

# **JOHN TAOLO GAETSEWE DISTRICT MUNICIPALITY**



## **DISTRICT INTEGRATED TRANSPORT PLAN**

**2023/2024 DRAFT**

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## EXECUTIVE SUMMARY

This report constitutes the sixth ITP review for the John Taolo Gaetsewe District addressing all the chapters specified by the Department of Transport ITP Minimum. The Integrated Transport Plan (ITP) is a statutory plan required by the National Land Transport Act No. 5 of 2009 and the Gauteng Transport Framework Revision Act, Act No. 8 of 2002 to guide transport development and operations in the JTG Region. It forms an integral component of the Integrated Development Plan (IDP).

The legislative requirements regarding the preparation of ITP have now changed with the final Act, the National Land Transport Act (NLTA), Act No. 05 of 2009. The JTG district has been categorized as Type 2 Planning Authorities in terms of the Minimum Requirements for the Preparation of Transport Plans. Type 2 Planning Authorities are the district municipalities designated by the Department of Transport to develop and upgrade their public transport systems.

In this report, the District will explore in detail how it will build on its progress towards achieving sustainable integrated transport. In this way, a step change will be achieved by prioritising the right development in the right locations, along major road and activity route in the district. This approach, coupled with a focus on public transport (PT), non-motorised transport (NMT), Travel Demand Management (TDM) and Road Asset Management System will reduce travel times and costs, deliver important environmental benefits. This report therefore sets out the district's ambitious but deliverable plans for transport within the wider context of its drive to create an equal society based on integrated communities, economic inclusion and access to opportunities in the John Taolo Gaetsewe Region.

Integrated Transport Plan is legally deemed to be the Transport Component of the IDP. The ITP should be prepared/ reviewed every 5 years and updated annually and integrated with the IDP process.

This report will cover the following chapters:

1. Introduction
2. Vision, Goals and Objectives
3. Transport Register
4. Spatial Development Framework
5. Transport Needs Assessment
6. Rationalisation of Taxis
7. Rationalisation of Buses
8. Other Transport Strategies
9. Summary of LITPS
10. Funding strategy, summary of proposals and programmes

# CHAPTER 1: INTRODUCTION

## 1.1. BACKGROUND

In terms of Chapter 4 (Transport Planning) of the National Land Transport Act (NLTA), Act No 5 of 2009, the following plans are required:

- a) National Land Transport Strategic Framework (NLTSF) prepared by the Minister;
- b) Provincial Land Transport Frameworks (PLTF) prepared by the MECs; and
- c) Integrated Transport Plans (ITPs) prepared by Planning Authorities.

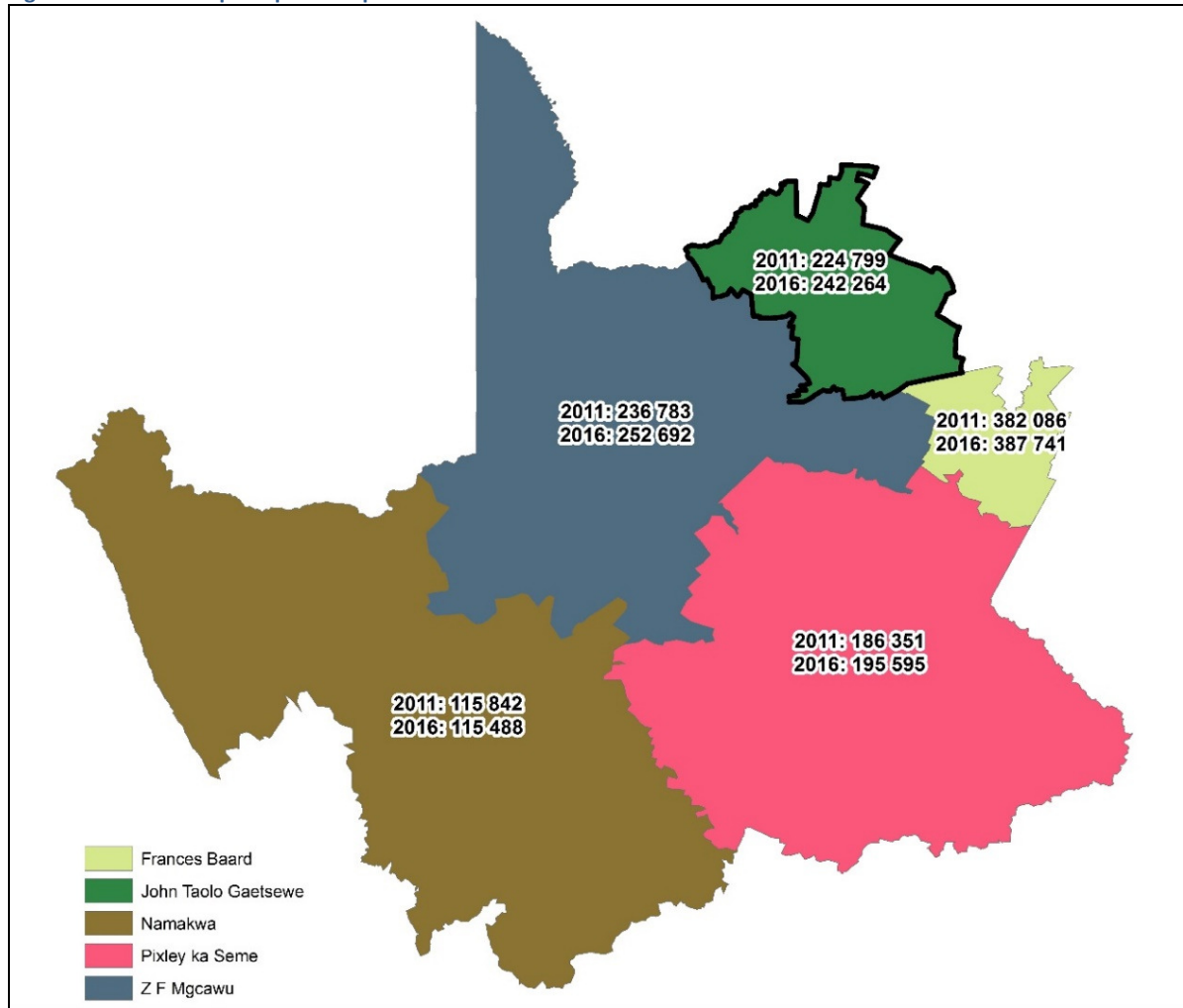
Although there are some parts which were removed from the act (such as Current Public Transport Records, Operating Licenses Strategies, Rationalisation Plans, and Public Transport Plans), these have been incorporated into the Integrated Transport Plan (ITP) in terms of Section 27(3) of the National Land Transport Transition Act of 2000. The public Transport Plans have however been replaced by Accelerated Modal Upgrading (AMU) in District Municipalities (Type 2 Planning Authorities), and Integrated Rapid Public Transport Networks (IRPTNs) in Cities (Type 1 Planning Authorities).

It is on this basis that the John Taolo Gaetsewe District Municipality (JTGDM) is legislated to review the District Integrated Transport Plan for the 2023/2024 financial year. This review includes the Current Public Transport Records as stipulated by the Planning Requirements, as well as the formulation of a Transport Register in terms of the Government Gazette 23659 of 24 July 2002. The primary objective of this CPTR process is to continue to identify over- and under-supply by routes and route sections and also to quantify the state of public transport within a planning area. The data collected at inception will also provide the municipality with an overview of the public transport system within their municipal boundaries and provide a basis for the requirements of rationalisation of taxis and buses.

## 1.2. FOCUS AREA

The John Taolo Gaetsewe District Municipality (DC45) is one of the five (5) district municipalities in the Northern Cape Province. It is the third largest district in the province in terms of population size and accounts for 20.3% of the total population of the province.

