary purpose of engaging in a learning experience directly related to a location (Bodger, 1998: 28).

Educational Tourism is comprised of several sub-types including eco-tourism, heritage tourism, rural/farm tourism and student exchanges between educational institutions (Smith, 2013: 2).

The educational tourism attractions within the area are:

- *Archaeological and Paleontological Resources:* Over and above the proposed National Heritage Site at the Wonderwerk Caves in Kuruman, the Kathu area is of considerable interest to the Archaeological and Paleontological communities. Currently research and fieldwork is being conducted by an international team including, as partner, the McGregor Museum, and the findings to date suggest that sites of significance may very likely be found. The interest in the area is generated by the fact that the archaeological record in the area spans the Earlier Stone Age (approximately one and a half million to 270 000 years ago) to the Later Stone Age (up to the Proto-colonial era). Of key interest in this regard is the development over the last two millennia of farming alongside foraging, leading to growing social complexity with stone-tool making made way for metallurgical (Iron Age) and ceramic technologies. Gamagara LM also has evidence of early mining activities, as early inhabitants excavated Specularite for rituals and cosmetic purposes.
- *Mining activities as tourism opportunities:* The mining companies in the area can, in collaboration with the District and Local Municipalities, set up and offer mining tours.

3.12.3.4 RISKS AND CHALLENGES

While there are huge possibilities, there are also significant risks and challenges regarding the exploitation of these potential tourism sites. These are the following:

- Climate change could wreak havoc on the aesthetic appeal of especially the natural beauty of the western side of the Joe Morolong LM;
- Unmanaged expansion of mining activities and associated expansion of human activities, could severely comprise the attractiveness and accessibility of areas with natural and historical significance;
- The absence of a coherent list of heritage resources in the area and absence of management plans could result in investment and spending decisions being taken by national, provincial and municipal organs of State that threaten these resources;



- The already strained water-availability situation in the area could worsen even further with an expansion in the tourism industry, as it could lead to (1) a greater use of water for the maintenance and upkeep of streetscapes and tourist sites and (2) the introduction of greater numbers of consumers of potable water to the area;
- With the exception of a few tourist activities situated next to the N14 or within Kuruman, the rest of the tourism activities (especially eco-tourism & nature based tourism) is remotely located and dispersed over the whole District Municipality. Travel distances between these activities coupled hinder the integration or of tourist activities as specific tourist markets are targeted (JTG RDP:153);
- The basic principle of cultural heritage conservation is that archaeological and other heritage sites are valuable, scarce and *non-renewable*. Many such sites are unfortunately lost on a daily basis through development for housing, roads and infrastructure and once archaeological sites are damaged, they cannot be re-created as site integrity and authenticity is permanently lost.

3.12.4 INDUSTRY

Industry for the purposes of this document will be classified as all the economic activities under that is within the secondary economic sector, these are:

- Manufacturing;
- Electricity, gas and water; and
- Construction.

Most of the heavy industrial activities are found near the mining towns of Kathu and Hotazel with smaller industrial and related activities in Kuruman and also Kathu (**Map 25**). Agro-processing activities are found within the towns of Kuruman and Kathu, although there are only a few industries in this market segment (JTG RDP 2016).



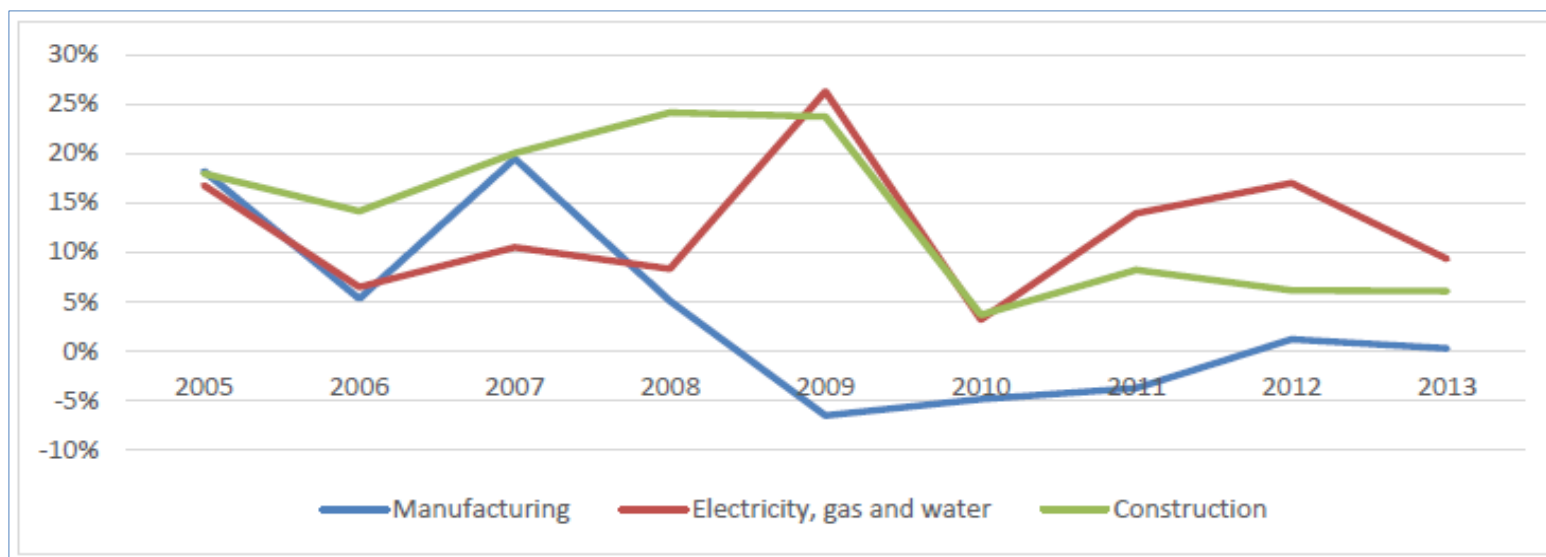


Figure 3-24: JTGDM Industry GVA Growth Rates 2005 – 2013

Source: JTG RDP 2016

The year on year GVA growth rate for all three of the secondary sector is provided in the above figure for JTGDM from 2005 – 2013. Clearly evident is once again the effect of the global recession on manufacturing. Construction sector however remained high besides the recession in 2009. This is attributed to housing developments in Kuruman and Kathu to keep up with the housing demand by the mining population. Housing development projects by private sector (particularly mining companies) could not take-off due to unavailability of bulk services in Kuruman and some of the planned or proposed developments include Galowe Integrated Human Settlement. The drop-off was the retrenchment that lay-off of mine workers and the decline in spendable housing income also had an influence on the sudden decline in construction GVA growth.

Ga-Segonyana LM in terms of the local GVA per sector has the biggest industrial area contributing most to the manufacturing GVA of JTGDM. Joe Morolong LM contributes most to the electricity, gas and water sector, while Ga-Segonyana LM contributes most towards construction, with Gamagara LM a closely in second as outlined in the graph below.

The bigger contribution by Ga-Segonyana is attributed to its comparative advantage regarding prevalence of manufacturing and service industry located in Kuruman. The graph below also shows the number of industrial sites within the main economic centres and the three local municipalities and most of these sites are in Kuruman and this is consistent with the graph here above.

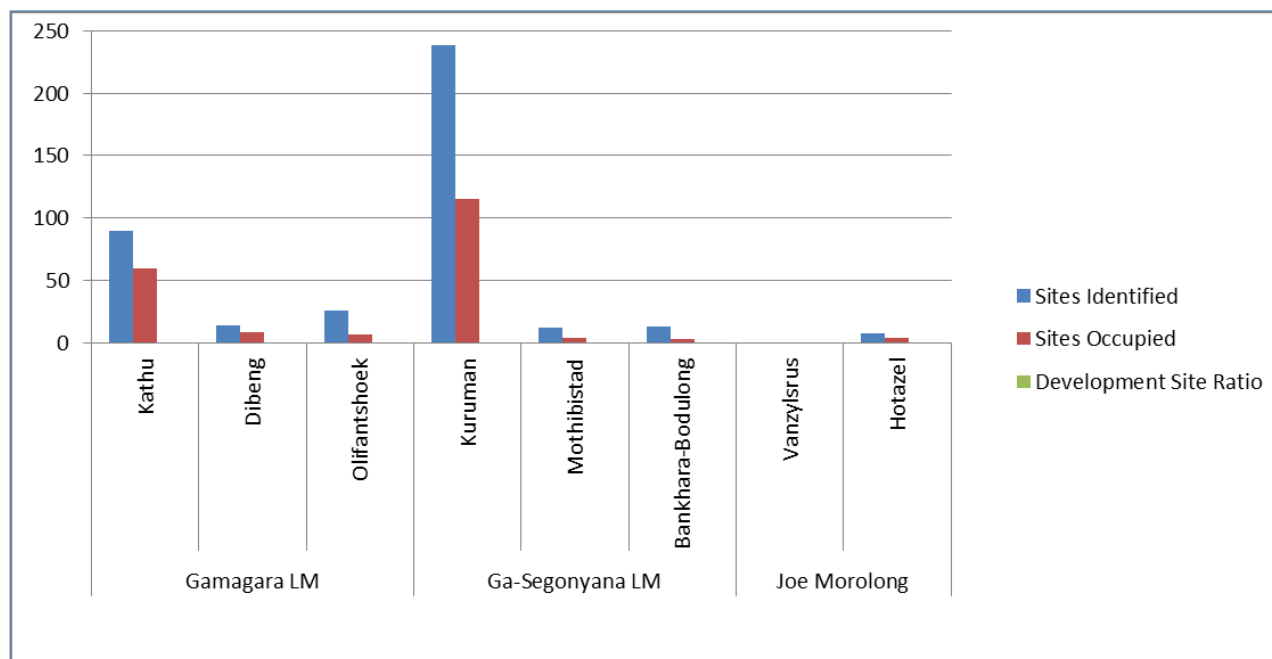
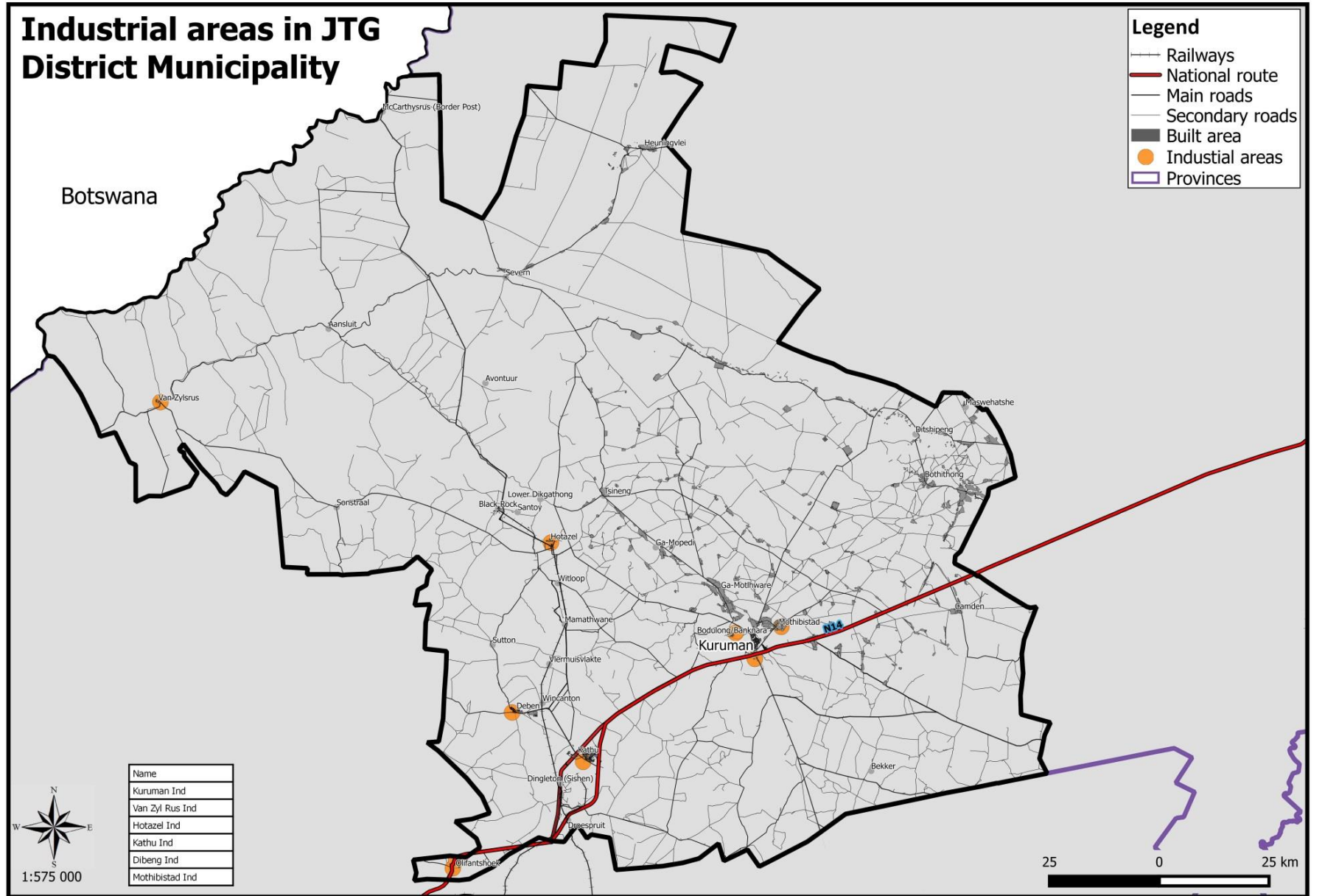


Figure 3-25: Industrial Sites within Main Economic Areas in the JTGD
Source: JTG RDP 2016

Looking at some of the sites which were identified as industrial and possible industrial within the SDF's, it is clear that there is still a lot of opportunity for industrial development in most of the town. Vanzylsrus has a large area demarcated for industrial development; however none of it has been proclaimed nor developed. The Development Site Ration (DSR) of Hotazel may seem surprising at first glance, considering how small the town is. However, the prevalence of big mines in the area allow for industrial development in the town (JTG RDP 2016)

Industrial areas in JTGD District Municipality



3.12.5 BUSINESS

Business will be classified under economic activities that occur within the tertiary economic sector. However, general governments' contribution is excluded as it is a government function. These tertiary economic activities are:

- Wholesale and retail trade, catering and accommodation;
- Transport, storage and communication;
- Finance, insurance, real estate and business services;
- Community, social and personal services; and
- General government (*excluded*)

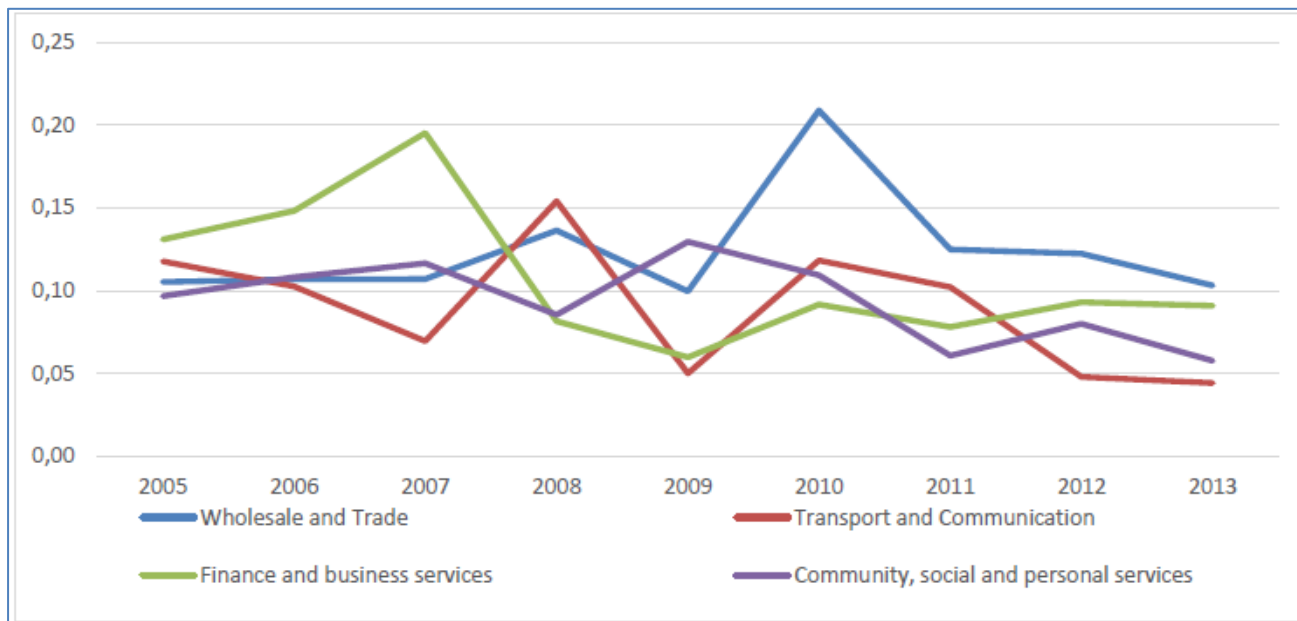


Figure 3-26: Business GVA Growth Rate, 2005 – 2013
Source: Quantec Research, 2015

The figure above indicates the GVA for each one of the economic sectors as they grew year after year for the period, 2005 – 2013. From the graph it can clearly be seen that wholesale and trade have experienced the most stable growth as a result of this sector that will always be in need, it also shows an increase in 2009 as a result of household income that recovered after the global recession.

More evidently the effects of the global recession was felt in the financial and business services sector and has since struggled to recover to the same growth level as before 2007. Community services have also seen a decline with growth from 2012 to 2013 recording the lowest for the previous decade. Transport and communications have also suffered the lowest growth in 2013 since 2005. However, none of the economic sectors indicated a negative year on year growth which is a good indication, that although growth has declined.

This growth is still positively influencing the district economy. The contribution in R millions for 2013 is indicated in the figure below and shows that Ga-Segonyana LM is the biggest contributor in all the sectors with the exception of transport and communications, where Gamagara LM contributes the most.

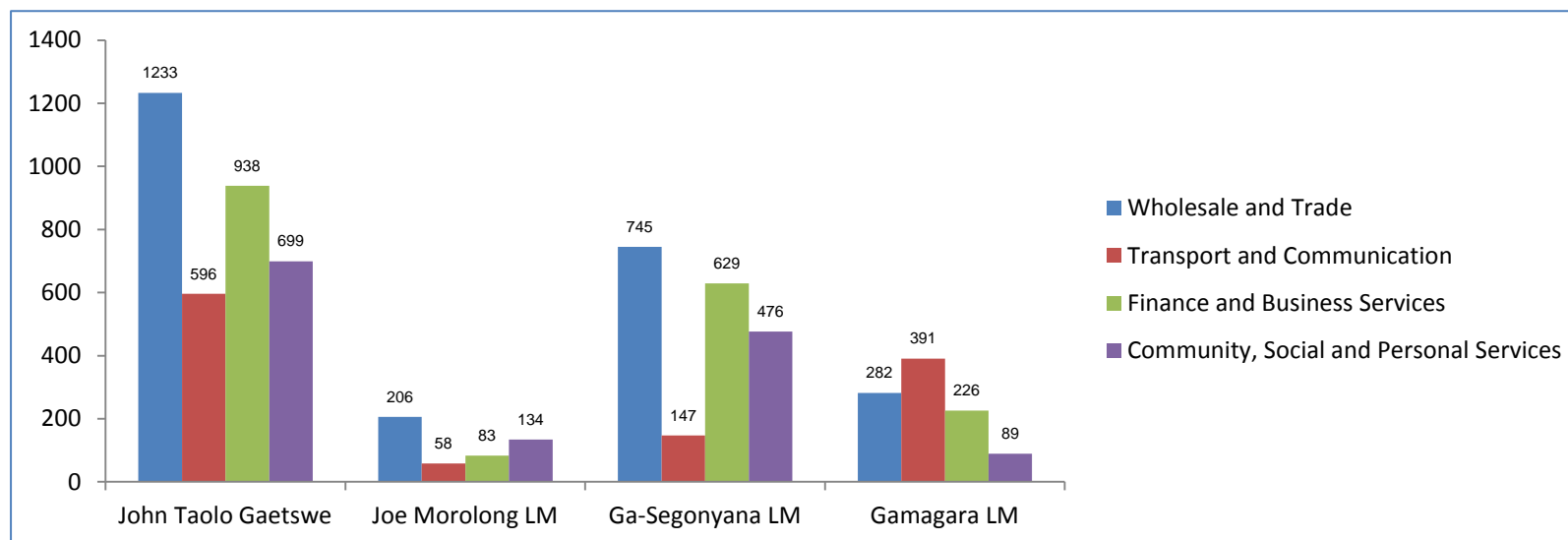


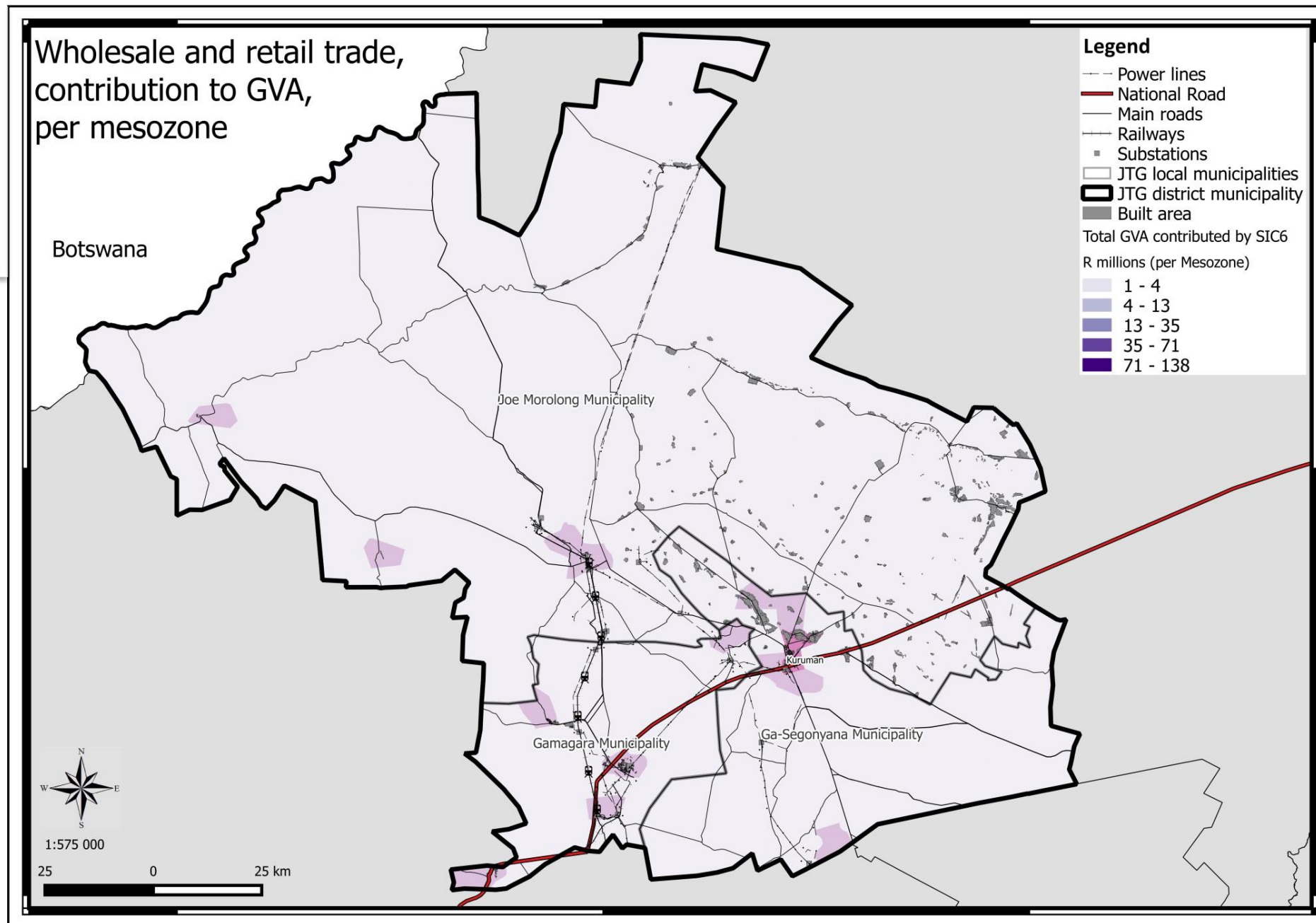
Figure 3-27: Local Municipal Business GVA (R millions) Contribution, 2013

Source: Quantec Data Research, 2015

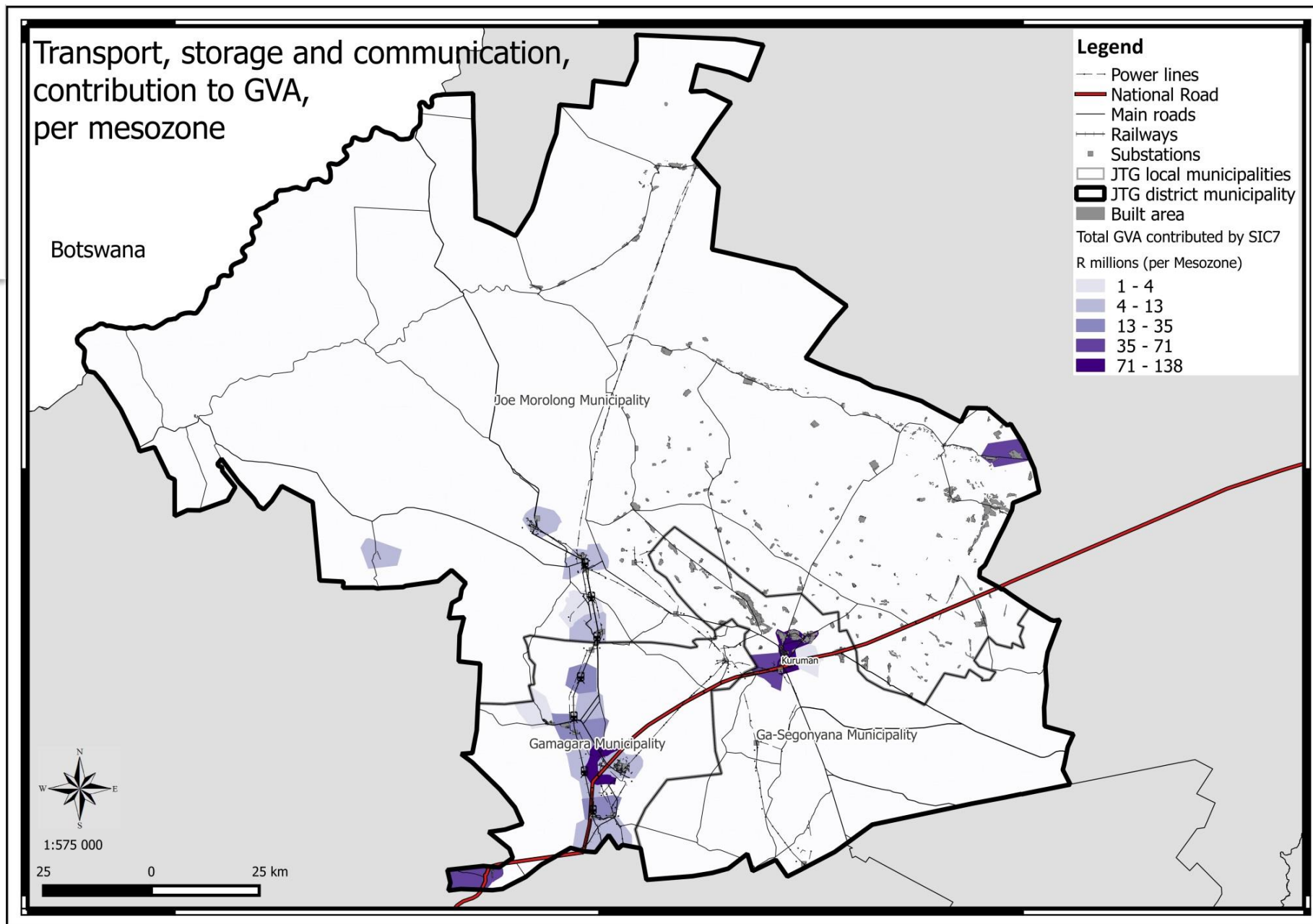
Map 26 – 29 gives a spatial representation of the total GVA contributions by these business sub-sectors.



Wholesale and retail trade, contribution to GVA, per mesozone

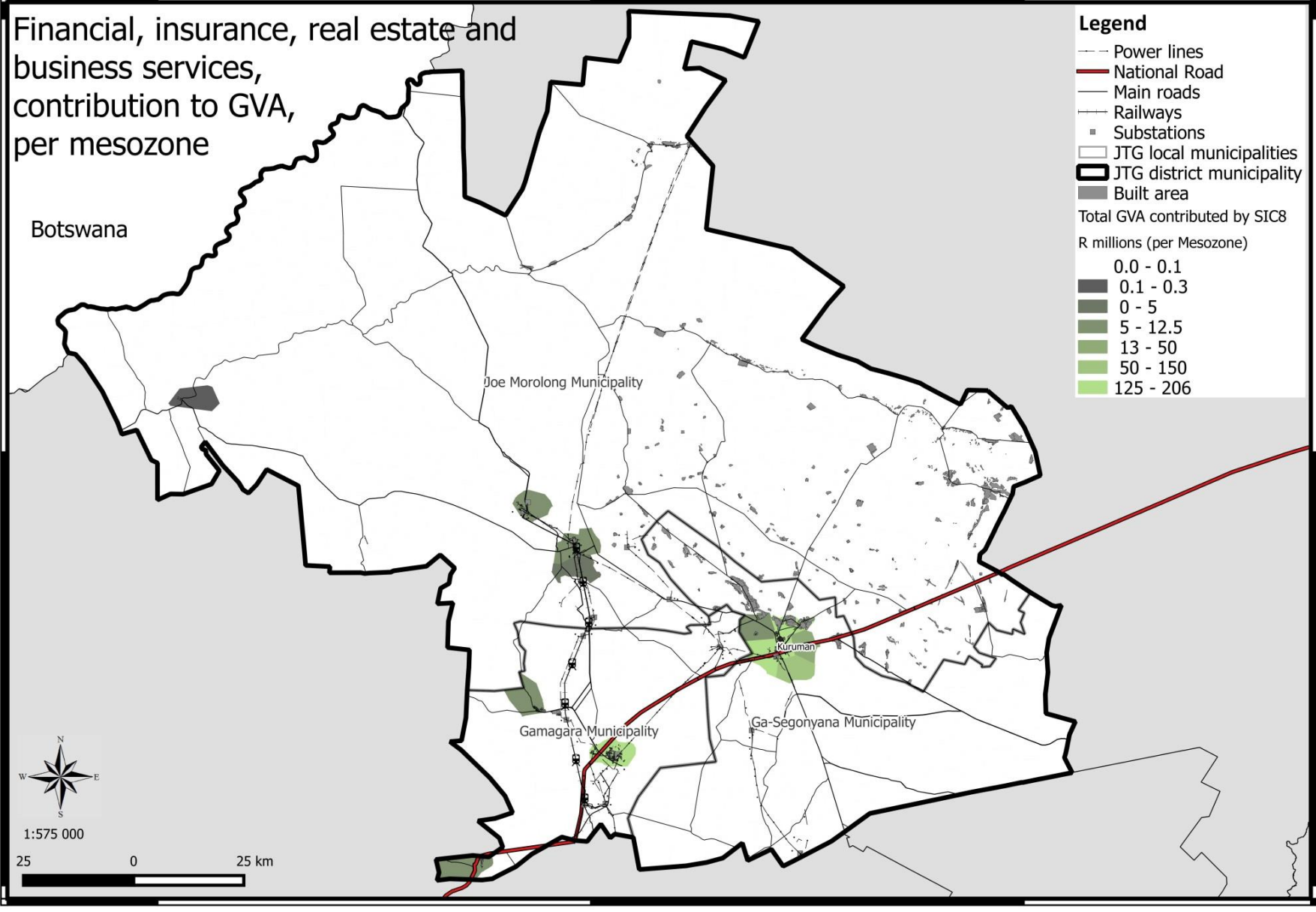


Transport, storage and communication, contribution to GVA, per mesozone



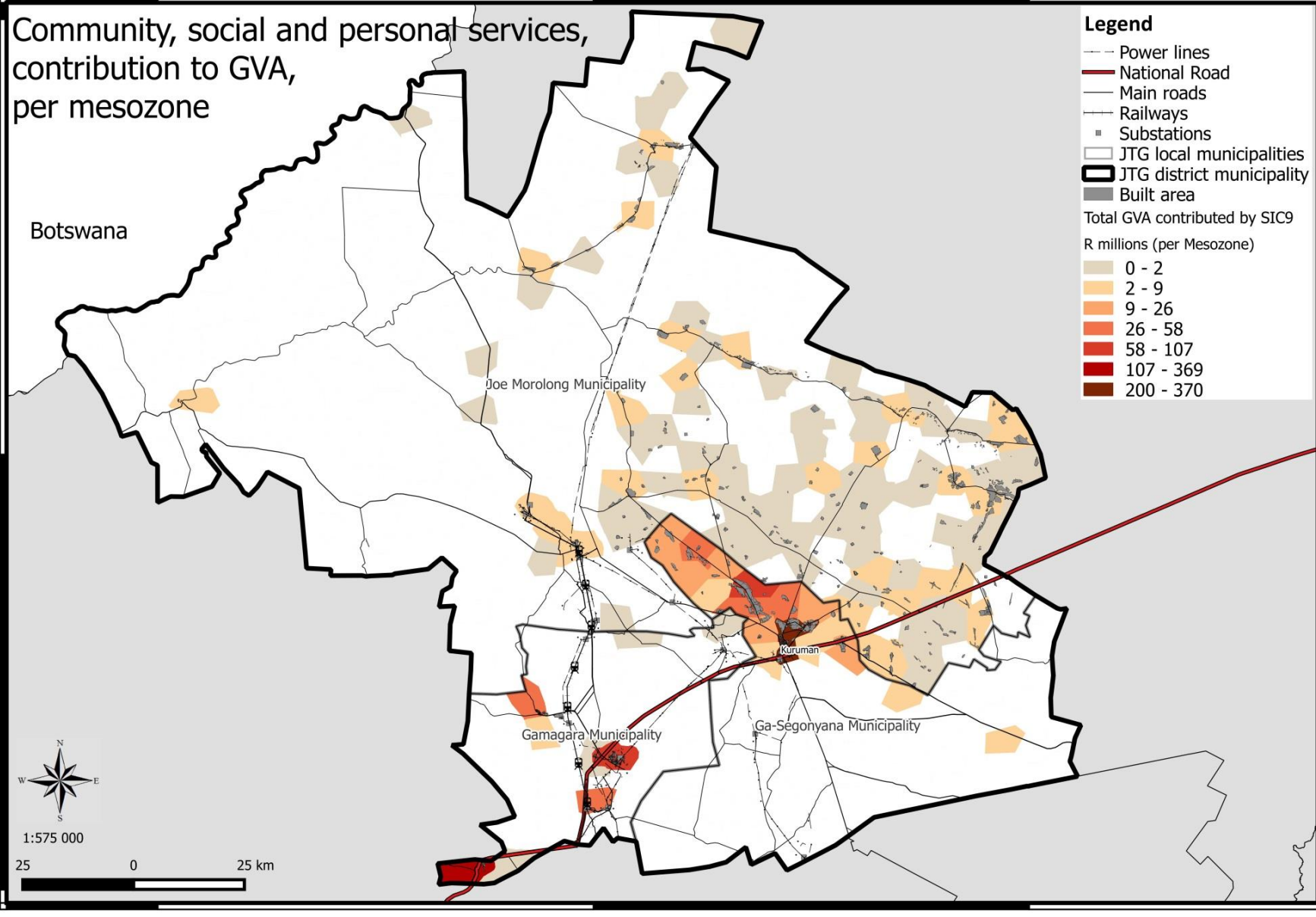
Map 28

Financial, insurance, real estate and business services, contribution to GVA, per mesozone



JTGDM

Community, social and personal services, contribution to GVA, per mesozone



3.13 CATALYTIC PROJECTS OF THE JOHN TAOLO GAETSEWE DISTRICT

3.13.1 GAMAGARA DEVELOPMENT CORRIDOR

An important element of the Northern Cape Spatial Development Framework is that it gives official recognition to the Gamagara Corridor as a mining belt across the JTG and ZF Ncgawu districts. Furthermore, while requiring the development of these districts' mineral wealth, the framework calls for a parallel process of socio-economic development that will provide for the larger community after the demise of mines in 30 to 50 years.

Taken together, these provincial plans provide a reasonably comprehensive framework for development in the Northern Cape. A drawback is that some of them may be out of date. The Gamagara Mining Corridor that is currently loosely demarcated as an area stretching from Danielskuil and Postmasburg in the south to Hotazel and Moshaweng in the north, was identified as the area where a lack of infrastructure provision is causing serious constraints in the growth of the mining industry as well as limiting the economic development of the area.

The Gamagara Development Corridor is part of the Strategic Integrated Projects (SIPs). The SIPs are a product of the National Infrastructure Projects (NIP). The NIP was initiated to provide a background on cabinet's decision to establish a body to integrate and coordinate the long-term infra-structure build known as the Presidential Infrastructure Coordinating Council (PICC). The PICC presents the spatial mapping of infrastructure gaps which analyses future population growth, projected economic growth and areas of the country which are not served with water, electricity, roads, sanitation and communication.

Based on this work, eighteen (18) Strategic Integrated Projects (SIPs) have been developed and approved to support economic development and address service delivery in the poorest provinces.

The Gamagara Development Corridor constitutes the SIP 3 (South-Eastern node & corridor development – Increase manganese rail capacity in the Northern Cape and SIP 5 (Saldanha-Northern Cape development corridor - Expansion of iron ore mining production and beneficiation).



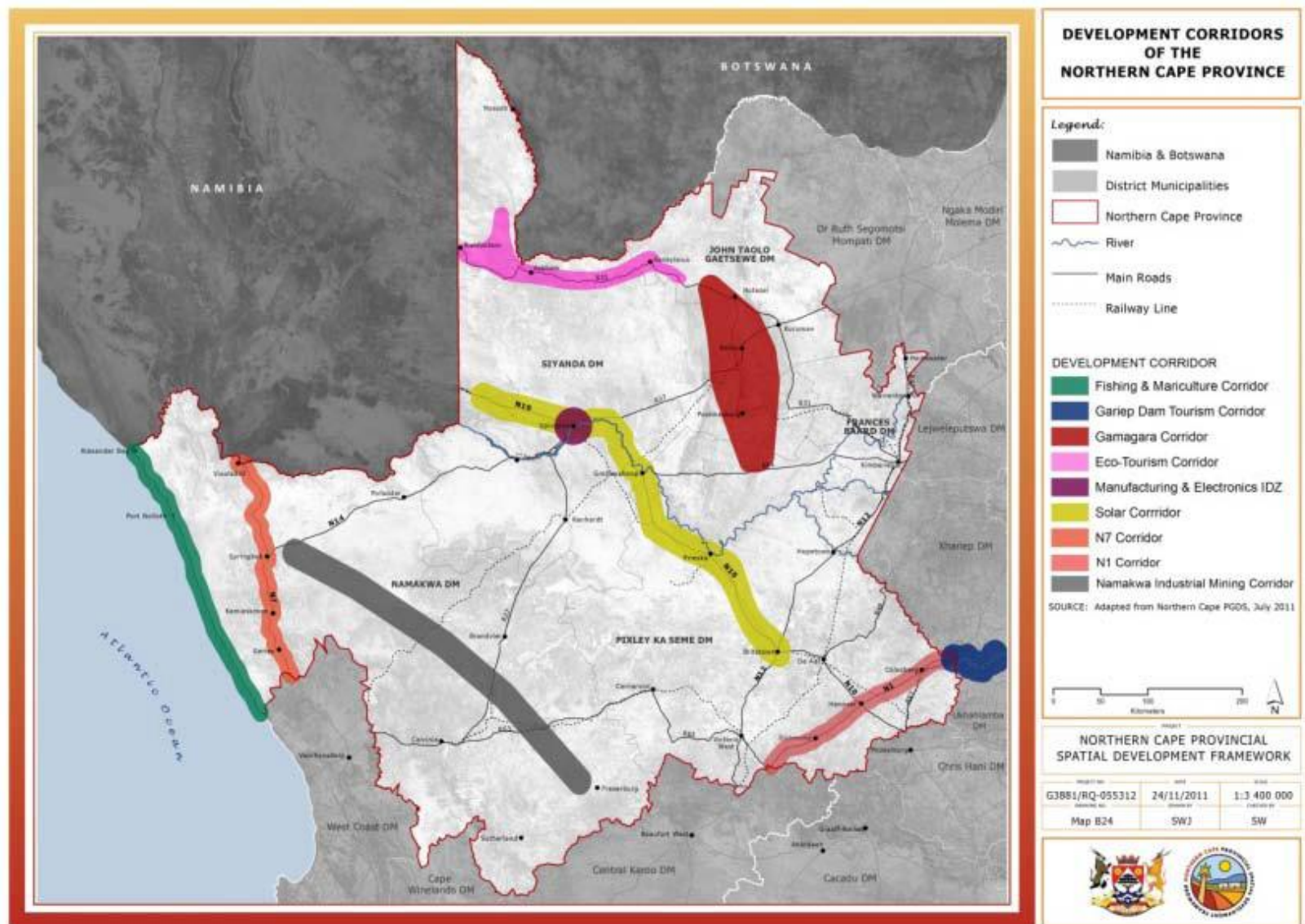


Figure 3-28: Map on Development Corridors of the Northern Cape Province
Source: NC SDF 2012

3.13.1.1 Kathu Supplier Park

Anglo American, Kumba Iron Ore and the Industrial Development Corporation are currently undertaking the development of Kathu Supplier Park. Kathu Supplier Park is proposed to be constructed on the Remaining Extent and Portion 9 of the farm Sekgame 461 RD, south of Kathu and the R380 provincial road adjacent to the existing Kathu industrial area.

The Phase 1 development of the possible supplier park will cover a footprint of 74 ha and could increase to cover an area of 100 ha as a second phase on completion.

The proposed supplier park is expected to provide an operating platform for businesses that support mining and other industries. It is envisaged that the park will consist of the following facilities: manufacturing, warehousing, facility management services (e.g. maintenance and repairs; fire fighting; housekeeping; leasing; sustainable development; municipal services; security, access control; public transport; retail; etc.), meeting and conference facilities, canteens, training, educational and social project facilities, a medical centre, incubation centre, a research laboratory, a logistic distribution and consolidation centre, an induction centre, workshops and offices. Additional infrastructure to be included for the functionality of the supplier park include: internal roads (tarred and paved), storm water system, an internal water reticulation system, electricity supply and perimeter fencing.

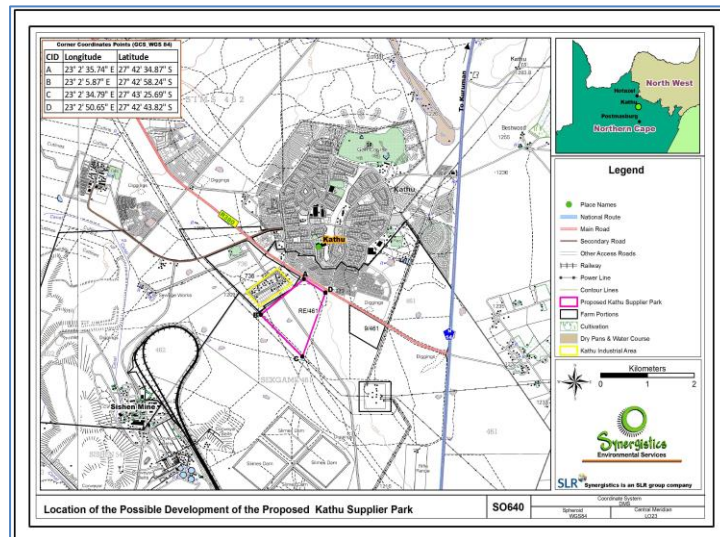


Figure 3-29: Proposed Location of Kathu Supplier Park
Source: Kathu Supplier Park Environmental Scoping Report



3.13.1.2 Mamathwane Compilation Yard

Transnet SOC (State-owned Company) Limited intends to construct a new compilation yard at Mamathwane, Northern Cape, as part of a broader project to expand the capacity of the existing manganese ore railway line from Hotazel in the Northern Cape to the Port of Ngqura in the Eastern Cape from 12 Million tons per annum (Mtpa) to 16 Mtpa. The proposed Mamathwane Compilation Park is to be constructed on Portion 3 of Remainder of the farm Moab No. 700 RD measuring 9.36 ha; Portion of Remainder of Portion 1 of the farm Shirley No. 367 RD measuring 103.40 ha; and Portion of Remainder of Portion 2 of the farm Walton No. 390 RD measuring 18.65 ha (Swanepoel and Alborough, 2012).

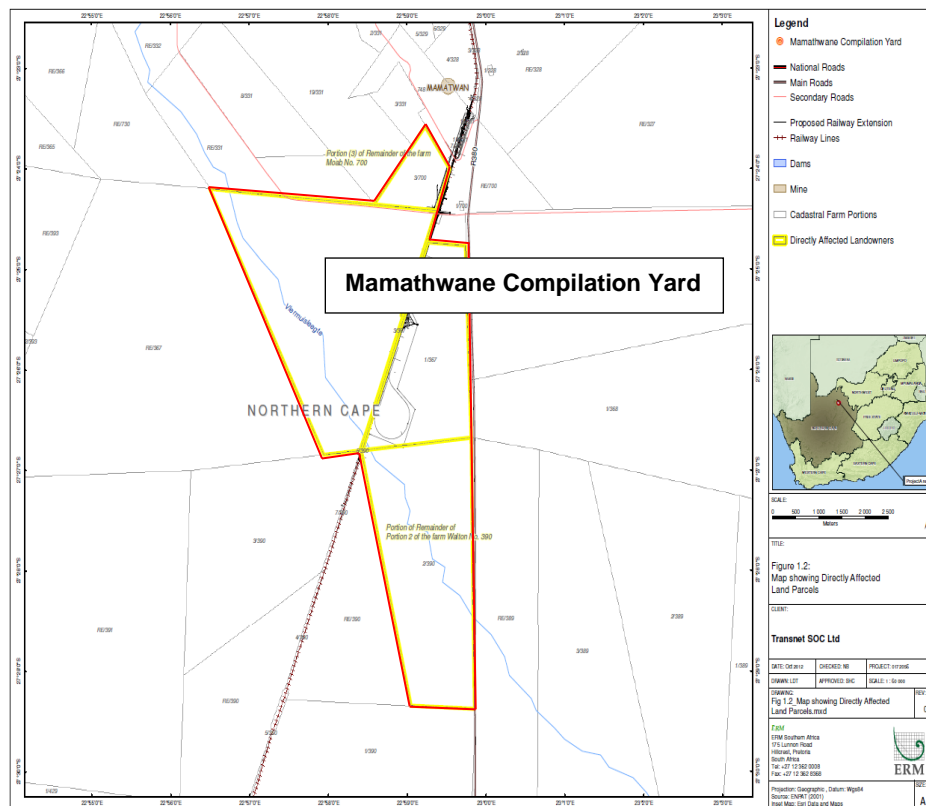


Figure 3-30: Mamathwane Compilation Yard
Source: Draft Scoping Report 2012



3.13.1.3 AGRICULTURAL PARK AND FARMER PRODUCTION SUPPORT UNIT

Government Strategy on Agri-Parks (a networked innovation system of agro-production, processing, logistics, marketing, training and extension services located at district level) will be the one of the focus areas since the JTGDM has been identified as a priority district.

The concept for Agri-Parks draws from existing models here and abroad, including educational/experimental farms, collective farming, farmer-incubator projects, agri-clusters, eco-villages, and urban-edge allotments and market gardens. Agri-parks provide networks of contacts between producers, markets and processors, but also provide the physical infrastructure required for the transforming industries. The focus of the agri-park is primarily the processing of 'agricultural products' (and the mix of 'non-agricultural' industries may be low or non-existent). Of prime importance will be linkages between the parks and surrounding agricultural land for production. The Agri-park approach will include the selection and training of smallholder farmers, as well as selecting farms per province for the placement, incubation and training of unemployed agricultural graduates and other agro-entrepreneurs

An Agri-Park (AP) is a networked innovation system of agro-production, processing, logistics, marketing and training and extension services, located in District Municipalities. As a network, it enables a market-driven combination and integration of various agricultural activities and rural transformation services. The AP will comprise of three basic units:

- The Farmer Production Support Unit (FPSU). The FPSU is a rural outreach unit connected with the Agri-hub. The FPSU does primary collection, some storage, some processing for the local market, and extension services including mechanisation.
- Agri-Hub Unit (AH). The AH is a production, equipment hire, processing, packaging, logistics and training (demonstration) unit.
- The Rural Urban Market Centre Unit (RUMC)

The key focus areas on implementing the Agri-parks would be:

- Feedlot
- Abattoirs
- Auction Pens
- Skills Centre and Eco-Tourism

Given the presidential impetus into the Agri-Parks initiative the proposed Kuruman Agri-Park is the central project theme of current agricultural initiatives in the JTGDM. A Draft Spatial Targeting Report for the Northern Cape Mega Agri-Park for the John Taolo Gaetsewe District Municipality has been completed.



3.13.1.4 FRAMEWORK AGREEMENT FOR A SUSTAINABLE MINING INDUSTRY

Twenty-two (22) mining towns in 6 provinces are parties included in the Framework Agreement. Municipalities within JTGDM form part of the 22 towns. The agreement sets out key steps and processes that will see all parties working together to ensure stability and sustainability of the mining sector for the future of South Africa's economy.

Parties (i.e. Organised Business, Organised Labour and Government) to the Framework Agreement for a Sustainable Mining Industry recognise that the mining industry is central to South Africa's economy and job creation and those urgent steps are needed to strengthen the sector for it to withstand the current difficult global economic conditions.

The parties have committed to improving processes and procedures as well as implementation of new measures that bring about lasting change while working together to sustain the sector. One of the commitments is accelerating the implementation of human settlement intervention to ensure that there is proper housing for mineworkers.

Table 3-13: Capital Subsidy Funding & Expenditure 2015/16

Mining Towns Allocation for 2015/2016									
Province	Municipality	Annual Targets			Funds Allocated (As per Business Plan)	Delivery Performance as at 30 June 2015			
		Sites	Units	Funds Allocated (Gazetted)		Sites	Units	Expenditure	
				R'000	R'000			R'000	%
Northern Cape	Tsantsabane	390	-	22 100	37 133	-	-	25	0.11
	Ga-Segonyana	-	50	13 600	15 130	-	129	3 978	29.25
	Gamagara	-	43	9 800	4 923	-	-	832	8.49
	Kgatelopele	-	-	4 500	2 114	-	-	-	-
	Total	390	93	50 000	59 300	-	129	4 835	9.67

Source: Special Presidential Package for Distressed Mining Communities, 2015



3.13.2 SIGNIFICANCE ON ECONOMIC SECTORS

- **Agriculture**

- The District is characterized by extensive tracts of land well suited to extensive, livestock based agriculture
- Agriculture is the second most significant economic activity in the district, comprising of large commercial livestock farms and subsistence grazing activities
- Inefficient and inappropriate farming techniques and lack of exposure to skills-training, have, however, in many cases resulted in low yields
- Agriculture within the district is characterised by low return on investment
- Rural development is crucial to ensuring sustainable livelihoods and food security in the district and in particular village areas
- Decrease on number of households involved in agriculture
- The district area is earmarked for Agri-Park development. This implies that three local municipalities must be proactive on giving comments for any application made in terms of Section 4 of the Subdivision of Agricultural Land Act, 1970. Cooperatives must form part of the mineral beneficiation and development of agri-parks & farmer production support units. The LED budget of the district and its locals must be supportive to cooperatives programmes and funding.
- Consideration must be given to the carrying capacity of the land (level of agricultural potential of farm land) and, in so doing, reserve as far as possible good farmland for commonage areas and farmlands
- To ensure and food security as well as provide sustainable income generation opportunities, JTG should embark on information and technology dissemination programmes that integrate scientific research into production systems as part of the Mega Agri-park roll out programme

- **Mining**

- SIP 3 (South-Eastern node & corridor development – Increase manganese rail capacity in the Northern Cape and SIP 5 (Saldanha-Northern Cape development corridor - Expansion of iron ore mining production and beneficiation.), has significance to the JTGD with specific reference to mining development
- Environmental issues arising from mining operations (air quality, mining rehabilitation, land use management)
- Competition of resource utilisation (road freight impacts on tourism sector and public resources; water scarcity)
- Volatile commodity prices on the iron ore and introduction of new technologies
- Ultimately, integrated closure involves or requires inventive biological and engineering solutions, creative financial mechanisms to release diverse sources of funds, new legislative instruments to remove regulatory redundancies, benchmark research, best practice demonstration modelling and regeneration partnerships across the lines between the governmental, private and non-governmental sectors and, by no means least, quality consultancy in some countries where mining companies, communities and government lack capacity to act on an effective basis.



- The BBEEE within the mining industry should have greater participation by local SMMEs. This could be done through formation of consortiums by local business to acquire shareholding within the mining sector.
- Participation of local SMMEs on mining supply and services procurement
- Implementation of the Social and Labour Plans should be monitored to ensure that the projects that are being executed addresses the developmental needs of the district

• **Tourism**

- Strong management and upgrading, better signage and marketing would be a catalyst for tourism sector development
- Archaeological sites have the potential to contribute to our understanding of the history of the region and of our country and continent and also enhance the district area as an educational tourism area for research
- Importance to take into account the heritage management structure set up by the National Heritage Recourses Act, 1999 (Act 25 of 1999). It makes provision for a 3-tier system of management including the South Africa Heritage Resources Agency (SAHRA) at a national level, Provincial Heritage Resources Authorities (PHRAs) at a provincial and the local authority.
- The following tourism projects and initiatives have been identified in the JTGDM GDS and LED and would require attention:
 - Desert astronomy
 - Community tourism initiatives (cultural villages, events, training of tour guides, arts and craft)
 - Increase adventure & Eco tourism activities and facilities
 - Integrating hunting and eco-tourism which can be beneficial outside of the hunting season and marketing of the hunting industry in the district and training of hunting guides
 - Advancement of mining, educational and agri-tourism
- Development of Tourism route (that will link all significant tourism activities within the JTG and neighbouring districts)
- Operation and maintenance of infrastructure networks, cleansing, neatness of the town, safety and security, etc. These factors all influence tourism.
- Tourism resting places (not overnight accommodation)
- Upgrading of tourism information centre
- Heritage resources centre for Kuruman as a focal point for development in urban design terms
- Development of a tourism culture amongst our communities in terms of how to treat tourists (tourists equals jobs)
- Development of tourist guides and active compilation of packages
- Village tourism should be promoted

• **Industry**

- The housing development programme (both private and public sector) is key to the construction sector



- The availability of the industrial sites within the district and in particular Ga-Segonyana LM and the prevalence of manufacturing and service industry located in Kuruman
- Advancing entrepreneurship amongst the local community through procurement by ensure regulatory compliance of SMMEs/ Cooperatives so they could participate on procurement. Industrial Parks in Kathu & Kuruman would service the local mining industry and manufacturing.

- **Business**

- Ga-Segonyana (Kuruman) business sector has the biggest contribution to GVA. This is positioning Kuruman as a regional node of greater significance to the district
- Joe Morolong and Ga-Segonyana LM's main contributor to the GVA is mining, however wholesale and retail is the biggest contributor towards employment.



3.14 BUILT ENVIRONMENT

This section outlines the comprehensive investigation with regards to implications of built environment for the spatial form and development in John Taolo District and its local municipalities, so as to ensure that the revised district SDF is strongly rooted in reality. It also outlines a strategic analysis of the built environment elements of the municipality in terms of legacy, current and future challenges, by documenting and mapping of built environment spatial challenges and opportunities. The purpose of this section is to present a broader analysis of spatial linkages and land uses within the JTG area. The analysis of built environment is focused on the challenges, opportunities and mapping in relation to the following:

- Provide a strategic overview of the built environment pressures within the municipal area through identifying current significant structural elements of the spatial form of the municipality and through assessing the status quo and current quality of the built form, heritage, infrastructure, land uses and patterns of activity
- Identify legacy, current and future challenges to the municipality's built environment with particular attention to their spatial implications.
- Summarise the key findings of the built environment challenge areas.
- Identify built environment development opportunities.

3.14.1 LAND USE AND SPATIAL STRUCTURE

John Taolo Gaetsewe Municipal Area is characterised by a mixture of land uses of which agriculture and mining are dominant. JTGD was the richest mining region in the Northern Cape until a decline in mining employment and the near extinction of the asbestos mining industry in the 1980s. Today, minerals mined include manganese ore, iron ore and tiger's eye. The Sishen iron-ore mine is one of the largest open-cast mines in the world and the iron-ore railway from Sishen to Saldanha is one of the longest iron-ore carriers in the world. The rural land in the district is used extensively for cattle, sheep, goat and game farming. The area is also well known for its good commercial hunting in the winter, and holds potential as a tourism destination. The north-eastern region is comprised principally of high-density rural and peri-urban areas while the western and southern areas are sparsely populated and consist mainly of commercial farms and mining activities. The main towns and villages within the district borders are Kuruman, Kathu, Deben, Dingleton, Olifantshoek, Vanzylsrus, Bothitong, Churchill, Manyeding, Laxey, Batlharos, Mothibistat, Hotazel and Heuningvei.

Broadly, the prevalent land cover classes in the District are grassland, thicket and bushland (confined mostly to hills), shrubland, cultivated land and built-up areas as discussed in Section 2. However, grasslands, thickets and shrubland contribute the largest cover of the district's geographic area (21%, 54% & 23%, respectively). The spatial distribution of the different land cover categories within the district is shown in **Map 31**. Overall, much of the district it is still covered in natural grassland and agriculture is still widely practised.



Gamagara LM is a category B municipality located on the north-eastern part of the Northern Cape along the N14. The municipality covers a geographic area of 2619 km² with almost 63.41% of its area covered in thicket, bushland, bush clumps & high fynbosbush fields. The municipality has no Tribal/Traditional villages and is characterised by huge tracks of vacant and undeveloped land which collectively cover approximately 97.62% of the total municipal area. In the wake of a boom in mining activities, the municipal area now falls under a region called the Gamara Mining Corridor. Ga-Segonyana LM covers an area of 4 491km² with 33 residential areas, of which 20% represents urban and peri-urban areas while the remainder (80%) accounts for rural areas. Almost 50.20% of the municipality's area is covered in thicket, bushland, bush clumps and high fynbosbush fields while 98.60% is vacant/undeveloped land. In Joe Morolong Local Municipality, the overall character is mainly a high density rural population made up of 198 villages, 2 small towns and surrounding commercial farms with poor linkages to main stream economic activities (JTG RDP, 2016).

The land cover classes for the district are shown in **Map 31 - 33** below for the period between of 2013 - 2014. Thereafter, the various land use categories are also shown for the different areas of the district. John Taolo Gaetsewe as a predominantly rural district, there is also fairly huge spatial distribution of agricultural activities of the district. The major agricultural areas are located within Joe Morolong and Ga-Segonyana local municipalities and take the form of subsistence and survivalist farming. The main activities in this regard include livestock-keeping, poultry-rearing and vegetable planting. Large scale commercial farming is also practised in these three local municipalities. Land uses and settlements within the JTGM municipal area are mainly characterised as stock farming, parks and nature reserves, mining and mining settlements, and agriculture and agro-processing.

The JTGM SDF must identify current and future significant structuring and restructuring elements of the spatial form of its local municipalities, including development corridors, activity spines and economic nodes where public and private investment will be prioritised and facilitated, analysing the spatial structure of the municipal area and identify spatial proposals on achieving restructuring and the proposed spatial form.

3.14.2 SETTLEMENT HIERARCHY WITHIN THE JTGM

Settlement hierarchy is a way of arranging settlements in order, i.e. according to the population or settlement, or the number of services and functions the settlements has, or the area the settlement covers. For this SDF review, settlement hierarchy will be arranged according to the type of settlement and the number of services and functions the settlements has. The pattern of settlements and their structure in the district is of fundamental importance to its successful socio-economic development. John Taolo Gaetsewe DM comprises of both urban and rural areas, with most rural settlements situated in Joe Morolong LM, Gamagara LM serving the purpose of urban dominant local municipality, whilst Ga-Segonyana LM has the focus on both rural and urban settlements. For John Taolo Gaetsewe DM, the following settlements hierarchy is proposed:



- First Order Settlement – Areas of significant size, with the greatest range of services and facilities in the JTGD, and in principle, the most sustainable locations for major growth, e.g. Towns.
- Second Order Settlement – Areas of residential dominance with availability of services and facilities within settlements, where its residents directly rely on First Order Settlement and which consist of community facilities, healthcare and education provision indicators, e.g. Townships.
- Third Order Settlement - Large villages which act as key service centres for the surrounding rural area by virtue of the range of services and facilities they possess, and, in principle, suitable for growth.
- Fourth Order Settlement - Small villages with few, if any, services and facilities, suitable only for development of single dwellings or small groups.

A brief overview of the settlement hierarchy within the three local municipalities, i.e. Ga-Segonyana, Gamagara and Joe Morolong of the John Taolo Gaetsewe DM are discussed on the table below.

Table 3-14: Settlement hierarchy within the three local municipalities within JTGD

Municipality/ Description	Ga-Segonyana LM	Gamagara LM	Joe Morolong
First Order Settlement	Kuruman	Kathu	Hotazel and Churchill
Second Order Settlement	Mothibistat, Wrenchville, Bankhara-Bodulong, Seoding, Magobe, Batlharos, etc.	Olifantshoek, Sishen and Dibeng, Dingleton	Vanzylsrus and McCarthyus
Third Order Settlement	Maruping, Seven Miles, Magojaneng, Kagung, etc.	None	Heuningvlei, Laxey, Bothitong, Dithakong, etc
Fourth Order Settlement	Gamopedi, Gantatelang, Pietbos, Gasehubane, Thamoyanche, etc.	None	Perth, Mahukhubung, Padstow, Eiffel, Ditshelelang, etc

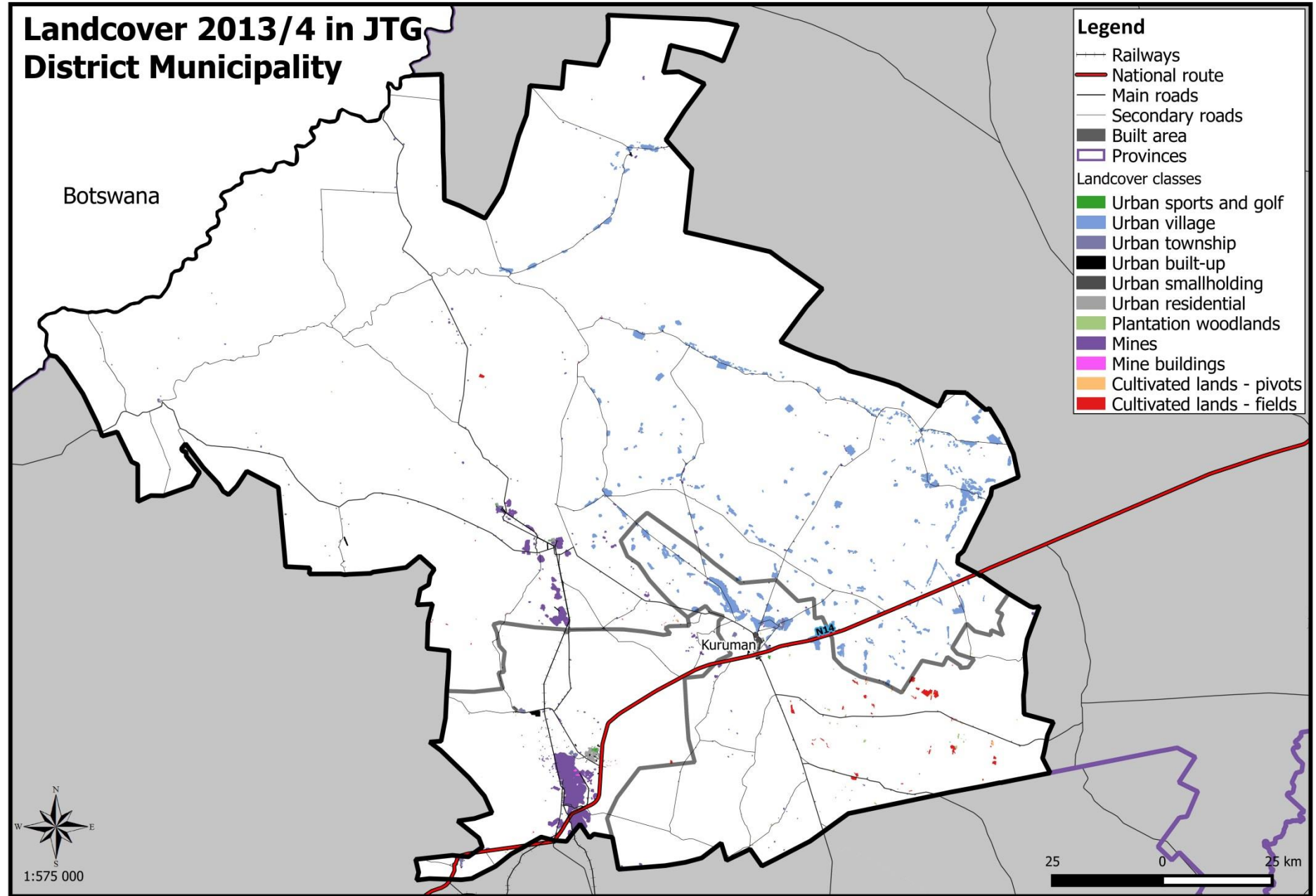
Northern Cape Spatial Development Framework, 2012 proposes that in order to ensure that the Northern Cape's scarce capital is distributed according to the development potential and associated human needs of specific settlements, a rigorous scientific and empirical evaluation of the 32 municipalities and 115 settlements in the province was undertaken. The settlements were classified according to their *growth and development potential* and the *level of human need*, which in turn determines the type of development and investment to be undertaken in each specific settlement (*NSDP planning approach*). However, the settlements exclude traditional rural settlements such as those found in the Joe Morolong LM, as they are not categorised as urban and stated that these areas needed to be given separate consideration. Joe Morolong LM was classified as having a high development potential and a high level of human need and as such investment should focus on infrastructure and social investment.

The characteristics of the settlements within the three local municipalities are discussed hereunder:

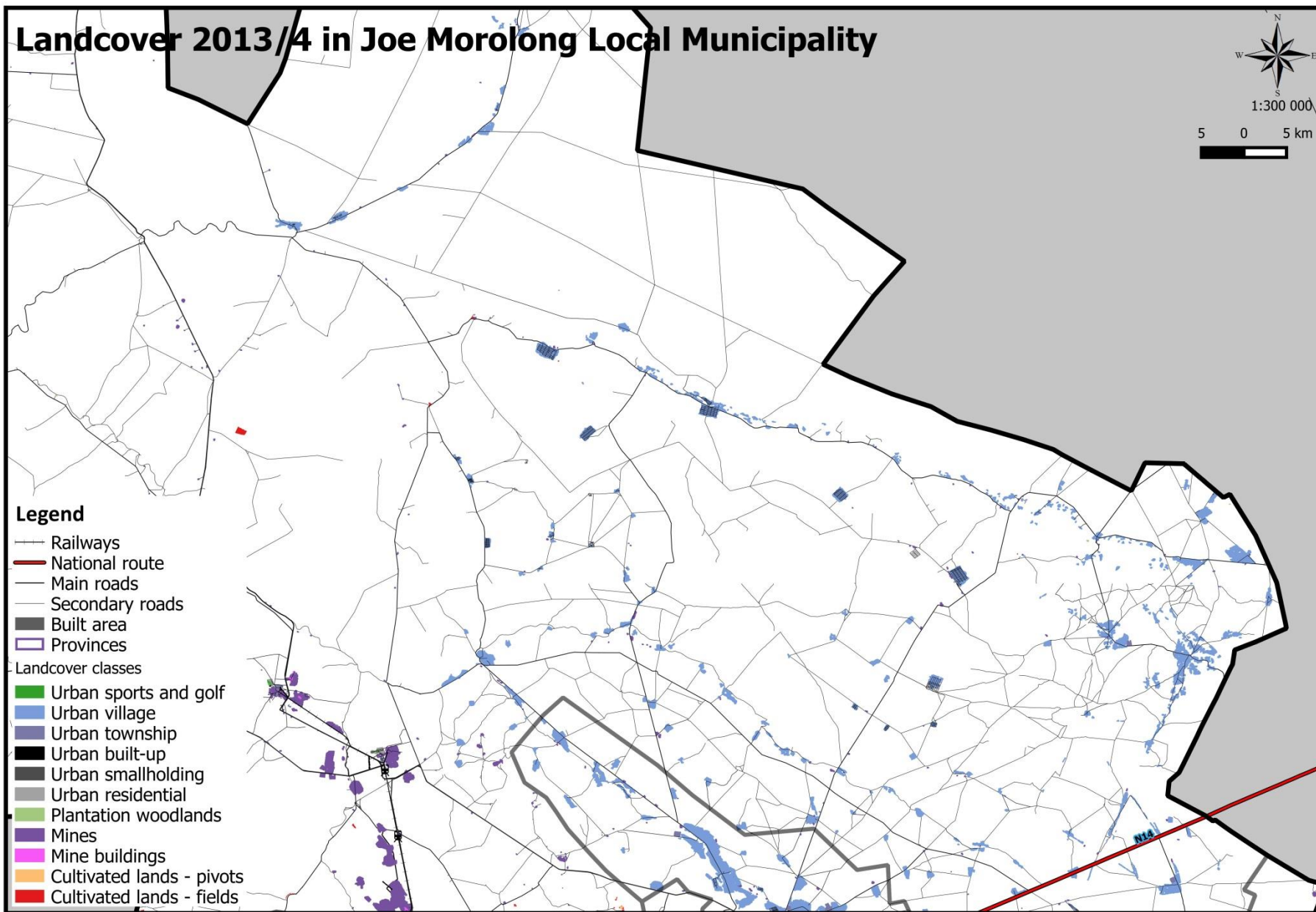
- Ga-Segonyana LM was a cross-boundary municipality that straddled the boundary between the North-West and Northern Cape Provinces. It was established in 2000 through the amalgamation of Kuruman and Mothibistat Municipalities and includes sections of the Dr Ruth Segomotsi Mompati District Municipality. 80% of the population stays in rural villages or lives and works on commercial farms. There are 33 residential areas divided into 13 wards, and the council consists of nine wards and nine proportional representative (PR) councillors. The area, previously in the North–West is also administered through a traditional authority system with two paramount chiefs, chiefs and headmen. The economy of Ga-Segonyana is based on mining and agriculture (both commercial and subsistence), with tourism and commercial sectors contributing to a vibrant economy centred in Kuruman. Huge development in the surrounding mining areas is leading to extreme development in the area. Despite various challenges, all sectors of the economy have growth potential which can attract investors and entrepreneurs.
- Gamagara Settlements comprises of an area of 2619 square kilometres, and is located in the North Eastern sector of the Northern Cape, on the N14 National Road between Upington and Vryburg. It is approximately 200km North East of Upington and 280km North West of Kimberley. The municipal area of Gamagara consists of 5 towns, Kathu, Sishen, Dibeng, Dingleton, and Olifantshoek, a large farming area and a considerable mining area. The single largest factor that has guided the development of the Gamagara area is the iron ore mine at Sishen. Not only does the mine provide jobs to thousands of people, but it was also the reason for the establishment of the town of Kathu. Kathu is the largest town within the municipality and is also the administrative centre of the Gamagara Local Municipality. Olifantshoek is the second largest town and is of the Gamagara River to the northwest of Kathu. Dingleton is the smallest of the 5 towns and is located in the centre of the mining activities directly south of Kathu.
- Only Vanzylsrus, Hotazel and Black Rock, to an extent, exist as urban settlement in the Municipal Area. The rest of the settlements in the Municipality are rural and largely informal, although some stands are formally demarcated, although not necessarily proclaimed as a formal township. The spatial structure and form of rural development in the Municipality is shaped by a rural settlement pattern, comprising of dispersed, low density and sparsely populated rural settlements, known as villages. There are approximately 198 villages in the municipal area. Most of the villages are located next to the Moshaweng and Matlhwareng Rivers. Having so many villages with similar characteristics, it is difficult to differentiate between them in terms of functionality, all being residential. However, some villages have other functions as well, due to Government Services and shops located there. This is illustrated by the population distribution **Map 30 - 33**. The towns and villages in the Municipality are characterised by their isolation and inaccessibility. Distances between the towns and villages are also vast. The Municipality is characterized by low growth potential and in most cases, are losing economic power, service-ability and infrastructure strength. The purpose of this Section is not to give a detailed view of land uses and zoning, but rather to establish patterns and issues that affect development. The Assessment focuses on Vanzylsrus, Black Rock and Hotazel, as the urban areas and on Churchill, Heuningvlei, and Bothithong/Dithakong, as villages which were identified as rural nodes or service centres.

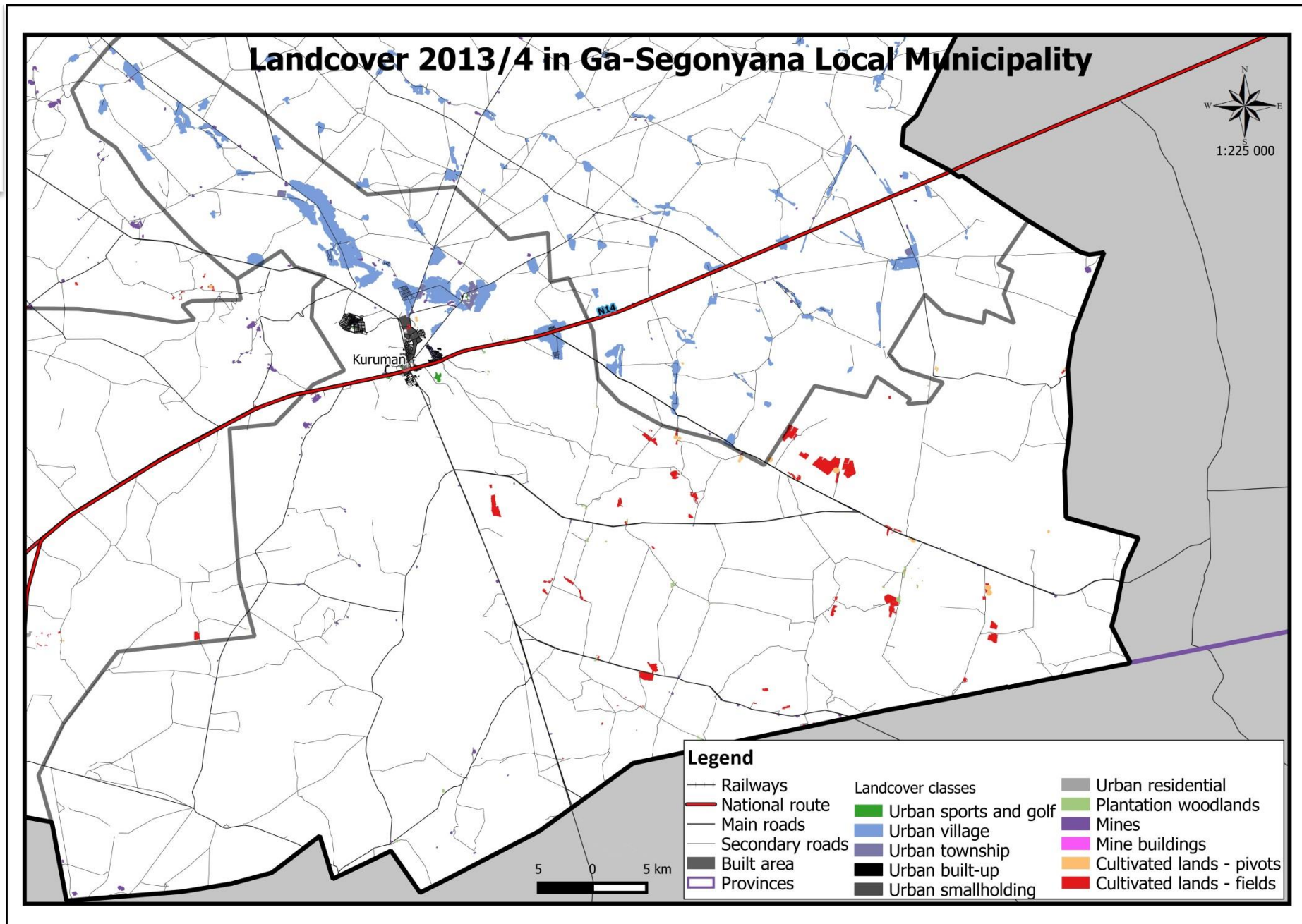


Landcover 2013/4 in JTG District Municipality

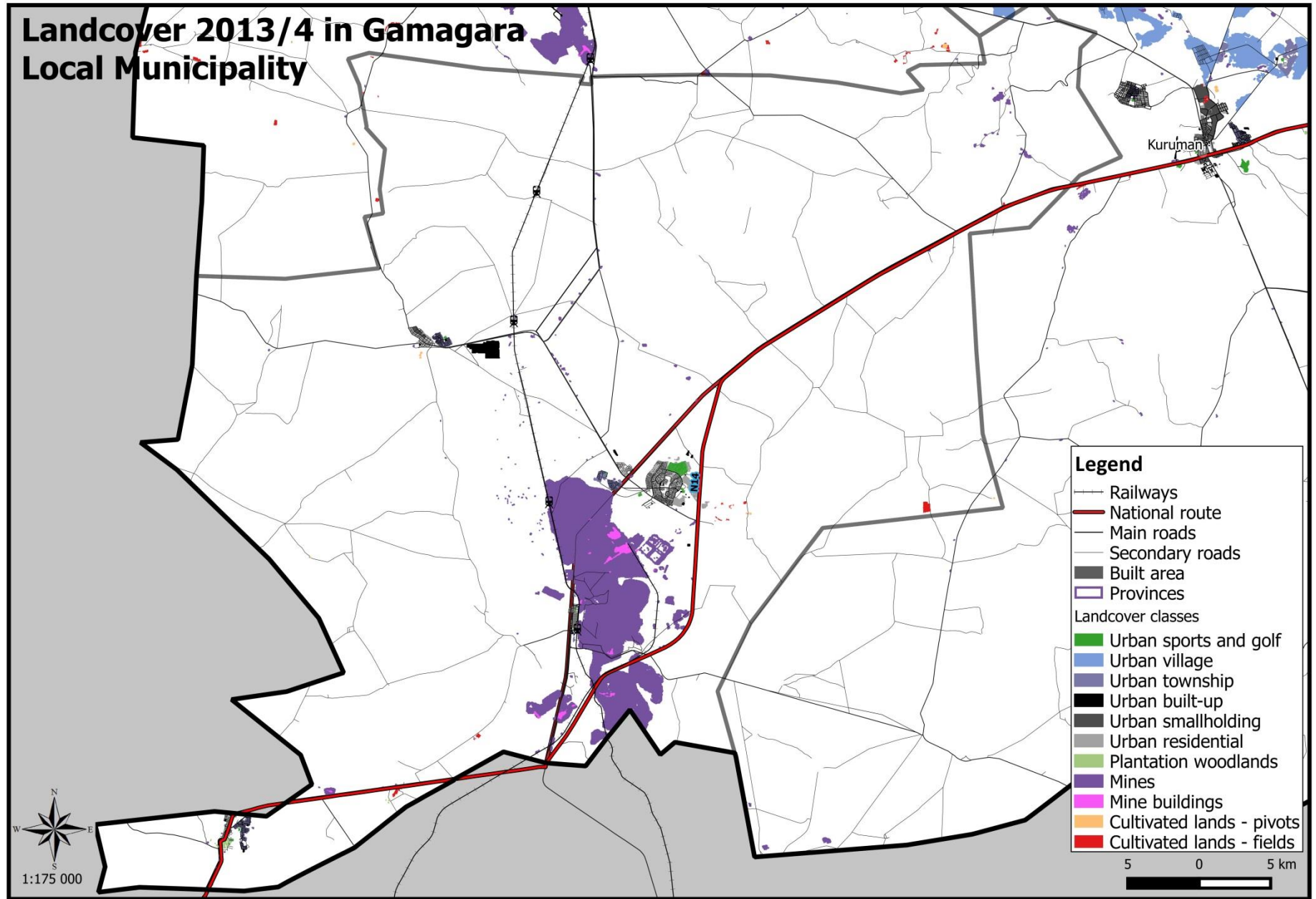


Landcover 2013/4 in Joe Morolong Local Municipality





Landcover 2013/4 in Gamagara Local Municipality



3.14.3 HUMAN SETTLEMENT DENSITY

The density of human settlement in the Northern Cape Province of 3 persons per km² is considerably lower than (1) the national density of 39.5 persons per km², and (2) the densities in the other eight provinces. The Free State Province has the second lowest provincial population density at 23 persons per km². On a district level, the JTGDMD had a population density of 7.0 persons per km² in 2009, which was the second highest figure amongst the five DMs in the Northern Cape Province (CSIR, 2011). While the JTGDMD figure is low, it has increased steadily from 6.1 persons per km² in 1995 to 6.5 persons per km² in 2001 and to 6.8 persons per km² in 2007 (CSIR, 2011). As these figures are for the district as a whole, they of course hide the fact that there are many areas in the district with much lower densities. So for instance, the Ga-Segonyana LM, which only covers 16.5% of the district and is the second smallest LM in the district in terms of geographical area, has the highest density of people, i.e. 15.54 persons and 3.81 households per km². At the other extreme, the Joe Morolong LM, which encompasses 73.9% of the DM area, has the lowest density at 3.75 persons and 0.86 households per km². The Southern parts of the district consist mainly of commercial farming and mining activities. The figure below indicates the settlement densities for the John Taolo District and its respective local municipalities relative to the national and provincial density figures.

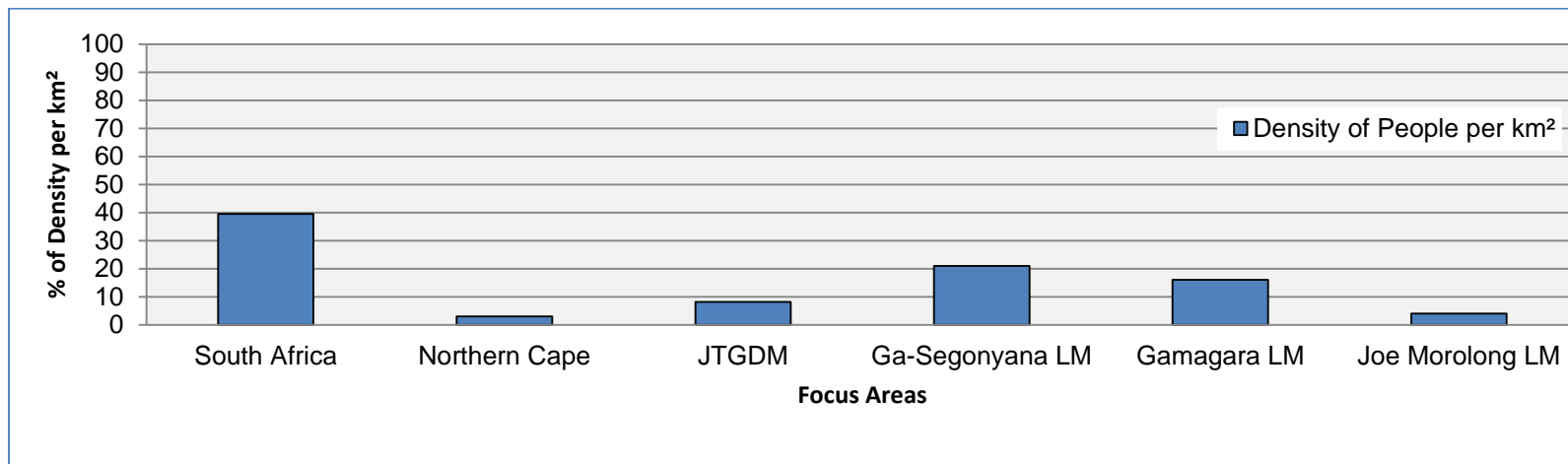


Figure 3-31: Settlement densities for JTGDMD and its respective local municipalities relative to the national and provincial density
Source: Census 2011

It is evident that there is a significant increase in the report that was compiled by CSRI in 2009 vs. the Census 2011 data, where the density of people per km² in JTG has increased from 7.0 in 2009 to 8.2 in 2011. The areas of largest concentration in the district are: (1) Kuruman and surrounds (this is to be expected since Kuruman plays a fundamental role within the economic space of the municipality and District at large), and (2) Mothibistat and its adjoining villages in the Ga-Segonyana LM. Smaller concentrations can be found in (1) Batlharos and Maruping in

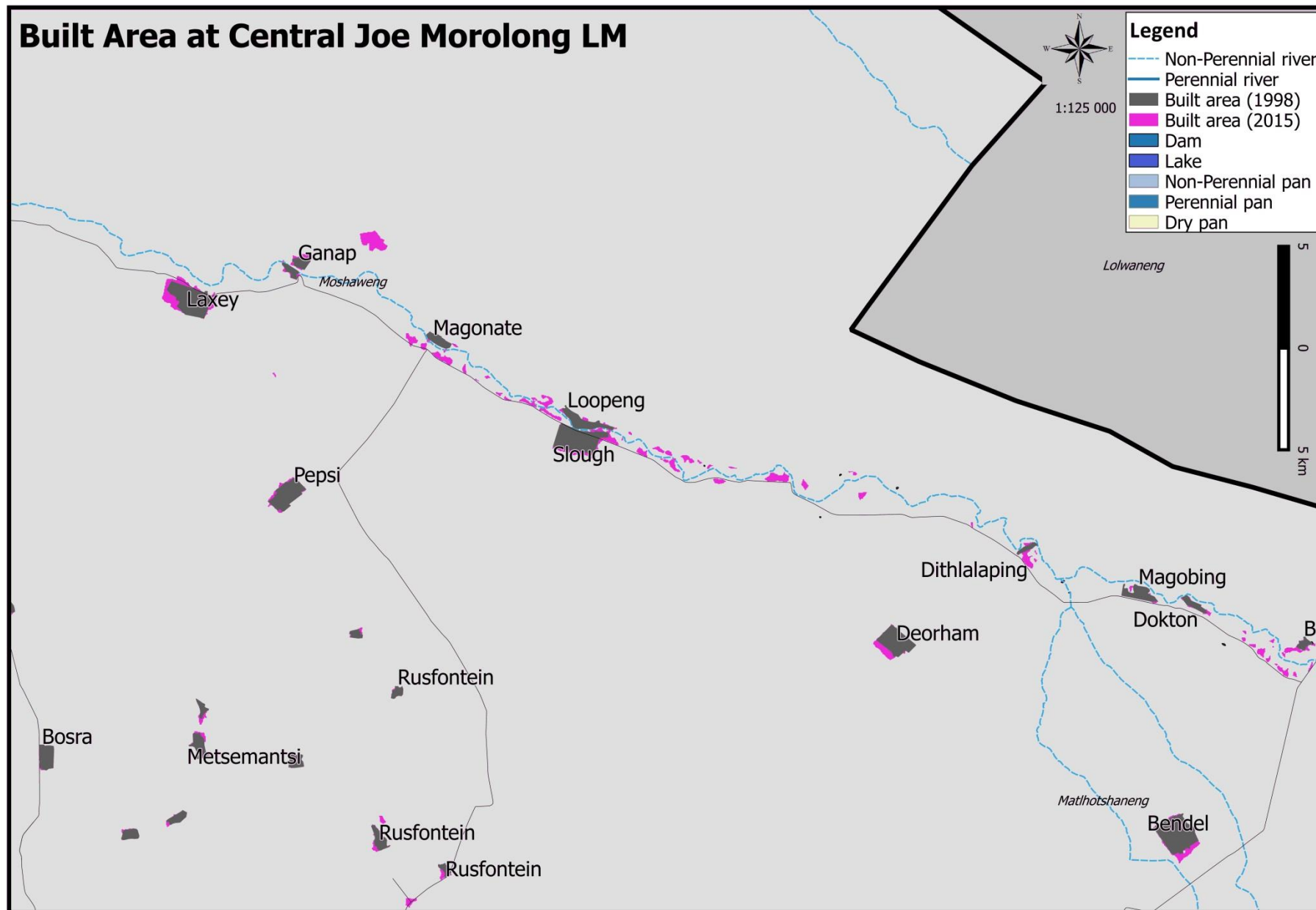


the Ga-Segonyana LM, and (2) Olifantshoek, Kathu and Dibeng in the Gamagara LM. In the case of the Joe Morolong LM, (1) human settlement is less concentrated and spread over approximately 198 villages and 3 small towns; and (2) the densities in the south-eastern parts of the LM are relatively higher than in the rest of the municipality. The increase in population density is positive in the sense that it encourages compact development consistent with the SPLUMA principles. **Map 34 - 40** below illustrates the change in settlement built-up shape captured from 1998 to 2015. This change in built-up areas further confirms the population density increase recorded.

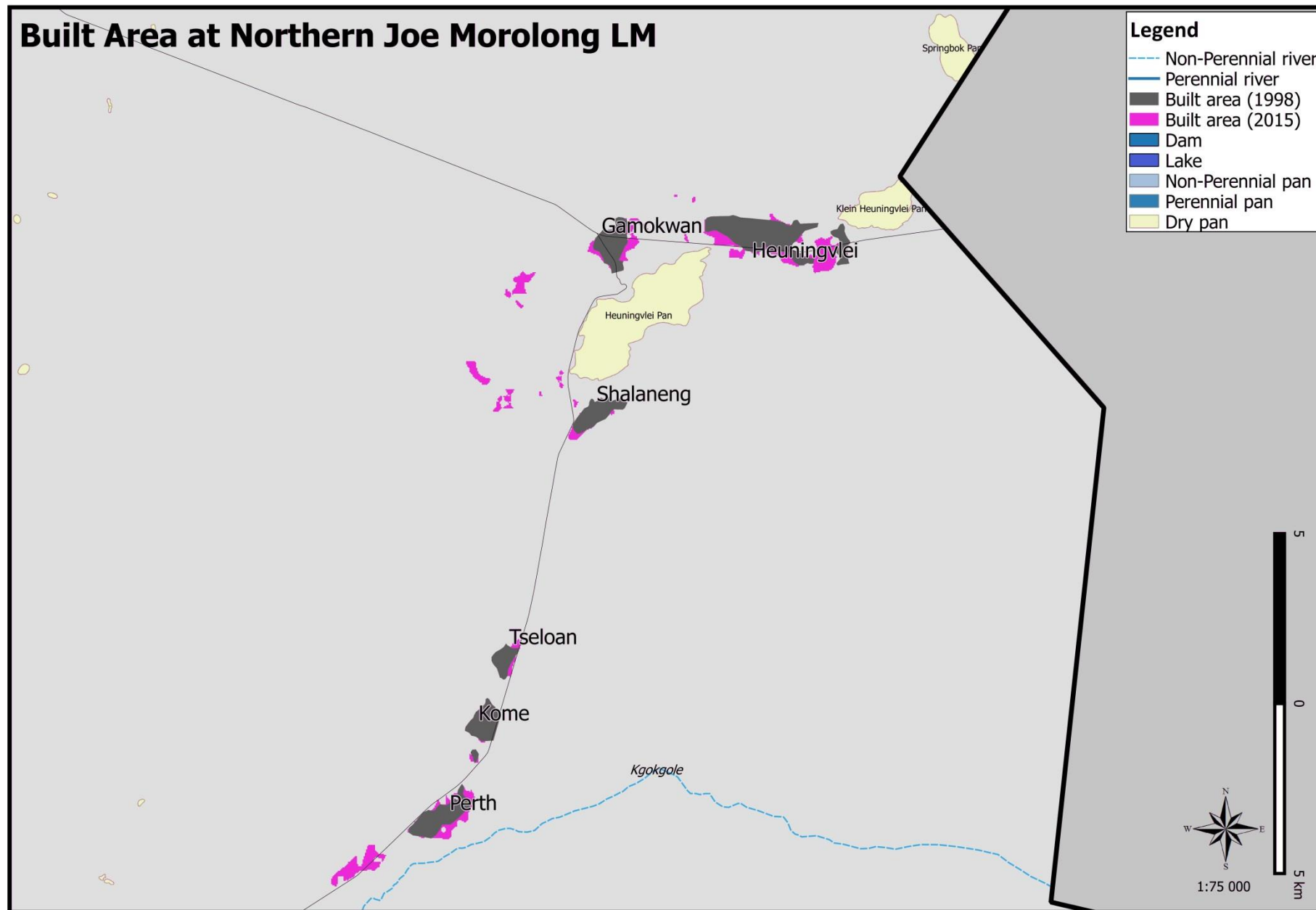
The settlement growth and expansion as reflected on **Map 34 – 40** can be characterised as following a particular development trend i.e. linear development (growing along a road or a river) and nucleus growth (Bothitong and Dithakong in Joe Morolong LM as examples).