Figure 1: Northern Cape Population per District

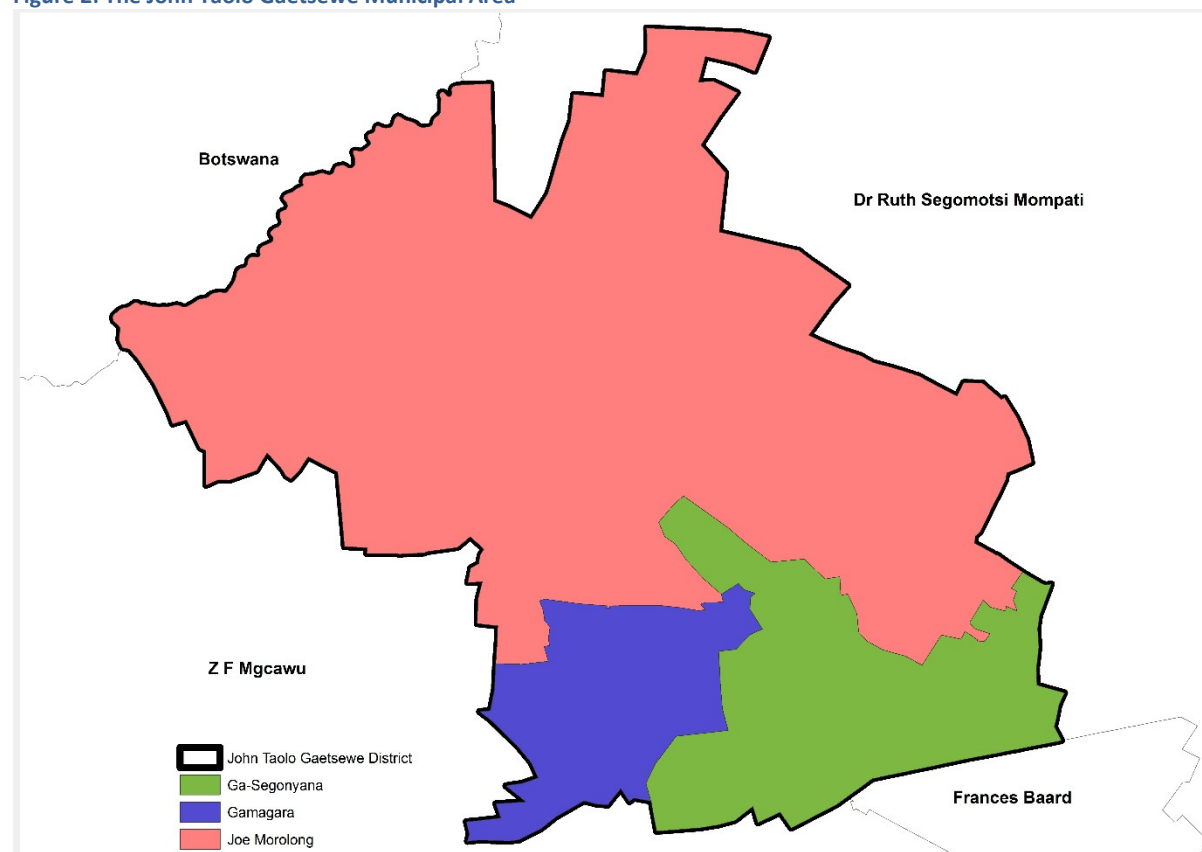


Source: StatsSA 2011 & 2016

There are a total of 33 wards in the JTGD area i.e. Gamagara LM (5 wards), Joe Morolong LM (15 wards) and Ga-Segonyana LM (13 wards). The JTGD 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 John Taolo Gaetsewe District Municipality covers a geographical area of approximately 27 498.9 km<sup>2</sup> and comprises three (3) local municipalities: (1) The Gamagara Local Municipality; (2) The Ga-Segonyana Local Municipality; and (3) The Joe Morolong Local Municipality

**Figure 2: The John Taolo Gaetsewe Municipal Area**



Source: JTGDM SDF Review 2017

Municipality	Main Area	Seat	Wards	Area/ Km2	Population	Density Population/ km2	Main Economic Sectors
Joe Morolong	Hotazel Churchill Santoy ,	Churchill	15	20172	84201	402	Eco-tourism, agriculture, mining and community
Ga-Segonyana	Kuruman, Mothibistad, Batlharos Bodulong &Bankhara	Kuruman	13	4 492	104 408	23.2	Mining, Agriculture and Community Services
Gamagara	Kathu, Dibeng Olifantshoek	Kathu	5	2 619	53 656	20.5	Mining, Gam Farming and business

### 1.3. PLANNING AUTHORITY

It needs to be noted that for the purpose of transport planning, three types of planning authorities are distinguished. The types of integrated transport plan to be prepared by these planning authorities are as follows:

- **Type 1 Planning Authorities:** These include transport authorities, core cities, metropolitan municipalities and larger district municipalities designated as Type 1 by the MEC. These planning authorities shall prepare a Comprehensive Integrated Transport Plan (CITP).
- **Type 2 Planning Authorities:** These include all other district municipalities designated as Type 2 by the MEC which are required to prepare a District Integrated Transport Plan (DITP).
- **Type 3 Planning Authorities:** These include all local municipalities designated as Type 3 by the MEC and are required prepare a Local Integrated Transport Plan (LITP).

In terms of Section 36(1) of the NLTA, planning authorities are required by the Member of the Executive Council (MEC) to prepare and submit ITPs for their respective areas for the five-year period commencing on the first day of that financial year and must update them in the prescribed manner and as frequently as prescribed by the MEC.

In light of the above, John Taolo Gaetsewe District Municipality is considered as a Type 2 Planning Authority and hence it is required that the District prepares and reviews a DITP, which makes provision for the transport requirements of all its local municipalities.

### 1.4. PERIOD OF PLANNING

The CPTR data for John Taolo Gaetsewe District Municipality was collected in November 2014. The data collected in the CPTR process quantifies existing ridership volumes in relation to the supply of services.

- A programme for site visits of all the public transport facilities within the John Taolo Gaetsewe District Municipality was drafted and the following could be established:
  - 1) Public transport operators for the taxi and bus modes o Public transport facilities for the taxi and bus modes
  - 2) Public transport operators utilizing facilities in the entire John Taolo Gaetsewe District Municipality region
  - 3) Public transport routes serviced by operators o Destinations served by various routes

## **1.5. PLANS PREPARATION**

The ITP requirements encourage an incremental approach for preparing transport plans. A maximum of three transport plans are required for transport planning in the country. These plans include:

- One at national level
- One at provincial level
- One at local level

The required plans and progress made are briefly described below.

### **1.5.1. National Land Transport Strategic Framework (NLTsf)**

The draft National Land Transport Strategic Framework (NLTsf) was made available in March 2002 by the National Department of Transport. This document sets out national policy on land transport in terms of prioritisation of public transport, formalisation of the taxi industry, corporation of the bus industry and integration aspects, among other policies. It further discusses general strategies on land transport including, inter alia, the promotion of efficient and sustainable transport, decisive freight transport, support for tourism, and integration aspects.

### **1.5.2. Provincial Land Transport Framework (PLTF)**

The Provincial Land Transport Framework (PLTF) could not be obtained from the Northern Cape Provincial Government: Department of Transport, Safety and Liaison. It is understood that the process of compiling the PLTF started in 2011 but could not be completed. However, the compilation of the Northern Cape PLTF is presently in progress. The PLTF intends to address the following:

- Chapter 1: Introduction
- Chapter 2: Process and Consultation
- Chapter 3: Transport Vision, Policy and Objectives
- Chapter 4: Status Quo of Transport in the Province
- Chapter 5: Integrated Transport Plans
- Chapter 6: Integrated Development Framework
- Chapter 7: Public Transport Strategy
- Chapter 8: Non-motorised and Environmentally Sustainable Transport
- Chapter 9: Transport Infrastructure Strategy
- Chapter 10: Transport Management Strategy
- Chapter 11: Tourism
- Chapter 12: Funding
- Chapter 13: Transport Monitoring
- Chapter 14: Coordination Structures and Measures, Liaison and Conflict

As noted in the chapters which were supposed to be completed, the PLTF would have been developed within the National Transport Policy Frameworks and would have made provision for co-ordinated measures and structures within the Province. It would have further made provision for transport strategies including public transport, non-motorised transport, transport infrastructure, transport facilities, tourism aspects, and management aspects, funding aspects and monitoring aspects. These would have assisted in putting a frame around which the District Transport Plans would be developed.