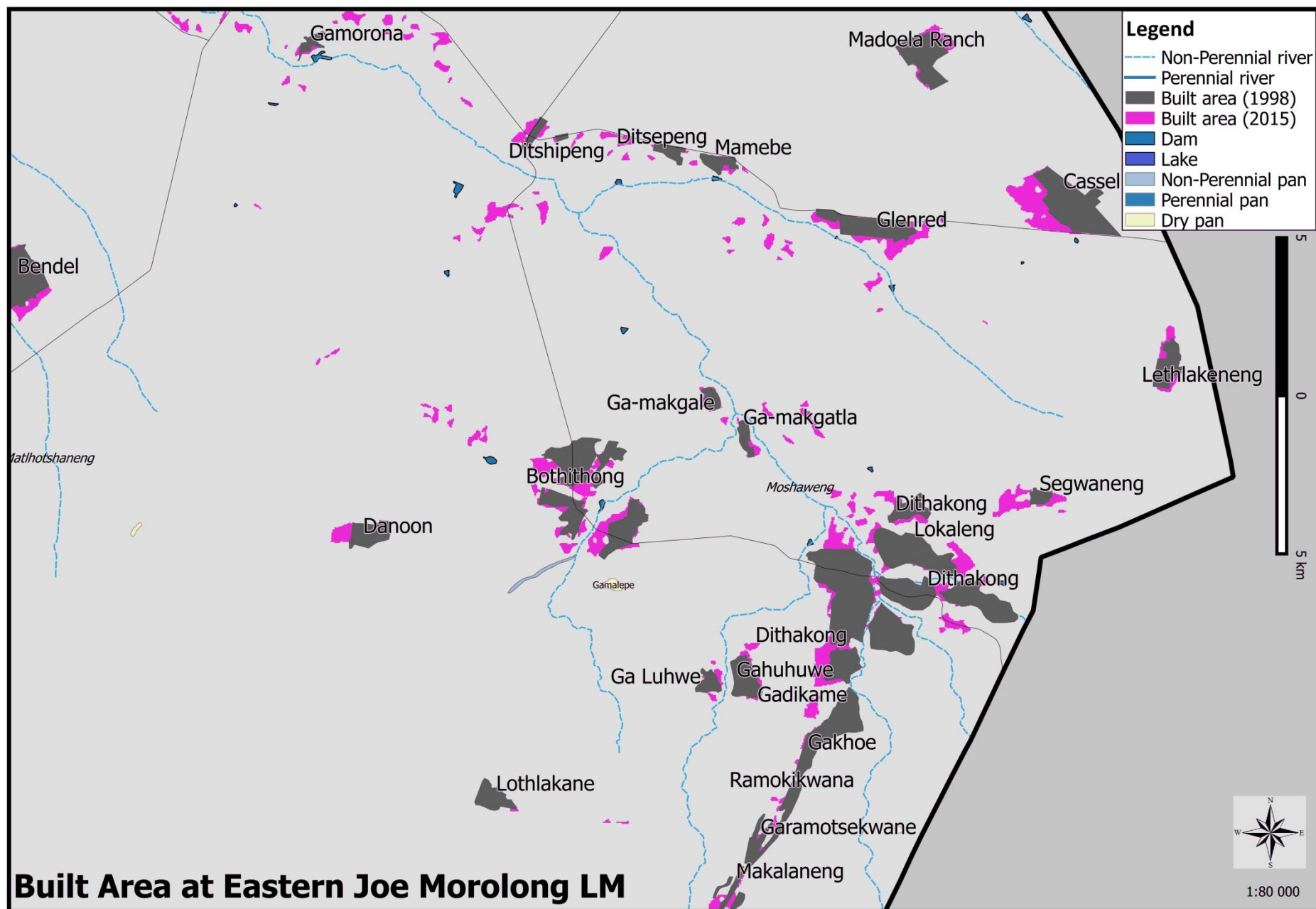


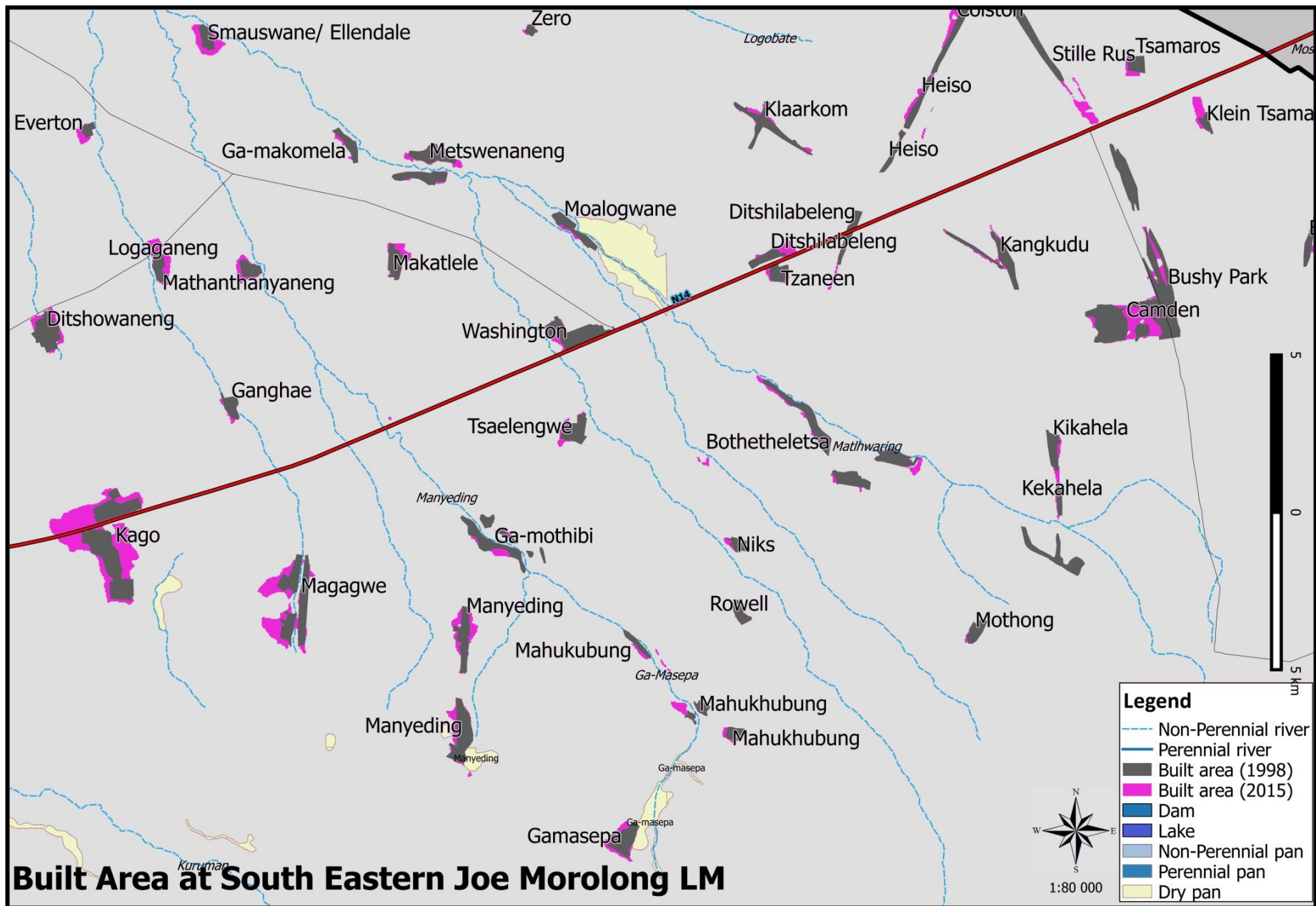
Built Area at Central Joe Morolong LM

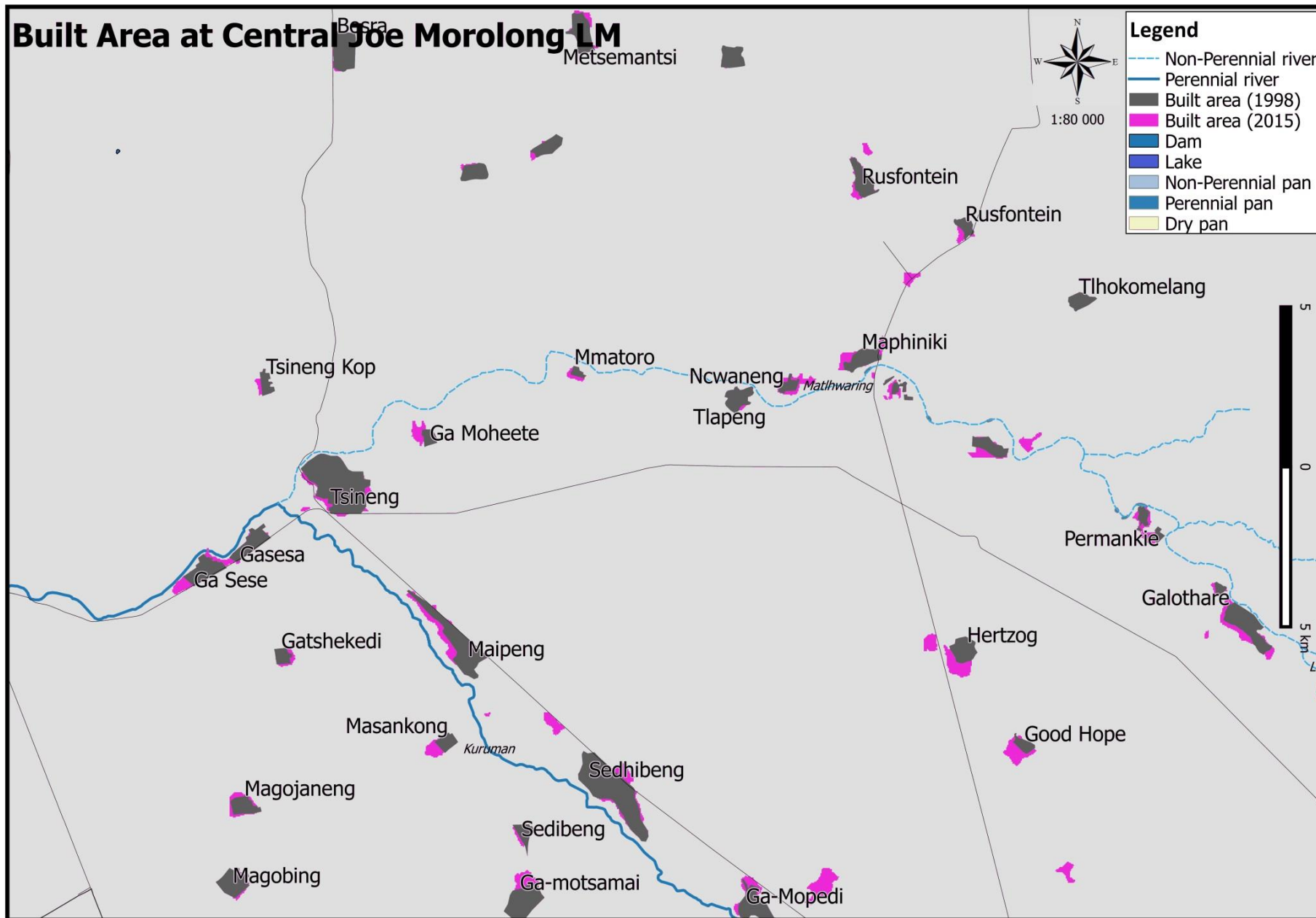


Built Area at Northern Joe Morolong LM

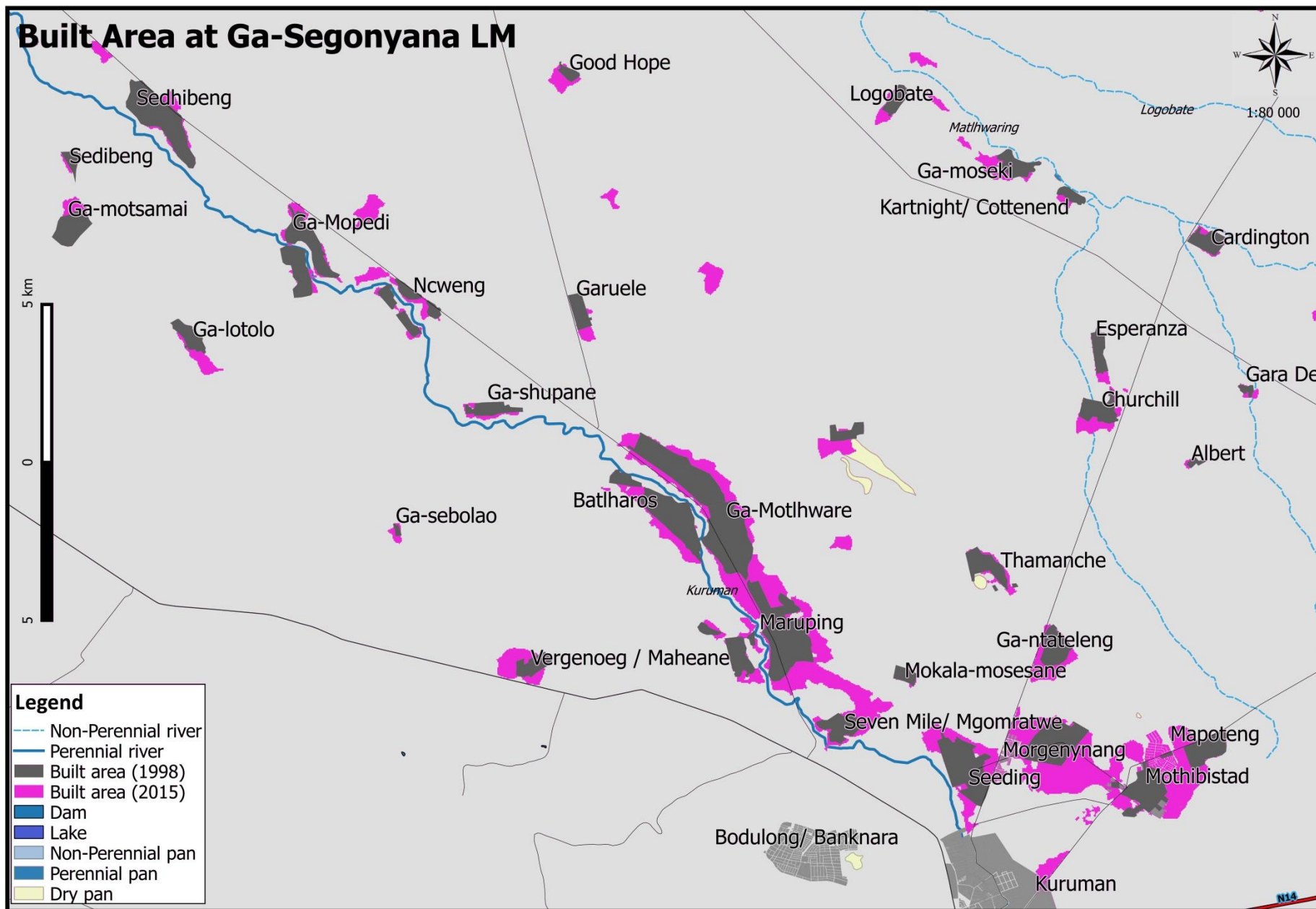




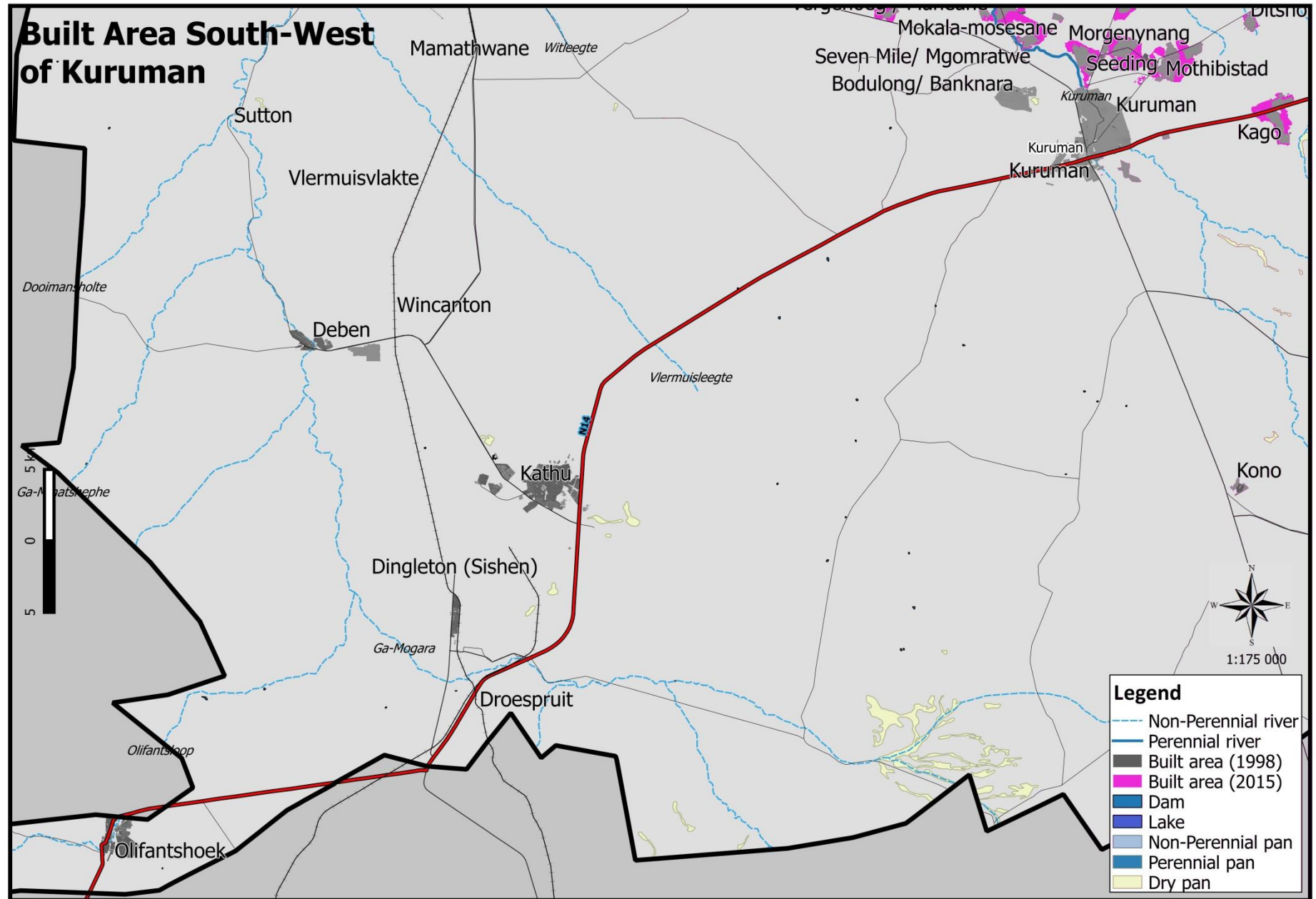




Built Area at Ga-Segonyana LM



Built Area South-West of Kuruman



3.14.4 HOUSING

The District Municipality completed an Integrated Human Settlements Sector Plan during the 2014/15 Financial Year, providing for the period 2014-19 which aims to provide the strategic direction for transforming human settlements in the John Taolo Gaetsewe District aligned to the Provincial Department. This transformation relate to accelerating human settlement delivery on well-located land, that provide opportunities to beneficiaries to access the property market and have sufficient access to social amenities and economic opportunities and also will further support the integration of communities and the spatial restructuring of the towns and villages in the Municipal area.

Sections 24 and 26 (1) of the Constitution (Act 108 of 1996), advocates the right to an environment which is not harmful to people's health or their well-being and access to adequate housing. The different dwelling types for households within the district are shown in the table below. To identify patterns and draw conclusions with regards to how the district is fairing in this regard, the provincial figures are also provided.

Table 3-15: Households Dwelling Types within JTGD

Type of Main Dwelling	Northern Cape	John Taolo Gaetsewe	Joe Morolong	Ga-Segonyana	Gamagara
Formal dwelling/ house or brick/ concrete block structure	920 702	184 071	60 940	80 831	42 301
Traditional dwelling/ hut/structure made of traditional mater	25 457	14 406	10 083	4 322	-
Flat or apartment in a block of flats	7 754	743	45	337	361
Cluster house in complex	1 241	345	0	23	322
Townhouse (semi-detached house in a complex)	3 648	683	27	336	320
Semi-detached house	21 423	1,546	129	509	908
Formal dwelling/ house/ flat/ room in backyard	58 229	15 567	7608	7 069	890
Informal dwelling/ shack in backyard	45 013	7 177	2092	3 548	1 536
Informal dwelling/ shack not in backyard (e.g. in an informal area)	92 146	11 870	2853	3 594	5 423
Room/ flatlet on a property or larger dwelling/ servants quart	2 875	700	-	655	45
Caravan/tent	862	238	39	17	183
Other	14 293	4 917	385	3 166	1 366
Unspecified	137	-	-	-	-
Total	1 193 780	242 264	84 201	104 408	53 656

Source: Census 2016

It is evident from the table above that at district level, a proportion of 76% of the population live in a brick structure as a main type of dwelling. This figure is slightly below than that of the provincial average of 77%. Of the three local municipalities within the district, Gamagara LM has the highest number of population living in a house or brick structure, accounting for 79%. This is attributed to the development status within the municipal area which is influenced by mining developments and nodal significance of the Kathu area within both the municipal and district



context. The municipality also has a relatively high percentage of population residing in an informal dwelling/shack in backyard and informal dwelling/shack not in backyard, slightly above the provincial and district average of 12% and 9%, respectively.

Joe Morolong LM exhibits the lowest percentage of population that live in a house or brick structure at 72% in 2016. The local municipality of Joe Morolong accounts for a high percentage of 12% of the population living in traditional dwellings while the district's average in this regard is 6%. This could be indicative of the rural character of the municipality as well as limitations for development interventions within the municipality. Dwellings of a high density nature are seemingly not that popular within the Province as a whole. The statistics under this category (Room/flat let on a property or larger dwelling) are 0.24% for the Northern Cape and 0.29% for the District, with Ga-Segonyana LM having a somewhat high proportion (0.63%) relative to other two local municipalities within the District. Similarly, Gamagara indicates a high percentage of population living in townhouses (semi-detached in a complex) at 0.6% which is significantly higher than both the provincial and district averages of 0.31% and 0.28%, respectively.

Informal dwellings are also a common feature of the District. 9.1% of the District's households live in an informal structure. This percentage aggregates the proportion of informal dwellings in a backyard and those in an informal settlement or farm. With regards to population living in informal dwellings (shacks) in a backyard, the District figure is 9%, which is slightly lower than the provincial figure of 12%. The spatial location of these informal settlements is prevalent in the local municipalities of Ga-Segonyana and Gamagara, respectively. This is attributed to the influx of migrants into these municipalities given their economic significance.

3.14.4.1 DWELLING BY ENUMERATION AREA

Stats SA classifies the different Enumeration Areas into one of ten Enumeration Area types in line with the status of the majority of visible dwellings during demarcation. The Enumeration Area types are described as follows:

- Formal residential – Single house, Town house, High rise buildings
- Informal residential – unplanned squatting
- Traditional residential – Homesteads
- Farms – Farm settlements
- Park and recreation – forest; military training ground; holiday resort; nature reserves; national parks
- Collective living squatters – School hostels; tertiary education hostels; workers hostels; military barrack; prison; hospital; hotel; old age home; orphanage; monastery
- Industrial – factories; large warehouse; mining; saw mill; railway station; shunting area
- Smallholdings – smallholdings/ Agricultural holdings
- Vacant – open spaces/ stands
- Commercial – Mixed shops; offices; office parks; shopping mall; CBD



Based on the Enumeration Area types shown above, the tables below indicate the distribution of various land uses per geographic area, i.e. urban, traditional, and farm.

3.14.4.2 ENUMERATION AREA IN URBAN AREAS

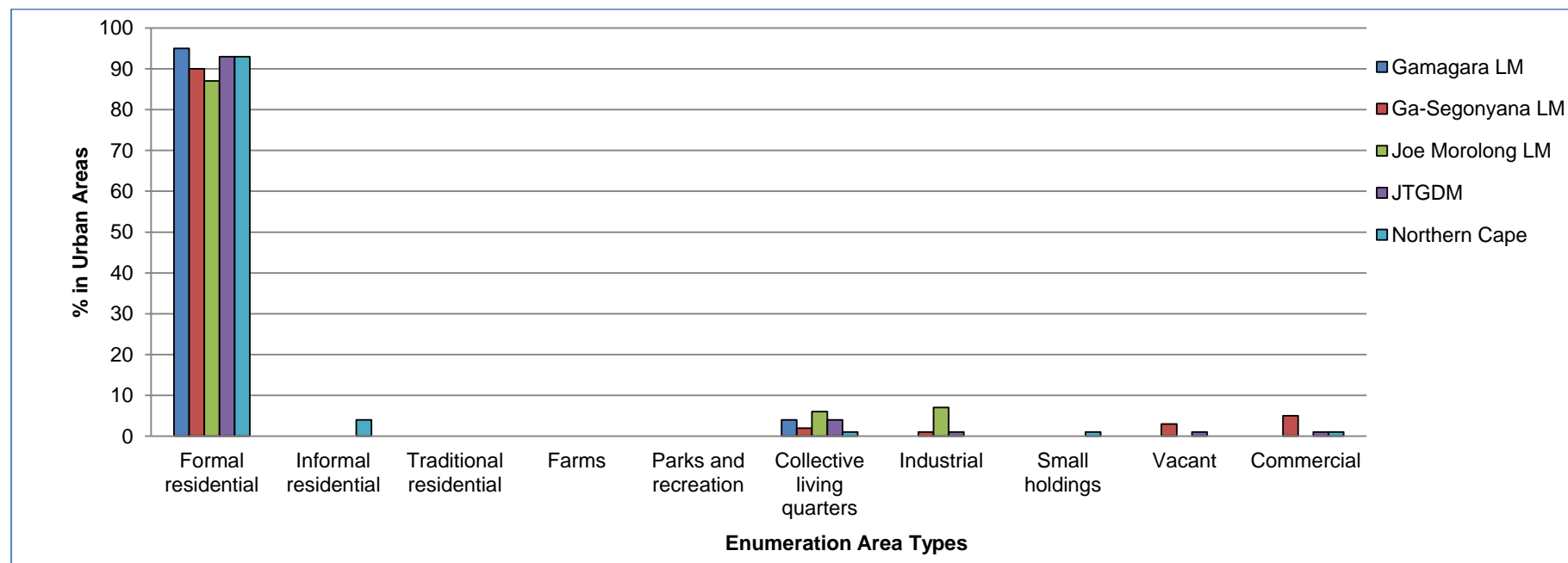


Figure 3-32: Enumeration Area in Urban Areas

Source: Census 2011

Formal residential land uses, which include single houses, town houses, and high rise buildings, account for a relatively huge proportion in the urban areas of the District. The highest concentration of these uses, particularly town houses and high rise buildings, is found in the Gamagara LM.



3.14.4.3 ENUMERATION AREA IN TRADITIONAL AREAS

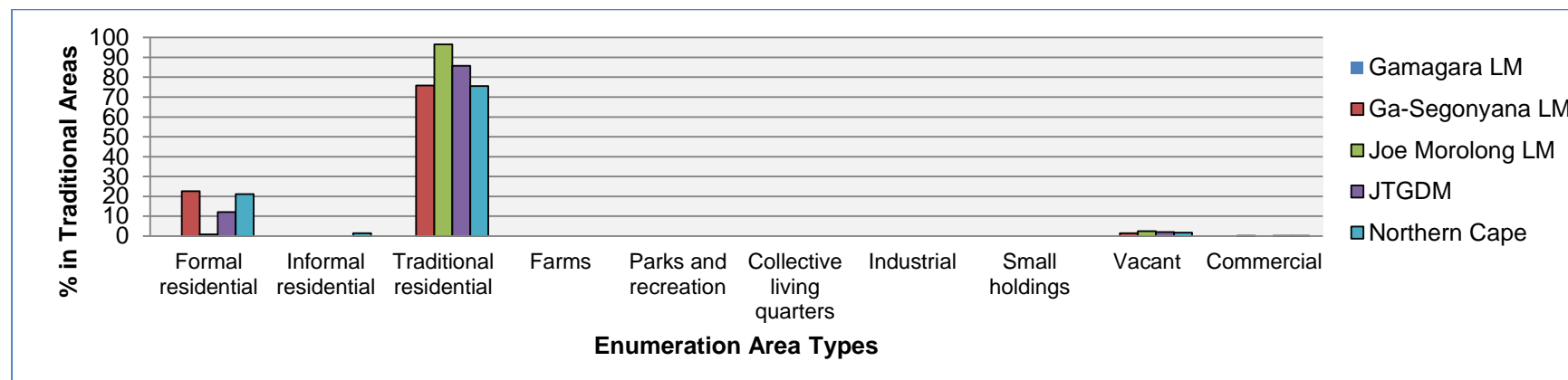


Figure 3-33: Enumeration Area in Traditional Areas

Source: Census 2011

It is clear from the figure above that more than 70% of the households living in traditional areas within the Northern Cape province including John Taolo Gaetsewe District Municipality has unplanned settlements, where the Municipality has a limited influence with regards to settlement development.

3.14.4.4 NUMBER OF FARMS WITHIN A DEMARCATED AREA

Table 3-16: Number of Farms within Provincial, District and Local Context

Municipality	Gamagara LM	Ga-Segonyana LM	Joe Morolong LM	JTGDM	Northern Cape
Total	453	465	1479	2397	33453

Source: Census 2011



3.14.4.5 HOUSING NEEDS PER LOCAL MUNICIPALITY

The housing need in urbanised areas remains high. The effects of the “resource curse thesis” are certainly evident in Kathu, where the mining boom is creating a rapid demand for labour and skills (thus driving up wages), leading to distortions in the property market. According to SEAT (2014), the reported increase in the percentage of informal settlements in the JTG district from 5.1 to 7.6% of the population is concerning, but the situation in Kathu has definitely worsened since Census 2011 data was collected.

The housing backlog (inadequate) in Ga-Segonyana LM increased since 2001 with 122 units and was 4,838 in 2011. This represents an eradication of the backlog from 27.5% to 18.2% of the households.

In Gamagara LM the municipal housing backlog increases between 1996 and 2001 with 8.79% and with 21.84% between 2001 and 2011. In 1996 the backlog was 543, 781 in 2001 and 2488 in 2011.

6,352 households in the Joe Morolong LM were resident in inadequate dwellings in 2011, which translate to approximately 27% of the Municipality’s total households in need of housing. The housing backlog decreased since 2001 with 1,245 units, which represent a decrease of 16% from 2001 to 2011, of inadequate dwellings.

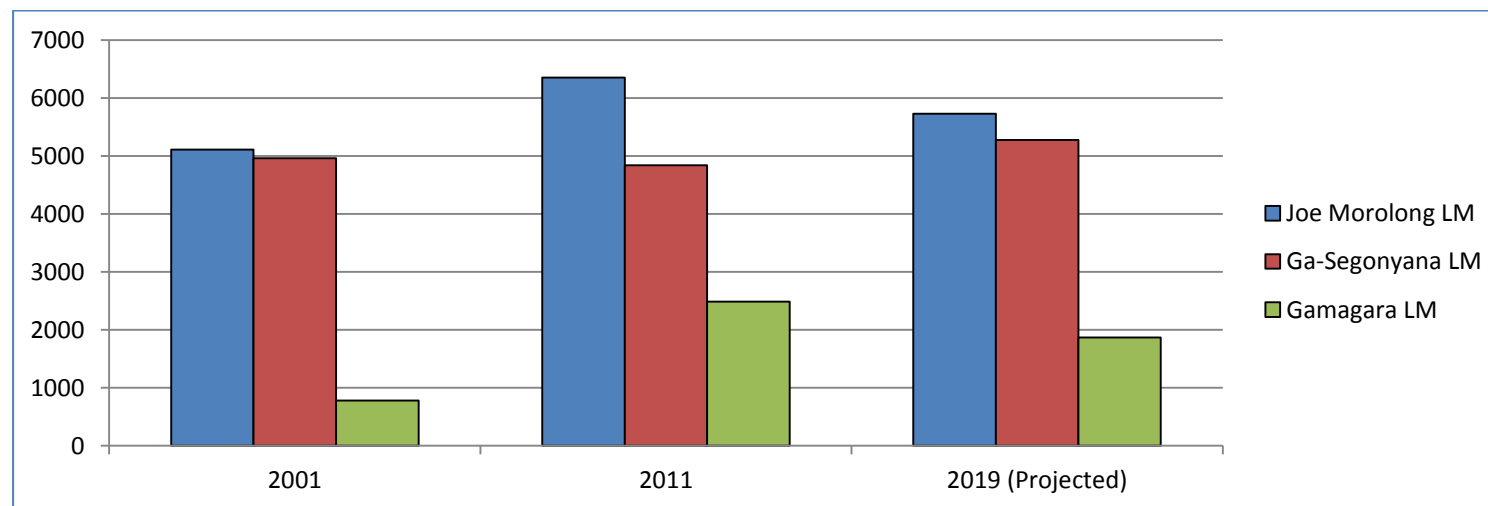


Figure 3-34: Housing Needs within the JTGDM

Source: Census 2001 & 2011, Integrated Human Sector Plans (GSLM & JMLM) and Gamagara Municipal Profile (2014)



From the graph above it is evident that the housing backlog has declined between 2001 and 2011 in Joe Morolong LM. Ga-Segonyana LM and Gamagara LM will continue to experience the increase in housing needs besides the provision of RDP houses by the government. This is due to current backlog, natural population increase, affordability and job opportunities hope in these areas.

Implementing strategies to address the housing backlogs takes time and requires seamless collaboration between local municipalities, the provincial Department of Housing, private developers and the mining companies.

3.14.4.6 PLANNED HOUSING PROJECTS

Table 3-17: Housing Projects in the JTGDM

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> Construction of Housing Units - COGHSTA 	✓	✓	✓
Ga-Segonyana LM	<ul style="list-style-type: none"> Special Presidential Package For Distressed Mining Communities(50 Units Planned) Development of new residential sites in Kuruman (Galowe & Kuruman) Western development- Moloka Estate Servicing of 154 new residential erven in Mothibistat Kuruman High density development (4500) – Wards 1, 3, 5. 6. 13 Insitu Upgrading (200) – Wards 3 - 12 Kuruman Western Development (5000) – Ward 1 Development of Residential stands in Wrenchville 130 new houses and related infrastructure for mine employees residing in Kuruman (Black Rock Housing Development) 	✓	✓	✓
Gamagara LM	<ul style="list-style-type: none"> Special Presidential Package For Distressed Mining Communities(43 Units Planned) Construction of the 50 mixed development (rental housing) – R7.5 m -COGHSTA Planning, surveying & registration of 1600 stands in Kathu (R13m) 	✓	✓	✓
John Taolo Gaetsewe DM	<ul style="list-style-type: none"> The allocation for the Human Settlement Development Grant for the coming financial year is R401 million which includes about R87 million for the following Priority Mining towns: Ga-Segonyana, Kgatelopele, Tsantsabane and Gamagara. COGHSTA will also focus on informal settlements upgrade programme for the coming financial year specifically on the provision of basic services 	✓	✓	✓

Source: NC SOPA (2016), COGHSTA Strategic Plan (2014 – 2019) and IDPs 2016/2017



3.14.5 SERVICES INFRASTRUCTURE

South Africa has one of the most progressive legislative and policy frameworks for basic services in the world, including a constitutional right of access to sufficient water, a right to basic sanitation, a Free Basic Water (FBW) policy and a Free Basic Sanitation (FBSan) policy at the national level (SEAT, 2014). According to the Department of Local Government (DPLG, 2005) Guidelines for the implementation of the National Indigent Policy by municipalities, the policy is designed to allow municipalities to target the delivery of essential services to citizens who experience a lower quality of life especially in Joe Morolong Local Municipality. In this case the term 'indigent' means 'lacking the necessities of life. These services include (1) Free Basic Water: a minimum of six kilolitres of water per household per month within a 200m radius of the household; (2) Free Basic Energy: 50 kWh of electricity per household per month; (3) Sanitation: ventilated improved pit latrine (VIP) or toilet connected to a septic tank or to water-borne sewerage; and (4) Waste: collection and disposal of refuse.

Section 152 of the Constitution (Act 108 of 1996), sets out the objectives of local government as ensuring access to basic services and economic development facilitation within a framework of financial sustainability. Quality of life depends on various factors; access to basic services is one of them. In order to assess the availability of basic services, four indicators have been chosen for analysis. These indicators are access to electricity, piped water facility within premises, availability of flush toilet facility and access to the refuse removal facility.

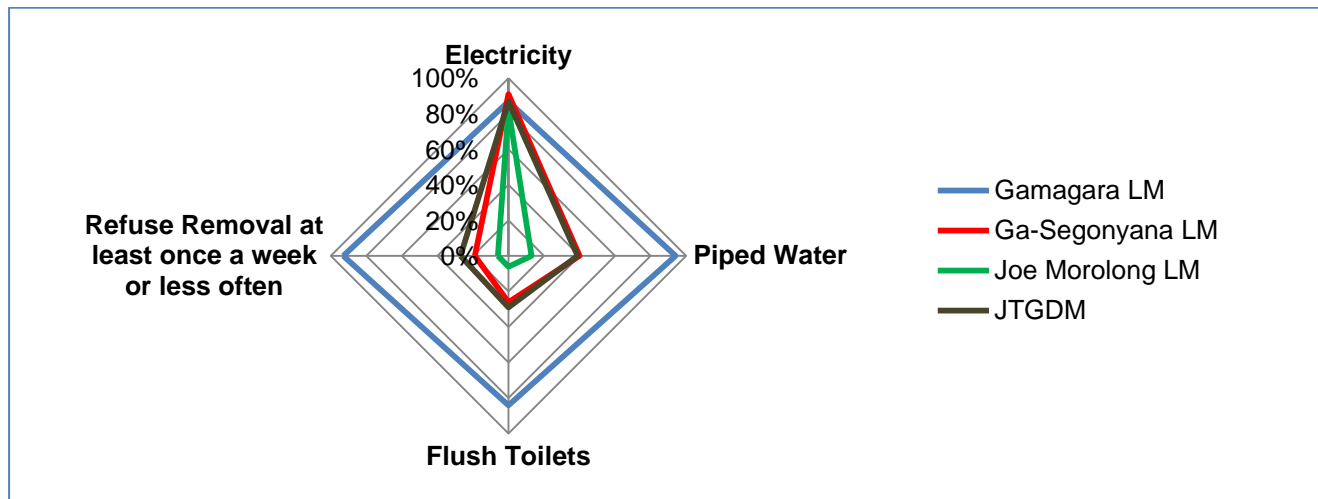


Figure 3-35: Level of Basic Infrastructure Services
Source: Census 2011

While progress has been made towards eradicating service delivery backlogs in the JTG district, at municipal level and in the poorest areas, service delivery remains a major challenge. The lack of sufficient services such as potable water (i.e. drinking water) and sanitation is starting to cause major problems for the district. It is clear from the figure above that most of the district households have access to electricity. But very few households have access to piped water facilities within their houses/yards, regular refuse removal and flush toilet facilities. Availability of these facilities is much lesser in the rural areas than the urban areas. Of all the local municipalities, Joe Morolong has performed worst in terms making the facilities available to the citizens. This municipality is sparsely populated and the communities are located far away from each other. This increases the cost of service delivery; perhaps this is one of the reasons behind the local municipality's least performance. Some of the characteristics of Joe Morolong LM include people moving closer to economic activities, especially in Gamagara LM and Ga-Segonyana LM which puts tremendous pressure towards the existing service capacities for all bulk supply services, access roads and town development.

A question was introduced in the Community Survey 2016 that asked households what they considered to be the main problem or difficulty they were facing in their respective municipalities. The households response as indicated on the table below, have sited access to reliable portable water as their number one challenge.

Table 3-18: Five Leading Challenges Facing the Municipality as Perceived by the Household

Top-5 challenges	Main challenge/difficulty in municipality	Number of Households
Challenge 1	Lack of safe and reliable water supply	2 683 048
Challenge 2	Lack of or inadequate employment opportunities	1 963 104
Challenge 3	Cost of electricity	1 706 313
Challenge 4	Inadequate housing	1 199 692
Challenge 5	Violence and crime	867 155

Source: StatsSA, 2016 (CS 2016)

The challenges as outlined on the above are consistent with the John Taolo Gaetsewe District Municipality situation as depicted on Figure 7.5. This indicates a general trend in the country and it has also been compared with the IDP priorities of the JTG district Municipality and its Local Municipalities



3.14.5.1 WATER SERVICES

All the three local municipalities within the JTGDM are the Water Services Authority (WSA) in terms of the Water Services Act, 1997 (Act 108 of 1997). The powers and functions of the Water Services Authority include the following:

- Provision of bulk services (water and sanitation)
- Maintenance of water and sanitation infrastructure
- Provision of portable water
- Implementation of capital projects for water and sanitation (dry or water borne systems)

The Department of Water and Sanitation has conducted the assessment on the Status for all the Water Service Authority in the Northern Cape Province to establish the vulnerability in respect of performance on the water and sanitation function. The table below illustrates the outcome of the assessment.

Table 3-19: Status on Vulnerability of the Water Service Authorities with the JTGDM

Municipality	Water Services Planning	Management Skill Level (Technical)	Staff Skill Levels (Technical)	Technical Staff Capacity (Numbers)	Water Resource Management (WRM)	Water Conservation & Demand Management (WCDM)	Drinking Water Safety & Blue Drop Status	Wastewater/ Environmental Safety & Green Drop Status	Infrastructure Asset Management (IAM)	Operation & Maintenance of Assets	Financial Management	Revenue Collection	Information Management	Organizational Performance Monitoring	Water Service Quality	Customer Care (CRM)
Gamagara	Extreme Vulnerability Extreme	Extreme Vulnerability Extreme	High Vulnerability	Extreme Vulnerability	Moderate Vulnerability	Extreme Vulnerability	Extreme Vulnerability	Extreme Vulnerability	Moderate Vulnerability	Extreme Vulnerability	Moderate Vulnerability	Moderate Vulnerability	Extreme Vulnerability	Moderate Vulnerability	Moderate Vulnerability	Extreme Vulnerability
Joe Morolong	Low Vulnerability	Low Vulnerability	Extreme Vulnerability	High Vulnerability	High Vulnerability	Extreme Vulnerability Extreme	Moderate Vulnerability	Extreme Vulnerability Extreme	High Vulnerability	High Vulnerability	Moderate Vulnerability	Extreme Vulnerability Extreme	Moderate Vulnerability	High Vulnerability	High Vulnerability	Low Vulnerability
Ga-Segonyana	Moderate Vulnerability	Low Vulnerability	Moderate Vulnerability	Moderate Vulnerability	Moderate Vulnerability	Low Vulnerability	High Vulnerability	High Vulnerability	Moderate Vulnerability	Low Vulnerability	Extreme Vulnerability	High Vulnerability	Moderate Vulnerability	Low Vulnerability	Low Vulnerability	Low Vulnerability

Source: Municipal Strategic Self-Assessment of WSAs in Northern Cape (DWS), 2014

The table above indicates the dire need in which the three Water Service Authorities finds themselves in. It is clear that much still need to be done to improve the status of the three WSAs as far as the water and sanitation is concerned. The next section on accessibility with respect to water and sanitation will also give an indication of the extent to which the communities are being serviced.



3.14.5.2 WATER SOURCES

The John Taolo Gaetsewe District Municipality has a “flat” geomorphic profile, with the Kuruman hill’s ridge system bisecting the district along a north-south axis. The drainage pattern in the district is determined by this ridge system, channelling all streams northwards and then sharply westwards. Falling in the Lower Vaal Water Management Area, the most important catchment area in the JTGD is the Korannaberg Mountains, from which the majority of the streams in the district spring and from where they drain into the Kuruman River system. The catchment has been classified as a “National Priority Freshwater Ecosystem” (**Map 42**). The catchment has, however, also been affected by overgrazing, which has accelerated erosion, increased surface run-off and reduced filtration to the groundwater system.

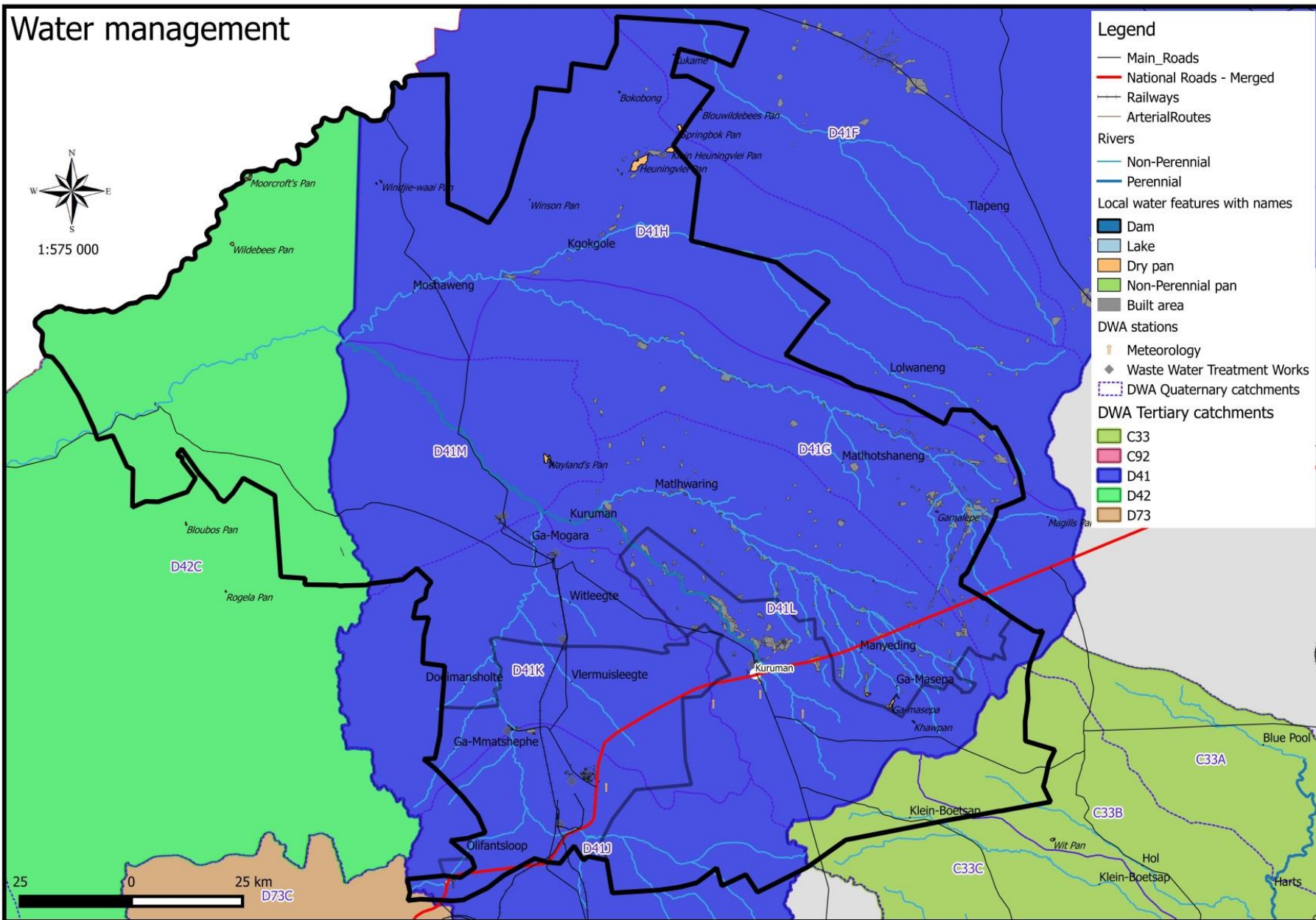
Although there are no perennial rivers in the district, there are a number of ephemeral systems, such as the Kuruman and Molopo Rivers. Unfortunately the areas through which these streams flow have been exploited for intensive agricultural purposes, which have led to intensive degradation/transformation of these riverine habitats. In addition to this, the introduction of alien plant species has led to serious surface and groundwater resource depletion – e.g. one Eucalyptus tree consumes on average 700 litres of water per day. In addition to the impact of human beings on the water systems, birds have also been responsible for the in-movement of alien plant species by spreading seeds along water courses.

The JTGD district falls in the Vaal Water Management Area. The most important catchment area in the district is the Korannaberg Mountains, from which the majority of the streams in the district spring and from where they drain into the Kuruman River system. However, it is essentially an area with very little surface water and no rivers with permanent water flows. Thus water for mining, industrial and residential use comes from the following sources:

- Groundwater in the form of boreholes and water being pumped from mining operations in order to keep them dry (dewatering) is being utilised throughout the area.
- The Kuruman Eye is a natural source of water, providing crystal-clear water for the surrounding community.
- The bulk of potable water is supplied through the Vaal-Gamagara pipeline (which originates in Delportshoop, some 300km away). The Vaal-Gamagara Government Water Supply Scheme was completed in 1968 to deliver water from the Vaal River to a range of users in the whole area from Postmasburg/ Beeshoek to Black Rock. This scheme’s purification works purifies 13.27 million m³/annum of water that is delivered via pumps, 11 reservoirs and 370km of pipes to users in its service area.



Water management



The wetlands in the JTGDM, except for Heuningvlei, are also ephemeral, only filling up briefly after the summer rains. A large number of these wetlands, including Heuningvlei, are classified as “National Priority Wetland Areas”. The Heuningvlei saltpan is fed by a number of permanent freshwater springs, with its north-western corner a permanent marsh-type wetland. These wetland areas attract a wide variety of birds, some of them Red List species and migratory birds covered by international treaties (e.g. Chestnut-banded Plover, Greater Flamingo and the Yellow-billed Stork). These pans are used by wildlife for grazing and for salt-licking, and also by farmers for their herds. Unfortunately, overgrazing and trampling associated with the latter, is threatening the ecological integrity of these pans. In addition to this, these areas are threatened by direct industrial disturbances associated primarily with the mining activities in the area, which can have far more negative impacts than the agricultural activities. As a result of this, the JTGDM Environmental Management Framework 2011 recommends for assessments to be done for ecological condition of wetlands around industrial zones in the district.

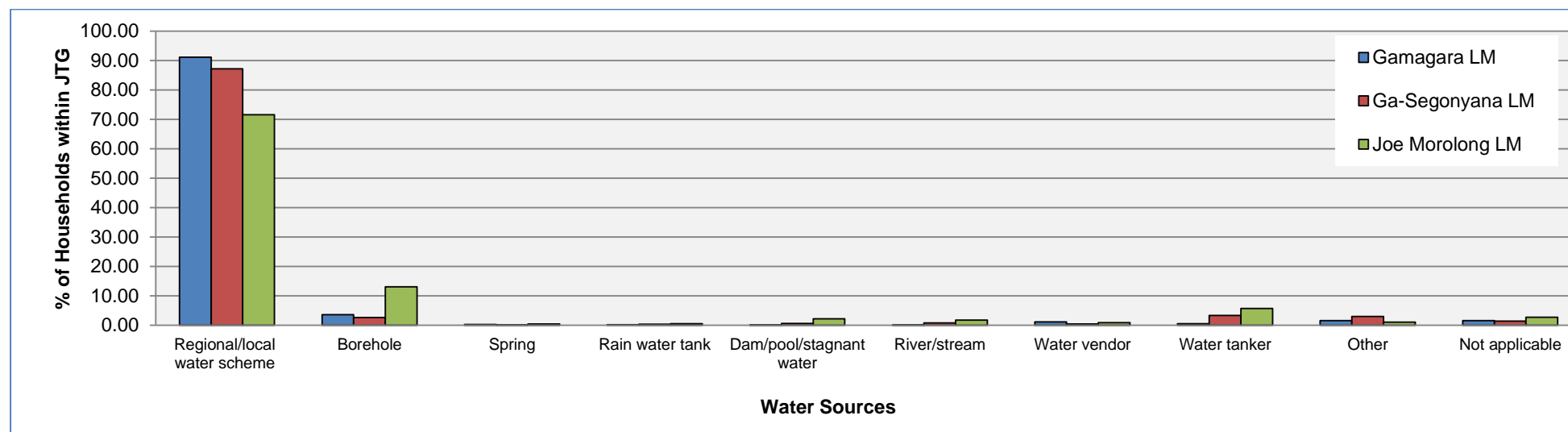


Figure 3-36: Water Sources within JTGDM

Source: Census 2011

It is clear from the figure above that more than 70% of the water in JTGDM is provided by the Regional/local water scheme (i.e. water provided/operated by municipality or other water services provider). Private boreholes are mostly found in farms and other traditional villages. Due to the low rainfall figures and highly variable run-off, very little usable surface runoff is generated, which has resulted in an ever-increasing use of groundwater resources for human and industrial needs. The Kuruman Eye, a spring that delivers 20 million litres of water per day, is the main source of water in the district. In total there are five “eyes” or fountains in the JTGDM. Two of these are associated with the Kuruman Eye, while another two (the Klein Koning and Groot Koning eyes) are located south of the R273, and another is located at Manyeding. Intensive

agriculture takes place in the vicinity of most of these eyes, except for those in Kuruman, which have been developed for recreational purposes. In addition to the extraction of water from the “eyes”, water for human consumption and irrigation is sourced from boreholes throughout the JTGDM.

Due the absence of a detailed groundwater resource data, there is no accurate information on the status of groundwater quality and reserves in the district, but it is generally accepted that this resource is hugely impacted upon, especially so in the areas where urban settlements and mines are located (**Map 43 - 46**). A recently initiated study by the Department of Water Affairs into the availability of groundwater resources in the area may assist in filling the information gap, and in ensuring better managed and more sustainable use of the resource.

3.14.5.3 ACCESS TO PIPED WATER

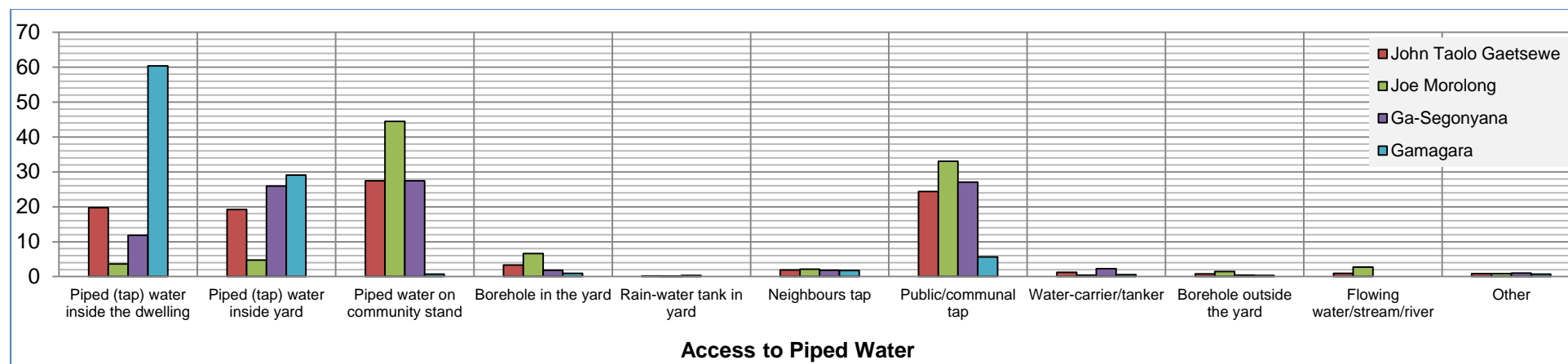


Figure 3-37: Level of Piped Water within JTGDM

Source: Census 2016

The water provision situation differs significantly between the three local municipalities in the district, with 60.38% of the population in Gamagara LM having access to water inside their dwellings. In the case of the Ga-Segonyana LM and Joe Morolong LM, the percentages are far lower at 11.86% and 3.65% respectively. Almost half of the population in Joe Morolong LM (44.45%) rely on a piped water source outside their yards. The dismal water provision situation in the Joe Morolong LM is borne out by the fact that (1) 88.4% of the RDP water backlog in the JTGDM recorded in 2009, and (2) 20.4% in the NC Province, was located in this municipality. While 90.84% of the population in JTGDM have

access to potable water, only 39.01% have access to water inside their yards. This is less than half the percentage in the Northern Cape Province (79.61%).

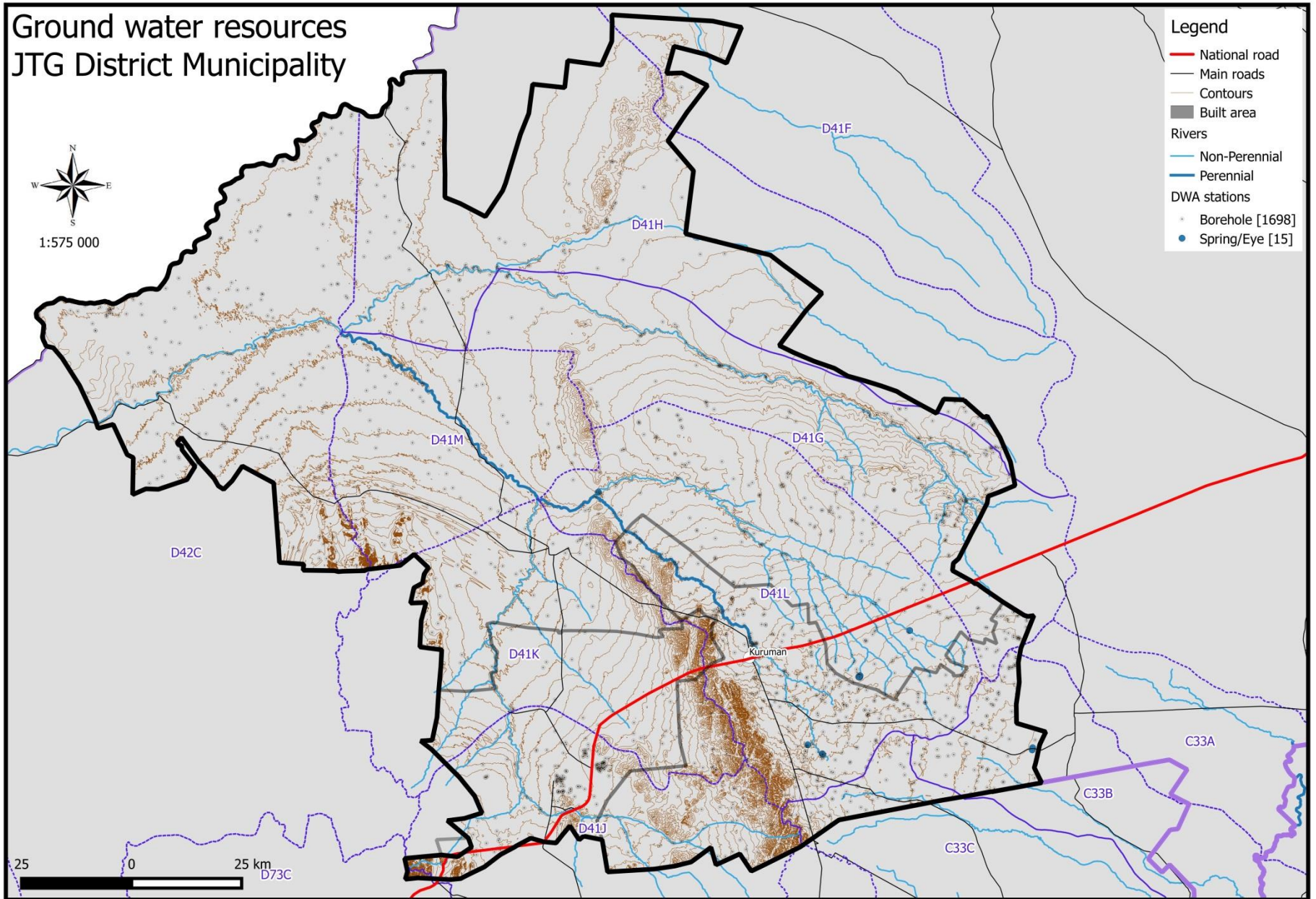
In comparison to the situation in the four other districts in the province, the level of provision of water in the JTGDm is far below as compared to them, which all have figures above 50%. If access to piped water inside dwellings is used as an indicator, Census findings seem to suggest that the situation improved slightly from 2011 to 2016 in Ga-Segonyana and Joe Morolong however from a very low base. According to the Ga-Segonyana IDP, about 61% of households have access to “a basic level of water” within a 200m radius of the household. In Gamagara the reduced access to piped water inside dwellings is attributable to the growth in population and informal settlements.



Ground water resources JTG District Municipality

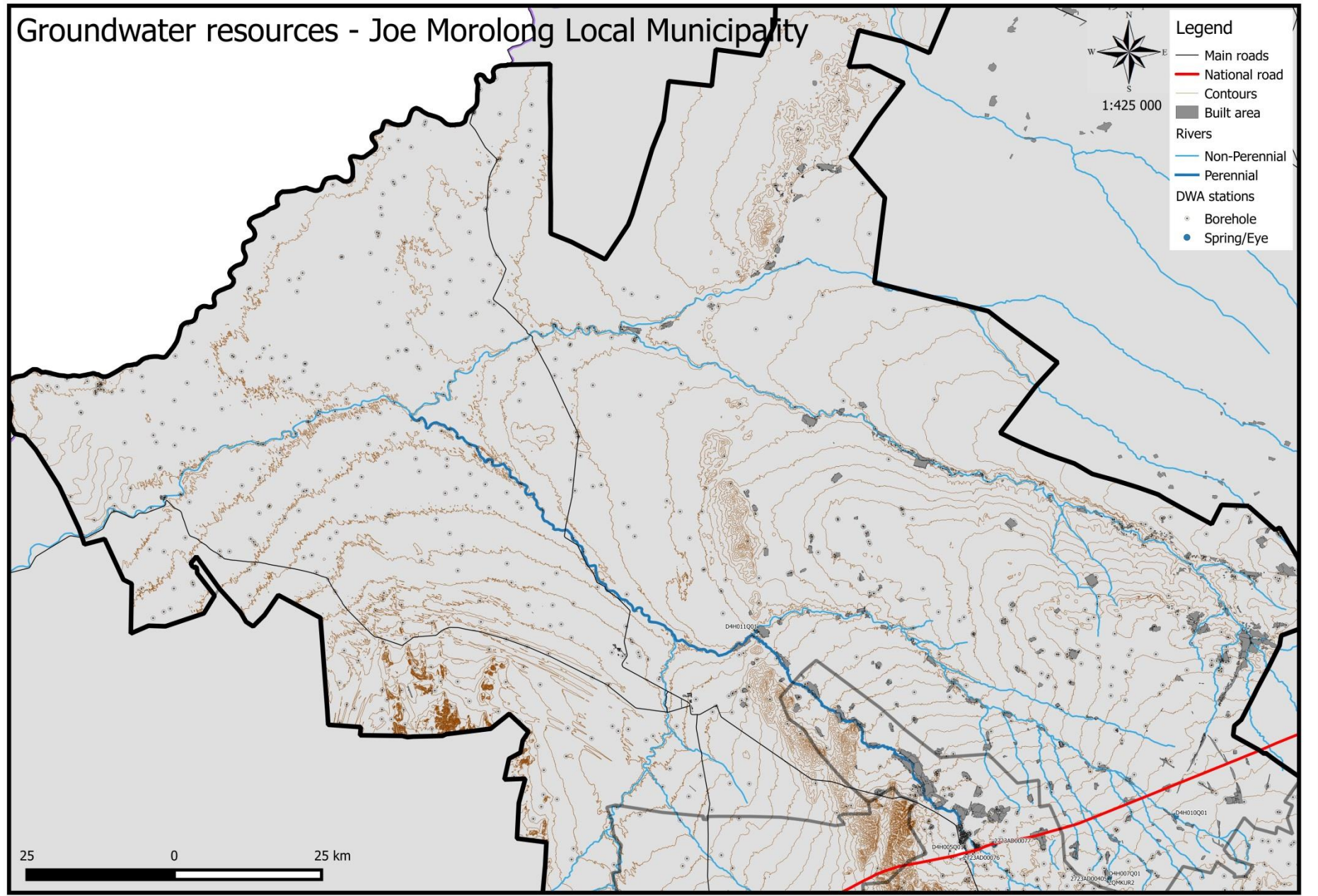


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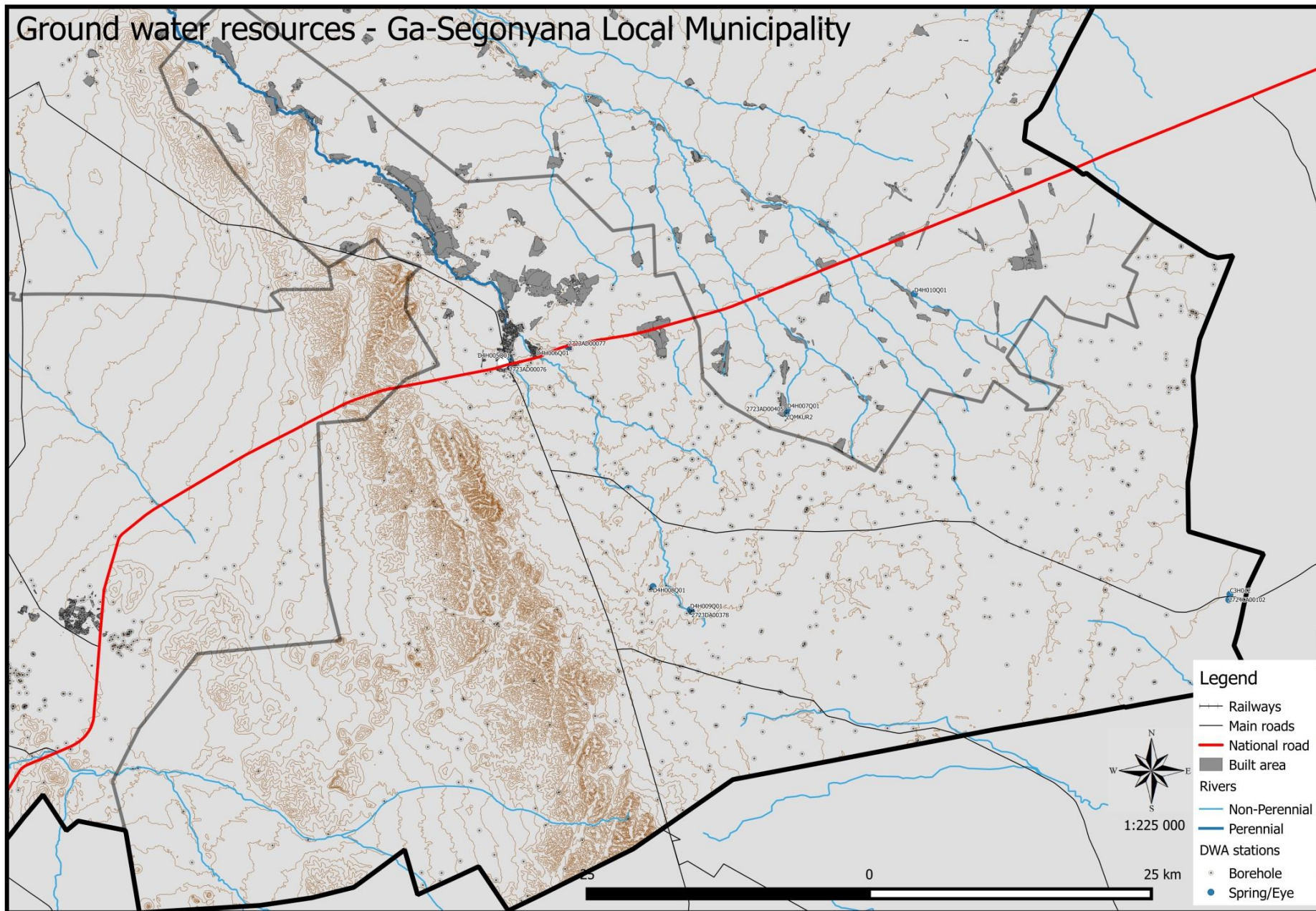


JTGDM

Groundwater resources - Joe Morolong Local Municipality



Ground water resources - Ga-Segonyana Local Municipality

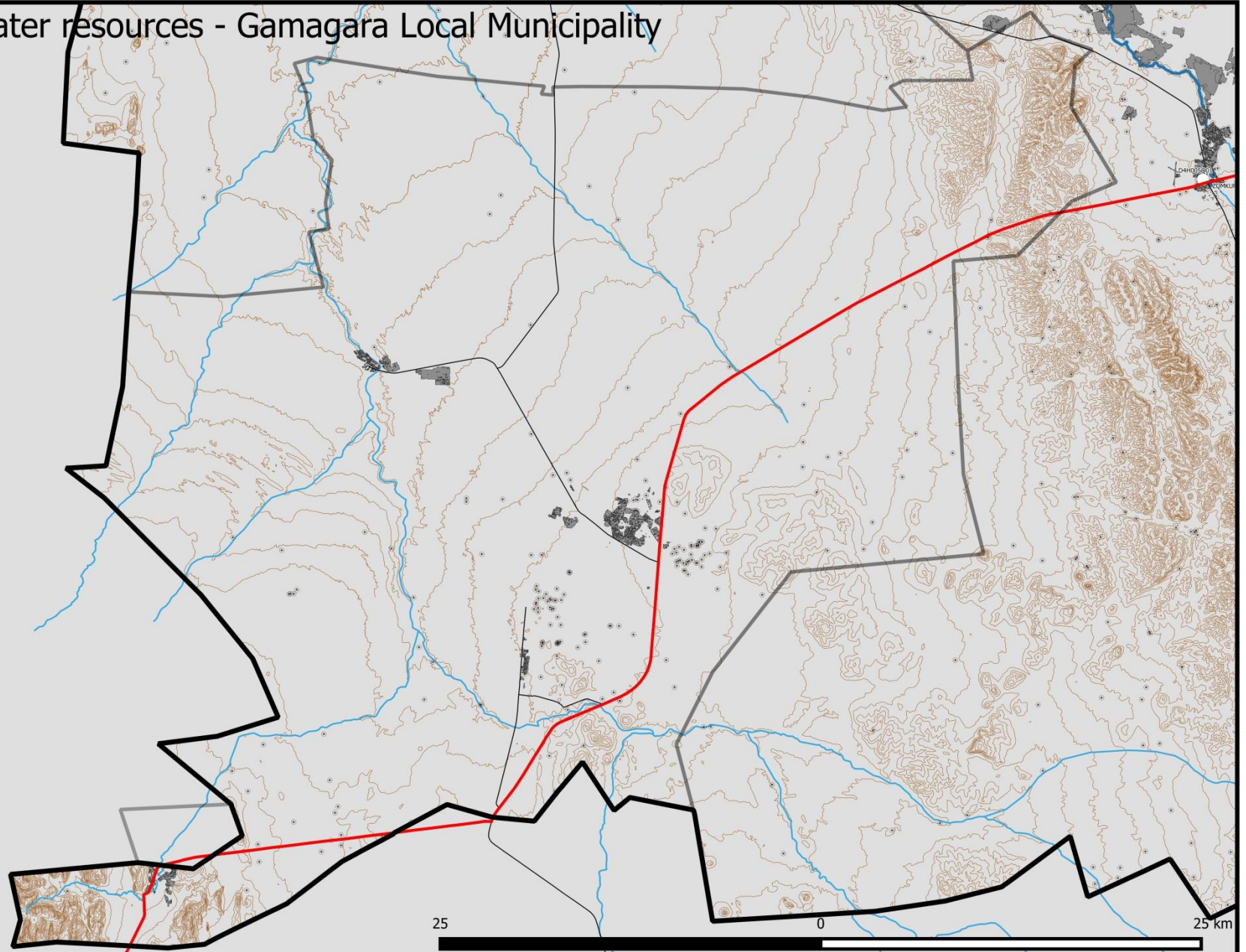


Groundwater resources - Gamagara Local Municipality



Legend

- National road
- Main roads
- Contours
- Built area
- Rivers
 - Non-Perennial
 - Perennial
- DWA stations
 - Borehole
 - Spring/Eye



3.14.5.4 PLANNED WATER INFRASTRUCTURE PROJECTS

Table 3-20: Water Infrastructure Projects in the JTGD

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> Loopeng Water Supply (R6m – WSIG), Laxey Water Supply (R6m - WSIG), Magojaneng West Water Supply (R9.8m – WSIG), Ga-Sehunelo Wyk 1 (R2.7m – WSIG), Ga-Sehunelo Wyk 4 (R3.2m – WSIG), Setshwatshwaneng Water Supply (R4.2m – MIG), Moseohatshe Water Supply (R7.1m – MIG), Dithakong Water Supply (R23.1m – WSIG), Gakhoe - Ga-Ramotsokwane Water Supply (R19m – WSIG), Gamasepa Water Supply (R8.6 – WSIG), Manyeding Water Supply (R5.3 – MIG). 	✓	✓	
Ga-Segonyana LM	<ul style="list-style-type: none"> Kuruman Bulk Water Supply Scheme (in Bankhara-Bodulong) is under construction (R15m – RBIG). Maruping / Batlharos: External and Water distribution: Phase 2 (R9.6m – MIG), Upgrading of Bulk Water Supply, Network Extensions, Stand Pipes and Refurbishment: Ward 7 (R18.9m – MIG), Seeding Extension of bulk water supply, Phase 3 (R7m – NWIG), Magojaneng Extension of bulk water supply (R9m – MWIG), Seven Miles Extensions of bulk water supplies (R9.4m – MWIG), Construction of Thamoyanche Bulk Water Supply Phase 2 (R2.5m – MWIG). 	✓	✓	
Gamagara LM	<ul style="list-style-type: none"> Committed bulk water supply projects (by NC Provincial Government) that are being implemented are not only critical in eradicating the water supply backlogs, but also contribute to economic development and further build our resilience to drought and the impacts of climate change. The Vaal Gamagara Bulk Water Scheme, in respect of which the feasibility study and design for phase one has now been completed, will enter into the construction phase in the first quarter of 2016/2017. Olifantshoek Water purification and Storage (R30m – Khumani SLP), Kathu Construction of New Water Treatment Works (R11m – Internal Funds), Kathu New 18 ML Reservoir and 3ML Elevated Tower (R13m – Internal Funds), Kathu-West Construction of Water Linkline (R3m), Construction of Sesheng 7ML east and 1.7ML Elevated Tower (R12m), Construction of Water Supply Pipeline from WTW to Sesheng New Reservoir Pipeline (R2.9m), Refurbishment and Upgrade of Existing Pumps at Kathu WTW (R2.5m), Olifantshoek Bulk Water Supply (R8.7m), Dibeng Bulk Water Supply (R8.7m), Removal of part supply from Kathu Central to Kathu West Reservoir (R2m) 	✓	✓	

Source: NC SOPA (2016), NC & DWS Strategic Plans (2014 – 2019), SLPs and IDPs 2016/2017

3.14.6 ACCESS TO SANITATION

According to the South African Institution of Civil Engineering (SAICE) and the CSIR, although StatsSA 2011 reveals improvements in sanitation access, users are often not receiving the full benefit because of high failure rates. There are two main reasons for this, (1) most sanitation facilities are not compliant with appropriate technical design standards, meaning they are built in a manner susceptible to quick failure and extreme maintenance difficulties; (2) there is a consistent lack of communication with users on why and how to use these facilities, compounding maintenance problems.



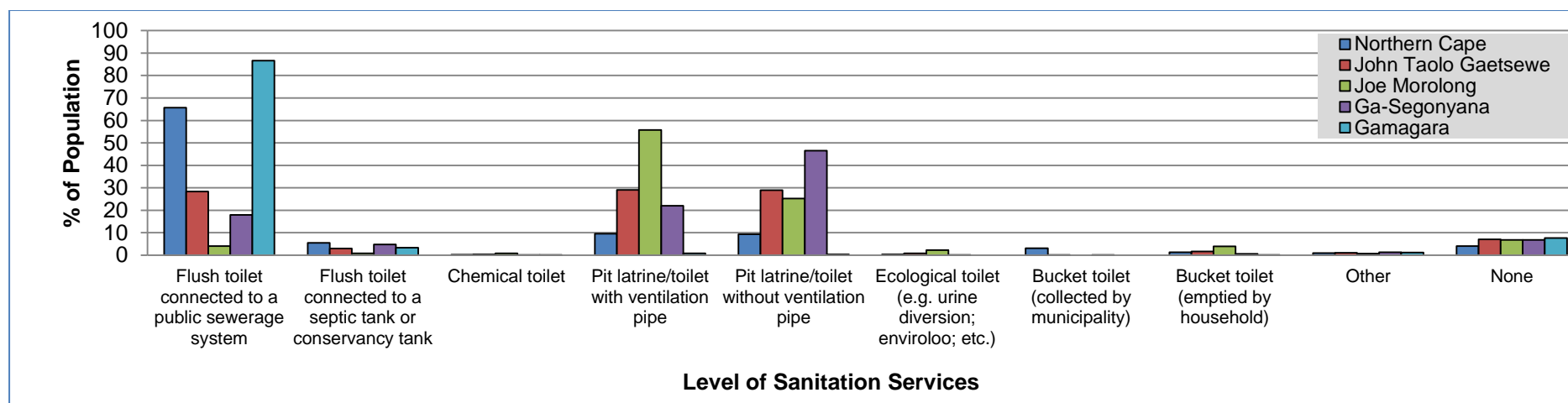


Figure 3-38: Level of Sanitation within JTGDm
Source: Census 2016

The backlogs with regards to provision of water are also evident in the access to sanitation services in the district. Less than one in three of the population in the JTGDm (28.29%) has access to a flush toilet connected to a sewerage system. Once again this is nearly half the national figure of 54.99% and less than half the figure for the Northern Cape Province (65.74%). This is also far below the figure for the other four District Municipalities in the province, with these municipalities all having figures of more than 60%. Nearly half of the population in the JTGDm are reliant on a pit-latrine (57.94%) with or without ventilation. This is more than 20% higher than the provincial figure of 18.89% and far higher than the figures for the four other districts in the province, which are all below 12%. In addition to this, 6.98 % of the population within the district have no toilet facilities, which is sizeably higher than the provincial figure of 4.02%.

From the figure above, it is clear that just over 22.59% of the population in Ga-Segonyana have access to sanitation via a flush toilet either connected to a public sewerage system or connected to a septic tank or conservancy tank, while the IDP of Ga-Segonyana Local Municipality states that just over 70% of its households have access to sanitation of an acceptable RDP level. As in the case of the provision of water services, the situation is worst in Joe Morolong LM, with 80.95% of the population being dependent on a pit latrine with or without ventilation vis-à-vis 1.11% in the Gamagara LM, 68.6% in the Ga-Segonyana LM and 18.89% in the province. It is of a high concern that JTGDm has percentage of population with not access to any form of sanitation and large numbers of population still using pit latrines and compared to the provincial figures.

According to SEAT (2014), the challenge of the latter was raised during a round-table discussion held with Gamagara municipal officials as part of Sishen mine's latest socio-economic assessment. During the discussion, the municipal officials said that misconceptions among residents

about the use of flush toilets were a huge problem in Mapoteng, where large numbers of people settle informally in the hope of finding work. Overcrowding is another challenge for effective sanitation in Mapoteng. The number of dwellers per Erf far exceeds the current capacity to deliver service. Technically, the sanitation system, consisting of four pumps in Mapoteng and six pumping stations in Kathu, can accommodate five people per household. In reality, up to 20 people may reside on each Erf or plot, by far exceeding the calculated capacity of the infrastructure. This explains the recurring problems being experienced with bulk services and the provisioning of internal services to attend to the problems.

Being unfamiliar with flush toilets, some people treat the toilets as dustbins and use them to dispose of household waste. As a result, sewerage pumps then become clogged and sewage starts overflowing. The fact that much of the population is transient makes it difficult to educate people effectively about appropriate use.

3.14.6.1 PLANNED SANITATION PROJECTS

Table 3-21: Sanitation Projects in JTGD

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> Vanzylsus Dry Ventilated Improved Toilets (R2.2 m – MIG), Magobing-West Ventilated Improved Toilets (R0.9m – MIG), Tsineng Ventilated Improved Toilets (R4m – MIG) , Maipeng Improved Ventilated Improved Toilets (R1.7m – MIG), Rustfontein Wyk 9 Ventilated Improved Toilets (R0.46m – MIG), Damros Ventilated Improved Toilets (0.9m – MIG), Wesselsvlei Ventilated Improved Toilets (R1.2m – MIG), 	✓		
Ga-Segonyana LM	<ul style="list-style-type: none"> Rural Sanitation Programme (Maruping & Batlharos) – R9m - MIG Ditshoswaneng Sanitation Programme (R3m – Assmang Black Rock) 	✓	✓	✓
Gamagara LM	<ul style="list-style-type: none"> Kathu Refurbishment and upgrade of existing pumps at WTW (R2.5m), Dibeng Bulk Sewer Supply (R10m), Olifantshoek Bulk Sewer Supply (R10m), Upgrading of Sewer Pump Station at Sesheng (R1m), Upgrade Kathu Waste Water Treatment Works (R8m), Construction of Dibeng Crossing Sewer Pump Station 	✓		

Source: NC SOPA (2016), NC & DWS Strategic Plans (2014 – 2019) and IDPs 2016/2017



3.14.7 ACCESS TO REFUSE REMOVAL

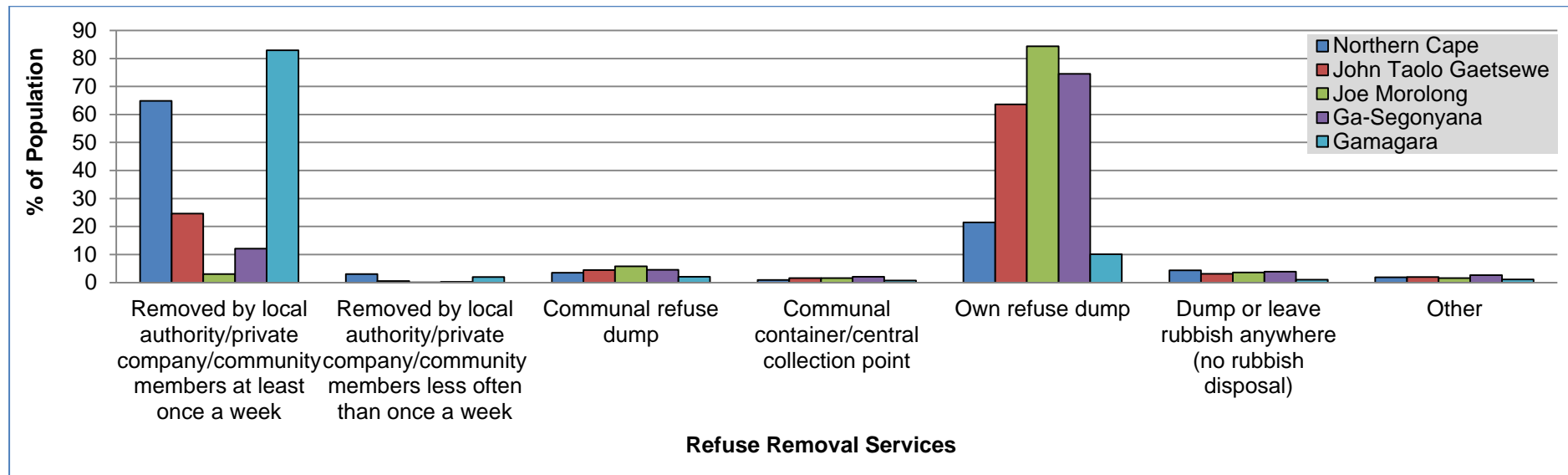


Figure 3-39: Level of Refuse Removal within JTGDM
Source: Census 2016

In the case of refuse removal, 24.63% of the population within the JTGDM have their refuse removed by the local authority or a private company at least once a week or less often. This is far below less than half the provincial figure of 64.89%. In relation to the other four other districts in the province, it is far below the figure in this regard in these municipalities which all have percentages above 75%.

In the absence of a refuse removal service, population is dependent on their own endeavour, with 63.65% of the population within the JTGDM having their own refuse dump. This is more than three times the provincial figure 21.45% respectively, and far higher than the figure in the four other districts in the province, which all have figures of less than 20%. With regards to the situation in the three local municipalities in the district, while 84.92% of the population in Gamagara LM and 67.87 % in the province have their refuse removed by the local authority or a private, only 12.33% in the Ga-Segonyana LM and 3.09% in the Joe Morolong have access to such a service. According to SEAT (2014), refuse removal in the JTG district area has not shown any real improvement in the past three years, nor in the 10 years between 2001 and 2011 Census.

The table below illustrates the licensed and unlicensed landfill sites within John Taolo Gaetsewe DM.



Table 3-22: Legal Status of Landfill Sites within JTGDM

Municipality	Town/landfill location	Status
Ga-Segonyana LM	Kuruman	Licensed
Joe Morolong LM	Vanzylsrus	Licensed
Joe Morolong LM	Hotazel	Licensed
Gamagara LM	Kathu (Sishen)	Licensed
Gamagara LM	Deben	Unlicensed
Gamagara LM	Olifantshoek	Unlicensed
Gamagara LM	Blackrock	Licensed
Gamagara LM	Samancor: Wessels	Licensed

Source: JTG RDP 2016

3.14.7.1 PLANNED SOLID WASTE MANAGEMENT PROJECTS

According to the JTG RDP (2016), the Department of Environmental Affairs highlighted the following projects to be undertaken in the District Municipal Area:

- Upgrading of landfill sites;
- Landfill site development (EIA as part of licence, geotechnical studies, engineering surveys, architectural and designs, installation of weighbridge, construction of sorting bays and storage facilities with administration, ablution and guard room); and
- Domestic waste collection.

Table 3-23: Solid Waste Management Projects in JTGDM

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	• Construction of a Landfill Site at Glenred (R16m – DENC)	✓		
Ga-Segonyana LM	• Ga-Segonyana Waste Management Project (R25m – DEA)	✓	✓	✓
Gamagara LM	• Construction of control room at landfill sites (Dibeng & Olifantshoek), Upgrading of Kathu Transfer Station, Formalization (Licensing) of Olifantshoek Landfill Site (R1m), Establishment of new landfill site at Kathu (R1.5m), Upgrading of a Landfill Site (New Cells) at Dibeng (R1.2m)	✓		

Source: NC SOPA (2016), NC Strategic Plans (2014 – 2019) and IDPs 2016/2017



3.14.8 ACCESS TO ELECTRICITY

According to Census 2011, there has been remarkable growth in access to electricity as a primary source of energy in the JTGD District Municipality as presented in figure 7.4. One of the expected consequences of the development boom in the Gamagara Corridor is the tremendous pressure on the existing electricity transmission infrastructure in the area. To put this new demand into perspective, it has been stated that the equivalent of a new city of Bloemfontein in electricity demand has been created in the Gamagara Corridor by all the new mines and other related developments.

From 88% in 2011, access to electricity has increased to 90% of the local population having access to electricity in 2016, which is a relatively high and currently acceptable access rate. With regards to the energy/fuel source for cooking, heating and lighting, (1) 76% of the population in the JTGD use electricity for cooking; (2) 74% use electricity for heating; and (3) 90% use electricity for lighting.

3.14.8.1 ENERGY USED FOR COOKING

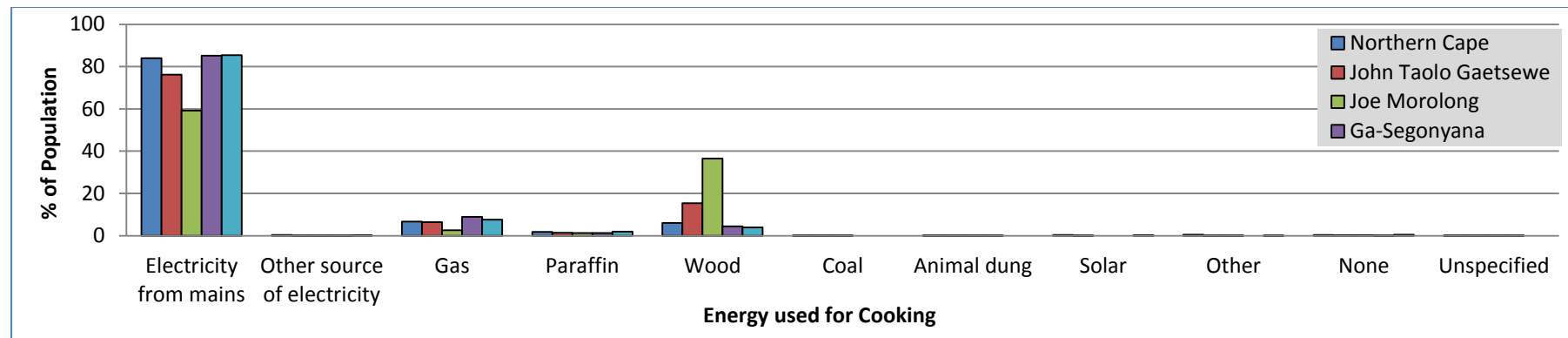


Figure 3-40: Energy Used for Cooking within JTGD
Source: Census 2016

In the case of cooking with electricity, the figure for the district is below the provincial figures of 76% and 84% respectively. At the same time, it is the lowest figure amongst the five districts in the province, with the percentages in the case of the other four districts, all above 78%. It is especially wood, which is used by 15% of the population in the district which is a key source of energy used for cooking purposes. This percentage is more than double the provincial figure of 6%. In the case of the four other districts in the province, the percentages of households that use wood for cooking are all below 10%.



3.14.8.2 ENERGY USED FOR HEATING

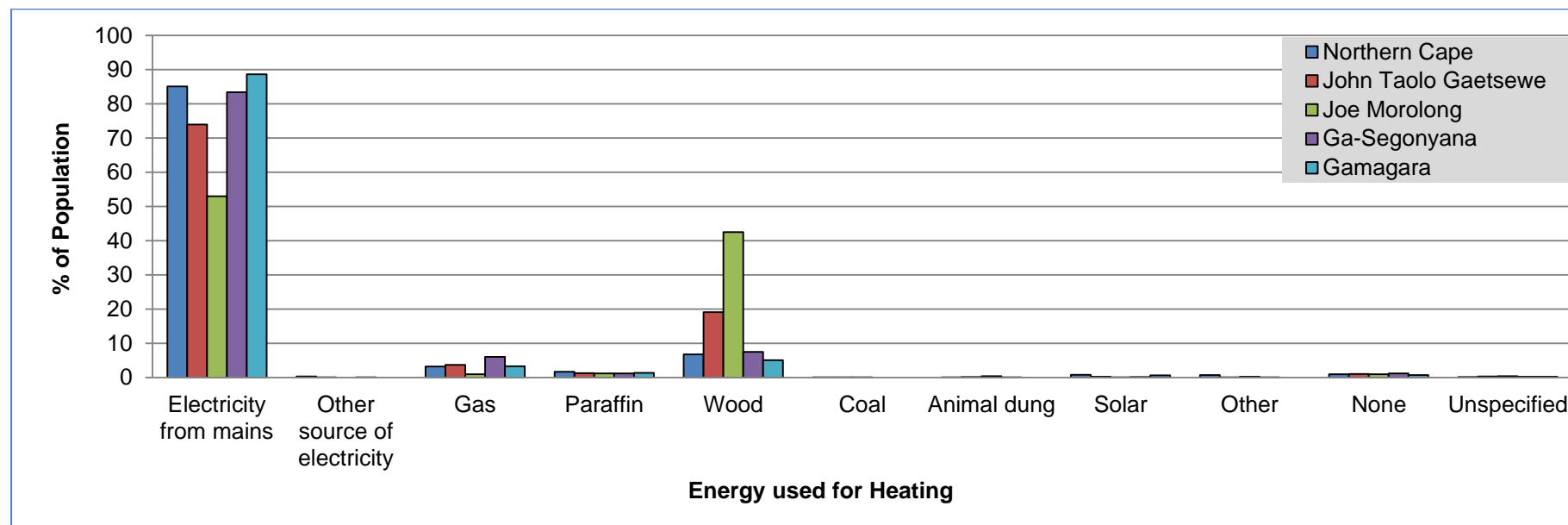


Figure 3-41: Energy Used for Heating within JTGDM
Source: Census 2016

The same applies in the case of heating, with wood being used by 19% of the population in the district, which is less than the percentage of population in the district that use electricity for heating purposes (74%). The use of wood in the other four districts in the province is also far below the use in the JTGDM – none of the municipalities have more than 25% of its households making use of wood for heating.

The percentage of households in the JTGDM that use electricity for heating is far below the provincial figures of 74% and 85% respectively. It is also significantly lower than the percentages in the other four districts in the province, where no municipality has less than 60% of the population using electricity for heating.

3.14.8.3 ENERGY USED FOR LIGHTING

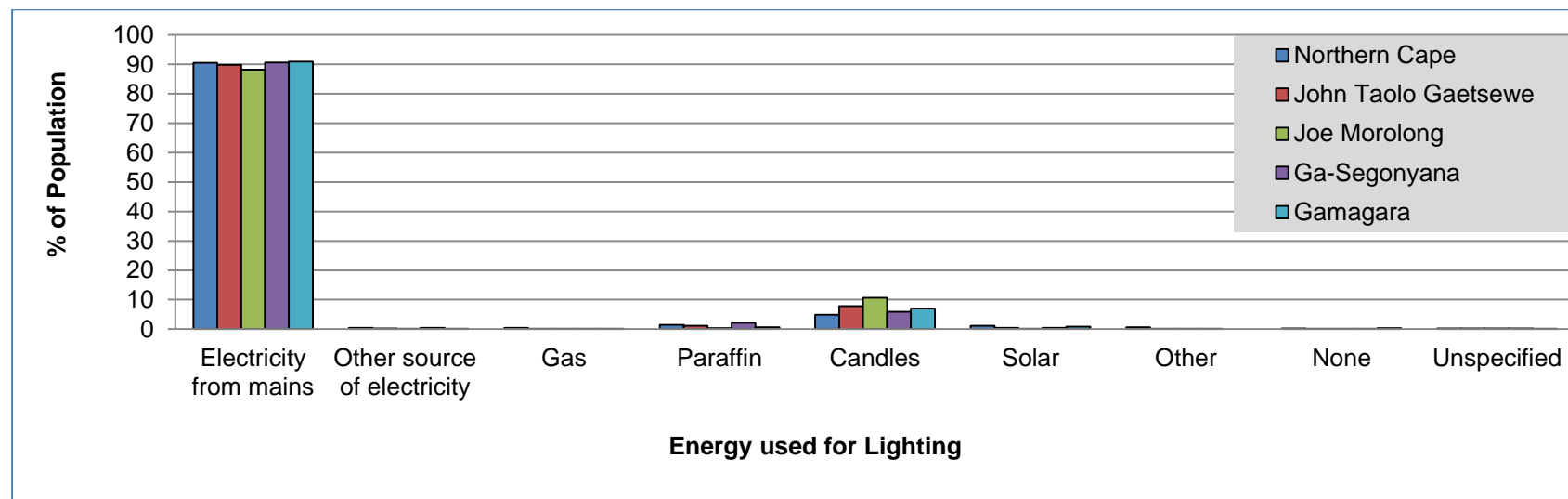


Figure 3-42: Energy Used for Lighting within JTGDM
Source: Census 2016

In the case of lighting, the figures in the JTGDM are very different from those for cooking and heating, with the percentage of households in the District Municipality that use electricity (90%) being same as the provincial figures of 90% respectively. In comparison to the situation in the four other DMs in the province, the JTGDM has the second highest percentage of households that use electricity for this purpose. The use of candles within JTGDM has the second most frequently used source of energy for lighting (by 8% of the population) is also higher than the provincial figures of 5% respectively. This figure (in the JTGDM) is also the second highest percentage amongst the five DMs in the province. The different pattern of use of electricity by households in the JTGDM suggests that the problem is not one of access to an electricity supply/ service, but rather a case of cost/affordability. With regards to the situation in the three Local Municipalities in the district, the percentage of households that use electricity for heating, cooking and lighting is (1) the highest in the Gamagara LM, and (2) the lowest in the Joe Morolong LM. It is especially in the case of heating where the use of electricity is very limited in the latter – only 53% use it as source vis-à-vis the 89% in the Gamagara LM and the 83% in the Ga-Segonyana LM.

In terms of RDP electricity backlogs, (1) 12% of the NC provincial backlog is located in the JTGDM (2009-figures), and (2) 53.1% and 6.3% of the backlog for the district and the NC province respectively, is located in the Joe Morolong LM. According to SEAT (2014), access to electricity as a source of energy for perhaps its most vital need, lighting, grew to about 87.5% for the district. Considering the realities of the Joe Morolong



Local Municipality as a rural area faced with vast distances, huge service delivery backlogs and an almost total dependency on grants and subsidies, the progress made is nothing short of excellent. Even though the majority of households have access to electricity, Ga-Segonyana and Gamagara have insufficient bulk electricity. Electricity is drawn from a long way away, and major additional bulk supplies of electricity are required for future expansions, and this is in the context of Eskom's difficulties in generating enough electricity to deal effectively with current demand in South Africa.

Housing and commercial development in Kuruman is severely stifled due to a lack of capacity in the electrical supply network. The supply from Eskom's Moffat substation to the Ga-Segonyana Municipality is currently provided at 11kV by means of two 10MVA feeders, providing a firm supply of 10MVA. The notified maximum demand with Eskom is currently 11.9MVA and the maximum demand has already reached 13.2MVA. It is estimated that an increase in supply capacity to the municipality will have a funding requirement of R239 million and hand-over may only be in 2022 effectively putting a moratorium on further development in Kuruman.