However, it is expressed in the National Transport Master Plan (NATMAP) for 2050 that the PLTF for the Northern Cape was developed in 2003.

### **1.5.3. Integrated Transport Plan (ITP)**

The Integrated Transport Plan (ITP) is planning document that seeks to resolve transport issues and problems in accordance with the goals and objectives of the Planning Authority. The bases of the formulation of the ITP are the plans stated below.

#### **I. Current Public Transport Record (CPTR)**

The Current Public Transport Record (CPTR) relates to data collected on site and includes routes, facilities and stops of all modes of transport within a municipality. The CPTR also provides the basis for operator information, services provided, waiting times at facilities, capacity of routes and facilities and their utilization.

The JTGDM has prepared the CPTR as part of the DITP. The CPTR data collected has formed the basis for the Transport Register, Rationalisation of Taxis and Rationalisation of Buses Sections of the District Integrated Transport Plan for the JTGDM.

#### **II. Operating Licenses Strategy (OLS)**

The Rationalisation of Taxis, previously referred to as Operating Licenses Strategy (OLS), is prepared to set out and consider the parameters and criteria which are to be used by Planning Authorities to make recommendations to the Provincial Regulatory Entity (PRE), previously referred to as Operating Licensing Board (OLB), which will enable that Entity ("Board"), in disposing of applications regarding operating licenses, to achieve a balance between public transport supply and utilization that is both effective and efficient, and which is in response to customer needs. The license issued will afford the applicant to operate a particular mode of transport on a specific route(s). The JTGDM has prepared the OLS as part of the DITP.

#### **III. Rationalization Plan (RATPLAN)**

The Rationalization Plan (RATPLAN) is also prepared to set out and consider the parameters and criteria which are to be used by Planning Authorities to make recommendations to the Provincial Government which will enable that Province, in putting out contracts or concessions to tender regarding subsidised public transport services, to achieve a balance between public transport supply and utilisation that is both effective and efficient, and which is in response to customer needs. The contracts tendered will afford the applicant to operate a particular mode of transport on specific route(s). The JTGDM has prepared the RATPLAN as part of the DITP.

The above mentioned plans, i.e. CPTR, OLS and RATPLAN, have been prepared as separate documents and should be read in conjunction with the DITP. The DITP will culminate in the short-term rolling plan and strategic plan for all forms of transport within the District Municipality. It further provides financial plan for the Medium Term Expenditure Framework and provides a means for monitoring of implementation.

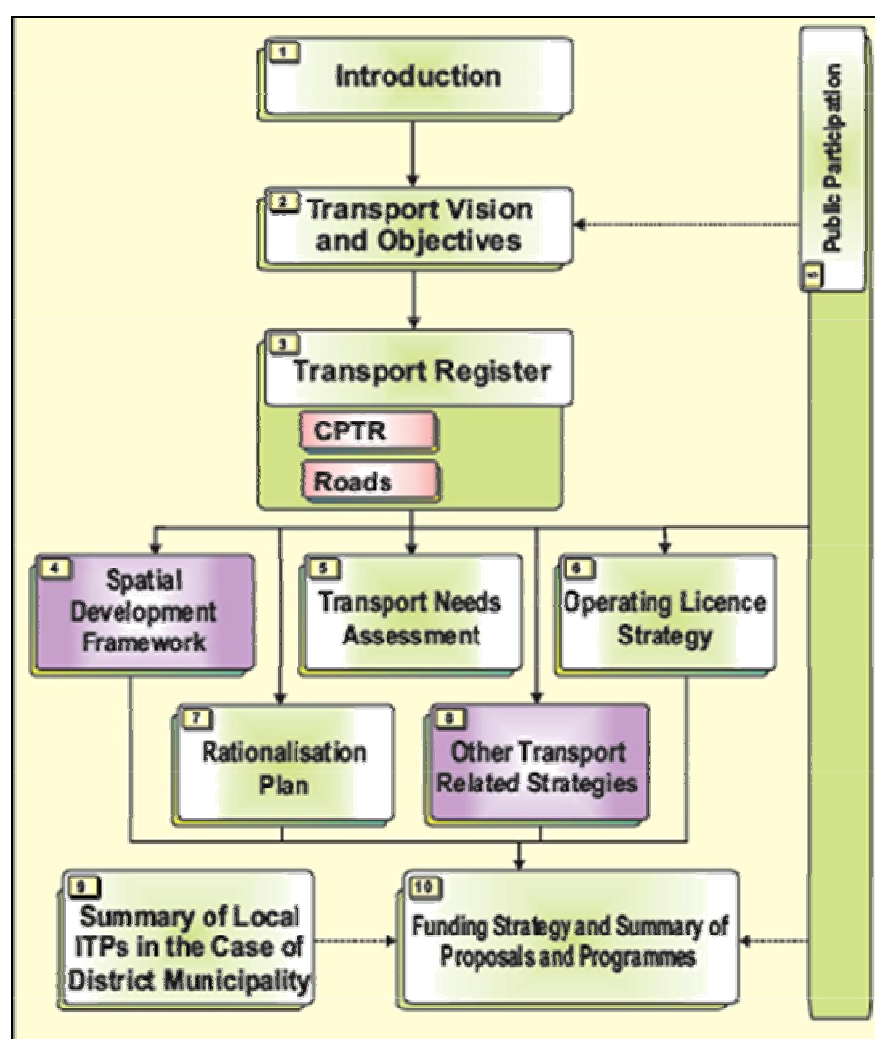


## 1.6. DOCUMENT LAYOUT

This DITP has been prepared for John Taolo Gaetsewe District Municipality under the auspices of Northern Cape Provincial Government: Department of Transport, Liaison and Safety. The DITP consists of ten chapters which address the requirements of the NLTA, Section 36.

The structure of the District Integrated Transport Plan (DITP) is shown in Figure 1.2. As noted, the following chapters have been prepared as separate additional chapters:

- Spatial Development Framework
- Other Transport Related Strategies



As noted, the Public Participation Process forms part of Chapter 5: Transport Needs Assessment, and has not been provided for separately.

## **1.7. PREVIOUS ITPS**

The Integrated Transport Plan for John Taolo Gaetsewe District Municipality was carried out in 2005 under the name Kgalagadi District Municipality. The proposals and recommendations of this ITP are discussed hereunder and will be used as indicators for achievement in terms of new proposals to be put forward.

### **1.7.1 DITP of 2005**

The following proposals on land transport were made:

The dependency on non-motorised transport is an indication of the relative poverty in the area. The influence of public transport is thus relatively low in the Kgalagadi District Municipality (KDM) now John Taolo Gaetsewe DM (JTGDM). In planning public transport services it is important that this is taken into account, by ensuring that the fares are kept to a minimum.

- **Conceptual Public Transport System**

It was recommended that once approved, the KDM now JTGDM should develop an implementation strategy for the conceptual public transport system. This included actions, such as:

- Inclusion of the proposals into the IDP's of local municipalities.
- Detailed needs analysis for public transport services
- Determination of the level of service and scheduling for the public transport services
- Implementation plan to change the current public transport services to the proposed future services
- With regard to the modal transfer facilities (see Section 8.1.2); land needs to be identified for the purpose of developing these.