3.14.8.4 PLANNED ELECTRIFICATION PROJECTS

Table 3-24: Electrification Projects in JTGDM

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> Electrical Infills & Extensions by Department of Energy & Eskom (Various Villages – Loopeng, Magobing, Glenred, Madula-ranch, Cassel, Lotlhakajeng, Washington and Bothetheletsa) 	✓		
Ga-Segonyana LM	<ul style="list-style-type: none"> Upgrading of Substation (R1m & R2m - INEP) 	✓	✓	✓
Gamagara LM	<ul style="list-style-type: none"> Electrification of 1265 Stands: Residential Development (Sesheng/ Mapoteng) – R46m, Olifantshoek Bulk Supply Upgrade (R23m – Internal & INEP Funds), Electrification Development in Olifantshoek (R10m), Upgrade of the Bulk electricity supply (R15m) 	✓	✓	✓
John Taolo Gaetsewe DM	<ul style="list-style-type: none"> Eskom has committed to the following project for the period 2014 – 2016 as part of the Gamagara Development Corridor: <ul style="list-style-type: none"> In the area supplied by the Ferrum Electrical Distribution Network: Asbes to Moffat, rebuild 17 km line to 132 kV (2015/16), Ferrum MTS, new 13kV feeder by to Asbes (2015/16), new 132 kV feeder bay to BKM (2015/16), new 132 kV feeder bay to Group Five (2015/16), Ferrum to Asbes, rebuild 40 km line to 132 kV (2015/16), at Asbes, upgrade to 10 MVA 132/11kV sub (2015/16), at Dougnor Mine, at Hotazel DS, install 2x 132 kV feeder bays, move transformer to Klipkop (2015/16), Hotazel to Klipkom, rebuild line to 132 kV (2015/16), at Klipkop, install 1x 40 MVA 132/66 transformer and 132 feed bay by 2015/16, at Vesel Rural, install 132 kV feeder bay (2015/16), Ganyasa, new sub-station by 2015/16, Vesel Rural to Mookodi MTS, new 198 km of 132 kV line by 2015/18, Moffat, upgrade to 1x 40 MVD 132/66 transformer (2015/16), at Valley, 10 MVA 66/22 kV transformer and 22 kV feeder bay by 2015/16, Group 5, 100 MW renewable energy station (2015/16), Nsimbitile Mine, new substation 10 MVA supply by 2015/16 (mine funded), Kathu, 2x 20 MVA 132/11 transformers by 2015/16 (mine funded), Perth, new substation by 2015/16 (mine funded), Klipkop, 40 MVA firm supply by 2015/16 (mine funded), Hotazel DS, install 2 x 20 MVA 132/11 kV transformers (mine funded). In the area supplied by the Olien Main Transmission Sub-station: Ferrum MTS – Asbes, rebuild line to 132 kV by 2015/16, T Asbes, upgrade to 132 kV sub by 2015/16. 	✓	✓	✓

Source: NC SOPA (2016), NC Strategic Plans (2014 – 2019), SMEC (2013) and IDPs 2016/2017.



3.14.9 ROADS AND NETWORKS

In JTGDM there are roads that are managed and maintained various spheres of government, as well as the private sector. The N14 is currently the only SANRAL road in the area and it cuts across the mining corridor roughly from west to east, linking the area with Upington in the west and ultimately Gauteng in the east. The N14 also links Olifantsfontein with Kathu and Kuruman. Currently various sections of this road are being re-constructed and upgraded. The most important provincial roads are the R31, which links Hotazel, Kuruman, Danielskuil and ultimately Kimberley, and the R380 from Black Rock to Hotazel, Kathu and Postmasburg. Transport within JTGDM is characterized by a limited availability of number of transport modes, storage facilities and huge backlogs in communication. This is the reality despite the fact that Kuruman is an important distribution depot for the surrounding rural areas.

Due to the poor road conditions that connect the rural and urban areas, a lack of services provision by the bus and freight transport companies is a huge problem. This results in no transport for school children and no transport for livestock and other products to markets, which again results in a huge loss of money when selling products within the local communities (Integrated Transport Plan, 2006). The table below illustrates the road network in the JTG District Municipality.

Table 3-25: Road Network in the JT Gaetsewe DM (Km)

Road Type	Surfaced roads (km)	% of total (km)	Un-surfaced (km)	% of total	Total length (km)	Percentage
National Roads	125	1.9	0	0	125	1.9
Main Roads	29.6	0.5	237.3	3.7	266.9	4.2
Secondary Roads	60.6	0.9	974.2	15.3	1034.8	16.3
Arterial	104.4	1.6	117	1.8	221.4	3.5
Minor roads (access and streets)	20.6	0.3	4662.21	73.6	4682.8	74
Total	340.2	5.4	5990.7	94.6	6330.9	100

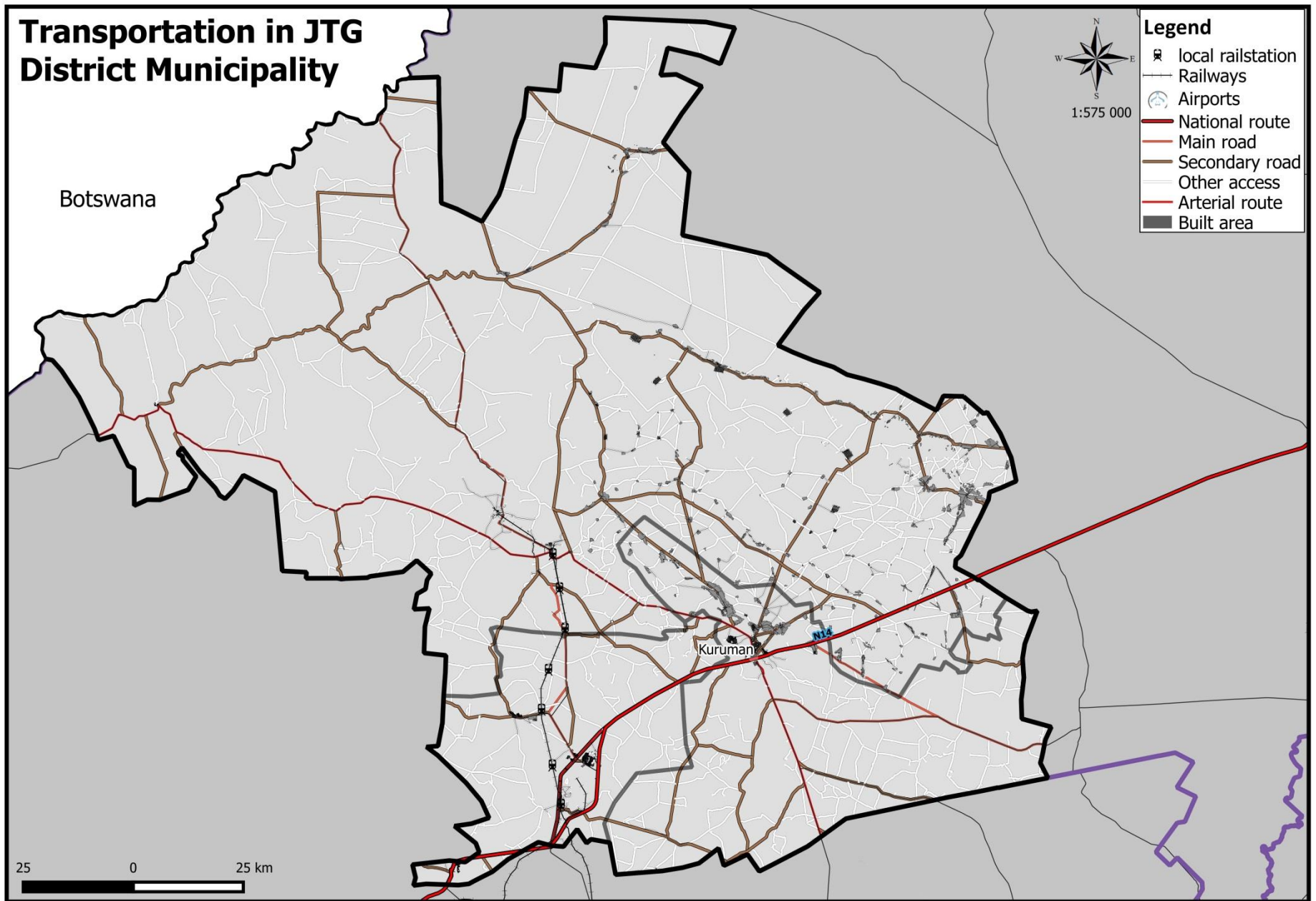
Source: JTGDM IDP Review 2016

The most important provincial roads in the study area are the R31, which links Hotazel – Kuruman – Danielskuil and ultimately Kimberley, and the R380 from Blackrock – Hotazel – Kathu – Postmasburg (**Map 46**). These two roads are the important north-south road links in the area. The most important current road related problem though is the huge backlog in the construction of proper access roads, between the SANRAL and provincial road corridors, and the large number of villages to the north and east of Kuruman. Currently a number of these roads are being upgraded by some of the larger mining houses in partnership with the provincial roads department.

The mines are obviously responsible for the road networks on their properties, especially to accommodate mining operational traffic. Access roads from the mines to the provincial road network are also the responsibility of the mining houses. The local authorities are responsible for the road networks within the individual towns in the mining corridor. These networks, the upgrading and maintenance thereof, are being addressed in the various Integrated Development Plans.



Transportation in JTGD District Municipality



3.14.9.1 PLANNED ROADS INFRASTRUCTURE PROJECTS

Table 3-26: Roads Infrastructure Projects in the JTGD

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> Northern Cape Provincial Government has astutely allocated its resources, both financial and human, to maximise its efforts at addressing roads infrastructure. The Hotazel to Tsineng road where the BHP Billiton contributed half of the cost of the upgrade. Phase 1, 2 and 3 of the project is completed with phase 4, between Magojaneng to Gatsekedi still under construction and expected to be completed soon. In Joe Morolong, Wyk 10 to Laxey and N14 to Bothitong in partnership with Sishen Iron Ore Community Trust (SIOC) Makhubung Access Road – Phase 4 (R5 million - MIG), Gamagatle Internal Road Construction (R6 million - MIG), Dithakong Internal Streets (R4.4. million - MIG), Churchill & Esperenza Internal Road - Phase 2 (R5 million - MIG) 	✓	✓	✓
Ga-Segonyana LM	<ul style="list-style-type: none"> Upgrading of Vergenoeg-Maruping link road to Bituminous (R6.3m – MIG), Upgrading of Vergenoeg-Bathlaros link road to Bituminous (R9.6 – MIG), Upgrading of Mandela Drive to Mothibistad road (R6.6m – MIG), Surface of collector street in Mothibistat & Mapoteng, Upgrading of internal roads in Bathlaros, Construction of 1,2km of Kagung gravel internal road to surfacing, Construction of 1,8km of Magojaneng gravel internal road to surfacing 	✓	✓	✓
Gamagara LM	<ul style="list-style-type: none"> Dibeng Roads & Stormwater (R2.5m – Khumani) Olifantshoek Roads and Stormwater (Kumba SLP) Resealing of Roads in Gamagara (R10m) 	✓	✓	✓
John Taolo Gaetsewe DM	<ul style="list-style-type: none"> The Department of Roads & Transport has adopted 'Rooting out the Dust Programme in their Strategic Plan (2014 – 2019) that will focus on paving and upgrading of roads and road maintenance. JTG SIOC Roads (20Km of gravel road) Rehabilitation, renovations and refurbishments (Asbestos) – 10km annually 	✓	✓	✓

Source: NC SOPA (2016), NC DR&PW Strategic Plan (2014 – 2019), IDPs 2016/2017 and SLPs



3.14.10 COMMUNITY FACILITIES

The community facilities within the JTGDM are outlined on Map 3 hereunder. The facilities will also be analysed.

3.14.10.1 HEALTH FACILITIES

In terms of the state of healthcare in the JTGDM, data from the “Kgalagadi District LED and SMME Research Project” conducted for Kumba Iron Ore by the Underpressure Agency in 2009, revealed that there are four hospitals (two of these hospitals are situated in the Gamagara LM in Olifantshoek and Kathu and two in the Ga-Segonyana LM in Kuruman and Batlharos) and 33 clinics in the District. The table below illustrates the availability of health facilities within JTGDM.

Table 3-27: Availability of Health Facilities within JTGDM

Administrative Division	Hospital	Clinic	Mobile Clinic
Joe Morolong Local Municipality	0	20	1
Ga-Segonyana Local Municipality	2	7	1
Gamagara Local Municipality	2	6	0
John Taolo Gaetsewe District Municipality	4	33	2

Source: SEAT, 2014

Most of the clinics are concentrated in Joe Morolong LM; however this Local Municipality does not have a hospital. There are no hospitals in the Joe Morolong LM, which constitutes approximately 72.6% of the total land mass of the JTGDM, and in which 43.6% of the district's population resides. For this municipality, the nearest hospitals are located at Kuruman and Vryburg, while there are 20 clinics that are spread throughout the Joe Morolong LM (at a ratio of approximately two per ward), these clinics are not able to adequately address the needs of the communities; the result being that people have to travel great distances to access proper health facilities.

With regards to the provision of and access to health care services, the low population levels in the Northern Cape make the provision of primary health care and hospital services challenging. Most of the higher level health facilities are concentrated at Kuruman, Kathu and Olifantshoek. The vast distances and small catchment areas are major obstacles to the achievement of economies of scale. This is evident in the fact that in 2009, the district hospitals in the Northern Cape had the highest costs per patient equivalent in South Africa.



3.14.10.2 PLANNED HEALTH INFRASTRUCTURE PROJECTS

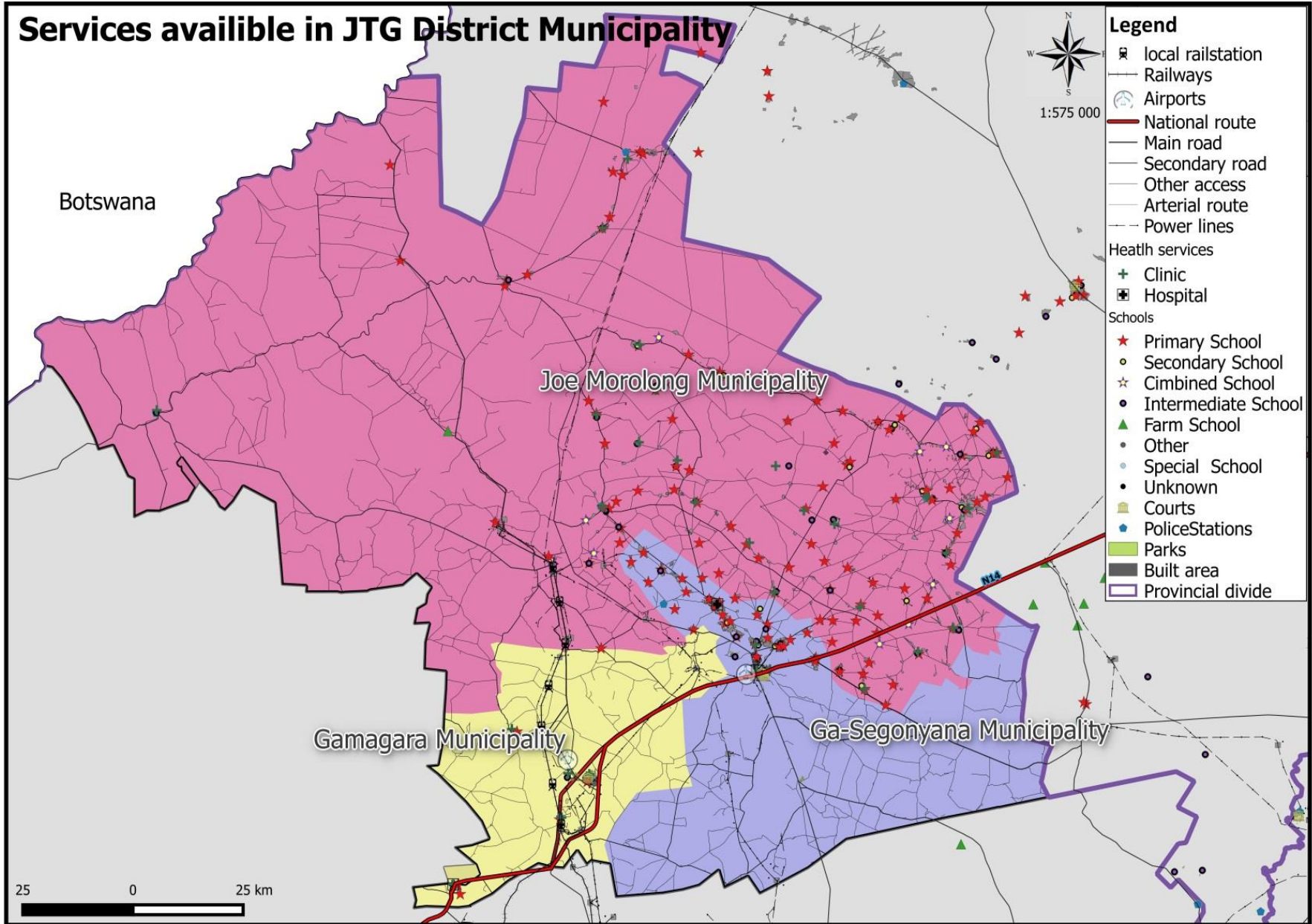
Table 3-28: Health Infrastructure Projects in the JTGDM

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> None 			
Ga-Segonyana LM	<ul style="list-style-type: none"> Building of New Regional Hospital in Ward 6 (R50m) Batho Pele Mobile Health Units (R9m – Kumba SLP) 	✓	✓	✓
Gamagara LM	<ul style="list-style-type: none"> None 			

Source: NC SOPA (2016), NC DoH Strategic Plan (2014 – 2019), IDPs 2016/2017 and SLPs



Services available in JTG District Municipality



3.14.10.3 EDUCATIONAL FACILITIES

According to the Department of Basic Education, there are 101 primary schools, 33 secondary schools, 17 combined schools and 18 intermediate schools within John Taolo Gaetsewe District Municipality. According to the Human Settlement Planning and Design: Quantitative Guidelines of the CSIR 2000; there should be one primary school for every 3000-4000 people and one secondary school for every 6000-10000 people. Considering this guideline, there are sufficient numbers of schools in all local municipalities. With regard to education facilities in the JTGDM, data gathered in the “Kgalagadi District LED and SMME Research Project” indicated that, in terms of the number and location of schools, there seems to be an abundance of primary schools. The quality of education offered at these schools, especially in the Joe Morolong LM with its large rural population, is however an area of concern. The table below captures the number of education facilities within JTGDM.

Table 3-29: Availability of Education Institutions within JTGDM

Municipality	Primary Schools	Secondary Schools	Combined Schools	Intermediate Schools	Total
Joe Morolong LM	67	16	13	15	111
Gamagara LM	22	11	2	3	38
Ga-Segonyana LM	11	6	2	0	19
John Taolo Gaetsewe DM	101	33	17	18	169

Source: Department of Basic Education, 2016

Northern Cape Rural TVET (Technical Vocational Education and Training) College has two campuses in the District, one in Kathu and the other in Kuruman. These campuses offer various courses like Office Administration, Electrical Infrastructure Construction, Automotive Engineering, Fitting and Turning Engineering, Fabrication Engineering, Human Resource Management and Management Assistant. According to the Department of Higher Education and Training's list of registered FET colleges (2014), there is no private training institute in the District.



3.14.10.4 PLANNED EDUCATIONAL PROJECTS

Table 3-30: Educational Projects in the JTGDM

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> Department of Education is currently implementing various projects in the schools ad these includes, fencing, electrification , ECD classrooms, media centres, provision of ablution facilities, assembly areas, upgrades and maintenance. refurbishments 	✓	✓	✓
Ga-Segonyana LM	<ul style="list-style-type: none"> Wrenchville Primary School Mogajaneng (New) Department of Education is currently implementing various projects in the schools ad these includes, fencing, electrification , ECD classrooms, media centres, provision of ablution facilities, assembly areas, upgrades and maintenance. refurbishments 	✓	✓	✓
Gamagara LM	<ul style="list-style-type: none"> Gamagara High School (12 New Classrooms, Hall, Media Centre And Ablution Block) – R12.7m – Gamagara Development Trust Department of Education is currently implementing various projects in the schools ad these includes, fencing, electrification , ECD classrooms, media centres, provision of ablution facilities, assembly areas, upgrades and maintenance/refurbishments Community ABET Programme 	✓	✓	✓
John Taolo Gaetsewe District	<ul style="list-style-type: none"> The safe transport of learners to and from schools remains a priority. NC Department of Education in acknowledges that the school infrastructure backlogs in the province are still a challenge. The province remains fully aligned with the National Departments Policy directive for the full eradication of all infrastructure backlogs by 2030. The province is still faced with the pressures of asbestos contamination at schools. About 80 of our schools are currently on the asbestos belt, a provincial challenge, now led by the Premier's Office. It was determined that in order to revisit the asbestos contamination issue and to chart a way forward, a proposed Asbestos Management Action Plan (AMP) would be drafted and geared towards identifying the objectives, scope, management, practices and procedures required to ensure that NCPG remediate all affected sites effectively. 7 ECD (Bankhara Bodilong Intermediate School, Isagontle Primary School, Lareng Primary School, Lerumo Primary School, Maikaelelo Primary School, Omang Primary School, Vlakkfontein Intermediate School) – R29.4m – Kumba JTG (New School and Hostel) - DoE The Provincial government has recently completed a profile of Young People in the Northern Cape and the Northern Cape Youth Development Strategy is underway which is aimed at responding comprehensively and meaningfully to the challenges facing young people. As part of advancing young people we are providing apprenticeship, learnerships as well as bursaries. More and more of our young people in the Northern Cape have access to TVET colleges and universities. To his end we can report that in the previous financial year we spent over R54 million and we envisage to spend over R69.5 million in this current financial year. 	✓	✓	✓

Source: NC SOPA (2016), NC DoE Strategic Plan (2014 – 2019) and IDPs 2016/2017



3.14.10.5 SPORT, RECREATIONAL AND COMMUNITY HALL FACILITIES

The entire District is dotted with various community facilities like library, cemetery, community halls and football fields and stadiums. These facilities are well distributed according to the need of hinterland population; nevertheless, a concentration of these facilities can be observed at the centre of the District i.e. in or around Kuruman town

Table 3-31: Availability of Community Facilities

Facilities	Joe Morolong LM	Ga-Segonyana LM	Gamagara LM	JTGDM
Library	34	9	5	48
Cemetery	25	46	8	79
Halls	13	5	2	20
Football Fields and Stadiums	1	3	2	6

Source: Spisys (2015)

3.14.10.6 PLANNED SPORT & RECREATION, LIBRARIES AND COMMUNITY HALLS

Table 3-32: Sport & Recreation, Libraries and Community Halls Projects in the JTGDM

Municipality	Projects	2016/2017	2017/2018	2018/2019
Joe Morolong LM	<ul style="list-style-type: none"> Construction of Community Library in Tsineng Bendel, Bothithong and Tsineng Greening and Open Space Management (R12m – DEA (EPIP)) Heuningvlei Refurbishment of Game Farm (R40m – DEA) Fencing of cemeteries (various villages) 	✓	✓	✓
Ga-Segonyana LM	<ul style="list-style-type: none"> Construction of Seven Miles and Sedibeng Community Halls Community Recreation Parks at Gamopedi & Batlharos (R12m – DEA (EPIP)) Greening of Ga-Segonyana (R37m – NCDEA) 	✓	✓	✓
Gamagara LM	<ul style="list-style-type: none"> Upgrading of existing and new parks (Welgelee , Diepkloof, Dittloun & Dibeng) – DEA (EPIP) Upgrading Parks – Dingleton & Sishen 	✓	✓	✓
John Taolo Gaetsewe DM	<ul style="list-style-type: none"> Department of Sports, Arts & Culture has indicated that the infrastructure development remains a high priority as construction continues in local communities. 	✓	✓	✓

Source: NC SOPA (2016), NC DSAC Strategic Plan (2014 – 2019) and IDPs 2016/2017



3.14.11 SIGNIFICANCE ON BUILT ENVIRONMENT

- The agriculture and mining land uses must be thoroughly regulated since they form the most important element of the district economy.
- The sparsely populated communities mostly in Joe Morolong LM have a significant increase to the cost of service delivery, and should be discouraged to form a more clustered population density which is positive in the sense that it encourages compact development consistent with the SPLUMA principles.
- Informal dwellings and settlements are also a common feature of the district due to its rural character. Settlement formalisation should be encouraged to develop spatial data and reorganise the settlement patterns found in rural areas.
- The pattern of settlements and their structure in the district has a fundamental role with regards to its successful socio-economic development.
- According to Sections 24 and 26 (1) of the Constitution (Act 108 of 1996), the right to an environment which is not harmful to people's health or their well-being and access to adequate housing is encouraged, therefore a working relationship and the alignment of infrastructure and housing project must be a priority.
- As people moved closer to economic activities, tremendous pressure was being placed on existing service capacities for all bulk supply services, access roads and town development.
- The overwhelming demand for housing, schools, healthcare and other urban amenities caused budgetary and capacity concerns for existing towns such as Kathu and Kuruman.
- Although the provision of electricity is reached throughout all areas of the district, strategies to improve the provision of other infrastructure services including piped water, flushing toilets and refuse removal must be developed especially in Ga-Segonyana LM and Gamagara LM.
- The "Kuruman Eye" and the "Klein Koning and Groot Koning eyes" are the main source of water in the district and the intensive agriculture takes place in the vicinity of most of these eyes, except for those in Kuruman, which have been developed for recreational purposes.
- In terms of transport network, the poor road conditions that connect the rural and urban areas, should be improved as a catalyst to rural economic development
- The status of the three Water Services Authorities (i.e. Ga-Segonyana, Gamagara and Joe Morolong) must be improved so that they are able to deliver on their constitutional mandate of provision of water and sanitation services.
- Unplanned backlogs put immeasurable strain on municipal planning, provision of bulk services and reticulation.



3.15 SYNTHESIS OF THE SPATIAL ANALYSIS

This section concludes phase 2 findings with focus on understanding the implications for the review of the Spatial Development Framework for John Taolo Gaetsewe District. It represents a synthesis of the key issues coming out of this analysis as a basis for informing the Municipal Vision, Principles, Strategies and Conceptual Framework proposals in Phase 3 and 4. The synthesis also provides an overview of the spatial issues and opportunities within the district and gives direction to the spatial proposals to be outlined in Phase 5.

The development of the potential within the John Taolo Gaetsewe District should be focused on elements within the following inter-related systems:

- Institutional arrangements;
- Biophysical environment;
- Demographics;
- Socio-economic environment;
- Economic sectors; and
- Built environment;

In order to sustain and introduce development proposals, a comprehensive synthesis of the findings of the Phase 2 has been concluded with the understanding of the implications for the review of the Spatial Development Framework.

3.15.1 SPATIAL DEVELOPMENT GUIDELINES AND RATIONALE

The interdependent layers of Institutional arrangements, bio-physical, socio- and economic efficiency should be in perfect harmony and relation to each other. Only then sustainable planning and development could be introduced.

3.15.1.1 ECONOMIC ACTIVITIES

The natural environment assets introduced into the cycle (i.e. geology, soils, vegetation, climate, hydrology etc.) impacts directly on the primary production lines such as mining and agriculture. These primary economic sectors will impact on the district economy, human well-being and a contribution to the provincial and national economy.



Natural Environmental Features

The natural environments within the John Taolo Gaetsewe District Municipal Area introduce urban features that impact on primary and secondary production lines.

- **Geology:** The John Taolo Gaetsewe District is covered by calcretized sediments of the Cenozoic Kalahari Group and the Olifantshoek Supergroup comprises shales and quartzites of the Lucknow Formation and is underlain by shales with quartzite bands of the Mapedi Formation
- **Soil:** Only a very small area in western part of Joe Morolong is highly suited for arable agriculture, while similarly small areas are of intermediate suitability for this purpose in south-western Gamagara and southern Ga-Segonyana
- **Vegetation:** The vegetation of the JTGDM is dominated by the Savanna Biome. The environmental factors delimiting the biome are complex (i.e. altitude ranges from sea level to 2 000 m; rainfall varies from 235 to 1 000 mm per year (low rainfall). agricultural capability is mainly confined to extensive rangeland production systems for livestock given that the area is arid, water is scarce and that the climate is not particularly conducive
- **Climate:** JTGDM is located in a semi-arid part of South Africa and receives between 500mm annual rainfall in the south-eastern and 200mm in the north-western part of the district. The mean annual minimum/maximum temperatures in the district range between 8°C and 28°C, with the mean annual temperatures ranging between 16°C and 20°C

The above mentioned environmental features generate the following economic activities which are dominated by the availability of water and land.

Agriculture

Municipal area is mainly suitable and utilised for livestock farming, although restricted, mining takes up substantial areas of land in the places where it occurs. Agricultural capability is mainly confined to extensive rangeland production systems for livestock given that the area is arid, water is scarce and that the climate is not particularly conducive.

Agro-Processing

The Mesquite (*Prosopis* sp.) biomass in the Northern Cape has potential for use as commercial timber, food source for both man and animal, firewood alternative (woodlots) or to make charcoal or wood chips. These uses can create a substantial number of jobs within the John Taolo District Municipal Area and its four municipalities



Mining

Mining opportunities (extensive iron ore and manganese) and the provision of building materials have been exploited in the area:

- Vast, extensive manganese deposits, which can be exploited both by large companies and small-scale operators where deposits are not suitable for large scale operations;
- Iron and manganese smelters;
- Semi-precious stones (e.g. granite, Tiger's Eye);
- Industrial minerals, such as clay, sand and salt; and
- Small-scale mining of zinc, lead and lime stone deposits in which they occur.

Tourism

Tourism in the JTG can be categorised as Eco-Tourism, Cultural Tourism and Educational Tourism and ancillary activities developed in the area because of specific natural features or character:

- Eco-Tourism: game parks such as Tswalu Nature Reserve and other conservation area have huge potential for adventure (e.g. Bothitong), hunting and tourist accommodation
- Cultural Tourism: Wonderwerk Cave, Moffat Mission, Dithakong
- Educational: Archaeological and Paleontological resources (Kathu and Kuruman area)

KEY ISSUES TO BE CONSIDERED:

- Development Planning needs to make provision for the adequate protection of sensitive natural features and conservation of the ground water resources upon which much of the district depends and these includes management of the Kuruman and Gamagara river systems
- The water catchment has been affected by overgrazing, which has accelerated erosion, increased surface run-off and reduced filtration to the groundwater system
- Management of agricultural and mining activities on water usage and land degradation (including overgrazing)
- Settlements planning (land use management in rural areas)
- Management of Alien invasive plants are a serious threat to the natural vegetation of the district. The most common alien invader plants and declared weeds in the district includes amongst other: Prickly pear, Castor oil plant Red river gum, Mexican poppy
- Wetlands (primary water sources for human consumption and agricultural activities) must be effectively managed since they have been classified as - National Priority Wetland Areas. Assessments must be done on the ecological condition of wetlands around industrial zones within the district



- Recording mechanism to be put in place to establish and monitor use of groundwater resources for human needs and industrial purposes
- Agricultural capability is mainly confined to extensive rangeland production systems for livestock given that the area is arid.
- Air quality management and monitoring on emissions from industries (mining and roads freight) and domestic activities (landfill sites)
- Heritage resources, some of which are not properly taken care due to lack of personnel and are thus under the threat of deterioration.
- Waste management which includes landfill sites permitting and proper management; eradication of illegal dumping sites; provision of essential resources for waste management (machinery, air quality monitoring stations; waste transfer stations and recycling).
- The need for rehabilitation of asbestos pollution by quantifying the risk associated with a specific pollution site is a prerequisite for development in any asbestos polluted areas that include roads, mines and other properties.

3.15.1.2 HUMAN RESOURCES

The ability of people to contribute to economic growth is related to their socio-economic development level. This level is indicated by certain demographic indicators as well as the structures and quality of their settlement area.

Demographic Indicators

These indicators show the level of readiness of communities to participate and contribute to development.

- The district has experienced a positive population growth from 173 454 in 2007 to 224 799 in 2011 (an increase of 51 345) and to 242 264 in 2016 (an increase of 17 465). The total increase between 2007 and 2016 is 68 810 people.
- This increase implies demand for jobs, housing, social amenities and putting pressure on the engineering design capacity of bulk services.
- The growth has been experienced mainly by Ga-Segonyana and Gamagara whilst Joe Morolong has seen a low and negative population growth.
- Joe Morolong has a large household size of 10 and/ or more people; this may be as a result of high dependency due to level of poverty within the area.
- In-migration is experienced by Ga-Segonyana LM and Gamagara LM.
- In 2011, 51.55% of the population of the JTGDM aged between 15 and 65 has no income.
- Joe Morolong and Ga-Segonyana LM's main contributor to the GVA is mining, however wholesale and retail is the biggest contributor towards employment.
- High income and employment potential is related to education status.



Settlement Indicators

Social Facilities

- Low income levels and the high unemployment rate put pressure on the provision of housing subsidies as well as social grants.
- Scholar transportation should also be addressed as this could be uneconomically viable in future. School Hostel Development programme should be encouraged to service less densely populated rural areas.
- Poverty and poor living conditions are present in rural communities of Ga-Segonyana and Joe Morolong.
- Healthcare and provision of facilities are challenging in isolated and sparsely populated areas.
- Basic education levels remain inferior to the average for the Northern Cape Province, and the figures of 22.8% of adults in Joe Morolong with no schooling and only 13.4% with a matric qualification are unacceptable by any standards. Adult literacy and education should be targeted.
- The reported increase in the percentage of informal settlements in the JTG district from 5.1% to 7.6% of the population is concerning particularly in Kathu.

Urban Settlements

- Population growth (as a result of natural growth and in-migration) of people is expected grow tremendously.
- Increased demand for housing, bulk services and jobs.
- The increased demand for basic services will impact on the engineering design capacity of bulk infrastructure.
- Largest growth is in the lower income levels.
- Low income levels and high unemployment rate put pressure on housing subsidies, pensions and grants.
- The highest residential densities are in Kuruman, Kathu, Wrenchville, Mothibistat,
- The urban edge for development areas under pressure (i.e. Blackrock, Hotazel, Kathu and Sishen) must be reconfigured.
- Kathu has the highest prevalence of informal settlements.
- Urban sprawl and encroachment on surrounding agricultural land is created.
- Accessibility is limited and becomes a crucial issue because of low density.
- Property ownership for the historically disadvantaged individuals must be encouraged.
- Settlements still resembles apartheid planning.
- Poor provision of basic services.
- Intensified mining activities pressurise the quality of provincial roads because of road freight.



Rural Settlements

- The rural settlement pattern and the situation perpetuated by lack of planning or land use management need to be addressed.
- Residents experience a poor livelihood.
- Sporadic village sprawl and encroachment on surrounding agricultural land could impact on agricultural livelihoods.
- The highest residential densities are in Batlharos, Magojaneng and Seoding.
- Poor land and property ownership.
- Accessibility (road network) – impacts negatively on the livelihood of the rural population.
- Land claims could introduce new demand for basic services.
- Lack of and poor access to social services (health and education).
- Human resources and housing should be addressed.

KEY ISSUES TO BE CONSIDERED:

- Capital Funding for infrastructure development and upgrading should be priority in the district to cater for population increases.
- Development of Community Residential Units (CRUs) should be encouraged more in Gamagara LM and Ga-Segonyana LM considering the high percentage of household size between 1 – 3 people per household and also considering the higher percentage of male migrating to both municipalities for job opportunities. This should be implemented as part of the Framework Agreement for Sustainable Mining Towns. The Community Residential Units programme (CRU) aims to facilitate the provision of secure, stable rental tenure for lower income persons. Bulk services should also be available to enable this.
- Identification and acquisition of strategically located land for human settlements purposes that will cater for various housing delivery programmes
- Spatial integration (Kathu-Sishen and Kuruman-Wrenchville) should be encouraged
- The legacy of apartheid planning and poverty should be addressed according to the principles as set out in the National Spatial Development Perspective. Human Development Hub model (objective 6 of the JTG SDF 2012) should be implemented in densely populated settlements along transportation routes for areas such as Dithakong, Bothitong, Kagung, Loopeng, Heuningvlei and Cassel.

Built Environment

This indicator refers to elements that activate environmental sinks. Such elements are present on four levels:

- Urban development;
- Mining activities;
- Natural elements; and
- Agricultural activities.



Human Settlements Development

This urban development factors refer to negative side-effects generated by the operations within an established human settlement. The negative affect is in the form of gas, water, air or chemical pollution. The following urban systems could cause environmental sinks.

a) Waste Water Treatment

- Overcrowding is another challenge for effective sanitation in Mapoteng. The number of dwellers per erf/ stand far exceeds the current capacity to deliver service. Technically, the sanitation system, consisting of four pumps in Mapoteng and six pumping stations in Kathu, can accommodate five people per household. In reality, up to 20 people may reside on each erf/ stand or plot, by far exceeding the calculated capacity of the infrastructure. This explains the recurring problems being experienced with bulk services and the provisioning of internal services to attend to the problems.
- Spillage of grey water takes place because of the poor management of the works; or running the works over capacity.
- Pollution of drainage areas and streams is caused by this overflow.
- A health risk is created in some marginalized communities where informal settlements are situated in close proximity to sewer works.
- High water consumption is taking place.

b) Solid Waste Management

Refuse removal in the JTG district area has not shown any real improvement in the past three years, nor in the 10 years between 2001 and 2011. It is certainly not on the level required by national and provincial planning. The following is noted:

- Management and operation of waste disposal sites is a concern
- Budget allocation for solid waste management is insufficient
- Waste transfer stations in populated areas
- Majority of the sites in the area are not registered and operate without a permit
- The implementation of the following daily management issues is difficult to implement
 - Enforcement of by-laws dealing with illegal dumping and littering,
 - Access control onto the site, and
 - Daily compaction and coverage of waste
- Environmental and other pollution takes place because of the lack of surrounding fencing to avoid paper and plastic littering.

c) Energy/ Electricity

- In some of the informal areas no power is available (informal settlements in Kathu),
- Candles and paraffin are used as sources of energy (for lighting and cooking) mainly in informal settlements,
- Surrounding vegetation is used for energy sources.



d) Housing Demand

- Residential influx and the mushrooming of informal settlements (Kathu, Promise Land and Thuli Madonsela) and sporadic expansion of rural areas (Magojaneng, Seoding Seven Miles, Mapoteng and Kagung) result in a demand for additional land for urban development,
- The reported increase in the percentage of informal settlements in the JTG district from 5.1% to 7.6% of the population is concerning, but the situation in Kathu has definitely worsened since Census 2011 data was collected. The housing backlog is also alarmingly high,
- Access to land in Gamagara is also a challenge as most of the land is privately owned
- To meet and address the housing demand, various housing delivery mechanism should be implemented
- National Housing Agency should continue to identify the needs and delivery mechanism in this sector

e) Mining

Mining activities in many cases severely impacts on the environment. The following actions cause intensive environmental sinks:

- Road freight by trucks is also impacting on accessibility and high maintenance cost for roads repairs
- Dust and smoke created by mining activities impacts on the environment
- Dewatering for mining purposes also has impact on the groundwater reserves
- Vast areas of valuable topsoil and vegetation are destroyed.
- Poor implementation and management of the rehabilitation process creates large areas of exposed surface soil.
- The province is still faced with the pressures of asbestos contamination at schools. About 80 of our schools are currently on the asbestos belt, a provincial challenge, now led by the Premier's Office.

f) Natural Elements

Natural physical features have an impact on human settlement and vice versa.

- Informal settlements in urban areas are in most cases located within flood line areas. This result in floods with a large safety and financial impacts. Unplanned settlements (villages)
- The increasing demand for groundwater consumption and the drilling of boreholes, result in decreasing the level of the water table.
- This process results in the degradation of the natural supply.

g) Agriculture Activities

These activities result in:

- Degradation as a result of overgrazing and bad other farming practices
- The removal of natural bush; and
- Pollution of natural water streams (use of pesticides and fertilizers for crop farming).



KEY ISSUES TO BE ADDRESSED:

Decomposition is a process with environmental impacts and therefore needs to be managed on various levels. The following legislation is applicable:

- National Waste Management Strategy – to put in place waste management;
- Department of Water Affairs: Best Practise Guidelines (2006) – management of water (demand and supply) to all levels of the economy (human settlements, mining, industrial);
- National Environmental Management Act , 1998 (Act 107 of 1998) – conducting of environmental impact assessments for proposed/ planned development to ensure the protection of the natural and man-made environment;
- Spatial Planning and Land Use Management Act, 2013 (Act 16 of 2013) – to put in place land use management tools (i.e. Land Use Scheme, Spatial Development Framework and decision making structures);
- Northern Cape PSDF (2012) – implementation of the Spatial Planning Categories;
- Relevant sector plans of the John Taolo Gaetsewe District and its locals.

3.15.2 GOVERNANCE AND LEGISLATION

Efficient governance with regard to planning and development activities is important. Proper control of development in a professional manner will have a positive impact on the planning and implementation.

A detailed analysis on relevant legislation and policies on different spheres of government was conducted in Phase 1:

- National level (Republic of South Africa)
- Provincial level (Northern Cape Province)
- District level (John Taolo Gaetsewe District Municipality)
- Local level (Joe Morolong, Ga-Segonyana and Gamagara Local Municipalities)

Certain important development principles have been discussed in Phase 1. These would also be the guiding to the spatial proposal on Phase 3 of the report.



3.15.3 FUNDING AND INCOME

Powers and Functions assigned to the district and its locals and the access to funding plays a major role in decision making and the extent to which the Ecological Socio-Economic Relationship Framework (ESER) framework is managed.

The following could be deduced with respect to as critical to the issues that must be taken into consideration:

- The local authorities are heavily dependent on grants (for infrastructure development) because of their limited tax base;
- Local Authorities experience an inability to spend their approved budgets timeously;
- Capital Grants and Transfers (i.e. MIG, INEP, RBIG and WSIG) allocated to the JTG District and its local municipalities are indicated in Figure 5.9, pg. 83 and these are fundamental to addressing the provision of basic services to communities;
- The three local municipalities' efforts with regard to provision of bulk services could be assisted by the District once the Section 78 Assessment processes have been concluded. This is with the view that the three locals are currently engaging in silo approach to provision of bulk services that does not adequately address progressively the district development agenda;
- Main problems are created by:
 - Slow payment from government sources;
 - Poor payment culture by households;
 - Poor payment culture by the business sector.
- The local municipalities have succeeded in maintaining a good record in this regard.



3.16 KEY FACTORS IDENTIFIED FROM ANALYSIS

There are **seven (7)** key factors that has been identified from the analysis and herein listed and described, in respect to their implications for the future spatial development of the district examined, their links to other factors noted, and ways of using, working with and dealing with them, discussed.

Seven Key Factors:

- **Factor 1:** An economy, which has a strong mining sector, but which is otherwise undiversified and vulnerable;
- **Factor 2:** A persisting and deepening prevalence of poverty, a lack of economic development and unregulated settlement expansion in the Joe Morolong and Ga-Segonyana Local Municipalities;
- **Factor 3:** An already harsh climate, which is set to get worse, due to global warming;
- **Factor 4:** A growing threat of unplanned and unmanaged settlement expansion and an absence of traffic management in the core towns in the district;
- **Factor 5:** Decline on number of households involved in agricultural activities;
- **Factor 6:** Lack of regulatory framework for land use management in traditional areas; and
- **Factor 7:** Vulnerability of the water service authorities within the district.



Factor 1: An economy, which has a strong mining sector, but which is otherwise undiversified and vulnerable	
Description	Action
<p>The mining sector is by far the largest sector with a number of the other dominant sectors in the economy (i.e. transport and logistics) directly tied to it.</p> <p>While mining has provided the residents of the district with jobs and created wealth for some, this has come at a huge cost in terms of environmental damage and health. This damage has also limited the prospects of tourism and agricultural development.</p> <p>The mines are enormous consumers of water in an area that is dry and already hugely dependent on water transfers from other water management areas. Given the anticipated expansion of the sector, this is set to continue.</p> <p>While all economic activities are to some extent open to events elsewhere, mines are particularly open to such events and notably to massive swings in the global economy with potentially severe local impacts.</p> <p>Mining trucks are causing severe damage to the roads in the district, without the mining companies contributing adequately to their maintenance.</p> <p>Mining trucks consume huge amounts of fuel and are causing dust and air pollution, which is impacting negatively on the environment and the health of people in the area (e.g. lung-related diseases and asthma).</p> <p>Mining trucks are causing delays on the roads and frustrate travel to and through the district, which is not conducive for the development of other economic sectors, notably tourism and the transport/export of goods manufactured in the district.</p> <p>While mining has been the key economic driver in the district, it could be argued that the region has been hit by the so-called “minerals curse”, by which a region “blessed” with minerals neglects the development of its secondary and tertiary sectors.</p> <p>The mining industry, through its propensity for single-male employment, which often entails young men being away from “home” for long periods of time, provides a fertile breeding ground for socially undesirable and dangerous behaviours, such as prostitution and substance and alcohol abuse.</p> <p>An unforeseen consequence of mining development in a rural area is the introduction of a group of persons from outside the district that earn huge salaries relative to those of the indigenous inhabitants of the district.</p> <p>This can lead to jealousy and social tensions between the insiders and the outsiders, and to youngsters developing negative perceptions of their elders who do not have such well-paying jobs. It can also establish the view amongst young people in the district (in accordance with the “minerals curse”) that it is not important</p>	<p>Even though the mining sector comes with a number of serious negative impacts, it is the primary driver of the economy of the district and is set to remain the single most dominant sector in the district's economy. Given also the lack of, or planning for alternative economic activities, the district has little choice but to accept/embrace the sector.</p> <p>Municipalities in the district should regulate and manage the negative influences of the sector through inter alia proactive land-use management and environmental management framework.</p> <p>The contribution that mining companies make towards the development of the district in terms of corporate social investment needs to be much better aligned with and used in the implementation of municipal development plans.</p> <p>The diversification of the economy and the level of involvement of the residents of the district in the local economy must be addressed. The mines could deepen the important roles they already play a key role in skills development programmes and in their assistance to start-up companies. These companies must, however, be part of the diversification-drive to prevent an over-dependence on the mining sector.</p> <p>Without negating the current crucial role of the mines in the economy of the district, the district needs to embark on a regional economic development planning initiative to map an economic trajectory for the district in which human ingenuity and skills are paramount. This has to entail and ensure the sustainable development of the human resource potential in the area, coupled with a move away from dependency, notably in the area of social transfers/grants.</p> <p>There are farming, agricultural beneficiation and tourism opportunities in the district that the JTGD, together with its development partners in the district, should be able to transform into viable industries.</p>



Factor 2: A persisting and deepening prevalence of poverty, a lack of economic development and unregulated settlement expansion in the Joe Morolong and Ga-Segonyana Local Municipalities

Description	Action
<p>Traditional leadership and the municipalities in the district have not managed to get together and jointly agree on the way in which land allocation and settlement development is to be done in the district, or what the future spatial development pattern of the district is to be. This is especially problematic in the Joe Morolong and Ga-Segonyana Local Municipalities. This has meant the perpetuation of a fragmented, scattered settlement pattern without an internal spatial logic.</p> <p>At the same time, and largely as a result of no real economic planning for the area, settlement planning and development has taken place without a link to an economic rationale or a viable economic base. This has resulted in the area remaining as poor as it had been prior to 1994.</p> <p>While there is no data to confirm this, it can be assumed that, as elsewhere, those that leave an area are generally those with the most ambition. This means that increasingly so, those that are left behind, are the very old, the very young and those with less ambition than those that have left, which further diminishes the chances of innovative development in the area.</p> <p>While investments have been made in infrastructure upgrading, social services and housing, the lack of integrated spatial and economic planning means that the impact of such investment has been limited. At best it has meant limited change in a few places and often for a limited period of time. What has remained elusive is the bigger cumulative impact, as each investment had not been planned as a piece of a bigger jigsaw, or as a component in a larger plan.</p>	<p>The lingering questions around traditional leadership and their role in settlement planning need to, as a matter of great urgency, tackled and resolved.</p> <p>The scattered settlement pattern in especially the Joe Morolong Local Municipality will have to be addressed through an integrated spatial economic development plan in which the likely negative experience of the rationalisation of the spatial development pattern will be accompanied by the positive side of economic growth and sustainable livelihoods.</p> <p>The prospect of using towns and large villages as 'Human Development Hubs', through the provision of urban functions, good schools and health services, needs to be explored.</p> <p>A credible economic development strategy needs to be prepared for the rural areas of the district. This has to be far more than a series of Local Economic Development projects; it has to be about the development of a real economy, based on real economic potentials.</p>

Factor 3: An already harsh climate, which is set to get worse, due to global warming	
Description	Action
<p>Over the last five years, the vulnerability of the Northern Cape Province to the ravages of climate change, has been explored and highlighted by numerous commentators, not least the Northern Cape Provincial Government.</p> <p>Key changes and challenges that are foreseen for the province and the district are higher temperatures and a much lower rainfall figure. The district already has a very low rainfall figure and is dependent on water transfers from other water catchment areas.</p> <p>Underground water sources are being used faster than they can be replenished, spelling an impending catastrophe for the district.</p> <p>At the same time, research into the growing of high-value agricultural products and ways of doing so in desert conditions is not being done.</p> <p>In addition to this, serious water conservation and settlement planning and development in water-scarce areas are not being pursued.</p>	<p>Climate change is one of the most discussed and researched topics, both in the local and the international world of research.</p> <p>Without much effort, the Northern Cape Provincial Government and the municipalities in the district should be able to find useful and locally relevant proposals as to how to plan for this very likely future.</p> <p>On the other hand, and irrespective of whether the fears around the impacts of climate change prove to be founded or not, water conservation must be a key objective of government in the area.</p> <p>Wise settlement planning (plot sizes, provision for spaces for food production, densities of housing and intensities of non-residential activities) can play a key part in this.</p>

Factor 4: A growing threat of unplanned and unmanaged settlement expansion and an absence of traffic management in the core towns in the district	
Description	Action
<p>The town of Kuruman has been receiving huge inflows of destitute migrants, primarily from the Joe Morolong Local Municipality. Due to the limited number of job opportunities in Kuruman, and the lack of public funds for (1) infrastructure maintenance and upgrading, and (2) housing provision, informal settlement has grown, crime has increased and the overall quality of life for all in Kuruman has been negatively impacted upon.</p> <p>Together with a negative impact on those living in the town has gone a negative impact on tourism, with travellers and prospective investors being confronted with a town in which it seems that municipal governance is either absent or overwhelmed.</p> <p>At the same time, the use of the main roads in the town by mining trucks has added to the look and feel of decay, and of a lack of traffic management and policing.</p> <p>While the migration has primarily been to Kuruman, Kathu is increasingly being targeted. In years to come, and with the lack of job prospects in Kuruman, Kathu is sure to grow in popularity as a destination of migrants from the Joe Morolong Local Municipality and other areas.</p>	<p>While urbanisation is a natural phenomenon that has occurred throughout the world and in all cultures and communities, it serves little purpose if what is essentially a movement towards a better future does not turn out such, not for the migrant or the recipient community.</p> <p>The movement is also tied to the small number of employment opportunities and generally low quality of life in the Joe Morolong Local Municipality.</p> <p>In order to address the challenge, a district-wide perspective and series of development proposals are required.</p> <p>Given that the migration to Kuruman is a reality, a special redevelopment plan will need to be prepared for this settlement.</p> <p>The Ga-Segonyana Local Municipality will have to take up this challenge in a collaborative effort with the District Municipality, mining companies and all affected communities</p>



Factor 5: Decline on number of households involved in agriculture	
Description	Action
<p>There has been a decline on a number of households involved in agricultural activities following the community survey conducted by StatsSA in 2016. This is a cause for concern given the fact that the government is currently rolling the agric-park strategy in 44 districts.</p>	<p>Training of smallholder farmers, as well as selecting farms per municipality for the placement, incubation and training of unemployed agricultural graduates and other agro-entrepreneurs. TVET colleges should also play a pro-active role in this regard.</p> <p>District should take a lead role in championing the Agri-Park Strategy Implementation for co-ordination purposes. The Agri-parks would provide networks of contacts between producers, markets and processors, but also provide the physical infrastructure required for the transforming industries.</p>
Factor 6: Lack of regulatory framework for land use management in rural areas	
Description	Action
<p>Land allocation and use within traditional authority areas that is not informed or aligned to municipal development programme. This at times this conflict or frustrate planned development programme of government.</p> <p>Human settlements should not compete for land resources with other land uses such as agriculture and mining. The rural area sprawl and sparsely villages as indicated on the built areas Map 30 – 36 could impacts on livelihoods depended on agriculture activities.</p> <p>The above development patterns or trend is also very costly for provision of basic services on an already stretched financial resource.</p>	<p>Provide certainty regarding land development win the traditional areas. Introduction of ring-fencing significant areas for specific social and economic initiatives. This could be an incremental introduction of land use management under traditional authorities</p> <p>Provide an institutional framework for community co-management of natural resources, residential and agricultural land in communal areas. There should be adjustments to accommodate communal systems. One approach could be through the participation of Traditional Authorities on the District Municipal Planning Tribunal on an observer status.</p>
Factor 7: Vulnerability of the Water Service Authorities within the district	
Description	Action
<p>Water and Sanitation is a key component for development of Human Settlements. The continued failure to provide bulk services (water and sanitation) could impact on the government housing delivery programme. This has been a case already in Ga-Segonyana where housing development programme such as Galowe Integrated Human Settlement has been put on hold due to unavailability of bulk services.</p>	<p>The capacity of the three Water Services Authorities (i.e. Ga-Segonyana, Gamagara and Joe Morolong) must be improved by addressing the gaps or limitation as contained on their Water Services Development Plans.</p>



3.17 FUTURE SCENARIOS

The JTG SDF 2012 (pg. 157) elaborates the 3 scenarios. An SDF is a forward planning tool and as such hypothesis and precisely, scenario approach is critical. The 3 scenarios are briefly outlined hereunder:

- ***1st Scenario: More of the Worst: The Long and Painful Goodbye***

Once seen as a “maybe, maybe not”, the dire warnings about the impacts of global warming in particular the Northern Cape have materialised in a massive way: Temperatures have increased dramatically, and rainfall declined to far below what were already very low levels. Also, when it rains, it happens erratically, in huge gusts, resulting in sporadic flooding, loss of topsoil, low soil penetration and barely any groundwater replenishment. Given the limited, unfocused and *ad hoc* investment in the vast rural segments of the district, agriculture as a way of life, livelihood and economic sector, has collapsed, and with that an already struggling tourism sector, due to unbearably harsh climatic conditions.

The only sector that has survived is mining. Due to a lack of water and a near complete absence of environmental law enforcement – the result of the State’s resources fully deployed to contend with a dire and increasingly explosive poverty-driven unrest-situation throughout the country – the sector’s negative impact on the environment has increased dramatically, adding further to the raging global and local environmental calamity.

Life outside the urban nodes of Kuruman and Kathu is becoming barely possible, with the secondary nodes of Sishen/Dingleton, Blackrock, Hotazel, Olifantshoek, Vanzylsvlei and Heuningvlei struggling to provide even the most basic of household services – water and electricity. Villages have been left desolate, as their residents flee *en masse*, making their way to the local towns of Kuruman and Kathu and larger settlements further afield, like Kimberley, Bloemfontein, Sasolburg and the Gauteng City Region. At the same time, desolate rural dwellers from former villages in surrounding districts and Botswana have been gravitating to especially Kuruman. Sprawling slums have mushroomed along once tarred roads, which are now little more than dust tracks. In addition to this, these roads, on which little else but mining trucks, and the occasional donkey cart and “bakkie-taxi” move, have become increasingly dangerous, with ambushes the order of the day. With the security apparatus of the State stretched to the brim, mining companies have deployed their own private security forces, supported by satellite technology and armed helicopters, along the routes their trucks use. Serious and often fatal gun fights have been a regular occurrence. Life in the towns of

Kuruman and Kathu have become very difficult. Those employed in the mining and government sectors, and those in the retail and services sectors serving them, are living a secluded life behind walls and under 24-hour security surveillance. In the areas outside the enclaves of “the rich”, ganglords are in charge, with tensions managed through unsigned, but regularly challenged agreements on turf. Household service infrastructure, the sole prevail of “the rich”, is no longer provided by the municipalities, but by mining companies and service providers working for them.



As time progresses, life in this and other such mining enclaves, becomes increasingly unbearable for “the rich”. This results in the return of the hostel system, with only seasoned mine workers remaining in mini-security workers camps, their families and dependents by and large living in one of the four major city regions in the country. Increasingly so those not employed in the mining sector, or its associated service provider network, make their way to an informal area in a sprawling urban area elsewhere in the country. Over time too, the mines are worked out, and the mining companies and their workers leave, with only ghost towns and small hermit hunter-gatherer type clans remaining in the area. This takes the region through a full circle and back to the Khoisan-days before colonisation of the lands in the area by Europeans began.

Recent developments associated with this scenario are summarised below:

- *Kumba Iron Ore, SA’s largest producer of the crucial steel ingredient, is slashing the workforce at its flagship Sishen mine by nearly half to cope with weak iron ore prices. The Sishen mine, the largest source of iron ore in SA for decades, has undergone a major change because of the enormous amount of waste that had to be moved to expose ore. The change has not been quick enough and majority shareholder Anglo American told investors in December 2015 that a decision had been taken to shift focus away from volumes and instead focus on cutting costs, reducing capital expenditure and boosting cash generation [Source: <http://www.bdlive.co.za/business/mining>].*
- *The rising oil prices have not assisted either as the mining operation in Sishen relies on diesel.*

• ***2nd Scenario: A New Dawn: The Savvy Rural Poly-Village***

Through (1) focused research into, and development of new desert-resistant crops, irrigation and production techniques, and (2) a carefully planned and executed rural development programme, a new era has dawned in the Joe Morolong Local Municipality and the peri-urban areas around Kuruman. Fresh produce for local consumption and high-value crops for the export market are being cultivated in amongst others, extensive ultraviolet-blocking tunnels. At the regional airports at Sishen/Dingleton, Heuningvlei and Kuruman from where local produce is exported to international airports at Upington, OR Tambo and Cape Town, a vibrant agro-processing industry in a Special Enterprise Zone employs thousands of local workers. Cattle-exports on the Sishen-Saldanha railway-line to Western African countries and the European Union bring in a sizeable income for new public-private-community farms in the area. This has made it possible for local people to earn a decent income from the farming and beneficiation sectors. Agriculture is no longer seen as merely a survivalist activity, but a lucrative way of earning a life.

The rural revival has been driven by the well-capacitated and powerful John Taolo Gaetsewe Regional Development Agency. Together with mining companies, traditional leaders and other community leaders, the John Taolo Gaetsewe District Municipality, the Northern Cape Provincial Government and the national Department of Trade and Industry, this agency prepared and implemented a hugely successful rural development programme. In essence, the plan entailed the development of a polycentric network of villages in the vast rural area of the district. This entailed not the development of a centre-periphery or hierarchical arrangement, but rather a supporting, complementary,



functionally-linked polycentric network of settlements, each with a series of generic local functions, but essentially, also a series of unique functions that contribute to the whole – a system by which each village acts like a cog in a larger integrated rural-regional machine. This rural redevelopment process was not without its complications, as the reduction of the 200-plus villages to a mere twenty-three, meant that people had to leave their homes and settle in one of the identified villages in the polycentric network. While traumatic, the move was not without reward, for in these twenty-three villages, decent agricultural and beneficiation jobs were available. At the same time, through innovative energy generation and water-capture and purification technologies and savvy housing construction and settlement design, a good quality of life has been made possible. Testament to this is the high number of migrants in the area and the number of young people who remain in the region, many of them setting up their own small businesses or taking on a job in the farming or beneficiation sectors. Once the main lifeblood of the area, over time the mines became worked out and the mining companies disappeared from the area. For those who are too young to remember, the People's Museum in Heuningvlei, in this highly productive farming and agricultural produce-beneficiation node, includes a whole wing devoted to the region's erstwhile mining era. Across the road from the museum stands the Joe Morolong Institute for Agricultural Research and Technology, a world-renowned centre for research and development in desert-resistant farming and water-usage. Life has been good for the once destitute area threatened by pollution from mining and the dire effects of climate change. Crucially though, had it not been for a conscious decision to change the legacy of the past through tackling challenges head-on, and using human ingenuity in this pursuit, all of this would in all likelihood never have happened.

Recent developments associated with this scenario are summarised below:

- The current plans i.e. JGT RDP 2016, NCPSTF 2012 and planned initiatives on Social & Labour Plans (SLP) by mining companies proposes for spatial development that advances agriculture, manufacturing, green energy (solar electricity generation), capital investment on bulk services that support provision of basic services and economic development.
 - Government programme on the implementation of agri-parks would surely advance this desired future outcome
- ***3rd Scenario: More of the Same: The Desert Ghetto and the Increasingly Threatened Castle***

Given the lack of new economic opportunities for those disadvantaged and deprived of opportunities during the Apartheid years, the only option for young people in this group growing up in the rural and peri-urban areas of the district, has been to make their way to Kuruman and Kathu in the hope of finding whatever form of employment is available. Here, the bulk of them have been deeply disappointed, with many turning to grey and illegal forms of earning an income, notably through crime and prostitution. For others, life has become a restless, never-ending nomadic journey between the homes of mothers, grandparents and girlfriends, scavenging and living off what is available in these homes, primarily the meagre result of a now pale shadow of the government grant system put in place in the first two decades after democracy. At the same time, the ever-increasing influx of new migrants to Kuruman and Kathu, and the subsequent increase in crime in these town towns, coupled with the mining-induced pollution in the wider region, has led to a growing stream of the already small, middle and higher-income community packing up bags and leaving permanently for the Western Cape or Gauteng.



Over time, this has led to the intensification and deepening of the existing two-society model, with a small group of middle and higher income residents clustered in enclaves with 24-hour security, while the majority continue living in rural and urban ghettos in the district. As for the municipalities in the area, growing informalisation and ever-greater indigent levels have meant that municipalities (1) struggle to pay their employees, (2) have lost most of their most competent workers, and (3) are barely able to perform their most basic services. Together with the erosion of the grant system, the era of the provision of free basic services is long gone, with service delivery being provided on an agency base to houses in the middle and higher-income areas and businesses in the two primary towns. Due to lack of maintenance and upgrading, hours and even days without water and electricity have become ever more frequent, with the only saving grace the mining companies who assist where they can through financial means and technical capacity. At the same time, the mines have by and large taken over the role of the State in the provision of social services and economic development by assisting communities with small-scale job creation schemes, water provision and food parcels. With the end of the mining era looming ever-larger on the horizon, the future of the area in which no real, concerted planning has gone into “a/the life after mining”, is becoming ever more worrying, at least for those that care.

Recent developments associated with this scenario are summarised below:

- Lack of long term plans and undiversified district economy that has relied on the mining sector at the expense of other economic sectors and in particular agriculture, justifies this scenario. The weak iron ore prices have had major impact on the mining industry resulting in job cuts.

• The Preferred Option

As frightening and as menacing as Scenarios 1 and 3 may seem, they may very likely materialise, should current practices and patterns of resource exploitation, economic activity and human settlement in the district continue. At the same time, as attractive as Scenario 2 may be, it may yet not be pursued, due to the major changes in the economic development and human settlement pattern, governance models, and value systems it will require. And so, in the hope of a better tomorrow, and with (1) the dreadfulness of Scenarios 1 and 3 as serious warnings, and (2) the promise of Scenario 2 as a beacon of light, the choice is made for the pursuit of the future as set out in Scenario 2.

The current initiatives and long term plans by the district and other spheres of government provides hope geared towards attainment of the futuristic human settlements and space economy that is illustrated in Scenario 2. The implementation of the **Agri-Park** in the district would enhance diversified inclusive economic. All efforts must be geared towards supporting this initiative for a sustainable rural development.





CHAPTER 4

SPATIAL PROPOSAL AND THE VISION

REVIEW OF JOHN TAOLO GAETSEWE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Synopsis: *The aim of this chapter is to outline the spatial proposals for the JTG DM with the aim to display its desired spatial form and the vision. The elements discussed therein after, will work as a guide for development in the district area.*

4 SPATIAL PROPOSAL

This chapter provides the Spatial Development Framework component (Phase 3) as part of the review of the 2012 Spatial Development Framework for the John Taolo Gaetsewe District Municipality.

The proposed Spatial Development Framework is based on the information and proposals as set out in the following documents, but not limited to:

- The JTG District Spatial Development Framework (2012) for the JTGDM;
- The Northern Cape Provincial Spatial Development Framework (2012);
- The Gamagara Mining Corridor (2013) for the Department of Economic Development and Tourism;
- The JTG Rural Development Plan & Implementation Plan (2015) for the Department of Rural Development & Land Reform;

The spatial development proposals are derived from the spatial development objectives and strategies above. The spatial objectives and strategies are consolidated and narrowed down to the following overarching development concepts structuring elements:

- Natural form giving elements;
- Strategic development areas; and
- Linkages, nodal areas and corridors.

The spatial proposals for the JTG DM aim to display in a desired spatial form and the vision of the District. The elements discussed therein after, work as a guide for development in the district area.



4.1.1 SPATIAL VISION

The Revised JTG SDF Vision needs to take into consideration the current and precedent provincial development strategies to ensure alignment and approach towards attainment of a common goal.

A number of provincial and municipal strategic and sector planning documents have been prepared over the last five years, which all has common goal on developing the district.

A spatial vision reflecting the nature/ characteristics of the municipality is being proposed taking into consideration analysis of the existing planning and policy documents relevant to the district and local municipalities, and most importantly the John Taolo District IDP 2012 - 2019.

The proposed vision forms the basis of a set of goals related to the main areas of intervention as derived *from section 4, 5 and 6*. Over and above this, the point of departure will be to look at the district and its local municipalities' priorities and the IDPs visions as outlined in the table hereunder:

Municipality	John Taolo Gaetsewe District	Joe Morolong	Gamagara	Ga-Segonyana
Vision	<i>"Working together for a better life for all in the district".</i>	<i>"A wealthy and prosperous local community with equal access to basic services and sustainable development opportunities"</i>	<i>"A prosperous community with a futuristic economy"</i>	<i>"An integrated municipality with a better life for all its people through sustainable development."</i>
Development Priorities	Water & Sanitation Roads & Transport Local economic development (LED) Land development and reform Integrated human settlements Sustainable Development Orientated Municipality Environmental management and conservation and climate change management Promotion of health in the District Disaster management	Water Sanitation Housing Promote the interest of vulnerable groups, Grow the local economy, Create employment opportunities Transform the Municipality into an efficient vehicle for delivery	Water and Sanitation Electricity Roads and Sanitation/ EPWP Roads Mixed development Housing Construction of RDP Houses Revenue Enhancement Payment of services Street names and Renaming Ward committee system Developing of By-Laws Reviewing Organizational Structure Ablution facilities for cemeteries and beautification Skills development Parks and Recreation facilities Health Services Community Safety Forums SMME Development Job creation opportunities Women empowerment	Water Sanitation Roads and transport Electricity Land development Housing (Human Settlements) LED and Poverty Alleviation Health Communications Sport, recreation and community facilities Refuse collection Education Social welfare Municipal Capacity and Infrastructure Cemeteries Telkom and Postal Services Financial Viability

The vision of the Revised JTGDM SDF (*i.e. that of the Revised JTG SDF 2012*) is proposed unchanged as follows:



The John Taolo Gaetsewe District Municipality will become a district in which all its residents...

- ... engage in viable and sustainable wealth-generating economic activities.
- ... live in sustainable human settlements that are safe, vibrant and in balance with the environment.
- ... participate in the governance of the district, including settlement formation and expansion, economic development, education, and the provision of basic services.

The above vision still relates to **priorities** within the district, but it will be premature to confirm at this stage if it will be final until such time that we have done Phase 2 i.e. **situational analysis** which would be the next immediate assignment.

The **vision** of the JTGDMSDF 2012 is confirmed and supported in this revised SDF. The John Taolo Gaetsewe District Municipality will become a district in which all its residents...

- ... engage in viable and sustainable wealth-generating economic activities.

This will result in the eradication of poverty, and will ensure a dramatic reversal in the unequal distribution of wealth and income and the skewed access to opportunities in the district. Viable, well-planned rural development initiatives will bring an end to the deep poverty and the destitution of the district. Due to well researched and tested desert-resistant agricultural practices, high-value rural products will be produced and over-grazing and soil erosion won't be a problem any longer. Serious investment in and exploitation of renewable sources of energy will result in the district becoming self-reliant in the generation of electricity which will provide a sizeable injection into the national electricity grid.

- ... live in sustainable human settlements that are safe, vibrant and in balance with the environment.

Young people will grow up with the prospect of a bright future, either in the district, or anywhere else in the world as the quality education they will have received, will prepare them for. Walking and cycling will be the two most common modes of movement within towns and villages, while a safe and reliable minibus system will provide public transport between settlements. Traffic management and road maintenance will mean that mining trucks no longer pass through settlements and potholes will be a thing of the past. Water and energy-use, energy generation and the construction of housing, will be examples of "best practice in green design, building and living". Due to proper, respected and wise land-use management, including the regulation of mining activities, uncontrolled settlement expansion will not take place and environmental damage will be minimised.

- ... participate in the governance of the district, including settlement formation and expansion, economic development, education, and the provision of basic services.

Plans will be prepared with full participation of all interested and affected parties, which will be based on accurate information and will be implemented. Elected politicians and officials will serve the people and corruption and misappropriation of funds will be rare occurrences. Traditional leaders will serve on a civil society advisory body that is consulted on all strategic decisions by the elected politicians. Decisions that affect the public will be based on evidence, and only taken after careful consideration of all the viable options and deliberation on all the positions and perspectives in the district. Due to payment for services by all, and smart systems and practices, the municipalities in the district will be financially viable and desirable places to work in.



4.2 DEVELOPMENT OBJECTIVES

In support of the vision, the SDF provides a spatial structure that would promote the following development objectives:

- Attract new business (especially manufacturing linked to other sectors e.g. mining, agriculture) to the district in a focused/core area.
- Create a spatial structure that would maximise accessibility of the dispersed population to a range of services and facilities.
- Support the diversification of the economy, whilst strengthening existing area-specific economic activities relating to specific regions.
- Promote expansion of the mining industry in such a way that its negative impacts are minimised and distressed mining communities are supported.
- Stimulate the agricultural sector through the strengthening of commercial farming and the creation of a new intensive agriculture and agro-processing SMME economy in densely populated rural areas with predominantly subsistence farming.
- Enhance tourism as a more important component integrated in the economy of the district.

4.3 SPATIAL RESTRUCTURING ELEMENTS

The following elements guide the spatial structure of the district and form the basis of the SDF:

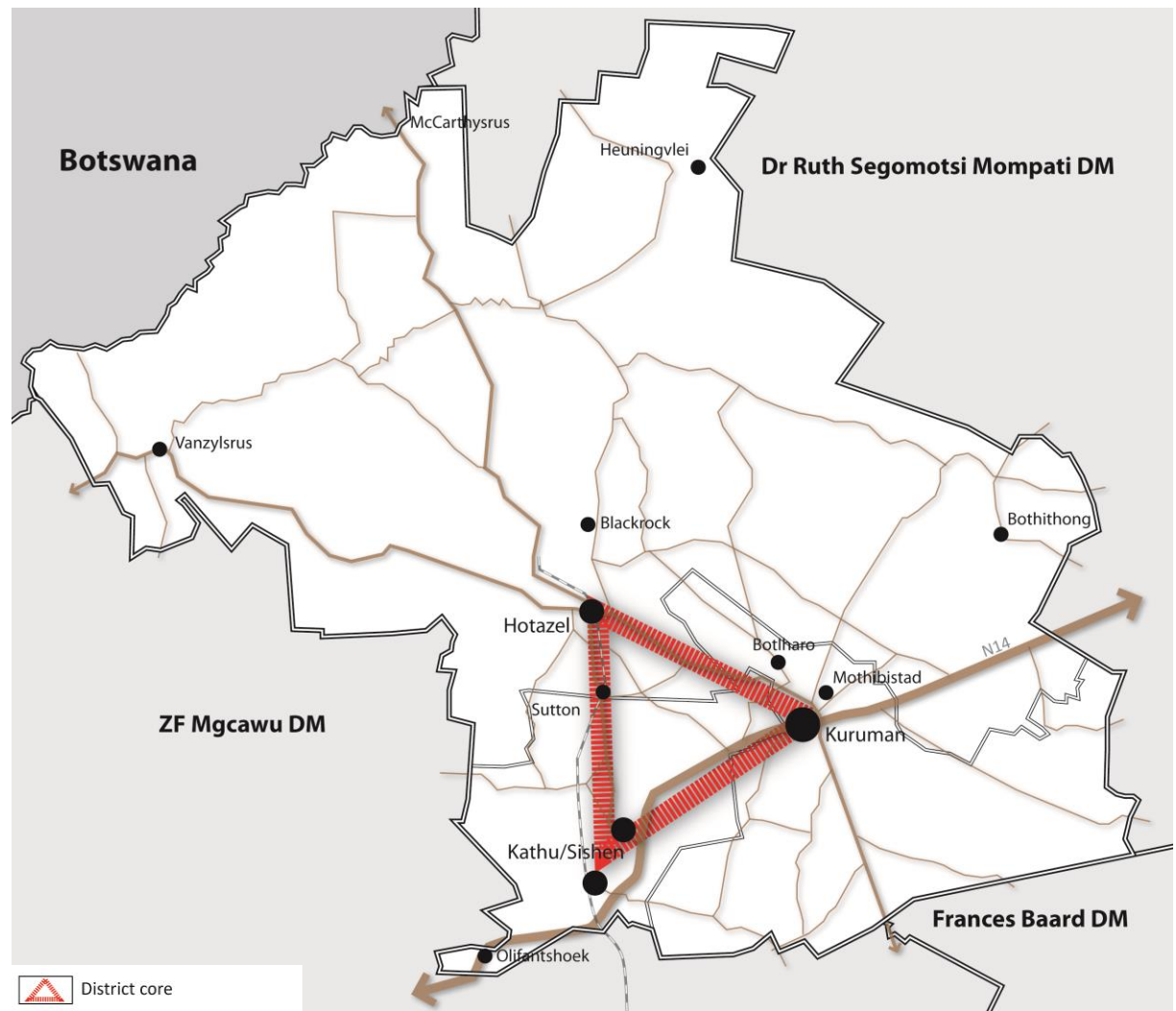
- Spatial structuring element 1: Intensified district core
- Spatial structuring element 2: Polycentric network of nodes and (physical and institutional) connecting routes – Regional nodes, Local nodes and Human Development Hubs
- Spatial structuring element 3: Functional economic regions – Functional Regions 1 - 4
- Spatial structuring element 4: Mines and mining activities – Gamagara Mining Corridor, Active mines and Asbestos no-go area
- Spatial structuring element 5: Agricultural activities – Commercial farming and rural extensive farming
- Spatial structuring element 6: Tourism activities– Points of interest and Eco-tourism Corridor



4.4 SPATIAL STRUCTURING ELEMENT 1: INTENSIFIED DISTRICT CORE

The core is seen as the triangle formed by the three regional nodes, Kuruman, Kathu/Sishen and Hotazel. Kuruman and Kathu/Sishen are by far the stronger nodes with functional linkages extending beyond the district's municipal borders, thus acting as provincial connectors. The core could be strengthened through the promotion of intensified and more diversified economic activities. Strengthening of direct connectors between the three nodes, as well as focusing of densified development and restructuring initiatives along these routes and in the core could contribute to the establishment of a strong district core.

The southern leg of the core triangle runs along the N14, which is a major transport link. It holds potential for the establishment of a local corridor (between Kuruman and Kathu/Sishen) for the development of light industrial. This could assist in the provision of employment opportunities for the local population. Light industrial activities (specifically with regard to agro-processing and activities in the mining value chain) along this strip should be promoted and supported as part of the intensification strategy.

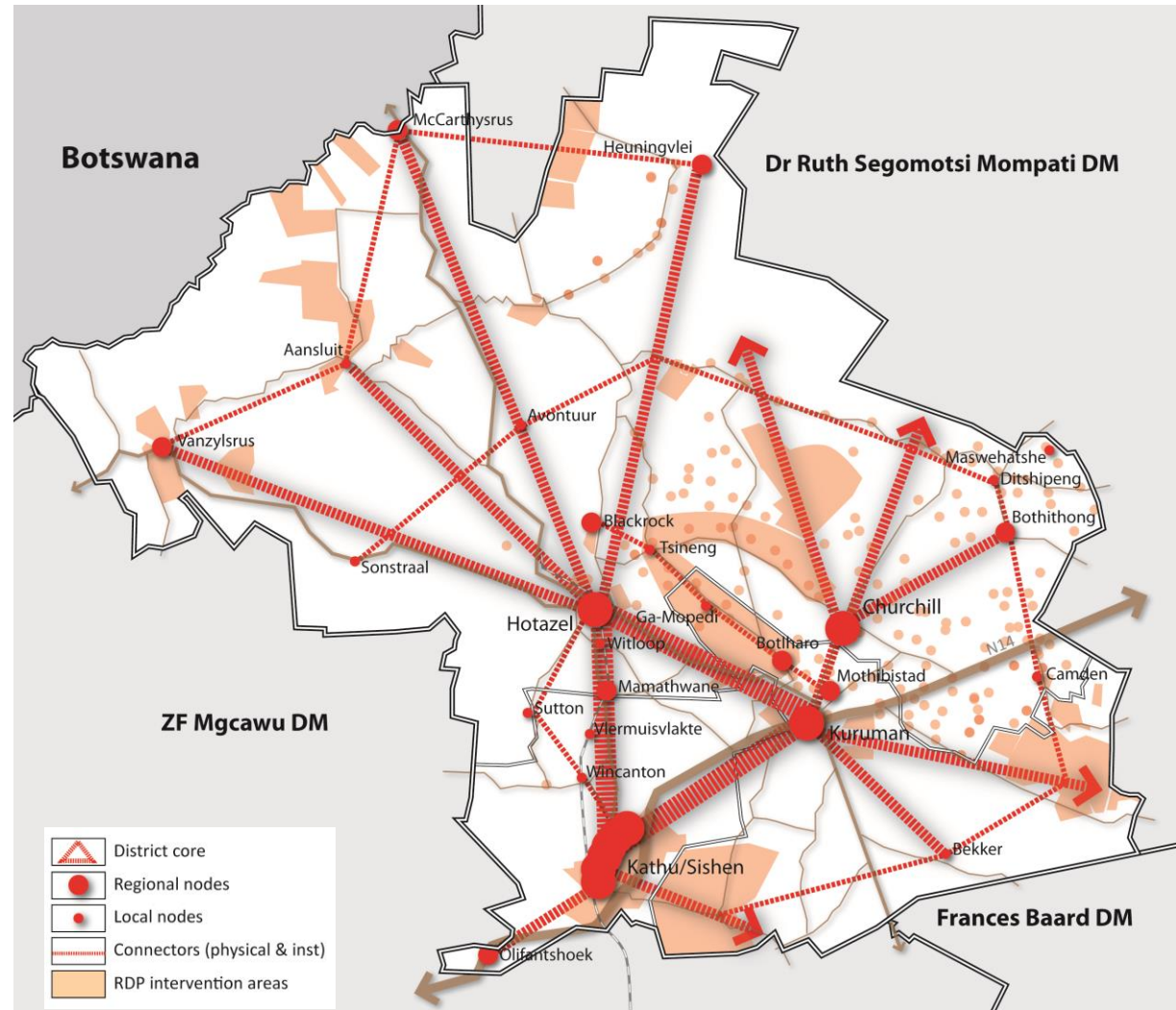


4.5 SPATIAL STRUCTURING ELEMENT 1: POLYCENTRIC NETWORK OF NODES AND CONNECTING ROUTES

The hierarchy of nodes as proposed in the JTG SDF2012, as well as in the Gamagara Corridor Framework is used as a basis. In accordance with the concept of the “polycentric regional network”, a series of nodes on various scales in terms of linkages and impacts in the region.

The following types of nodes form part of the polycentric network of the JTG District Municipality SDF:

- A Regional Node is a node that has functional linkages and impacts extending beyond the borders of the municipality in which it is located.
- A Local Node is a node that has functional linkages and impacts not extending beyond the borders of the municipality in which it is located, but it has linkages towards other nodes in the district.
- A Human Development Hub is a node that serves its inhabitants, as well as those that can reach it by bicycle or by public transport in no more than thirty minutes. Together, a series of Human Development Hubs, can jointly offer the full spectrum of public services.



4.5.1 POLYCENTRIC NETWORK OF NODES AND CONNECTING ROUTES: REGIONAL NODES

A Regional Node includes the following:

- A full spectrum of schools from primary to secondary, including boarding schools;
- One or more Further Education and Training College;
- Regional offices of national government departments;
- A regional hospital;
- The full spectrum of health services provided by private medical practitioners;
- A regional police station;
- A diversity of housing types, ranging from medium to higher density apartment blocks, townhouses and freestanding houses on separate stands;
- At least one shopping area/district with the full spectrum of national chain shops, take away shops and family restaurants;
- Regional branches of banks; and
- A light industrial district/area.

The following regional nodes in the JTG District Municipality are proposed:

- Kuruman in the Ga-Segonyana LM;
- Kathu/Sishen in the Gamagara LM, which should be managed to grow towards an amalgamated single node; and
- Hotazel in the Joe Morolong LM.
- Churchill is also proposed as a regional node in the Joe Morolong Local Municipality SDF. This node is considered to play a local role for the large tribal community in that vicinity. It is, however, not foreseen that the Churchill node will be able to replace, or even duplicate the services provided in Kuruman in the short to medium term. The regional status of Churchill is thus not indicated in this SDF



4.5.2 POLYCENTRIC NETWORK OF NODES AND CONNECTING ROUTES: LOCAL NODES

A Local Node includes the following:

- A full spectrum of schools from primary to secondary;
- A number of clinics offering basic health services;
- A number of general health practitioners and dentists' offices;
- A local police station;
- A limited range of housing types, with the freestanding house on a separate stand still the most dominant form;
- A shopping area/district with many of the national chain shops and a number of take away shops and maybe a family restaurant;
- Branch offices of banks; and
- A few light industries, typically located in or around the central business district.

The following local nodes in the JTG District Municipality are proposed:

- Batlharos and Mothibistat in Ga-Segonyana LM;
- Olifantshoek and Mamathwane in Gamagara LM; and
- Blackrock, Bothithong, Churchill, Vanzylsrus and Heuningvlei in Joe Morolong LM.

An institutional framework for community co-management of natural resources, residential and agricultural land in communal areas should be developed. There should be adjustments to accommodate communal systems. One approach could be through the participation of Traditional Authorities on the District Municipal Planning Tribunal on an observer status.



4.5.3 POLYCENTRIC NETWORK OF NODES AND CONNECTING ROUTES: HUMAN DEVELOPMENT HUBS

The prospect of using towns and large villages as 'Human Development Hubs', through the provision of urban functions, good schools and health services, needs to be explored. A Human Development Hub includes the following:

- Primary schools, and in some cases, a secondary school;
- Clinics;
- Formal freestanding houses on separate stands;
- A local or mobile police office;
- A multi-service Thusong Service Centre/ Integrated Development Centre; and
- A number of locally-owned and operated shops, take away shops and the occasional restaurant.
- Farmer Production Support Units
- One Hector One Household and 1 Household 2 Dairy Cows

Dispersed smaller settlements should be developed to serve as Human Development Hubs providing basic services to the predominant rural communities.

The lingering questions around traditional leadership and their role in settlement planning need to, as a matter of great urgency, be tackled and resolved.

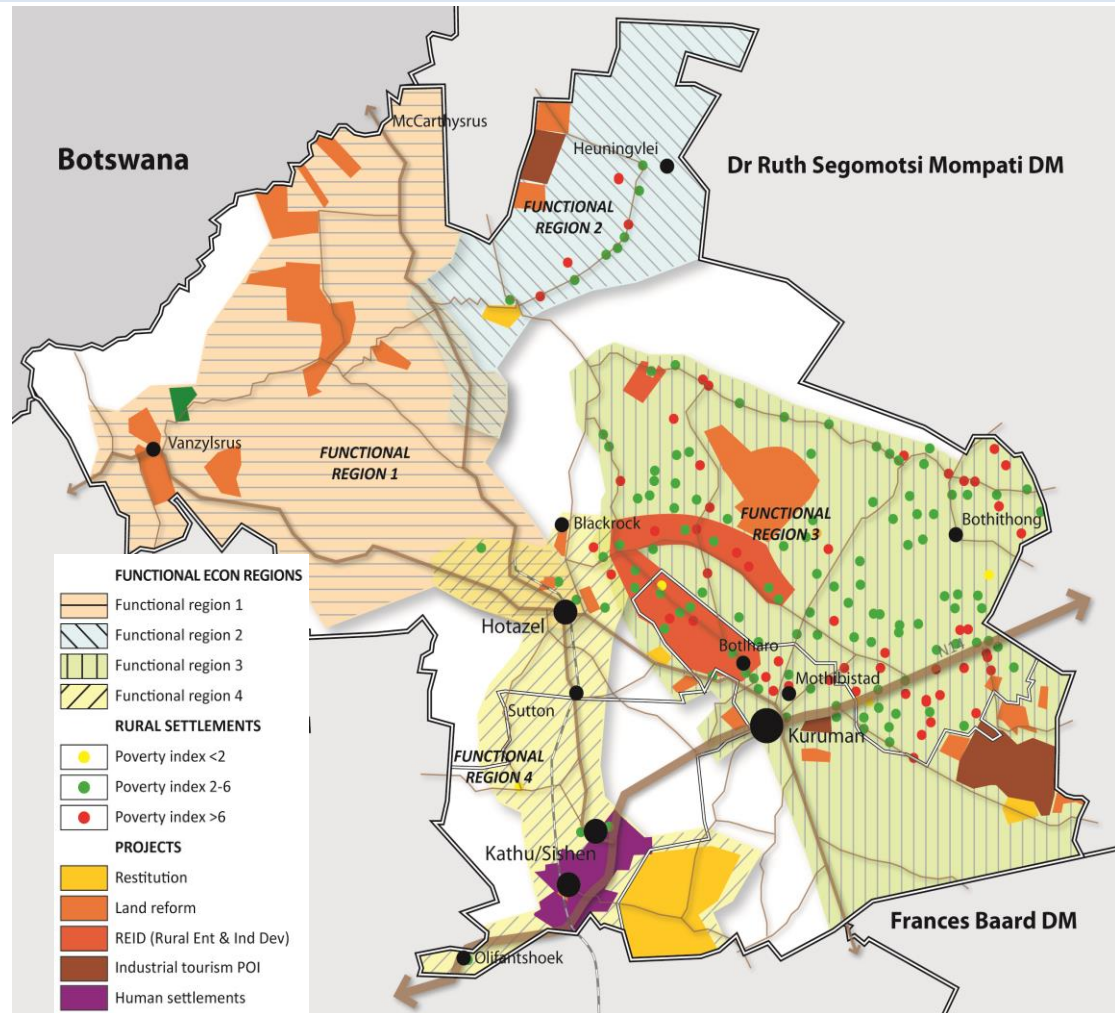
The scattered settlement patterns especially the Joe Morolong Local Municipality will have to be addressed through an integrated spatial economic development plan in which the likely negative experience of the rationalisation of the spatial development pattern will be accompanied by the positive side of economic growth and sustainable livelihoods.



4.6 SPATIAL STRUCTURING ELEMENT 2: FUNCTIONAL ECONOMIC REGIONS

Four functional economic regions have been identified in the Rural Development Plan (2015) for the JTG District Municipality:

- **Functional Economic Region 1** covers a scarcely populated and minimal economically active area due to the distance from economic nodes, marginalised agricultural land and a lack of any other sustainable resources.
- **Functional Economic Region 2** is the smallest of the functional regions and covers an area which is remote, has environmental concerns around previously mined asbestos areas and has high impoverished rural settlements.
- **Functional Economic Region 3** is the largest of the functional regions in terms of area covered, activities and rural settlements incorporated within its boundaries and has a large area covered by tribal land. It has the highest population living within rural settlements as well as the highest number of rural settlements that are impoverished.
- **Functional Economic Region 4** is the area including the mining related activities within the JTGDM and the larger Gamagara Mining Corridor.



Different types of projects are proposed as interventions as part of the RDP (indicated on the map and elaborated on, on the following pages).



4.6.1 FUNCTIONAL ECONOMIC REGION 1

Population and settlement distribution: There are a few rural settlements in the area, located near Hotazel, Vanzylsrus, and Blackrock and between Santoy and Hotazel. The scattered nature of these rural settlements can be attributed to the vastness of the area and the lack of job opportunities within the area.

Poverty: The rural settlements have the second highest SAL Poverty Index, stressing the need for socio-economic upliftment and economic intervention.

Economic activities: Eco-tourism, agriculture, mining and community services.

Projects: Existing Land Reform projects are located predominantly in the north of the region and are – apart from those close to Vanzylsrus and Hotazel – not linked to existing rural settlements.

The region's **main features** (economic activities, projects and infrastructure) that have an influence on the development of the region include:

- Land Reform Land Parcels;
- Eco-tourism activities;
- Mining activities surrounding Hotazel; and
- The roadways of the R31 and the R380.

Future initiatives:

- Any current and potential cross border linkages should be connected to Hotazel as an established economic node. It provides a perfect opportunity for this due to the two main connectors that converge at the town, the mining activities surrounding the town and the proximity of most of the rural settlements to Hotazel. are situated predominantly to the north of the FR and is apart from those linked near Vanzylsrus and Hotazel not well linked with rural settlements. Although Land Reform projects close to Vanzylsrus and Hotazel are well linked, rural settlements are still impoverished and ways to maximise linkages and opportunities should be pursued.
- The rural settlement northwest of Blackrock has been identified as a priority area that needs intervention as there are no economic interventions in close proximity to it.
- Future initiatives should be focused on the development of tourism initiatives along the two main roadways near the towns Vanzylsrus, Blackrock and Santoy. These should receive priority to uplift the rural settlements in close proximity of it.
- The larger tourism game lodges industry should also be stimulated to further develop job opportunities for the people living in rural poverty.
- Better utilisation and inclusivity of the Land Reform Parcels should be considered in order to improve the effect of these on the rural communities.



4.6.2 FUNCTIONAL ECONOMIC REGION 2

Population and settlement distribution: The R380 towards the border gate to Botswana provides an important connector to the southern economic nodes and is thus included within the functional region.

Poverty: The rural settlements are some of the highest poverty stricken areas according to the SAL Poverty Index.

Economic activities: Eco-tourism, agriculture, mining and community services.

Projects: Existing projects are mainly located in the north and east of the region.

The region's **main features** (economic activities, projects, and infrastructure) that have an influence on the development of the region include:

- Restitution, Land Reform and Rural Infrastructure Development (RID) land parcels;
- Eco-tourism activities;
- The R380 along the western boundary; and
- Gravel roads connecting the R380 and Heuningvlei.

Future initiatives:

- Projects to alleviate poverty should be focused in this area.
- Linkages between Land Reform, RID and Restitution Land Parcels should be made more effective with a higher emphasis on the rural settlements with the highest poverty index
- The gravel road linking rural settlements should be regarded as a corridor development with projects and initiatives centred along this connector.
- The distance from large economic nodes, the remoteness of the rural settlements and the limited resources available, provide a challenge towards developing sustainable opportunities that could benefit rural communities. The town of Heuningvlei should act as the local gateway around which initiatives can be formulated.
- Further development of the tourism industry and the agricultural sector will help create jobs for these rural communities.



4.6.3 FUNCTIONAL ECONOMIC REGION 3

Population and settlement distribution: Kuruman acts as a regional node and district gateway for the region and facilitates the formation of linkages within the functional area. The identified site for the new Agri-park is also in close proximity of the town of Kuruman, which will further strengthen it as the district gateway and the focal point for economic opportunities.

Poverty: The area is one of the areas hardest struck by poverty according to the SAL Poverty Index.

Economic activities: Agriculture, community services, business, industry and tourism.

Projects: Most projects can either be found in the south west, west and north east of the functional region. The projects in the south west are spatially located in the correct area to address the high poverty associated with the rural settlements found to the south of the N14. The area in the east of the functional region, including Ditshipeng and Bothitong, lacks any projects present within the area.

The region's **main features** (economic activities, projects, and infrastructure) that have an influence on the development of the region include:

- Land reform, REID, RID and Restitution land parcels;
- Kuruman as economic gateway and central node for the whole of JTGDM;
- Cultural and eco-tourism;
- Manufacturing;
- Agriculture and agro-processing;
- R380 as an international connector;
- N14 as district connector; and
- R31 as local connector.

Future initiatives:

- This area should enjoy the highest priority in terms of economic and rural development interventions.
- The spatial and economic linkage between the poverty pockets and the district gateway should be a focal point for development and better alignment between future initiatives should be a primary consideration.
- The tribunal authorities, rural community leaders/forums and other government agencies should work closer together in order to formulate partnerships and collaboration for the implementation of projects that would ease poverty within these poverty pockets.
- Linkages between existing projects and initiatives in the south west of the region should be focused on the alleviation of poverty by promoting the use of local labourers, strengthening of existing linkages and development of both the forward and backward linkages available.



4.6.4 FUNCTIONAL ECONOMIC REGION 4

Population and settlement distribution: The majority of the population within this region can be found in the vicinity of the main mining activities found around the towns of Kathu and Hotazel. There are a limited number of rural settlements, which can be attributed to the provision of housing by mines for workers. These are considered as urban and not rural developments.

Poverty: According to the SAL Poverty Index most of the rural areas within this functional region are not as heavily struck by poverty as their counterparts to the east and north of the JTGDM. This can be attributed to the provision of job opportunities from the mines and the Social and Labour Plans affected by the different mining houses. However, these areas still has moderate poverty that needs to be addressed.

Economic activities: Mining, game farming and business.

The region's **main features** (economic activities, projects, and infrastructure) that have an influence on the development of the region include:

- Agri-Park
- Restitution and Land Reform land parcels,
- Large number of mining activities;
- Sport and eco-tourism activities;
- The Sishen-Saldanha railway line (Gamaagara Development Corridor);
- The N14 and R325 to the south of the FR; and
- The R31 and R380 to the north of the FR.

Future initiatives:

These should be focused on mineral beneficiation, manufacturing, tourism and SMME development



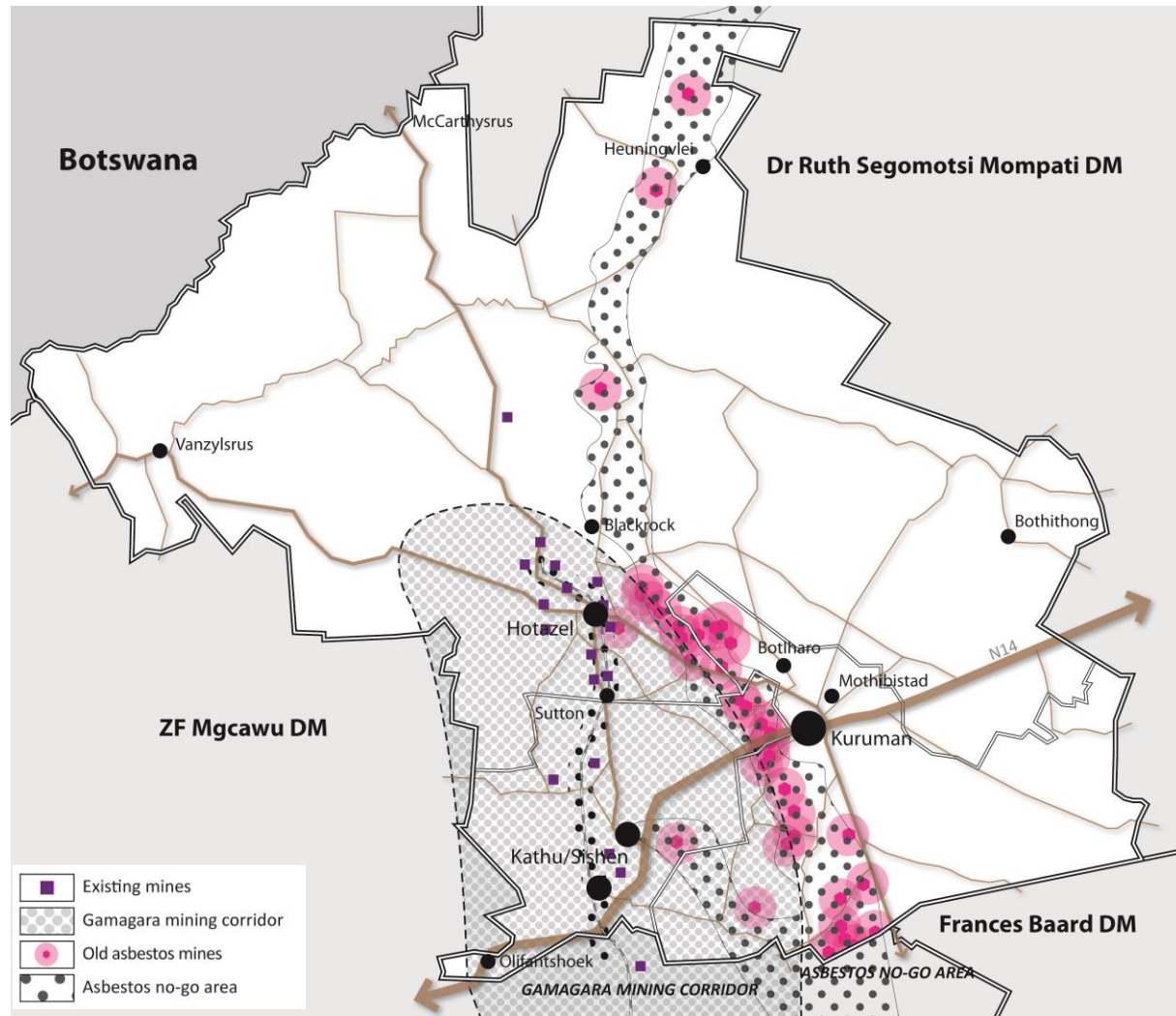
4.7 SPATIAL STRUCTURING ELEMENT 3: MINES AND MINING ACTIVITIES

Mining is one of the major activities driving both the economy, as well as the spatial structure of the area. Two distinct strips can be identified:

The following two linear strips with regard to mining and mining activities contribute to the spatial structure of the region:

- Gamagara Mining Corridor: Mines are in general located in a belt between Postmasburg in the south and Hotazel in the north. This area has been identified as the Gamagara Mining Corridor.
- Asbestos no-go-area: Previously asbestos has been mined, mainly in a strip to the east and parallel to the Gamagara Corridor. These mines have been decommissioned due to the dangerous substance incorporated in asbestos. An area around these mines has been identified where development is prohibited.