- **Bus Transport Operations**

Some short-term objectives for the bus system emanating from the CPTR and RatPlan were set out as below:

- To determine the strategic role of bus services and the development of a regional public transport strategy.
- To prepare proposals for the rationalization of existing bus services over a two to four year period.
- To monitor the tendered bus services with a view to maintaining the CPTR.

- **Taxi Transport Operation**

The CPTR, OLS and other investigations have highlighted a number of problems relating to mini-bus taxi services, which are common throughout the country. In order to address the problems the industry needed to be formalized and regulated and law enforcement needed to be improved. However, the objective set in this plan was long term and was not attainable without the necessary powers being vested in the District. Likewise, the strategies suggested relied on long-term policy changes, which were in the hands of national and provincial government. The strategy relied on

persuasion and co-operative governance, which could not be given effect without commitment by all parties to the necessary joint funding and commitment to law enforcement.

It was suggested that the short-term focus should be based on the following objectives:

- To aim to address the issuing of permits in a regulated and coordinated manner and to address radius permits, duplicate permits and permits that have been issued on routes not recognised by the taxi associations.
- To implement a “single issuing OLB” responsible for the management of permits in the
- To plan a specific management and law enforcement strategy supported by a joint initiative by all provincial and municipal transport and traffic.

### **Private Transport and Freight Proposals**

In terms of private and freight transport the following proposals and recommendations were made:

- Develop a strategy for the planning and implementation of safe cycle and pedestrian facilities.
- Implement a road maintenance plan based on the PMS's currently developed for the NW and NC Provinces.
- Road maintenance programmes should be prioritized taking the needs of the public transport system into account.
- Investigate the need for overload control in the District.

**Accessible Transport:** It was recommended that, in order to adequately address the needs of persons with disabilities the following should be considered:

- Public Transport

Any new vehicles procured should conform to the needs of persons with disabilities. This included aspects such as low floors and ramps for wheel chairs.

- Private Transport

- Sidewalks

Establish norms and standards for the inclusions or not of sidewalks on all classes of roads throughout the District. Conduct an inventory of existing conditions and prepare a prioritized program to correct deficiencies. Priority should be given to areas in support of public transport accessibility improvement programs. Ensure that all new construction programs conform to the established norms and standards.

- Intersections and Pedestrian Crossings

Establish norms and standards for the design of intersections and pedestrian crossings on all major roads in the District. Conduct an inventory of existing conditions and prepare a

prioritized program to correct deficiencies. Priority should be given to areas in support of public transport accessibility improvement programs. Ensure that all new construction programs conform to the established norms and standards.

The transport planning proposals formed in the last John Taolo Gaetsewe District Municipality ITP have been discussed in section 1.7.1 above. The province is aligned to its ITP proposals and is presently in the planning and implementing process of all the proposals.

## 2. CHAPTER 2: VISION, GOALS AND OBJECTIVES

### 2.1. BACKGROUND

The land transport vision, goals and objectives have been developed and included in the Kgalagadi District Municipality (currently John Taolo Gaetsewe DM) ITP of 2005, however, this ITP look at the JTGDM vision, goals and objectives. As already stated, the Provincial Land Transport Framework is still in the process of development and hence transport vision has not been fully set by the Province to guide the Municipalities. Be it as it may, John Taolo Gaetsewe District Municipality recognises the need to support, promote and plan for public transport in its area of jurisdiction.

It is important to note that the vision should outline what the District wants to be, or how it wants the world in which it operates to be (an "idealised" view of the world). It is a long-term view and concentrates on the future. It can be emotive and is a source of inspiration.

### 2.2. TRANSPORT VISION

It is important to note that the main purpose of the vision statement is to link the present situation with the future situation. It therefore guides the prioritization of needs, setting of objectives and implementation of interventions. As stated in the District IDP, the overall vision statement of John Taolo Gaetsewe District Municipality is:

***“A global centre of excellence for environmentally sustainable, innovative and competitive iron ore and manganese mining and steel beneficiation that anchors a diversified and inclusive economy with an empowered and prosperous local community.”***

In line with the above vision, the John Taolo Gaetsewe District Municipality sees itself as a focused municipality that strives to improve the quality of life of its communities through development. The vision of the District Municipality reflects its commitment to the ideal of an integrated, development-focused district, and is built on the following municipal core values:

- **Development** – strive for the development of the district and its people, while also striving for own personal development;¶
- **Commitment** – stay committed to the vision of the John Taolo Gaetsewe DM and to serving the people of the district in whatever you do;¶
- **Care** – to show empathy and care towards others, while striving to promote a positive working atmosphere; and¶
- **Integrity** – stay true to whatever you commit to, performing your duties to the best of your ability, while conducting yourself professionally at all times.¶

It can be noted that the above vision and mission statements indirectly addresses the transport vision and it can be developed around the overall District vision. The vision statement complements the district mission statement: “Accelerating the implementation of integrated development initiatives and providing support to local municipalities”, which

reflects what the municipality will do in an on-going manner to constantly striving towards achieving its vision.

The District's vision is comparable to the National Department of Transport vision as set out in the White Paper on National Transport Policy (1996) which foresees a system which will:

*Provide safe, reliable, effective, efficient, and fully integrated transport operations and infrastructure which will best meet the needs of freight and passenger customers at improving levels of service and cost in a fashion which supports government strategies for economic and social development whilst being environmentally and economically sustainable"*¶

The NDOT vision is further complemented by the Moving South Africa – the Action Agenda and which states that:

*By 2020, transport in South Africa will meet the needs of freight and passenger customers for accessible, affordable, safe, frequent, high quality, reliable, efficient and seamless transport operations and infrastructure.*

Although it can be argued that "improve the quality of life" will in essence capture all aspects of an idealised system, it needs to be highlighted that the following important aspects of transport have not been captured in the District's vision and mission statements:

- Accessibility
- Safety

It is proposed that the transport vision that will be developed by the Province in compiling its PLTF capture the above and also be filtered to the District as a transport planning authority.

We believe that with a clear transport vision in the District, the development of transport system will definitely contribute to serving as one of the inciting causes of "improve the quality of life" through added value of revolutionary ideas.

## **2.3. TRANSPORT GOALS**

A goal is perceived as the state of affairs that a plan is intended to achieve and that (when achieved) terminates behaviour intended to achieve it. It is basically an idealized end-state of the transport system, in this instance, for which planners would strive towards. The goals hence provide a focus towards the vision of the Municipality.

### 2.3.1. National Goals

The planning authority's goals must be described and analysed in relation to the White Paper on National Transport Policy. The broad goals formulated in the White Paper are:

- a) To support the goals of the Reconstruction and Development Programme for meeting basic needs, growing the economy, developing human resources, and democratising decision making.

It is noted that the South African transportation system is inadequate to meet the basic accessibility needs (to work, health care, schools and shops) in many developing rural and urban areas. Small scale and subsistence farmers in many rural areas find it difficult to transport products and other commodities to and from markets.

This applies to JTGDM, as the District needs development with both transport services and infrastructure as it was indicated during the stakeholders' consultation session that there should be proper and safe vehicles used to transport farm owners' employees.

- b) To enable customers requiring transport for people or goods to access the transport systems in ways which best satisfy their chosen criteria.

The key focus of this policy aspect is on meeting customer needs. The needs of the customers should be determined and be provided for by a transparent, consultative, coordinated and accountable process, based on comprehensive information. Responsive to inputs from customers, key customer groups should be identified, and assessments made of their individual needs and how these can best be met.

It is essential for JTGDM to form a Transport Forum with Technical Working Groups to address community and customer needs at the forum and working group levels. This will address issues such as reviewing the best way to make use of sedan vehicles and light delivery vehicles as public transport in areas with challenging access.