Expansion of the mining industry should be supported in such a way that its negative impacts are minimised and distressed mining communities are supported



4.8 SPATIAL STRUCTURING ELEMENT 4: FARMS AND AGRICULTURAL ACTIVITIES

Farming takes place on two scales:

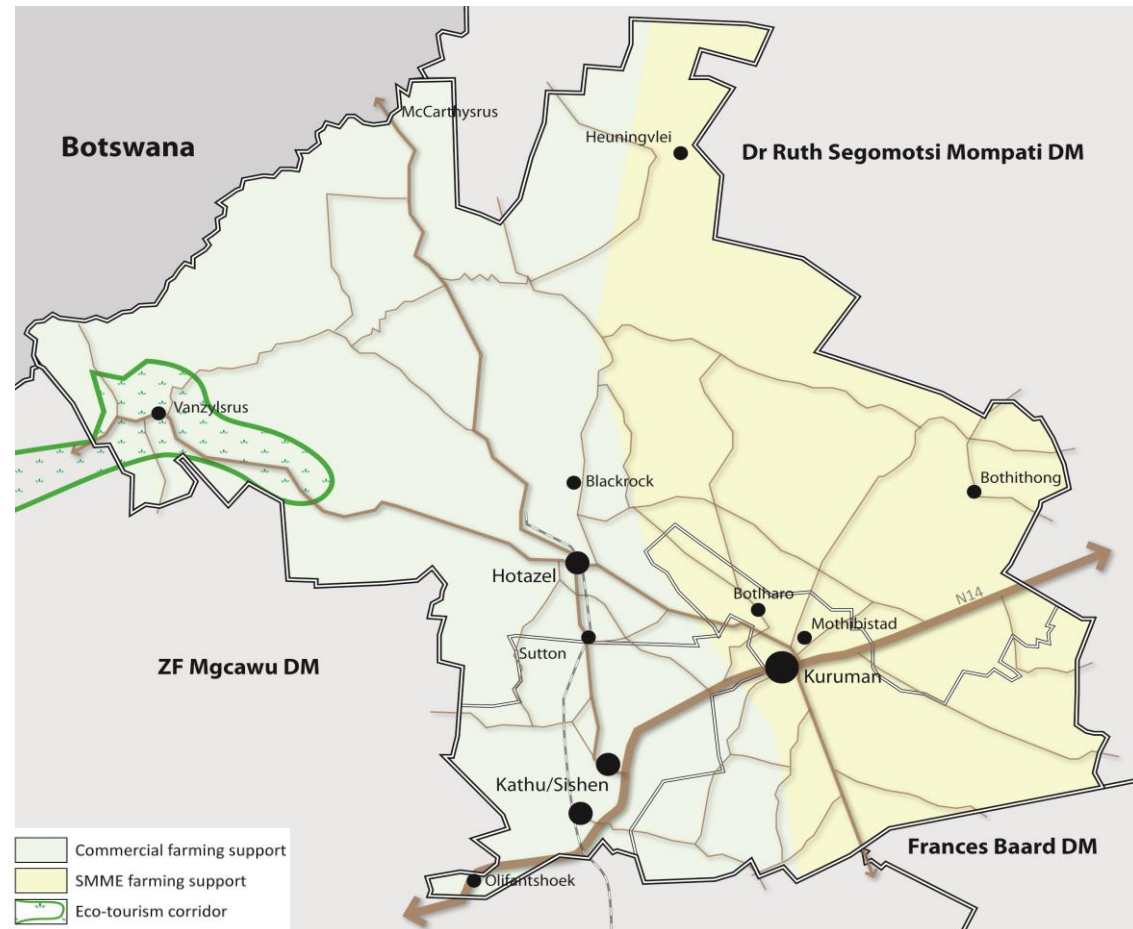
- Commercial farming is also linked to the Eco-tourism corridor stretching east-west through Vanzylsrus.
- Rural extensive farming - often mainly located in tribal areas.

The John Taolo Gaetsewe Rural Development Plan 2016 has the following proposals:

- Establishing an Agri-Park in the JTG district consisting of an Agri Hub in Kuruman and associated Farmer Production Support Units throughout the district

The AP will comprise of three basic units:

- The Farmer Production Support Unit (FPSU). The FPSU is a rural outreach unit connected with the Agri-hub. The FPSU does primary collection, some storage, some processing for the local market, and extension services including mechanisation.
- Agri-Hub Unit (AH). The AH is a production, equipment hire, processing, packaging, logistics and training (demonstration) unit.
- The Rural Urban Market Centre Unit (RUMC).



The agricultural sector should be stimulated through the strengthening of commercial farming and the creation of a new intensive agriculture and agro-processing SMME economy in densely populated rural areas with predominantly subsistence farming.



4.9 SPATIAL STRUCTURING ELEMENT 5: TOURISM POINTS OF INTEREST

Tourism includes the following:

- The Eco-tourism corridor stretching east-west through Vanzylsrus.
- Tourist points of interest include sport tourism, eco-tourism, cultural tourism and industrial tourism.

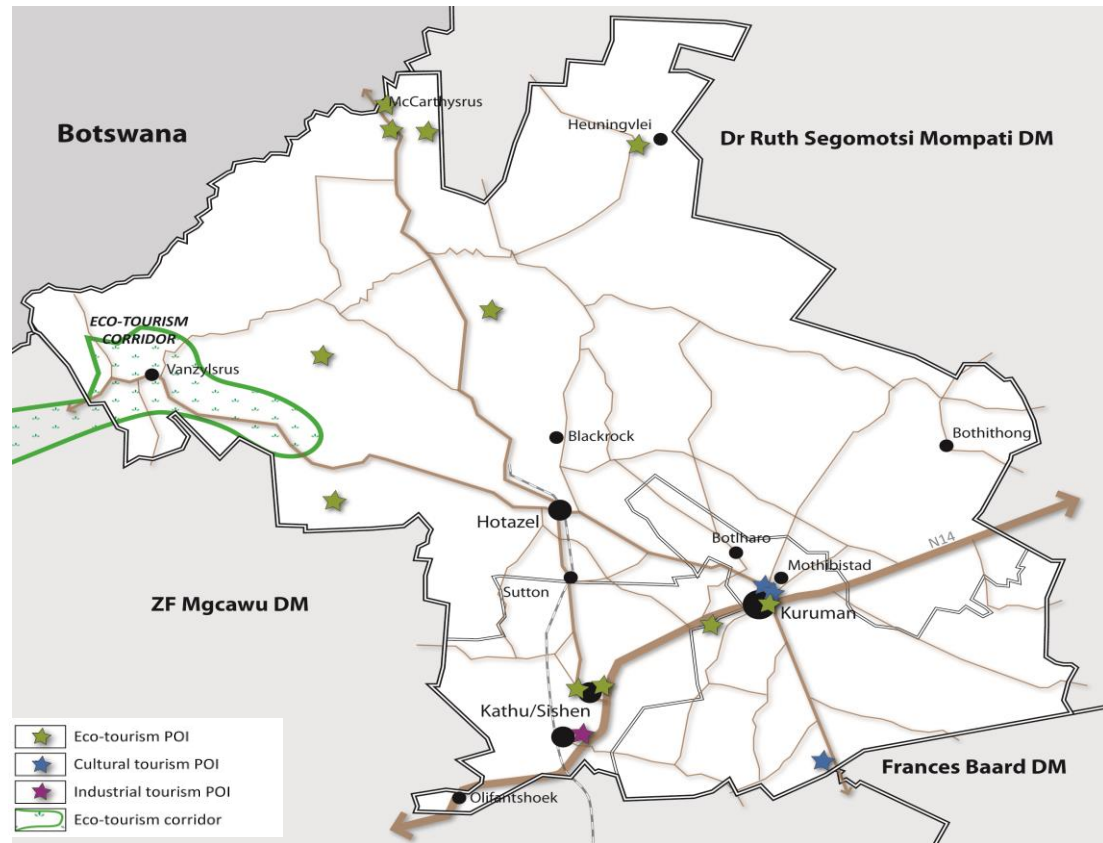
JTGDM has a number of potential tourism attractions that ranges from nature based tourism; hunting to cultural tourism, there is in addition also a few unique opportunities that can be developed to infiltrate a niche tourism market.

Kuruman should be developed as a district gateway for tourism as entrance point from visitors via the N14 which strategically places JTGDM in a position where it can exploit tourism opportunities if approach strategically.

The N14 provides the shortest route from Gauteng to the Kalahari Transfrontier Park, JTG DM as such receives a number of tourists passing through the region on route to the park.

Enhancement of tourism activities already present in the area could make it a more important component integrated in the economy of the district.

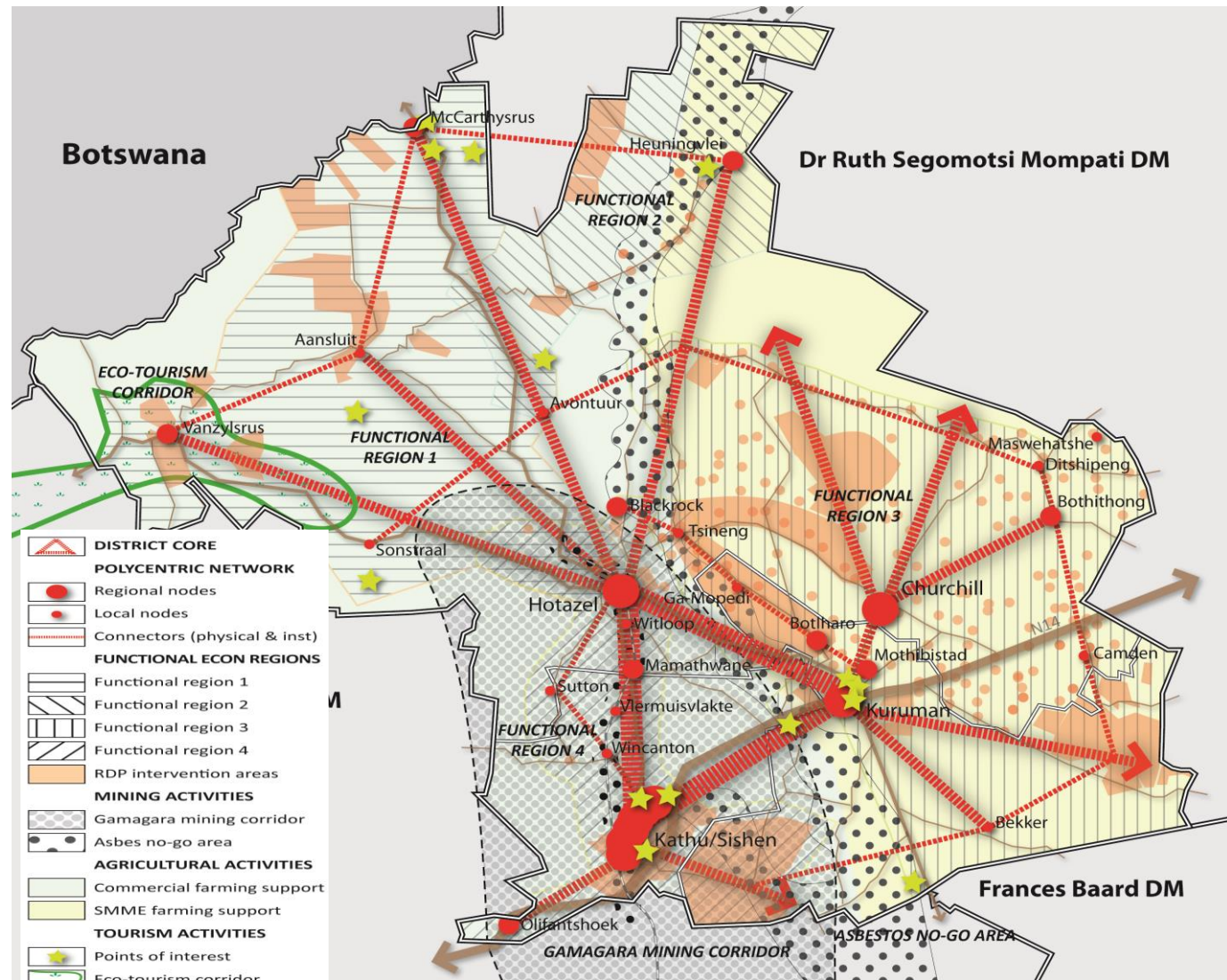
A comprehensive tourism development strategy for the district should be developed with focus on marketing branding and development of tourist attractions.



4.10 COMPOSITE SPATIAL DEVELOPMENT FRAMEWORK

The composite SDF integrates the following spatial structuring elements in one coherent plan:

- An intensified district core;
- A polycentric network of nodes and (physical and institutional) connectors;
- Four functional economic regions;
- The Gamagara Mining Corridor and Asbestos no-go area as mining activities;
- Two main agricultural zones; and
- Points of Interest and the Eco-tourism Corridor as tourism activities



The SDF supports the NDP and SPLUMA principles. The manner in which the principles are incorporated in the SDF and SDF process, is indicated in the following table

SPLUMA PRINCIPLES	IMPLICATIONS OF PRINCIPLE SPECIFICALLY FOR SPATIAL PLANNING (SDF)	SPATIAL APPLICATION IN SDF
Spatial justice	<ul style="list-style-type: none"> Redress past spatial and other development imbalances through the improved access to and use of land. Address the inclusion of persons and areas that were previously excluded in all spatial development frameworks and policies. 	Connectors between regional nodes, local nodes and human development hubs serve impoverished villages.
Spatial sustainability	<ul style="list-style-type: none"> Promote land development that is within the fiscal, institutional and administrative means of the Republic. Ensure that special consideration is given to the protection of prime and unique agricultural land. Apply environmental management instruments to development. Promote and stimulate the effective and equitable functioning of land markets. Promote land development in locations that are sustainable and limit urban sprawl. Ensure the creation of viable communities. 	Strategies in functional economic regions address mining, agricultural and tourism activities as major economic activities in the area. The locality of the region on the N14 highway is proposed to accommodate a light industrial strip between Kuruman and Sishen/Kathu, which will assist in a diversifying the economy and creating job opportunities. The clustering of social facilities in nodes should further combat sprawl and assist with the creation of viable communities and sustainable settlements.
Spatial efficiency	<ul style="list-style-type: none"> Ensure land development that optimises the use of existing resources and infrastructure, whilst minimising negative financial, social, economic or environmental impacts. 	Through the integration of mining, agricultural (both commercial and subsistence) and tourism activities in spatial planning, area-based strategies could be applied more efficiently.
Spatial resilience	<ul style="list-style-type: none"> Accommodate flexibility in spatial plans, policies and land use management systems to ensure sustainable livelihoods in communities most likely to suffer the impacts of economic and environmental shocks. 	The spatial framework provides a conceptual spatial idea, which gives guidance to context-specific implementation relating to the characteristics of a specific place and in relation to a specific community.
Good administration	<ul style="list-style-type: none"> Promote inter-governmental coordination to ensure an integrated approach to spatial planning and land use management. Provide opportunities for all government departments to provide their sector inputs to ensure prescribed requirements during the preparation or amendment of spatial development frameworks are adhered to. Ensure transparent processes of public participation in the preparation and amendment of spatial plans, policies, land use schemes and procedures for development applications. 	The spatial framework builds on the spatial framework of the Northern Cape, whilst taking cognisance of planning in the three local municipalities, thus supporting the principle of inter-governmental coordination.

4.11 PROPOSED DEVELOPMENT STRATEGIES AND INTERVENTIONS

The following spatial strategies and interventions linked to the development objectives are proposed:

Development Objectives	Development Strategies (Spatially Linked where Appropriate)
Promote expansion of the mining industry in such a way that its negative impacts are minimised and distressed mining communities are supported.	<p>Guide new mining activities towards the Gamagara corridor.</p> <p>Identify distressed mining communities and focus poverty reduction and job creation interventions in these.</p> <p>Identify infrastructure backlogs to enable the district municipality to intervene decisively through the provision of infrastructure and basic services (i.e. housing, water, sanitation and telecommunications) to these distressed communities.</p>
Stimulate the agricultural sector through the strengthening of commercial farming and the creation of a new intensive agriculture and agro-processing SMME economy in densely populated rural areas.	<p>GSLM – Develop the Agri-Park in Kuruman on the identified 50ha site located along the N14 towards Vryburg next to the Eldorado Hotel.</p> <p>GSLM – Support the large rural, extensive farming community located to the south of Kuruman.</p> <p>GSLM – Support the large tribal area farming community located to the north of Kuruman, where most of the livestock are accommodated within the boundaries of the villages, or just on the outskirts of the residential areas.</p> <p>JMLM – Support agriculture and agro-processing amongst poverty-stricken communities in the area.</p> <p>JMLM - Manage, protect and further develop the existing extensive game and cattle farming to the west of the mining belt.</p>
Attract new business (especially manufacturing linked to other sectors e.g. mining, agriculture) to the district in a focused/core area.	<p>Institute/do proper traffic and freight management, especially through settlements.</p> <p>Support manufacturing initiatives in the three Regional Nodes.</p> <p>Identify incentives and support manufacturing initiatives for the establishment of light industries in the N14 local corridor between Kuruman and Sishen/Kathu..</p>
Enhance tourism as a more important component integrated in the economy of the district.	<p>Support initiatives in the Eco-tourism corridor running through Vanzylsrus in the western part of the district.</p> <p>A detailed and comprehensive marketing strategy for the area should be developed and importantly linked to the provincial initiatives and available marketing means such as the website developed by the Northern Cape Tourism Authority</p>



Create a spatial structure that would maximise accessibility of the dispersed population to a range of services and facilities.	<p>JMLM – Restructure the fragmented, scattered settlement pattern along strategically located public transport lines.</p> <p>GSLM – Expand the economy of Kuruman to rejuvenate and strengthen it as a Regional Node.</p> <p>GSLM – Develop Mothibistat and Batlharos as Local Nodes.</p> <p>GLM – Manage land use and settlement expansion in Kathu and Sishen/Dingleton to amalgamate the two towns into a single Regional Node.</p> <p>JMLM – Develop Hotazel as Regional node.</p> <p>GLM – Develop Olifantshoek as a Local Node.</p> <p>JMLM – Develop Local Nodes in places like Churchill, Bothithong, Heuningvlei, Blackrock, Mamathwane and Vanzylsrus.</p> <p>Develop Thusong Centres as focal points for service delivery in Human Development Hubs.</p>
Regulatory framework for land use management in rural areas	Provide certainty regarding land development in the traditional areas. Introduction of ring-fencing significant areas for specific social and economic initiatives. This could be an incremental introduction of land use management under traditional authorities.
Support the diversification of the economy, whilst strengthening existing area-specific economic activities relating to specific regions.	Implement proposals for the functional regions as identified in the RDP.

4.12 GUIDELINES AND STATEMENTS

It must be noted that SDF does not provide definitive statements on all aspects of spatial development in the JTG. Sector plans and detailed spatial plans also reflect this understanding at a more local scale. In order to achieve more detailed spatial proposals the SDF is translated into more geographically specific physical development and land use management guidelines through the preparation of Spatial Development Plans (SDPs), Local Area Plans, Functional Area Plans and Land Use Schemes by the local municipalities within the district

This section spells out guidelines and statements that support and implement the key strategies. The **guidelines** act as a guide to future action and decision-making. The **statements** that support the guidelines are specific measures that need to be implemented

Because of their normative nature, it is necessary to develop a set of guidelines that will be used supplementary to the spatial principles defined in the previous section. Development Guidelines attempt to bring certainty for decision-makers, developers and investors by describing the desired land use envisaged with the JTG SDF. These guidelines will evolve and will be refined over time and District and Local Municipalities remains in a position to review or change the Guidelines through consensus.

The guidelines do not attempt to be restrictive, but aim to facilitate a better understanding of what is desired in terms of the SDF. The guidelines are therefore supplementary to the spatial principles adopted with the SDF and both should be used to inform development proposals.

The following conceptual development guidelines linked to the development objectives are proposed.



SUSTAINABLE AND RESILIENT - *an environment to nurture*

SPATIAL CHARACTERISTICS REGIONAL SCALE



- Connect settlements through continuous routes
- Connect settlements through rail as main public transport connector
- Connect settlements through intensification and diversification along major routes
- Establish TOD nodes around stations and other public transport intermodal facilities
- Establish economic opportunities at major crossings and along major routes transport, economic activities, social facilities
- Connected green lungs (natural recreational, tourism & rural productive agriculture)
- Mining environmental remedial action
- Ecotourism

SPATIAL CHARACTERISTICS SETTLEMENT SCALE



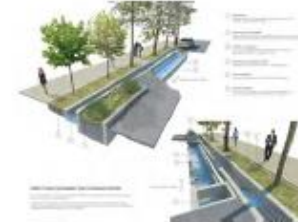
- Natural and built form complement each other
- Economic activities concentrated on major activity street and at major crossings
- Shopping malls as car-driven suburban typology should be strategically placed when taking pedestrianised communities into account
- Green infrastructure (stormwater, solar power)
- Green lungs (recreational & urban agricultural)
- Cycling routes

SPATIAL CHARACTERISTICS BLOCK SCALE



- Mix of housing typologies
- Hard and soft spaces (square & park)
- Urban agriculture and food gardening
- Connectivity to surrounding urban structure
- Small scale urban manufacturing for economic sustainability

SPATIAL CHARACTERISTICS BUILDING/STREET SCALE



- Vertical mixed-use buildings
- Green buildings (passive design & green technology)
- Green services (grey water, solar power, recycling)
- Contextual connectivity



The following are conceptual development guidelines linked to the development objectives are proposed

MEMORABLE - *an event to commemorate*

SPATIAL CHARACTERISTICS REGIONAL SCALE



- Corridor identity
- Gateways from the highway

SPATIAL CHARACTERISTICS SETTLEMENT SCALE



- Green open spaces integrated in the layout
- Boulevard with vista onto Wonderkoppie
- Other heritage elements as focal points
- Arrival space at heritage site
- Vibrant tourist environment and facilities (restaurant, museum)

SPATIAL CHARACTERISTICS BLOCK SCALE



- Local landmarks
- Contemplation space at heritage site

SPATIAL CHARACTERISTICS BUILDING/STREET SCALE



4.13 NODES:

Urban Nodes

General Guidelines:

- Urban nodes should be the focus of service and infrastructure investment.
- Urban nodes are delineated by an urban edge. Concentration of people should therefore be discouraged at dispersed locations away from the urban node (outside the urban edge).
- The potential for development of an urban node is relative to its threshold to drawn investment and its exposure to people visiting the area. Therefore, not all of the urban nodes will develop at the same intensity.
- Development within these nodes should be in accordance with these guidelines, local structure plans and the town planning schemes where applicable. Each application should be evaluated on its own merits, particularly if these guideline documents and statutory plans are not informative enough.
- The Minimum subdivision of agricultural land or smallholdings within the urban node must be according to approved land use management instruments.
- Higher density developments should be encouraged within the urban nodes, therefore promoting compaction within the urban environment. Higher density developments should be concentrated closer to the CBD's, major development corridors and activity streets to encourage public transport development along these routes.

Existing Nodes

The following **general guidelines** are applicable for the development of existing nodes:

- Further development of existing nodes must support the existing land uses within the node and the land uses in the surrounding area. Development within the node will be informed by the economic and social structure of the communities it serves.
- Proposals for the development at existing nodes must be coordinated with the phasing of any surrounding planning activity.
- Increased economic activity must enhance and / or make a positive contribution to the economic vitality of the node.
- Expansion of the nodes can be considered if it can be fully supported by the transportation system, or if the applicant is willing to upgrade the street system to prevent reduction in the levels of service.
- Development must take the provision of public transport facilities and existing public transport routes, as well as pedestrian movement into account.
- Development or expansion of nodes must take future traffic demand into account.
- Development must be compatible with the surrounding development density. However, higher density developments will be encouraged within the core of the node and along development corridors serving the node.
- New development must not have a negative influence on the accessibility of the area from residential pockets.



- Site layout of the development must make a positive contribution to the pedestrian environment and streetscape through appropriate orientation of the development, building design, parking arrangements, street landscaping and land-use arrangements.
- Site design and layout of the new development must enhance the local environment. The proposed new development must be complementary to the character of the surrounding areas.
- Impact of future spatial planning patterns within the local environment must be considered.
- Development at existing nodes must be in accordance with the guidelines of existing local area development plans.
- Availability of infrastructure and services must be considered. This includes:
 - **Vehicular access and configuration:** access from an appropriate class of road and the design configuration is important.
 - **Traffic impact and circulation:** the impact on traffic situation and the capacity of the street system to accommodate increased traffic volumes needs to be taken into consideration, as does the existing provision and efficiency of public transport.
 - **Bulk infrastructure capacity:** the capacity of bulk infrastructure to accommodate the services demands of new land uses may be a factor restricting development. Cost to overcome this may be prohibitive.
 - **Location and functioning of infrastructure:** the location of infrastructure and servitudes needs to be taken into consideration as this can be an obstacle of new development and may have an impact on the nature and extend of the development.

New Nodes

The following are **general guidelines** to the development of new nodes and will determine the size, scale, nature and form of the node:

- In principle, the scale, intensity and density of development within a node must be informed by the local conditions. As these are unique to each location, the characteristics and composition of mixed land uses and transportation infrastructure will define the proposed development within the node. The respective town planning schemes will regulate the density and other requirements with each development.
- Development nodes adjacent to provincial and national roads that are characterized by major through movement must visually have a positive contribution to the image of the District and Local Municipalities.
- Development nodes must support the existing land uses within the surrounding area and will be limited to the local threshold support, offered by these nodes.
- Mixed land uses must be promoted at development nodes. Both public and private investment should be encouraged within the node. This will ensure that the proposed development node can become a service center for the surrounding area.
- Residential uses should be encouraged within these nodes and a mixed land use should get preference over a uniform land use. However, where a specific sector like the tourism sector is targeted, uniform land uses in support of specialisation may be considered.
- Development at these nodes must be coordinated with the phasing of any planning activity of the surrounding area.
- Development stemming from the nodes should be instantiated from and directed into a development or activity corridor. Direction of growth into the corridor will thus start at the node and then grow towards the outside.
- A development node must be financially viable for Local Municipalities with regard to the delivery of services, except in instances where the developer can provide these services at an acceptable standard.
- The current and / or future capacity of infrastructure must be sufficient to accommodate the proposed scale of development.
- The expansion of the nodes can be considered if it can be fully supported by the transportation system, or if the applicant is willing to upgrade the street system to prevent reduction in the levels of service.



- The development must take the provision of public transport facilities and existing public transport routes, as well as pedestrian movement into account.
- The development or expansion of nodes must take future traffic demand into account.
- The development must be compatible with the surrounding density. Higher densities may be concentrated closer towards to core of the node.
- The site design and layout of the new development must enhance the local environment. In principle all development should be orientated to the street and permit pedestrian movement throughout the proposed node.
- Pedestrian movement routes must be designed through development layouts to link with public transport facilities. These must be safe and secure.
- The site layout of the development must make a positive contribution to the pedestrian environment and streetscape through appropriate orientation of the development, building design, parking arrangements, street- landscaping and land-use arrangements.
- Public open spaces, squares, water features, etc. should be incorporated as structuring and recreational elements within a development. Developments should therefore contribute to define space and positive environments.
- The impact of future spatial planning patterns within the local context must be considered with all new development proposals.
- Proposals must take into consideration the future expansion of the node.
- The development must create new opportunities to the surrounding community.
- Public sector investment in a development node must be supportive of formal and informal trade.
- The availability of infrastructure and services must be considered. This includes:
 - Vehicular access and configuration: access from an appropriate class of road and the design configuration is important.
 - Traffic impact and circulation: the impact on traffic situation and the capacity of the street system to accommodate increased traffic volumes needs to be taken into consideration, as does the existing provision and efficiency of public transport.
 - Bulk infrastructure capacity: the capacity of bulk infrastructure to accommodate the services demands of new land uses may be a factor restricting development. Cost to overcome this may be prohibitive.
 - Location and functioning of infrastructure: the location of infrastructure and servitudes needs to be taken into consideration as this can be an obstacle of new development and may have an impact on the nature and extend of the development.

Tourism Development Nodes

The following are **general guidelines** to be applied:

- All developments within the development node must enhance the rural character of the surrounding area.
- Development along pans, river embankments and dams must be outside the 1:100 year flood line and must be supported by an acceptable environmental impact study and management plan. Developments that promote water sport and recreation need to submit as part of the environmental management plan the rules associated with the use of the water resource for water sport and recreation.



Services Nodes

The following are **general guidelines** to be applied:

- Existing places of concentrated human activity should receive preference over the development of new social service nodes.
- Public amenities like schools, clinics, post offices, municipal pay points, etc. should preferably be located within these social service nodes. Private investments in the form of small shops, silos, distribution points of a co-operative, etc. may also be encouraged at the social service nodes.
- Easy access to the rural community it serves should be an important location factor when developing these social service nodes.
- Residential development may be considered at these service nodes, but should be restricted to a maximum number of residences as not to create dispersed settlements. The residential use should be linked to the management of the services offered at the service node.
- Public transport must be made available, if viable, at the social service nodes and associated infrastructure may be developed.

Villages

The following are **general guidelines** to be applied:

- No new villages should be developed.
- The expansion of existing villages should be linked with employment opportunities within the village. Residents should therefore have the opportunity to farm in close proximity of the settlement as a source of income.
- The provision of services will be rudimentary and must be sustainable and affordable to these settlements.
- No informal settlement may be developed within the village and illegal occupation of land should be discouraged.
- The management of the village by the tribal authority must be done in collaboration with the municipality and other government bodies.
- The keeping of livestock within the confinement of the village should be discouraged.

Mixed Land Use area

The following are **general guidelines** to be applied:

- Low density and low-rise development should receive preference.
- The land use and density of new development must be compatible with the surrounding area.
- Development should promote a mixture of uses on a single erf. Other supporting land uses, like commercial development, may be considered in the area only on an ad hoc basis and with the sole discretion of the municipality.
- Existing historical building stock must be preserved as far as possible.
- Land use management must ensure that noise levels are controlled and the mix of land use should not threaten the residential component.
- The site layout of the development must make a positive contribution to the pedestrian environment and streetscape through appropriate orientation of the development, building design, parking arrangements, street landscaping and land-use arrangements.
- Pedestrian movement must be promoted in the area and all development must be pedestrian friendly.



- Development can be considered if it can be fully supported by the transportation system, or if the applicant is willing to upgrade the street system to prevent reduction in the levels of service.
- The development must take the provision of public transport facilities and existing public transport routes, as well as pedestrian movement into account.
- The development must take future traffic demand into account.
- Any land uses that might be morally offensives or require a liquor license must obtain the input of the ward committee and ward councilor for approval.
- Existing open spaces and sport facilities must be conserved.
- All advertisings materials and signs must promote and be compatible with the residential and aesthetic character of the area.
- The availability of infrastructure and services must be considered. This includes:
 - Vehicular access and configuration: access from an appropriate class of road and the design configuration is important.
 - Traffic impact and circulation: the impact on traffic situation and the capacity of the street system to accommodate increased traffic volumes needs to be taken into consideration, as does the existing provision and efficiency of public transport.
 - Bulk infrastructure capacity: the capacity of bulk infrastructure to accommodate the services demands of new land uses may be a factor restricting development. Cost to overcome this may be prohibitive.
 - Location and functioning of infrastructure: the location of infrastructure and servitudes needs to be taken into consideration as this can be an obstacle of new development and may have an impact on the nature and extend of the development.

It must be noted that a number of mixed land use areas are distinguished: in terms of Business, Residential, Industrial etc., therefore care should be taken into account when evaluating these type of applications

4.14 LOCAL STATEMENTS

The local statement focuses to a large degree on the management and maintenance of existing and new activity nodes/centres. A management approach should focus on actions to make the activity areas attractive for private development and public use and ought to focus on the promotion of higher aesthetics. This is especially important under the current circumstances of a constrictive urban edge that might constraint the development of new activity areas. There is therefore a need to ensure that current activity areas are well managed and their health monitored on a regular bases. Table below describes urban management issues and actions that are required to ensure that a basic level of management is provided.



Table: URBAN MANAGEMENT ISSUES		
UM Elements	Service Delivery Issues	Required actions
Infrastructure	<ul style="list-style-type: none"> • Ensure adequate infrastructure capacities and bulk availability • Monitor new developments and infrastructure needs • Infrastructure might reach a stage where replacement is needed 	<ul style="list-style-type: none"> • Ensure adequate bulk and reticulation capacities • Monitor condition of the infrastructure
Waste Management	<ul style="list-style-type: none"> • Sidewalks are the focus of waste management and litter prevention • A partnership approach is needed to deal with litter and waste management • Regular street cleaning is needed • Waste bins need to be provided throughout the area 	<ul style="list-style-type: none"> • 240 litre wheeled bin and 85 litre bin • Cleansing • Collection of waste and illegal dumping • Frequent routine collection
Transportation and mobility	<ul style="list-style-type: none"> • Traffic and mobility management is to a large degree managed in public street reserves. This includes the management of mobility and accessibility • Public transport facilities should be provided and managed by the Locals • A pedestrian friendly environment is needed • Regular maintenance and repairs of traffic signals and signs as well as road markings 	<ul style="list-style-type: none"> • Repair Sidewalks • Repair Kerbing • Storm water management • Road Signs, Names and Markings • Traffic signals • Medians • Shoulders and Gutters • Replace manhole covers
Lighting	<ul style="list-style-type: none"> • Lighting ought to be provided on sidewalks and at public transport facilities 	<ul style="list-style-type: none"> • Streetlights
Public space	<ul style="list-style-type: none"> • Landscaped areas need to be provided and maintained. This includes green space and other urban public spaces • The greening of sidewalks and road reserves are important 	<ul style="list-style-type: none"> • Street furniture, Flower beds, Pruning, Irrigation, Pathways, Playground equipment, Grass areas and lawns
Community facilities	<ul style="list-style-type: none"> • Social amenities are part of the area and need to be provided and maintained. • These facilities include libraries, clinics, community halls and sports facilities 	<ul style="list-style-type: none"> • Ensure viable operational levels • Ensure safe and inviting Environments • Public services building maintenance
Safety	<ul style="list-style-type: none"> • Although private property owners provide safety services, the JTGD and Locals also has a role to play together with the South African Police Services in terms of visible policing 	<ul style="list-style-type: none"> • Crime incidents in public spaces • Ensure adequate and visible policing • Implement design for safety guidelines • Promote community policing
Development Management	<ul style="list-style-type: none"> • Contraventions of the scheme and by-law interventions might occur • Policies need to address the way in which development occurs through detail design guidelines • Manage outdoor advertising to prevent visual pollution • A quality built and visual environment is critical 	<ul style="list-style-type: none"> • Enforce policies and by-laws • Participation at a very detailed level • Manage traders and illegal structures

4.15 AGRICULTURE

The following are **general guidelines** to be applied:

- All applications for subdivision or change of land use in agricultural districts should be considered on merit.
- The location of the proposed subdivision or change of land use in relation with existing and future urban areas should be considered.
- The effective utilization of town lands and erven within the urban nodes should first receive priority before additional agricultural land be released for neighbourhood development.
- The quality of the land and agricultural potential of the land under discussion should be investigated with every development proposal.
- Motivation for the change in land use or subdivisions should indicate the future agricultural potential of the land under discussion and its relationship with the surrounding area.
- The development proposals should take into consideration the current land uses of the surrounding area.
- The availability of engineering services, particularly potable water, sewerage disposal, appropriate access roads and storm water runoff should be addressed in all development proposals.
- The location of the proposed development in relation to road infrastructure should be considered.
- The development proposal should indicate the impact of new infrastructure provisioning on agricultural land. Service agreements with service providers, where the developer is not providing the service, should be attached with all development proposals.
- Prime agricultural land high potential irrigation land should be protected from a change in land use that is not supportive of the agricultural potential of the land. Subdivisions that are not sustainable should not be considered.
- A change of land use or subdivision of land within a node should get preference above a similar application at a dispersed locality.
- The impact on the environment should be addressed and the protection of natural and heritage areas should be regarded as essential.
- Agricultural land may not be subdivided into smaller units of less than 10 hectare each or where a minimum subdivision area has been specified in existing land use management documents, this minimum subdivision area will prevail. All development is also dependant on the availability of bulk infrastructure and the future spatial planning of the area. The major road network for future development should be considered and the proposed subdivisions need to accommodate these proposed future road alignments or any other bulk infrastructure alignment within the development proposed.
- A map indicating the 1:100 year flood line as determined by a professional engineer must accompany all applications adjacent to rivers and public dams.
- Residential development densities along rivers and dams may not exceed 1 residential unit per 15 metres waterfront.
- Proposed developments should not sterilise strategic mineral deposits.
- Proposed developments should not occur in areas of unstable geological formations.
- Developers may be required to submit impact studies or any other study to support decision-making.

Specific guidelines:



4.16 CEMETERIES:

- An EIA and geo-technical report will be required as well as a management plan for the approval of a private cemetery. Financial guarantees for managing the cemetery may also be required.
- In the case of farmland, a reservation clause must be registered in the Deed of Title that, should the property not develop as a cemetery within a specified time frame, the land will be used for agricultural purposes. Special consent - time limitation on approval.
- The locality of a cemetery needs careful consideration. Distances from access roads and from churches need consideration.

4.17 COMMUNAL FARMING AREAS:

- Communal farming should be environmentally sustainable.
- Management plans should be developed for commonages.
- Livestock keeping within urban areas should be limited and community kraals should be developed on the fringe of the urban area to accommodate livestock of urban residents.
- EIA's will be required for the establishment of community kraals.
- Fencing along major roads should be enforced.

4.18 HUMAN SETTLEMENT

Sustainable neighbourhoods and communities do not occur automatically but their development and growth need to be supported by appropriate planning and design measurements and standard. In order to create developments that contribute positively to the district development, the following ought to be taken into account;



Table : QUALITY HOUSING		
Guidelines and policies	Interventions and Investment types	Land Use Guidelines
<ul style="list-style-type: none"> • Preparation of a Environmental Impact Assessment(EIA) • Preparation of an Environmental Management Plan (EMP) • Integration of spatial planning, environmental management and statutory planning • Manage the growth of all nodes carefully • Land use and infrastructure coordination • Agree on service level standards • Update bulk services payment policies on a regular basis • Follow a more compact development approach • New developments should be planned in an integrated manner • Develop a phases approach for the long term development of dense urban areas • Develop detailed property plans and release strategies for public • owned land 	<ul style="list-style-type: none"> • Provide a high standard of infrastructure provision for economic and dense residential development • Protect and maintain existing infrastructure • Urban green space investments • Focus investment at planned points or nodes of high intensity activity • Invest in priority transportation corridors that will also include pedestrian and public transport facilities 	<ul style="list-style-type: none"> • New township Lay-outs should accommodate accessibility, movement and economic development • Detailed urban design guidelines at local precinct and development plans • Ensure that planning schemes support appropriate residential densification and mix use development, including pedestrian movement • Agree on a common set of land use categories • Formalise land tenure, especially in the less developed areas

4.19 INFRASTRUCTURE INVESTMENT

Infrastructure investments influence the development patterns in the district. The provision and management of infrastructure is also crucial for the development and financial viability of the district. In line with NSDP principles, the following issues should therefore be taken into account:

- Existing infrastructure capacity should be augmented and upgraded to ensure efficient urban form and infill development
- Infrastructure provision and upgrading within the developing urban areas are essential to achieve integration of the city and infill development
- Where spare capacity exists, consolidation and intensification of existing urban development is most efficient
- Development of vacant land in areas with spare capacity should be given first priority, with areas requiring extension of existing infrastructure as second priority
- A balance should be struck between investment in new infrastructure and the maintenance and refurbishment of existing infrastructure
- New infrastructure should be provided in areas which are linked, or can be linked, directly to the movement network and can be provided with social services
- Medium- to high-density residential development in developing urban areas is promoted to make for optimal use of infrastructure.
- Public investment in marginalised areas is essential to spur development and create an economic base.



- The cost of postponed infrastructure refurbishment and upgrading is higher than regular maintenance. Therefore maintenance is promoted to sustain service levels and standards.
- Customer education, by means of information dissemination, pro-active involvement, and education with regard to the benefits of good practice, should ensure that service users understand the operation of and limitations to the service systems.

4.20 URBAN EDGE

The purpose of defining an urban edge is to prevent uncontrolled urban development which may lead to urban sprawl and increases pressure on limited resources. The main advantage is thus directing urban growth and protecting natural resources, without being unduly. This approach supports the objective of achieving compact urban form by excluding land from development that is not needed in the short term. It requires that development be focused inward in terms of densification, infill and restructuring, which support an efficient public transport system. It prevents urban sprawl by restricting development on the outskirts of urban areas and promotes the proper long term planning of these areas, prior to inclusion within the boundary.

The following objectives of the Urban Edge remain important and the implication ought to be assessed in the demarcation of the Urban Edge of municipalities:

- Conservation of Environmental Resources – specifically conservation areas, heritage sites, open space and sensitive areas;
- Optimum utilisation of engineering services and community facilities. These services are not only expensive to install but specifically expensive to operate and maintain. The high capital and maintenance costs of development in peripheral areas thus need to be considered carefully.
- Optimisation of public transport systems with resultant reduction in pollution (air, water, noise etc.) and travelling time and cost;
- Prevention of urban decay. By drawing a boundary around the existing urban area development is focused inward, resulting in all opportunities being explored, especially the regeneration of decaying areas;
- Promotion of opportunities for redevelopment, infill development and densification. The conservative approach to expansion also results in opportunities for infill development being explored. As well located land is often more expensive or vacant land in the urban area often has high levels constraints, higher densities are considered as these result in a higher yield.
- Creating affordable cities for residents - shorter travelling distances (costs) and efficient use of infrastructure. The long term cost to end-users in terms of commuting costs and obtaining goods and services not available in peripheral areas often outweigh the short term cost of cheap land;
- Upgrading/re-use of infrastructure rather than expansion. Proper maintenance and upgrading of existing infrastructure is more cost-efficient than expanding and creating more maintenance costs;
- Improving economy of scale - more people/km² imply more business opportunities and efficient use of community facilities.

Within the context of the guidelines contained in the above section, municipalities must consider the following generic criteria in the demarcation of the Urban Edge for their respective areas of jurisdiction:

- The existing border of urban activity (e.g. residential towns and other urban features).
- Agricultural holdings (rural residential uses) to be in principle excluded from the urban area;



- Existing, approved development rights;
- Natural features such as rivers and mountains and other conservation areas. In this regard the environmental management guidelines in the District may be used.
- Watersheds and catchment areas may also be used as these are determining factors in bulk service provision.
- Municipal boundaries. In this regard co-ordination with the adjoining municipalities is of extreme importance.
- Functional boundaries such as major roads, strategic development areas etc. In the case of roads development should be permitted on both sides of the road to at least one cadastral boundary depth.
- The availability / lack of bulk infrastructure, as well as the functional service areas e.g. sewer catchment areas, water tower service areas etc.

The suggested criteria for land use to be permitted outside the Urban Edge reinforce the criteria previously introduced. The following is emphasized:

- Land use proposals and applications for change in land use inside and outside the Urban Edge should be considered based on merit and not only in terms of the line of the Urban Edge or any other single measure (e.g. agricultural potential etc.). This requires proposals and applications to be properly motivated in terms of all developmental aspects and specifically need and desirability. Merit in this context implies:
 - ✓ A motivation for the need and desirability of the application and compliance with the requirements of the legislation in terms of which the application was brought (e.g. Town Planning and Townships Ordinance, Ordinance 15 of 1986 or SPLUMA Act etc.);
 - ✓ The criteria put forward in terms of the Urban Edge Policy for land uses to be permitted and
- Land uses such as schools, clinics, local retail, tourism attractions and even agricultural commercial and industrial uses required to serve the local area and rural residential uses are thus in principle permitted outside the Urban Edge (subject to certain conditions and merits) – not only agriculture.

Criteria

The criteria put forward are as follows:

Development within the Urban Edge

As far as land uses inside the urban edge are concerned, a land use that is consistent with the relevant municipality's integrated development plan, spatial development framework, land use management plan and/or any other relevant policy should be permitted, subject to the normal procedures and legislation e.g. environmental considerations, transportation requirements etc. It is important to note that the Urban Edge does not imply that the entire area within it can/should be allowed to develop and that development rights are therefore guaranteed. Factors such as timing, availability of services, environment conditions must and should still be applicable when considering an application (thus the merit of an application).



Development outside the Urban Edge

Land uses that are rural in nature would be more desirable, and should therefore be promoted outside the urban edge rather than inside it. Where applicable, it will also have to be in line with policies of provincial departments e.g. NCSDf and/or the SDFs of municipalities. The following land uses should be allowed in the rural areas outside the Urban Edge:

- Agriculture.
- Conservation Areas/Nature Reserves including associated tourism facilities (accommodation, restaurants);
- Tourism and related activities e.g. curio markets, resorts;
- Recreational Facilities e.g. hiking trails/hotels/game lodges with associated tourism facilities;
- Farm stalls and home industries;
- Rural residential uses/Agricultural Holdings in specific areas.
- Any other related development or service;
- Provided that the proposed development or service referred to:
 - Services primarily the local surrounding rural market; and/or
 - Is resource based (i.e. it needs to be located near a specific natural resource e.g. sand quarries, mines etc.); and/or
 - Is located at a defined and approved service delivery centre identified in terms of a spatial development framework of the municipality.

Developments or services not complying with the criteria set above may thus only be allowed if it complies with one or more of the criteria stipulated by the Local Municipality.

4.21 URBAN RENEWAL:

Urban Renewal is a global phenomenon which is basically approaches to how best to reinvigorate declining cities. It emanates from a myriad of factors including inter alia; urbanisation, migration trends, globalisation and poverty. The complexities of urban renewal systems in South Africa have been exacerbated by the legacy of apartheid, legislation and separate development, private sector investment decisions, socio-political, economic transformation and intergovernmental relationships, government capacity and financial constraints.

In the South African context, it focuses on three issues: urban centres, informal settlements and exclusion areas. These areas should be seen as an integral component of Municipal Strategies (including Integrated Development Plans and Spatial Development Frameworks). Thus there should be an iterative process between urban renewal and the other equally vital municipal strategies. The following assertions (extracted from the Cities Network' Overview on Urban Renewal) illustrate why it is important to focus on the three focus areas in South Africa and the overlap in the causes of decline that is apparent:



Urban Centres:

Urban centres are multi-functional nodes, with strong transportation hubs, incorporating commercial, retail, cultural and residential components. They provide employment for a large percentage of the population and link suburban, township and rural populations through their transportation hubs. They are a significant source of regional economic growth, make substantial contributions to gross national domestic product and are an important source of revenue for local government. It is for this reason that the renewal of declining urban centres is an important component of economic policy.

Informal Settlements:

Informal settlements are growing at an alarming rate throughout the world and their number is projected to double in 25 years. The percentage of households living in informal dwellings in South Africa is approximately 23% of the total population of residents of informal settlements constitute 40% and 60% of the labour force in many cities. Across the nine biggest cities in South Africa, there were approximately one million households living in informal settlements in 2001 and despite an impressive housing delivery track record, the absolute number of households living in informal settlements has steadily increased over the last ten years.

Exclusion Areas:

The coexistence and close juxtaposition of areas of employment growth and high incomes with other areas of high unemployment, low incomes, and high dependence on welfare benefits has become increasingly common internationally. Exclusion areas are a physical manifestation of social and economic inequality within cities. The fate of cities is linked to these exclusion areas, as they constitute an economic drag holding back CBD development; weaken the quality of labour supply and creating negative images which undermine investment.

In the South African context, unique forms of exclusion areas have arisen. Thus township areas and villages “excluded by design” have been created as a direct and deliberate consequence of apartheid policy. CBD areas have, by contrast, experienced “exclusion through decline” as a result of demographic, economic and institutional transformation. The nature of exclusion has a considerable impact on the types of interventions which may successfully be undertaken in these different exclusion areas.

According to the South African Cities Network, effective implementation of urban renewal within the main focus areas (urban centres, informal settlements and exclusion areas) requires support in the following areas:

- The development of a national urban renewal framework as part of a broader South African urban policy framework.
- The connections between causes of decline and objectives for urban renewal must be carefully considered during the design phase of urban renewal projects in order to support the development of internationally-consistent urban renewal approaches.
- While there is overlap in the causes of decline, in the case of urban centres, informal settlements and exclusions areas, the policy objectives of renewal within these contexts differ significantly. This means the interventions or lessons from one context cannot simply be extrapolated to another.



- Legislative or regulatory support/reform is required to frame the programmatic structure of urban renewal projects, as well as to address inappropriate regulatory frameworks and practices, reinforces new policy approaches and support appropriate to the introduction of fiscal mechanism.
- While different contexts may require different institutional arrangements, institutional guidelines to address inter-governmental relations; the relationship between local government and communities and the relationship between local government and the private sector, should be established to promote good governance within urban renewal projects. In particular, capacity building programmes should be introduced to enhance the ability of urban renewal practitioners to design and implement urban renewal projects.
- Existing financial mechanisms to secure funding for urban renewal are ineffectual and more effective financial arrangements should be explored. New financial mechanisms should address the imperatives of local government counter-funding and should highlight the relationship between capital and operational funding in order to enhance the long-term sustainability of urban renewal interventions.

A clear set of performance measurement indicators needs to be developed that is relevant across all contexts of urban renewal.

4.22 IMPLICATIONS FOR LOCAL MUNICIPALITIES URBAN RENEWAL SYSTEMS:

Like all other cities/CBD in the world, areas like Kuruman have experienced a spate of decline in one if not all focus areas alluded to above. The decline in urban centre also includes the decline in the business and industrial areas which have been and some of which still are economic engines of the CBD's. The strategies to address the issues of urban renewal agenda include revitalisation of our CBDs through maintaining the expansive public-private investment that is evident in these places. This could be an incremental approach where the focus currently is on demarcated areas within the CBD of Kuruman which is the District gateway.





CHAPTER 5

IMPLEMENTATION PLAN

REVIEW OF JOHN TAOLO GAETSEWE SPATIAL DEVELOPMENT FRAMEWORK (SDF)

Synopsis: *The aim of this chapter is to outline the implementation plan and the capital investment framework which is part of the implementation which indicates capital projects and priorities which the districts will undertake within the short, medium and long term.*



5 IMPLEMENTATION PLAN

As was stated before, the proposed JTGD SDF is not a formula; neither is it a register of every existing detail. Instead, the SDF aims to provide enough guidance and description regarding a preferred development approach, whilst still allowing for choices to be made. The intention of the SDF is to be a policy framework that will guide decision making over the short to long term, ensuring that the SDF remains robust and relevant to public and private decision-makers is an ongoing task – one that will rely on regular monitoring and review of trends.

The implementation section comprises:

- **Development Stages**
- **Sector Integration**
- **Institutional Arrangements**
- **Partnerships**
- **Monitoring**
- **Capital Investment Framework**

5.1 DEVELOPMENT STAGES:

Short Term Development Trajectory

- The focus of this stage is on the consolidation of existing developed and under developed areas or settlements. It should be ensured that maintenance and urban management programmes are in place in existing residential and economic activity areas and that infrastructure capacities are monitored.
- The condition and state of the public environment, including public transport facilities must be evaluated and funding and upgrading options be compiled.
- Planning ought to be continuous and supported by the systematic collection of relevant data. A clear decision process based on planning and data
- Evolution should be established.
- The district and local municipalities must investigate funding options and embark on preliminary partnership discussions with public and private sector
- Investors and funders.
- Economic strategies should ensure some diversification in single sectors; training initiatives; moving away from inward looking approaches and initiate appropriate linkages.
- Ensure that planning efforts are in general recognised or regarded as positive and that members of ward committees and sector forums are involved



Managing Growth	
Urban Edge	Plan for expansion: Take part in the annual Urban Edge revision process from the relevant provincial department, taking into account the growth stages of the Municipality and its locals. Expansion proposals ought to be compiled taking into account infrastructure capacities, development trends, completed planning exercises for growth areas. Minor changes to the current edge will be needed specifically to include planned housing developments. If local plans are in place, further expansion can be proposed.
Infrastructure and public investment	Planning: Infrastructure master planning should be completed as per relevant legislation. Investment: Capital investment programmes ought to focus on development areas. Management: Maintenance and lifecycle planning and programmes should be completed.
Management of sub urban and rural areas development	Planning: Compile development frameworks for sub urban areas to ensure that the long term potential of the areas is not hampered by fragmented and inappropriate developments. These areas are the future expansion areas of the district and must be managed carefully. A detailed investigation is needed regarding the potential of the agriculture and tourism sectors that comprises to a large degree the rural areas. Investment: Capital investment should be focused on the delivery of basic infrastructure and services first. Management: Continued management is needed to address illegal land use and activities, dumping, pollution decay, and illegal settlement.
Sustainable, resilient and memorable-an environment to nature and commemorate	
Places of Activity	Need: The need for additional nodes will depend to a large degree on actual population and economic growth. The focus on the first stage should be on the consolidation of existing nodes and economic activity areas. Planning: Detailed local plans ought to be completed for identified nodal areas. The development of single use developments e.g. larger malls ought to be carefully considered in terms of a development's contribution towards sustainable densification, pedestrianisation and public transportation. Investment/Management: Public funding will be required to facilitate the upgrading and development of existing nodes. This is especially important for the development of neighbourhood nodes in under developed areas.
Settlements and housing	Need: As per NC SOPA (2016), COGHSTA Strategic Plan (2014 – 2019) and IDPs 2016/2017 Planning: A community based planning approach should be initiated to ensure that dormitory areas are revived through not only physical interventions but also contributions from local communities. Current housing proposals should be confirmed and verified and implementation programmes completed. Investment/Management: Capital investment should be focused on the delivery of basic infrastructure and services first. Maintenance plans must be compiled to ensure that existing and new infrastructure and services are protected.
Regional and Local Accessibility	
Regional and Local road linkages	Planning: Proposed regional linkages must be agreed to and confirmed through discussions with neighbouring municipalities and relevant provincial and national departments. The capacities and condition of proposed linkages ought to be monitored on a continuous basis. Planning for proposed new linkages and road upgrading should be initiated. Investment /Management: Capital and operational budgets for upgrading and maintenance must be verified and confirmed.
Public Transportation	Planning: Public transportation is a vital element in the development of the district. During stage 1 it is important that all public transport modes are verified and detailed data basis developed, in partnership with the relevant stakeholders, in order to assist the district in the planning and management of services. Existing operation issues should receive attention to ensure that existing services are fully functional. Investment/Management: Public transport is a multi-disciplinary sector where services are provided and decisions are taken by various institutions. It is therefore important that priorities are agreed to and that budgets are optimally utilized and coordinated. The need at this stage is not necessarily for the provision of new infrastructure but more on the maintenance and upgrade of current facilities.



Pedestrians	<p>Planning: Complete and update sidewalk management plans. Investigate the accessibility of residential areas and propose new pedestrian linkages and ways where needed. Ensure that intersections are pedestrian friendly and safe. The status of safety conditions at schools and public transport facilities ought to be evaluated. Investigate cycling as an alternative mode of transport.</p> <p>Investment/Management: Focus is on existing facilities in terms of maintenance and upgrading</p>
Provide and Manage Environmental Areas and Open Spaces	
Local Public Open Space (POS)	<p>Planning: Verify and confirm all existing POS including the location, size and condition. POS ought to not only be green space but can also include hard surfaces and public squares.</p> <p>Investment/Management: Complete detailed maintenance and upgrading business plans for all identified POS. Continuous maintenance programmes.</p>
Tourism	<p>Planning: Tourism Development Strategy</p> <p>Investment: Tourism Branding and Signage Strategy and Develop JGTDM Tourism Network and Tourism Facilities</p>

Medium Term Development Trajectory

- The main focus of this stage is to implement development and redevelopment plans for the various programme areas e.g. nodal, settlement and rural areas. New development proposals should comply with policy guidelines and be submitted in terms of a new district wide land management scheme. Planning for possible expansion of the district growth area ought to reach completion.
- Planning ought to be done regularly and systems put in place for data analysis; decision system based on data analysis must be formalised and regular reporting should be done to guide development and investment decisions. Initiate a performance and benchmarking system designed to measure development impact and outcomes.
- Initiate partnerships with public and private investors and funders through the identification of marketable opportunities and creating an appropriate
- Legal frameworks.
- Economic strategies and plans ought to promote multi sectoral diversification and training initiatives that is linked to specific skills requirements. Linkages should be identified and described and growth opportunities and partnerships initiated.
- At this stage planning processes ought to be perceived as open and responsive to community needs and community and sector members are constructively involved.

Managing Growth	
Urban Edge	Prepare urban edge expansion proposals in line with the provincial procedures and requirements.
Infrastructure and public investment	<p>Planning: With operational and management plans in place for existing developed areas, the focus should move towards the planning of infrastructure expansion and demand management measures. Necessary reserves need to be identified and planned for.</p> <p>Investment: Bulk capacities must be confirmed and upgrading where necessary</p> <p>Management: Investigate alternative funding models and service provision mechanisms.</p>
Management of sub urban and rural areas development	<p>Planning: Land policies must not hamper future development of areas. Complete urban development frameworks to assess development options and typologies. Rural area development plans must be completed taking into account e.g. alternative housing arrangements, agri tourism, food production and recreation facilities and activities.</p> <p>Investment: Public –private partnership arrangements should be in place to invest in public facilities and upgrading of road and road side</p>



	<p>infrastructure. Investigate the feasibility of agri-production and beneficiation facilities.</p> <p>Management: Focus is on creating attractive environments that is clean, safe and well preserved while still being productive and contribute to the district's growth and development.</p>
Sustainable, resilient and memorable-an environment to nature and commemorate	
Places of Activity	<p>Need: new neighbourhood nodes be identified and developed to spread growth. The location of neighbourhood nodes should be in terms of local municipal SDFs.</p> <p>Planning: Complete urban development frameworks and land use schemes for identified expansion areas</p> <p>Investment/Management: Quantify budget needs in terms of proposed number of nodes and types of activities (mixed use). Complete feasibility studies including funding and contribution options. Confirm available capacities and servitudes required for new services lines.</p>
Settlements and housing	<p>Need: As per NC SOPA (2016), COGHSTA Strategic Plan (2014 – 2019) and IDPs 2016/2017. This must include associated facilities such as schools, clinics etc.</p> <p>Planning: A community based planning approach should be initiated to ensure that dormitory areas are revived through not only physical interventions but also contributions from local communities. Current housing proposals should be confirmed and verified and implementation programmes completed.</p> <p>Investment/Management: Capital investment should be focused on the delivery of basic infrastructure and services first. Maintenance plans must be compiled to ensure that existing and new infrastructure and services are protected.</p>
Regional and Local Accessibility	
Regional and Local road linkages	<p>Planning: Complete the planning for proposed new linkages and road upgrading. Confirm priorities of proposed provincial roads.</p> <p>Investment /Management: Capital and operational budgets for upgrading and maintenance must be verified and confirmed. Operational and maintenance requirements for new linkages must be quantified.</p>
Public Transportation	<p>Planning: Coordinate and consolidate operational functionality of services in partnership with relevant stakeholders. Identify and plan for extended services. Quantify budget requirements for new facilities.</p> <p>Investment/Management: Implement data management systems to monitor and track operations and performance of facilities and services. Preliminary investment proposals for new facilities and extension of operations.</p>
Pedestrians	<p>Planning: Quantify budget requirements for provision and upgrading of existing and proposed linkages. Monitor and measure accessibility Performance, and plan for the extension of pedestrian ways in existing and proposed activity areas and high density residential areas.</p> <p>Investment/Management: Initiate alternative mechanisms of funding for maintenance and other operational issues to ensure clean and safe pedestrian environments.</p>
Provide and Manage Environmental Areas and Open Spaces	
District/Local Public Open Space (POS)	<p>Planning: Initiate the implementation of a comprehensive District Open Space Network plan and strategy together with relevant stakeholders.</p> <p>Investment: Quantify budget requirements and investigate alternative funding options through e.g. incentive schemes and Public-Private-Partnerships.</p>
Tourism	<p>Planning: Budget prioritisation for tourism development</p> <p>Investment: Branding and Marketing as part of promoting the district tourism sector.</p>



Long Terms Development Trajectory

- Continuous planning is occurring with formal systems for data collection in place. Data is used to support and improve planning on a day to day basis.
- Funding is highly diversified across multi funders through partnerships that is operational and linked to specific development programmes.
- At this stage economic strategies and plans ought to result in extensive multi sectoral diversification and training that is wholly focused on skills requirements. The result should be multi sectoral growth with strong linkages and multi sectoral partnerships established.
- Planning direction and activities should be widely known and perceived as active engagement and responsive to needs. Members of both civil and private sectors is now actively involved in planning and implementation efforts.

Managing Growth	
Urban Edge	Manage developments along the edge in terms of proposals and complying with provincial requirements and policies. Manage appropriate incentives and other growth management tools and mechanisms.
Infrastructure and public investment	<p>Planning: Infrastructure master plans are continuously updated and monitored. Investigate appropriateness of alternative demand management measures and supply of infrastructure and services e.g. new energy sources and ways of dealing with waste management. Integrated Infrastructure Plans ought to be updated and coordinated with a common base of monitoring of capacities and conditions of infrastructure. The private sector should be involved in funding and contribution approaches that can make service provision viable and affordable.</p> <p>Investment: Level of underdeveloped and informal settlements ought to have decreased and investment can focus on creating attractive neighbourhoods with appropriate community and recreation facilities. Refurbishment and upgrading is done in line with master plan recommendations.</p> <p>Management: Monitoring and management systems should be in place for all types of infrastructure.</p>
Management of sub urban and rural areas development	<p>Planning: Continuous planning and monitoring ought to occur with full participation of all stakeholders. Appropriate activities need to be promoted and areas branded as important resources for the district. Regular community recreation activities should be initiated and facilitated.</p> <p>Investment: Funding ought to be highly diversified across multi funders through partnerships that is operational and linked to specific development programmes.</p> <p>Management: Focus is on creating attractive environments that is clean, safe and well preserved while still being productive and contribute to the district's growth and development.</p>
Sustainable, resilient and memorable-an environment to nature and commemorate	
Places of Activity	<p>Planning: Growth and development conditions in at least CBDs and regional nodes must be monitored continuously and in terms of agreed upon outcome indicators.</p> <p>Investment/Management: Quantify budget needs in terms of proposed number of nodes and types of activities (mixed use). Complete feasibility studies including funding and contribution options. Confirm available capacities and servitudes required for new services lines.</p>
Settlements and housing	<p>Need: As per NC SOPA (2016), COGHSTA Strategic Plan (2014 – 2019) and IDPs 2016/2017. This must include associated facilities such as schools, clinics etc.</p> <p>Planning: New residential developments must be carefully assessed to ensure that the principles and guidelines as proposed in Chapter 3 are adhered to.</p> <p>Investment: Investment in infrastructure provision, appropriate community facilities and creating an attractive and safe environment.</p>



	Management: Coordination of budget implementations and assessment of development applications and proposals
Regional and Local Accessibility	
Regional and Local road linkages	Planning: Develop required new linkages with required facilities. Ongoing upgrading of linkages when appropriate and terms of capacity status. Investment /Management: Capital and operational budgets for upgrading and maintenance must be verified and confirmed. Maintenance and refurbishment programmes ought to be in place for all categories of roads and streets.
Public Transportation	Planning: Implement new services in terms of required thresholds Investment/Management: Implement data management systems to monitor and track operations and performance of facilities and services. Implement investment plans for new facilities
Pedestrians	Planning: Quantify budget requirements for provision and upgrading of existing and proposed linkages. Monitor and measure accessibility performance and plan for the extension of pedestrian ways in existing and proposed activity areas and high density residential areas. Investment/Management: Initiate alternative mechanisms of funding for maintenance and other operational issues to ensure clean and safe pedestrian environments. Implement investment plans for new linkages.
Provide and Manage Environmental Areas and Open Spaces	
District/Local Public Open Space (POS)	Planning: Initiate the implementation of a comprehensive District Open Space Network plan and strategy together with relevant stakeholders. Develop new facilities in line with implementation strategies Investment: Quantify budget requirements and investigate alternative funding options through e.g. incentive schemes and Public-Private-Partnerships. Detailed maintenance programmes must be completed and implemented.
Tourism	Planning: A comprehensive data management system should be completed to monitor and evaluate the trends and performance of the tourism sector. Investment: Continued investment in public infrastructure that supports tourism activities.



5.2 SECTOR INTEGRATION

The JGT SDF has the potential to bridge the gap in understanding the developmental issues of the District and contribute positively to the district's IDP processes. There is also evidence that the SDF can facilitate meaningful integration and coordination of sector initiatives, thus contributing towards sustainable development. This will assist in the reengineering of the institutional arrangement to meet the basic needs of the municipality. The table below indicates how the SDF strategies impacts on the various sector plans and how the sector plans can support the strategies by addressing key issues.

TABLE : SECTOR ISSUES									Issues
Spatial Guidelines	Housing Development Strategy	Water Services Development	Disaster Management Plan	Integrated Transport Plan	Environmental Management	LED	Waste Management Plan	Electricity Master Plan	
Urban Edge	√	√	√	√	√	√	√	√	All sector plans ought to take the urban edge into account when planning for infrastructure and service provision.
Infrastructure Investment		√		√		√	√	√	<ul style="list-style-type: none"> Service delivery should happen in existing developed areas and communities and not be extended beyond the Urban Edge. Discussions surrounding the provincial edge policy are however needed. The containment of sprawl is dependent on a range of policies and interventions which includes services provision and infrastructure investment. The various transport modes should service existing and planned development areas. Sensitive environmental areas ought to be planned and protected.
Manage the agricultural priority area and Tourism		√	√	√	√	√	√	√	<ul style="list-style-type: none"> Detail investigations are needed to assess the real value and potential of agriculture. It could become a sector that can contribute to the economic growth of the district and assist with poverty alleviation. Development management guidelines are needed to ensure that inappropriate transition activities do not occur e.g. engineering works, warehousing etc. This sector is however dependent on sustainable water provision and should be catered for in the relevant SDP's.
Manage tourism priority areas		√	√	√	√	√	√	√	<ul style="list-style-type: none"> Clear environmental and development guidelines should be developed to protect the tourism and environmental sensitive areas and ensure optimal development and utilization.



									<ul style="list-style-type: none"> • Service provision and management will be crucial to the success of this area and the economic contribution to the DM economy. The relevant services plans, including transportation, and strategies should be geared towards the needs of the tourism strategies and priorities. • Waste management should also be a focus.
Manage and contain residential and non-residential developments around water bodies and river ways		√	√	√	√		√		<ul style="list-style-type: none"> • Maintain and upgrade services in residential areas around water bodies in an environmental sensitive manner to protect the environmental sensitive areas against degradation. • The areas should be developed in terms of clear environmental management guidelines that could include e.g. storm water management, open space planning, light pollution etc. • The size of estate areas ought to be managed and it needs to be ensured as far as possible that these areas do not become isolated pockets of development. Development in these areas should only be allowed if complying with a set of development and design guidelines.
Strengthen existing activity and economic areas/Nodes	√	√	√	√	√	√	√	√	<ul style="list-style-type: none"> • Development in these areas should be allowed if complying with a set of development and management, including design, guidelines. • Maintain and upgrade services in existing economic areas in terms of current needs as well as future planned development. • The existing economic areas ought to be serviced by a well-planned and managed transportation system that connects the areas and ensure that accessibility as optimal. • The areas should be developed in terms of clear environmental management guidelines that could include e.g. storm water management, open space planning etc. • Economic development in the areas should be according to a comprehensive economic strategy and LED strategy to ensure that the relevant development occurs and that marketing efforts attract the relevant businesses.
Develop sustainable settlements and Manage and contain informal settlements	√	√	√	√	√	√	√	√	<ul style="list-style-type: none"> • Service level agreements should be reached in terms of the location of the settlements and priority development areas. This should also include standards of infrastructure provision. • The areas ought to be serviced by a well-planned and managed transportation system that connects the areas and ensure that accessibility is optimal. • Development should be based on sustainable settlements principles and the needs of especially the elderly, women and the youth should be addressed. • Areas should be developed without further degradation of environmental sensitive areas.



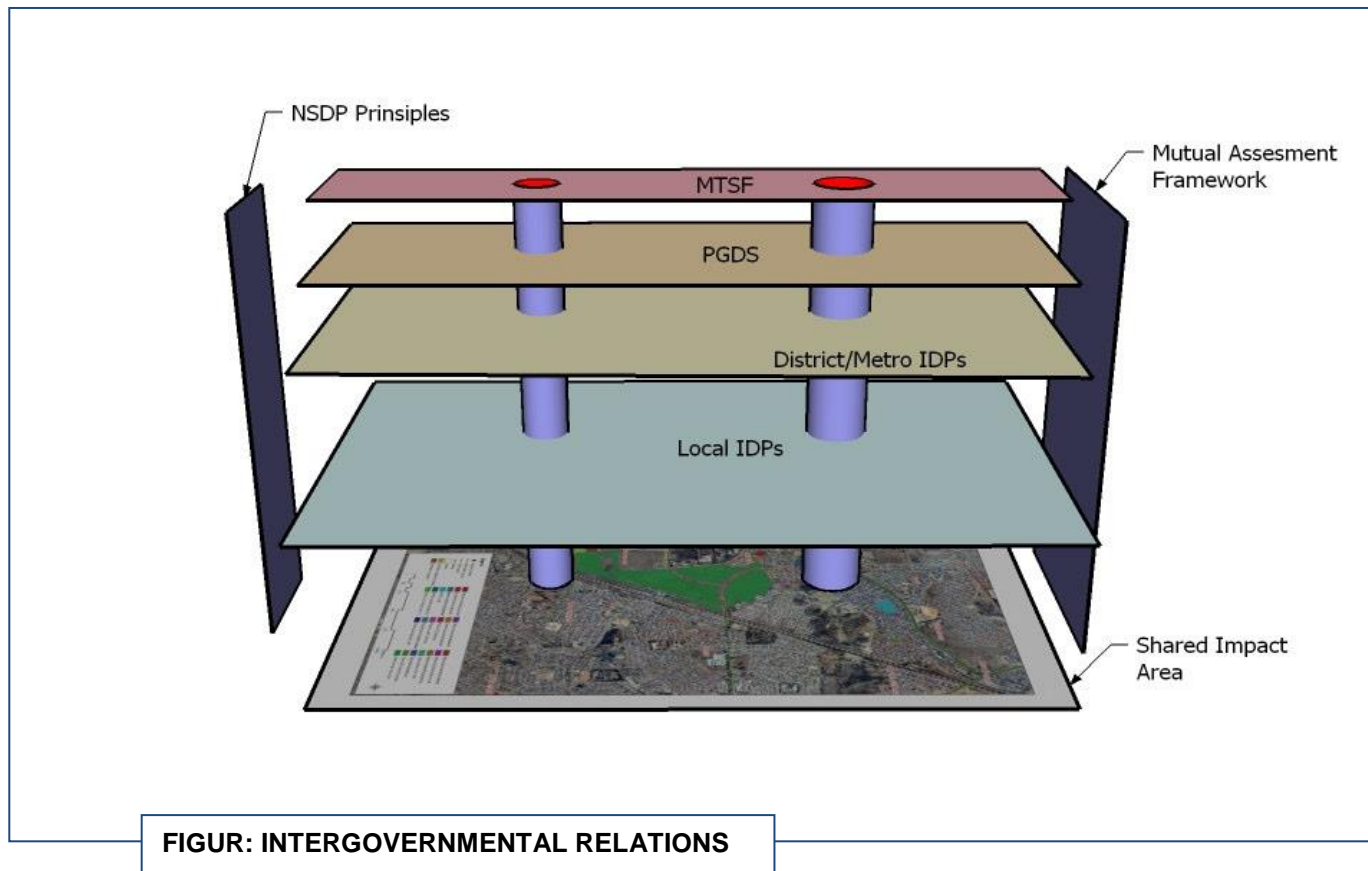
Movement and Accessibility	√			√					ITP proposals should support the promotion of densification and make provision for safe and clean pedestrian environments. The promotion of mobility and accessibility is also an important principle that ought to influence the design and planning for new housing developments.
Urban Renewal	√	√		√		√	√	√	Declining Business centre are in state of decline, therefore is required strategy
Manage priority Mining area	√	√	√	√	√	√	√		<ul style="list-style-type: none"> Asbestos no-go-area: Previously asbestos has been mined, mainly in a strip to the east and parallel to the Gamagara Corridor. These mines have been decommissioned due to the presence of dangerous substance in asbestos. An area around these mines has been identified where development is prohibited. Expansion of the mining industry should be supported in such a way that its negative impacts are minimised and distressed mining communities are supported.



5.3 INSTITUTIONAL ARRANGEMENTS

The institutional arrangements for the implementation and management of the JGTM SDF are influenced by the following:

- Relevant legislation and policy guidelines
- General institutional arrangements



5.4 LEGISLATIVE AND POLICY GUIDELINES

One of the key issues will be how best to ensure that the various strategies and targets at different spheres of government can be aligned. Currently various initiatives are underway in terms of identifying relevant processes and mechanisms that will assist with alignment. This include ensuring that the spheres of government manages inter relationships.

In terms of a report named Harmonising and Aligning: NSDP, PGDS/PSDF and Municipal Integrated Development Plans (MIDPs), National Government proceeds with the implementation of its development agenda with the premise that co-ordinated government priority setting, resource allocation and implementation require:

- Alignment of strategic development priorities and approaches in all planning and budgeting processes;
- a shared agreement on the nature and characteristics of the space economy; and
- Strategic principles for infrastructure investment and development spending.

Furthermore, the relationships as indicated above should be seen in the context of a set of intergovernmental planning principles, including:

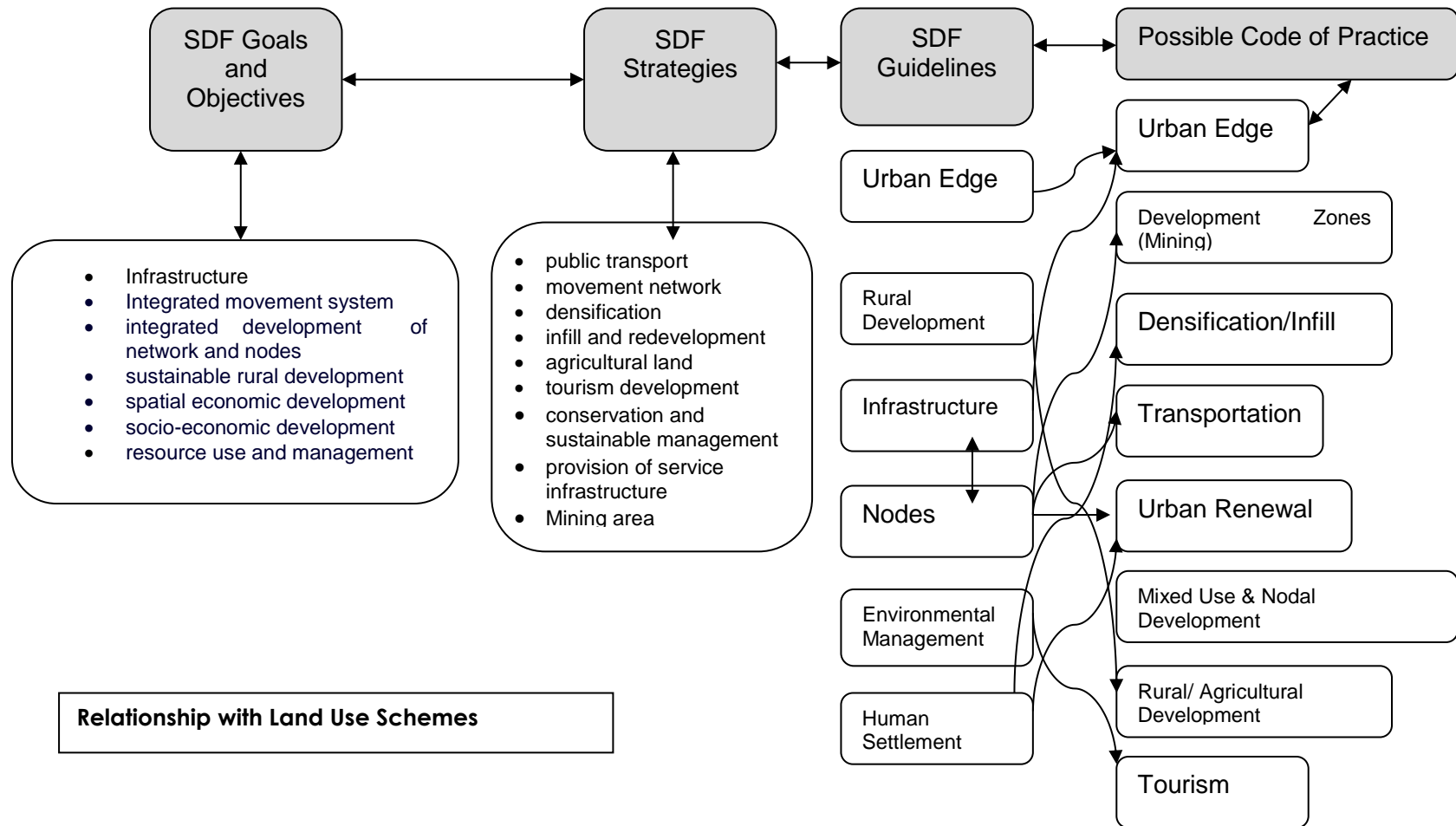
- All spheres and organs of state should promote coordination and integrated planning;
- National development priorities and principles should inform planning for all tiers;
- Each sphere has its own distinct development tasks and related planning task, corresponding to the scale of operations and the area of jurisdiction; and
- The necessary mutual alignment between national priorities or guidelines, sectoral planning requirements and local needs, conditions and resources must be conducted in the spirit of cooperative governance whereby the plans of one sphere should support those in another.

The alignment of strategies is further promoted through the Intergovernmental Relationships Framework Act.



5.5 LAND USE MANAGEMENT

Figure 8.2 illustrates broad alignment between the SDF objectives/strategies and the currently proposed Codes of Practice.



5.6 GENERAL INSTITUTIONAL ARRANGEMENTS

The successful implementation and management of the SDF will require a common approach by the district and its local municipalities to address the following:

- Institutional capacity including:
 - Human and financial resources
 - Co-ordination and co-operation between responsible departments and agencies
 - Administrative performance within specific timeframes
 - Monitoring and evaluation of the system
- Clear and common development policies and regulations
- Land Use Management Systems
- Economic incentives
- Appropriate participation and dispute resolution
- Zero tolerance relating to:
 - The protection of public and private investments
 - The enforcement of regulations and by-laws
 - Rapid response

An important part of the above is how it is institutionally handled to ensure alignment, integration and implementation via the following.

- Ongoing inter-governmental interaction at political and official levels.
- Engaging provincial strategic planning process.
- Do effective marketing and communication of applicable/approved policies/programmes.
- Implementation and enforcement of approved policies.
- Ongoing revision of ineffective and inappropriate policies.
- Enhance existing design guidelines
- Increase the capacity to manage urban areas at a local level.
- Speed up the current integration between spatial, environmental and transportation planning and management.
- Ongoing planning for and management of infrastructure provision together with relevant departments.
- Ongoing alignment of capital budgets



The way forward in terms of the above is discussed on the table below:

Table : Institutional Arrangements		
Component	What needs to be done	Responsibility
District Spatial Development Framework	Strategic guidance Land use policies Highlight areas of intervention	Regular reviews by the DM Land use guidelines need to be detailed by the LMs. The DM and LMs ought to agree on the district wide and local intervention areas
Strategic prioritisation/selection	Programme areas, Local area, key interventions areas Area regeneration projects	The proposed development zones need to be translated into development programmes per LM, indicating priorities and local area regeneration projects
Growth Management Policy (Urban Edge)	<ul style="list-style-type: none"> ○ Service provision standards and cost benefit exercise ○ Land Use and infrastructure coordination. ○ Bulk Service Contributions ○ Land use regulations/LUMS ○ Land availability and infill opportunity investigations ● Urban Design Guidelines 	This is a very important issue that will need to be discussed in a forum that includes provincial, district and local representation. These issues will to a large degree influence the manner in which the district develops.
Local planning	Local SDFs	To be reviewed by LMs
Local Implementation Programmes	Precinct Plans and Area Regeneration projects	To be implemented by the LMs in line with provincial and district priorities and guidelines
Sector alignment	Local SDFs	To be implemented by the LMs in line with provincial and district priorities and guidelines
Financial alignment	Capital Investment Framework (CIF) and IDP budget processes	A coordinated effort is needed between the DM and LMs. It should be facilitated by the DM
Monitoring system	Performance Monitoring and Evaluation	The DM should embark on a process to establish a monitoring process that will provide district and local relevant information and input
Institutional Assessment	Assess institutional capacity to establish readiness	District and the Local Municipalities

5.6.1 INSTITUTIONAL CAPACITY

It should be recognised that a number of institutional elements play a vital role in the achievement of the SDF's overall strategic objectives. These elements include (see Figure 8.3:

- Detailed strategic planning and performance monitoring
- Appropriate human resource and skills development planning
- Putting in place sound planning processes and systems
- Alignment with sector plans

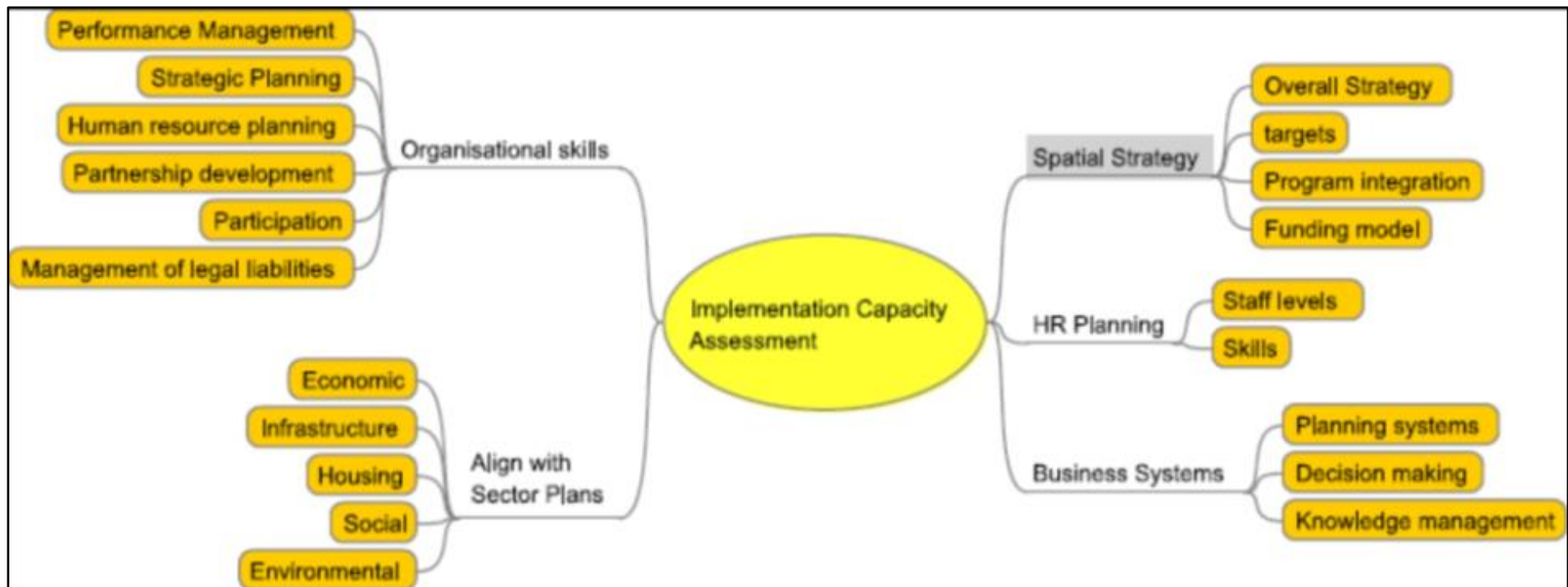


Figure 8.3: Institutional Elements

5.6.2 COLLABORATION AND PARTNERSHIPS

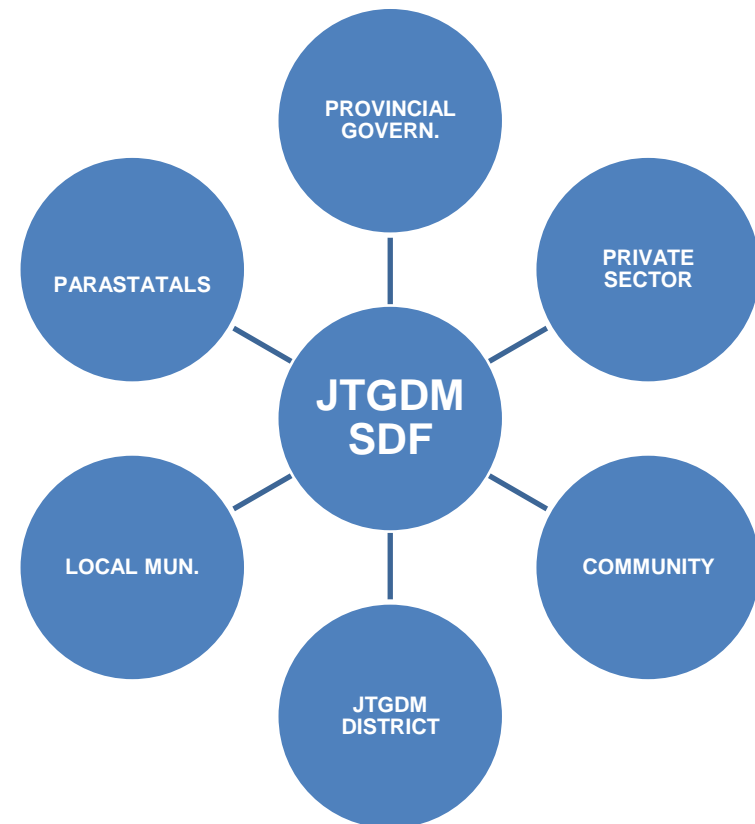
To a large degree, sustainable development is about participation and partnership building. Multi-sectoral partnerships are needed to address the increasing complex environment, social and economic issues that face local communities. Partnership structures or stakeholder groups can take many forms but it is important that there are dedicated structures that can co-ordinate stakeholder involvement. The success of the SDF and will, to a large degree depend on how effectively people work together i.e. those who are involved with managing the process, those who prepare and implement various regulatory processes and those who decide on applications and submissions and those who gives support. The collaboration between these parties rarely happens by chance and the process by which people collaborate to build on common interest will have to be managed.

5.6.3 EVALUATION AND MONITORING

To measure the performance of the SDF, the district needs a set of comprehensive but focused indicators. Initially the indicators will be suitable for area based measurement that can later be refined to site or erf based. Table 8.4 indicates possible indicators that can be used to measure the development performance of the area. The statistics will have to be indicated spatially to assess of the spread and arrangement is in line with the District Structure.

Key to the above is quality and updated information. Ensuring that the collection of development related information related spatial development is accurate and well maintained. This is not only relevant for land use data but also for information pertaining to transportation, infrastructure and services provision information. Most of this information will be located and the local level and consistent co-ordination will be required.

There are a number of processes that need and create data basis and Information Management Systems e.g. Treasury on land values, the Development Application System, Integrated Infrastructure Plan etc. Well managed and accessible information will save time and costs and ease the planning and project packaging process



Theme	Outcome	Indicators
Demographics	To ensure a Variety and mix of income levels, population density and employment	<ul style="list-style-type: none"> • Income levels <ul style="list-style-type: none"> ○ Type of employment • Population density
Land use	To encourage compact development	<ul style="list-style-type: none"> • Type and number of uses <ul style="list-style-type: none"> ○ Mix of uses • Footprint of especially nodal areas
Housing	To promote a variety and mix of housing typologies and densities	<ul style="list-style-type: none"> • Single family dwelling density <ul style="list-style-type: none"> ○ Multi family dwelling density ○ Type of density applications approved • Community facility supply
Employment	To encourage a variety of employment opportunities in the community	<ul style="list-style-type: none"> • Employment to population balance <ul style="list-style-type: none"> ○ Employment density ○ Commercial building density • Transportation proximity to employment
Recreation	To ensure that adequate space is supplied in close proximity to residential areas and accessible through either public transport or a pedestrian network.	<ul style="list-style-type: none"> • Park space supply <ul style="list-style-type: none"> ○ Proximity of parks to density. • Accessibility of parks
Environment	To promote sustainable and environmental friendly practices	<ul style="list-style-type: none"> • Pollutant emissions <ul style="list-style-type: none"> ○ Open space share ○ Open space connectivity ○ Storm water runoff • Floodplain encroachment
Travel	To ensure optimum accessibility and provision of a variety of travel modes at nodal points.	<ul style="list-style-type: none"> • Number of vehicle kilometres travelled • Number of vehicle trips <ul style="list-style-type: none"> ○ Internal street connectivity ○ Public transport services cover ○ Pedestrian network coverage ○ Pedestrian intersection safety

5.7 CAPITAL INVESTMENT FRAMEWORK

One of the most neglected components of spatial development frameworks is the capital investment framework to support the implementation of the SDF. This is also a specific requirement of SDFs as outlined in SPLUMA Act. To address this aspect, all planned capital projects must be reflected in the IDP of the JTGD and its constituent local municipalities and spatially captured (where possible) to enable a comparison of the spatial distribution of capital projects with the overall development proposals. There is clearly a need to consider the location and timing of key infrastructure projects during the IDP review processes to achieve improved integration and alignment with the SDF proposals.

PRIORITY ACTION/ PROJECT	RESPONSIBILITY	COST	PRIORITY		
			SHORT	MEDIUM	LONG
ENVIRONMENT					
Implementation of the District Environmental Management Plan, with special focus on mining activity rehabilitation.	JTGDM	In-house/ Operational	√	√	√
NODAL HIERARCHY					
Establish nodal hierarchy concept in JTGDM and with local municipalities, and align infrastructure development and funding allocation accordingly.	JTGDM/Local Mun Provincial/ National Government	Operational	√	√	√
Compile Precinct Plans for key nodal point		R500 000/Node	√		
Compile Urban Renewal Strategies for three CBD's as identified in triangle.		R700 000/CDB	√		
TRANSPORTATION					
Facilitate/Monitor/Prioritise proposed route construction/upgrading programme.	JTGDM (Technical Div.)	T.B.D. by feasibility	√	√	√
Upgrade major bus/taxi ranks in nodal areas.	JTGDM (Technical Div.)	T.B.D. by feasibility	√	√	
Expand/align public transport network	JTGDM (Technical Div.)	T.B.D. by feasibility	√	√	
TOURISM					
Implement Tourism Branding and Signage Strategy	JTGDM/Local Mun.	R500 000	√		
Develop JGTDM Tourism Network and Tourism Facilities	JTGDM/Local Mun/NCDENC	R900 000	√	√	
Establish Institutional Structure to monitor/facilitate implementation (public-private)		In-house	√	√	√
AGRICULTURE					
Protect high potential agricultural areas.	JTGDM/Local Mun/NCDENC	In-house	√	√	√
Precinct Plans at key Rural Nodes.	JTGDM	R450 000/Node	√		
Establish Institutional Structure to assist small farmers.	JTGDM/Local Mun/ DRDLR	In-house	√		
Facilitate establishment of agro industries.	JTGDM/DRDLR	In-house	√		
Upgrade/maintain rural district roads	JTGDM/Local Mun/NCDRPW	T.B.D. by designs	√	√	√



PRIORITY ACTION/ PROJECT	RESPONSIBILITY	COST	PRIORITY		
			SHORT	MEDIUM	LONG
MINING					
Establish District-Provincial forum to assess mining license applications (and comment on these) in line with the requirements of the proposed Environmental Management Plan	JTGDM/Local Mun/NCDENC	In-house	√	√	√
Liaise with mining houses regarding rehabilitation of old mining (e.g. Asbestos)	JTGDM/Local Mun/NCDENC	In-house	√	√	√
BUSINESS AREAS					
Compile CBD/Small Town Revitalisation Strategies in areas of urban decay.	JTGDM/Local Mun/ Provincial/ National Government	R500 000/Node	√		
Establish Fresh Produce Markets close to Rural Nodal Points.	JTGDM/Local Mun/ DRDLR	T.B.D. by feasibility	√	√	
HUMAN SETTLEMENT					
Implement JTGDM Sustainable Human Settlement Plan housing priorities in SDA's.	JTGDM/Local Mun/ NCCoghsta	Continuous	√	√	√
Pre-actively prepare SDA's for development	JTGDM/Local Mun/ NCCoghsta	Continuous	√	√	√
Focus on Social Housing opportunities in nodal Precinct Plans	JTGDM/Local Mun/ NCCoghsta/Private Sector	Continuous	√	√	√
GROWTH MANAGEMENT					
Confirm/Formalise Consolidated District Urban Edge.	JTGDM/Local Mun/	In-house	√		
Formalise settlements	JTGDM/Local Mun/ NCCoghsta	R1 500 000/ settlement	√	√	
ENGINEERING SERVICE INFRASTRUCTURE					
Allocate dedicated funding for water, sanitation and electricity infrastructure to: <ul style="list-style-type: none">the Service Upgrading Priority Areas to achieve minimum levels of service;in Strategic Development areas earmarked for large scale development in order to facilitate integration of communities; andNodal Areas/Corridors to promote economic development and job creation.	JTGDM/Local Mun/NCDRPW	Annual Allocations	√	√	√
			√	√	√
			√	√	√
THUSONG SERVICE CENTRE DEVELOPMENT					
Conduct a district wide Community Facility Audit and compile a Thusong Centre/MPCC Precinct Plan and Implementation Strategy/Programme for each of the Tertiary/Rural Nodes per local municipality.	JTGDM	R1 200 000	√		
All provincial and national service departments to align their capital programmes in accordance with the Thusong/MPCC Strategy.		Annual Allocations	√	√	√