- c) To improve the safety, security, reliability, quality, and speed of transporting goods and people.

The safety, security, and quality of service of most transport modes are currently improper. The government is committed to a concentrated and integrated effort to bring them into line with international best practice. Particular attention will be paid to road safety.

- d) To improve South Africa's competitiveness and that of its transport infrastructure and operations through greater effectiveness and efficiency to better meet the needs of different customer groups, both locally and globally.

This policy aspect puts South Africa on the map and in turn the Provinces, Districts and Municipalities. The District needs to improve its competitiveness in national trade by ensuring that its competitive advantages can be accessed and marketed. The transport element of the cost of agricultural products, raw materials, and manufactured goods can be a significant and deterring proportion of the final cost of both exports and imports.

It is against this background that the District needs to improve on its rural access, especially in line with the District SDF on agricultural development areas.

- e) To invest in infrastructure or transport systems in ways which satisfy social, economic, or strategic investment criteria.

Given the long-term nature of investments in transport infrastructure and systems, the District must build a strong financial base for the creation, maintenance and upgrading of transport infrastructure. It is important that investment be made on building infrastructure in the right places and of the right kind, which will serve the needs of the society and the economy.

It is noted that this is not a walk on the park as economic and social aspects needs to be balanced. For instance, how well the district could position itself to enhance its economic activity against Bloemfontein and Upinton.

- f) To achieve the above objectives in a manner that is economically and environmentally sustainable, and minimises negative side effects.

Environmental sustainability will be a key measure in investment decisions. Investments in infrastructure, which will not build economic efficiency or where infrastructure is unsustainable, should be discouraged. Investments in infrastructure, which promote energy efficiency, and the least consumption of resources, will be favoured.

This applies equally well to the type of modes used to transport customers over certain distances in terms of non-renewable energy sources and carbon print.

It can be noted, as highlighted above, that accessibility, access and safety are key in achieving a transport system that is:

- Integrated
- Efficient and effective
- Affordable
- Frequent, high quality and reliable

### **2.3.2. District Goals**

Whist the goals set at national level are broad and cut across sectors, we propose that the District Municipality consider the following concise objectives in line with different sectors which play a role in the transport industry:

- 1) Transport Infrastructure : To co-ordinate, facilitate and provide efficient and effective transport infrastructure for all private, public passenger and freight transport.



- 2) Financial Framework : To ensure a sustainable financial dispensation for the transport function.
- 3) Institutional Framework : To ensure that transport is managed within a sound institutional framework.
- 4) Planning and Co-ordination : To ensure that municipal transport planning and co-ordination procedures are developed and applied.
- 5) Transport Service Provision : To co-ordinate, implement, monitor and regulate efficient and effective public transport services and facilities within a balanced market demand and supply framework.
- 6) Regulation and Competition : To ensure that freight transport can be provided in a free competitive market environment, but within an orderly technical regulated system that would protect transport infrastructure and other users.
- 7) Traffic Control and Safety : To improve traffic management and safety through co-ordinated planning, maintenance, education and law enforcement actions.
- 8) Social and Customer Care : To minimise the constraints to the mobility of customers, maximising speed and service, while allowing customers the choice of transport mode or combination of transport modes where it is economically and financially viable to offer a choice of modes.
- 9) Environmental Sensitivity : To commit to an integrated environmental management approach in the provision of transport so as to minimise damage to the physical and social environment, inter-alia through atmospheric or noise pollution, ecologic damage, and severance in providing transportation infrastructure, operations and services.

## 2.4. TRANSPORT OBJECTIVES

An objective is a target that leads to the set goal. It is believed to be attainable and also provides the focus towards the vision of the Municipality. In order to achieve the vision and goals set, objectives that will guide transport planning within the District need to be formulated.

Fortunately, the White Paper on National Transport Policy (1996) has set objectives that will guide transportation planning. These objectives, to a large extent, attempt to resolve Transportation problems and issues within John Taolo Gaetsewe District Municipality and at National Level. The objectives have been restructured so as to be in line with problems and issues identified. However, these objectives set for the District Municipality's goals have not yet been tested for suitability and applicability for the District Municipality.

### 2.4.1. Transport Infrastructure

The following objectives related to transport infrastructure goal have been set:

- a) To maintain and develop cost effective and sustainable transportation infrastructure and facilities
- b) To ensure that transport infrastructure provision is economically viable and requires minimum financial support
- c) To provide and maintain transport infrastructure in support of the demand for passenger and goods transport

- d) To provide transport infrastructure to enhance the competition of the industry and to protect people and goods in terms of safety and security, reliability and mobility
- e) To encourage, promote and plan for the use of non-motorized transport where appropriate
- f) To encourage more efficient urban land use structures, correcting spatial imbalances and reducing travel distances and times for commuting to a limit of
  - a.  $\pm 60$  km or 1 hour in each direction
- g) To promote the use of public transport over private car travel, with the goal of achieving a ratio of 80:20 between public transport and private car usage
- h) To advance human resource development in the provision of transport infrastructure
- i) To prioritize projects in terms of sustainable economic and development needs

#### **2.4.2. Financial Framework**

The following objectives related to financial framework goal have been set:

- a) To identify and exploit appropriate funding sources that would allow sustainable and cost effective investment in the provincial and local transport systems
- b) To build capacity within planning authorities in terms of financial resources that would allow them to carry out their responsibilities
- c) To manage revenues and expenditures according to accepted and prescribed government financial procedures and budgetary processes
- d) To ensure appropriate and sustainable subsidisation for public passenger transport services

#### **2.4.3. Institutional Framework**

The following objectives related to institutional framework goal have been set:

- a) To clarify the roles and responsibilities of transport planning, implementation and management at provincial and local sphere of government
- b) To provide appropriate institutional structures, which facilitate the effective and efficient planning, implementation, funding, regulation and law enforcement of the public transport system, devolved to the lowest competent level
- c) To establish an institutional framework that suits the circumstances within the Northern Cape Province and its Districts
- d) To establish and support Planning Authorities on local sphere of government
- e) To embark upon a process of capacity building of both the planning authorities and transport industry

#### **2.4.4. Planning and Co-ordination**

The following objectives related to planning and coordination goal have been set:

- a) To set up transport forums at District level so as to coordinate and support municipalities under the auspices of the Provincial Government.

- b) To establish working groups to deal with specific aspects on policy formulation, transport planning, land use and integration, modal integration and other modes of transport
- c) To establish a transport advisory committee to facilitate wider involvement of role-players and stakeholders
- d) To resolve possible conflicts between provincial and municipal transport and land use planning

#### **2.4.5. Transport Service Provision**

The following objectives related to transport provision goal have been set:

- a) To ensure that all members of the community that are dependent on public transport for their mobility needs, have access to an affordable and effective public transport system
- b) To ensure that passenger transport services satisfy user needs, including those of commuters, pensioners, scholars, disabled, tourists and long distance passengers
- c) To ensure that public transport operations become economically viable and would require minimum financial support
- d) To develop and establish an effective regulatory system in the District
- e) To replace operator permits with licences issued in terms of approved integrated transport plans and/or the functional public transport plans
- f) To set up cooperatives with the intention of absorbing the taxi industry into a formal system that will participate on contracted routes
- g) To promote and implement a system of regulated competition for public transport routes based on approved transport plans
- h) To develop and institute practical mediation and arbitration procedures to manage incidents of conflict and violence on an on-going basis

#### **2.4.6. Regulation and Competition**

The following objectives related to regulation and competition goal have been set:

- a) To ensure an effective and efficient freight transport system that meets customer needs and expectations and that responds to changes in customer demands
- b) To ensure that freight transport planning is co-ordinated and integrated with land use planning
- c) To ensure proper consultation with the neighbouring provinces and countries concerning cross-border traffic and regulation thereof
- d) To minimize the externalities, side effects and negative impacts of freight transport activities in terms of air pollution, noise pollution and traffic congestion
- e) To assist freight transport industry to fulfil its role in the economic development of the province and the country as a whole in terms of foreign trade activities.
- f) To assist in the development of the freight transport industry by the opening up of the freight industry with emphasis on opportunities to SMMEs
- g) To ensure that all freight operators pay the full user cost of road infrastructure through appropriate fuel levies, license fees, toll fees or other user charging mechanisms

#### **2.4.7. Traffic Control and Safety**

The following objectives related to traffic control and safety goal have been set:

- a) To enhance road traffic behaviour and pedestrian discipline through traffic safety campaigns focusing on speeding, vehicle roadworthiness, and education of scholars and improvement on road safety
- b) To ensure adequate and properly trained law enforcement officers and inspectors
- c) To ensure effective road signage, road infrastructure and road furniture improvements that would assist in traffic safety and the elimination of accidents
- d) To ensure that the statutory framework, traffic control and road safety management information system are comprehensive, complete and up to date

#### **2.4.8. Social and Customer-based**

The following objectives related to social and customer-based goal have been set:

- a) To provide readily accessible information for the assistance of public transport users
- b) To improve accessibility and mobility, limiting walking distances to less than  $\pm 1$  km in urban areas
- c) To ensure that public transport service address user needs, including those of commuters, pensioners, scholars, tourists and disabled
- d) To ensure that public transport is affordable, with commuters spending less than  $\pm 10\%$  of disposable income on transport

#### **2.4.9. Environmental Objectives**

The following objective related to environmental goal has been set:

- a) To ensure that public transport operations are more environmentally sensitive and sustainable, and are energy efficient

### **2.5. NATIONAL OBJECTIVES**

The objectives above have been lined with the goals proposed for the District as discussed in section 2.3.2 above. The objectives set are in line with National objectives which are covered under the following headings in the White Paper on National Transport Policy:

- 1) **Funding** which is covered directly in the proposed objective above
- 2) **Spatial** which is covered under infrastructure above
- 3) **Customer**-based which is covered directly in the proposed objective above
- 4) **Planning and Regulatory** which are covered directly in the proposed objectives above
- 5) **Operational** which is covered under transport services above

The John Taolo Gaetsewe District Municipality is committed to service delivery and therefore would strive to reach the above objectives, given constraints in funding, resources and its inter-dependency on Provincial Government.

## 2.6. DISCUSSIONS

The land transport vision, goals and objectives for the John Taolo Gaetsewe District Municipality have been developed on the basis of National and International documents, and Public Participation. As noted, the latter has been done through a consultative process and has therefore addressed the needs of the District as a whole but not necessarily the Province. However, there is still a need to further refine the goals and objectives to entirely suite the district municipalities and the Northern Cape Province in general.

The National Policy documents that have been considered in developing the vision, goals and objectives include the following:

- National Land Transport Strategic Framework, March 2002
- Moving South Africa: Action Agenda, May 1999
- White Paper on National Transport Policy, September 1996
- Growth, Employment and Redistribution, June 1996
- National Strategic Vision
- Urban and Rural Development Strategies

In addition, the following legislation was also considered in developing the vision, goals and objectives:

- National Land Transport Transition Act, Act 22 of 2000
- Municipal Systems Act, Act 32 of 2000
- Public Finance Management Act, Act 1 of 1999
- Municipal Structures Act, Act 117 of 1998
- Development Facilitation Act, Act 67 of 1995

Furthermore, the following provincial and district documents were also considered:

- Integrated Development Plan(s)
- Spatial Development Framework(s)
- Public Transport Studies

As previously alluded to, the following documents have not been developed at Provincial level and will be key in guiding the Districts and Local Municipalities in the Province:

- Provincial Land Transport Framework
- White Paper on Transport Policy (not critical)

It needs to be noted that the formulated vision, goals and objectives for the John Taolo Gaetsewe District Municipality clearly strive towards addressing most of the transport challenges addressed in the above documents. However, it would seem that the following have not been considered in detail and need to be tested for applicability within the District:

- Accessibility, i.e. the degree to which the transport system is available to as many people as possible within the District
- Convenience, i.e. a transport system that is accessible within short distances with reduced travel times to destinations

- Safety, i.e. the control of recognized hazards on vehicles and transport infrastructure to achieve an acceptable level of risk
- Comfort, i.e. a transport system that meets the comfort of different segments within the population
- Environment, i.e. an effective and efficient transport system performance, with positive impacts on the social quality of life, economic competitiveness and the preservation of the natural environment

### 3. CHAPTER 3 - TRANSPORT REGISTER

#### 3.1. INTRODUCTION

This chapter gives an overview of the main features of the current transport system in the John Taolo Gaetsewe DM (JTGDM) area. The transport register is described in terms of socio-economic and demographic profile, a general overview of the transport system and the existing institutional arrangements.

The latest available data sources have been used. The data sources include the following:

- a) The Current Public Transport Record for 2014
- b) Census 2011 prepared by Statistics South Africa;
- c) National Household Travel Survey prepared by TRC Africa (2007)
- d) Various spatial demarcations and cartography (Demarcation Board).
- e) All available IDP Documents
- f) Northern Cape National Transport Masterplan (NATMAP, 2008)
- g) Statistics SA Community Surveys (2016)

#### 3.2. DEMOGRAPHICS AND SOCIO-ECONOMICS

The demand for transport is derived from the needs of the people to travel from one place to another for, inter alia, social, economic and health reasons. Previous studies indicate that the demographic and socio-economic characteristics are highly significant in influencing the demand for transport.

The following information was collected and presented as part of the collection of demographic data for the analysis areas of the JTGDM and are discussed in detail in the following sections of this Chapter:

- 1) Total population and population density per analysis region;
- 2) Population differentiated according to race groups per analysis region;
- 3) Population differentiated by gender per analysis region;
- 4) Population differentiated according to race and age per analysis region;
- 5) Employment status per analysis region;
- 6) Total annual per capita income per analysis region, and
- 7) Total annual household income per analysis region.

##### 3.2.1. Population

- a) 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 833km<sup>2</sup> ( $\pm$  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 (JTGDM SDF, 2017).

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	<b>224 799</b>	<b>100</b>	<b>242 264</b>	<b>100</b>
Northern Cape	<b>1 145 861</b>		<b>1 193 780</b>	

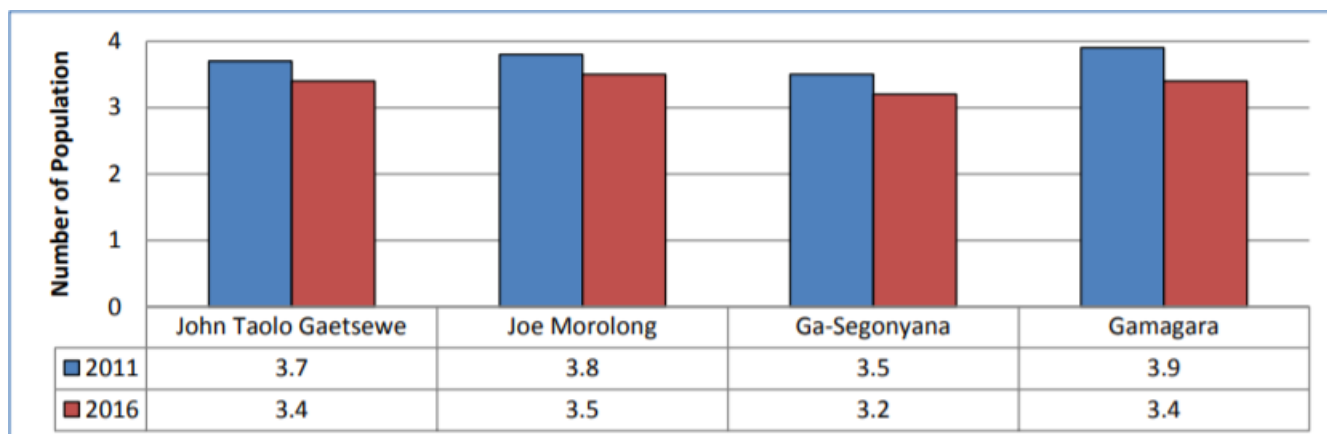
*Table 3-9: JTG Population Composition*

*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.

### 3.2.2. 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.

### 3.2.3. Socio-economic Profile

#### a) 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.

#### ❖ 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.

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 low level of education.

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.

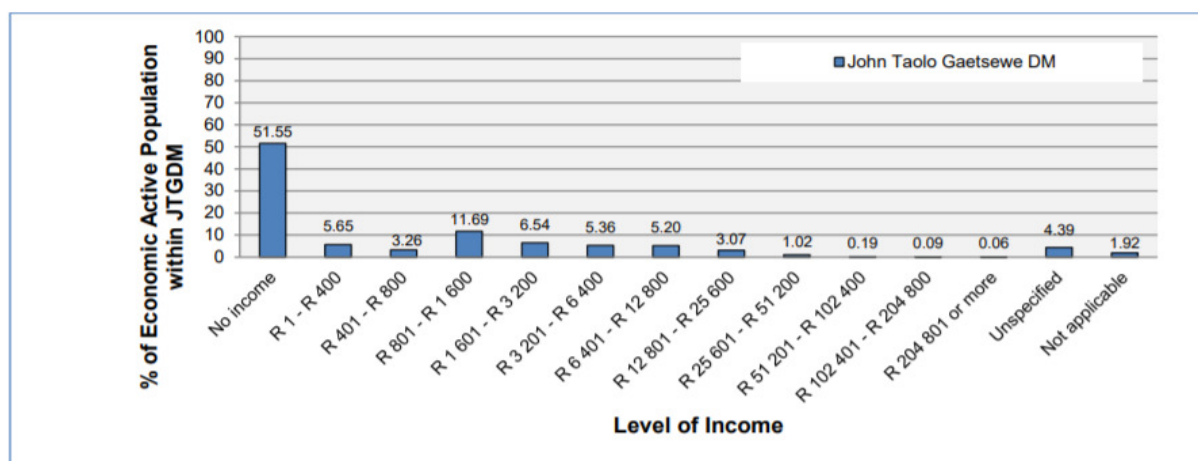


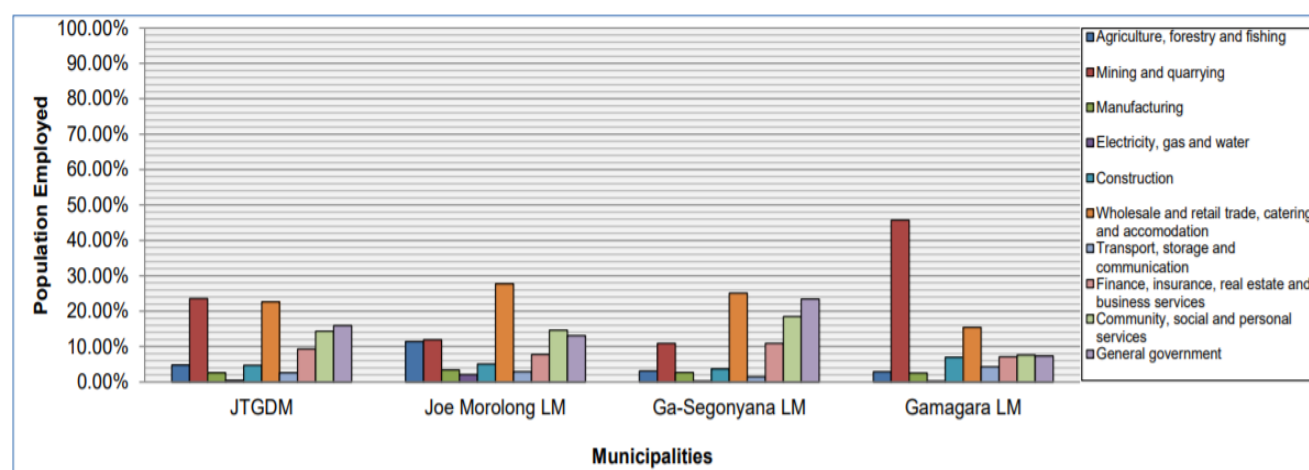
Figure 3-16: Level of Income v/s Economically Active Population

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.

#### b) Employment by 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 (JTGDM SDF, 2017).



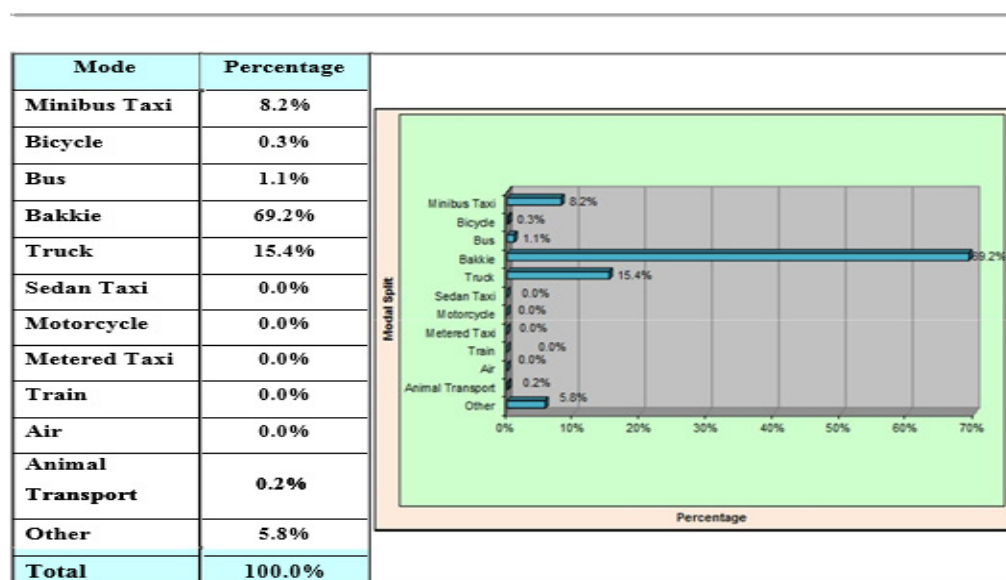
Interestingly enough, although Joe Morolong and Ga-Segonyana LM's main contributor to their GVA is mining, wholesale and retail is the biggest contributor towards employment. Gamagara LM's employment figures however show that not only is the GVA contribution largely dependent on mining but also for employment 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 (JTGDM SDF, 2017).

### 3.3. TRANSPORT SYSTEM OVERVIEW

#### 3.3.1. Modal Choice

The modal split in the District Municipality is shown in Table 3.4. As noted in Table 3.4 the bakkie is still the dominant mode of transport in the District. This is followed by a trucks, mini-bus taxis and bus. The remainder of the modes are in small proportions.

Table 3.4: Modal Split



Source: NHTS, January 2007 (Adjusted)

### 3.4. TRANSPORT SURVEYS

Whilst data on demographics and part of transport system has been sourced through various documents, the surveys were conducted for minibus taxi, buses, the associated facilities and cordon counts at identified strategic points. From the surveyed public transport modes, the following information was collected and/or derived from the basic information collected:

- Description of facilities and routes
- Service capacity and capacity utilization of routes
- Service capacity and capacity utilization of facilities
- Service quality and transport characteristics
- Additional facilities information

There is no rail commuter operation within the John Taolo Gaetsewe District Municipality.

### 3.4.1. Survey Dates

The dates and days chosen for the surveys were week-days between Monday and Friday. The basis of data collection periods was confirmed with the various operators and the knowledge of likelihood of peak operations in retrospect.

On the basis of the above, the commuter taxi and bus surveys were conducted during weekdays on Tuesdays, Wednesdays, and Thursdays. Long distance service was done on the last Friday of the month.

The periods during which surveys were conducted are shown in Table 3.5.

Table 3.5 : Survey Periods

<b>Table 3.5: Survey Periods</b>			
<b>No</b>	<b>Mode</b>	<b>Period</b>	
		<b>Start Date</b>	<b>End Date</b>
<b>1</b>	<b>Commuter, Long Distance (taxi &amp; buses) and Cordon Surveys</b>	<b>18 June 2014</b>	<b>04 September 2014</b>

### 3.4.2. Survey Methodology

The details of the methodology followed have not been provided but could be found in the Transport Register Report. The summary of the methodology followed for the execution of surveys was as followed:

- 1) Preparation of base map
- 2) Collection of operations and services information
- 3) Execution of surveys
- 4) Data processing and checking
- 5) Preparation of twelve (12) output tables
- 6) Preparation of GIS outputs

## 3.5. TRANSPORT INFRASTRUCTURE

### 3.5.1. Rail Infrastructure

The rail system of the Northern Cape is an important element of the South African transportation system. The development of passenger and rail freight transport in the province started with the construction of the first railway line between Cape Town and Kimberley. The original Cape Town – Wellington, a “Standard Gauge” (1 435mm) line, was extended further inland, as the “Cape Gauge” of 1 067mm, reaching Three Sisters and De Aar and linking with new Port Elizabeth via Noupoot line. The extension northwards reached Kimberley, Fourteen Streams and Vryburg as part of Cecil Rhode’s “Cape to Cairo” vision in 1890.

Rail transport is mainly utilised in the agricultural and mining sectors. Ores are transported in this manner. A rail line extends from Black Rock southwards past Sishen to Kimberley where it connects with the main Cape Town – Johannesburg line. A second line, used to transport iron ore, extends from Sishen southwards to Saldanna Bay where it supplies the Saldanna steel plant.

The main rail lines in the district include:

- The Black rock – Sishen – Kimberley
- Kathu – Sishen – Saldanna

Transnet Freight Rail is the main user of the rail infrastructure network within the District. It operates and services three mining houses which are:

- Sishen Iron ore Mine
- Samancor LTD
- Assmang LTD

### 3.5.2. Road Infrastructure – verification is needed through the *RRAMS*

The road network composition in the district gives an indication of the calculated road lengths by surfaced type and road class as shown in Table 3.6(a).

TABLE 3.6(a): Road Network in John Taolo Gaetsewe DM

TABLE 3.6(a): Road Network in John Taolo Gaetsewe DM						
Road Type	Surfaced Roads (km)	% TOTAL	Un-surfaced Roads (km)	% TOTAL	TOTAL LENGTH (km)	%
National Roads	125.0	1.9%	0	0	125.0	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	1 034.8	16.3%
Arterial	104.4	1.6%	117.0	1.8	221.4	3.5%
Minor Roads (access and streets)	20.6	0.3%	4662.2	73.6	4 682.8	74%
<b>JTGDM Total</b>	<b>340.2</b>	<b>5.4%</b>	<b>5 990.7</b>	<b>94.6%</b>	<b>6 330.9</b>	<b>100%</b>

A substantial amount of un-surfaced roads (73.6%) are local access roads and streets, the majority of which are found mostly in the Joe Morolong area. In the municipalities of Gamagara and Ga-Segonyana, fewer local access roads are found due to fewer settlements and a higher degree of concentration around settlements. Noticeable is the virtual absence of surfaced roads in the Moshaweng Municipal area where substantial settlement has taken place.

The road network within the John Taolo Gaetsewe District Municipality consists of National, Provincial and municipality roads. The responsibility for road network therefore rests with the three authorities mentioned below. The roads within the district are shown in Figure A2 in Appendix A and are discussed below.

## I. The South African National Roads Agency Limited (SANRAL)

The South African National Roads Agency Limited (SANRAL) is responsible for the national road network throughout the country. The national road network within the John Taolo Gaetsewe District Municipality comprises of the following roads:

- The main surfaced road in the district is the Vryburg-Upington road (N14). This road is the key connector providing access to the rest of the Northern Cape and North-West Provinces. This is also the main tourist route from Gauteng to Upington. The N14 passes through Kuruman and Sishen, the main economic centres within the district.

## II. Northern Cape Province: Department of Public Works and Roads

The provincial network within the John Taolo Gaetsewe District Municipality comprises of the following roads:

- The R31 (Kimberley-Kuruman-Hotazel) is the other important surfaced road linking Kuruman to Hotazel and the Mining activities at Blackrock as well as Kimberley. This route is also a tourist route - the Wonderwerk Caves and Eye of Kuruman are located along this route.
- The R325 (Sishen to Postmasburg) and R385 (Olifantshoek to Postmasburg) are the only other surfaced roads providing access for local farming and mining communities in the Sishen and southern areas of the district.

The total road network of the Northern Cape Province consists of a total sum of 27 541 km. This is comprised of 5 455 km of paved roads and 22 086km of unpaved roads. Approximately 4% of the unpaved roads are earth roads.

The John Taolo Gaetsewe District Municipality contains 4.5% of the Northern Cape's paved roads. Of these paved roads, 7.5% are District roads, 23.8 are Main Roads and 68.7 % are Trunk Roads as shown in Table 3.6(b).

**TABLE 3.6(b): Paved Road Network and Road Type Length**

PAVED ROADS (KM)	GRAVEL ROADS (KM)	EARTH ROADS (KM)	BLOCK (KM)	TOTAL (KM)	TRAFFIC STATIONS (NO)
321.523	884.933	1342.14	45.65	2594.244	684

TABLE 3.6(b): Paved Road Network and Road Type Length					
District Municipality	District Roads (km)	Main Roads (km)	Trunk Roads (km)	TOTAL (km)	% TOTAL
Pixley Ka Seme (Karoo)	24.22	315.82	1 687.77	2 027.81	37.2%
Frances Baard	29.10	274.28	343.19	646.57	11.9%
Siyanda	61.91	130.75	1 164.79	1 357.45	24.9%
John Taolo Gaetsewe	18.49	58.88	170.18	247.55	4.8%
Namakwa	9.03	278.91	887.18	1 175.12	21.5%
Northern Cape Total	147.75	1 058.64	4 253.11	5 454.50	100%

From the table above it is noted that the John Taolo Gaetsewe District Municipality has the lowest number of paved kilometres (247.55km) followed by the second lowest in the province which is the Frances Baard District Municipality (646.57km).

The John Taolo Gaetsewe District Municipality contains 5% of the Northern Cape's unpaved roads. Of these unpaved roads, 65.8% are District roads and 34.2% are Main Roads as shown in Table 3.6(c).

TABLE 3.6(c): Un-Paved Road Network and Road Type Length

TABLE 3.6(c): Un-Paved Road Network and Road Type Length					
District Municipality	District Roads (km)	Main Roads (km)	Trunk Roads (km)	TOTAL (km)	% TOTAL
Pixley Ka Seme (Karoo)	5 772.02	2 332.54	108.44	8 213.00	37.2%
Frances Baard	913.52	290.70	0	1 204.22	5.5%
Siyanda	3 123.58	1 340.30	19.55	4 483.43	20.3%
John Taolo Gaetsewe	729.73	379.45	0	1 109.18	5%
Namakwa	5 131.73	1 816.11	108.44	7 076.31	32%
Northern Cape Total	15 670.58	6 159.10	256.46	22 086.14	100%

From the table above it is noted that the John Taolo Gaetsewe District Municipality has the lowest number of unpaved kilometres (1109.18km) followed by the second lowest in the province which is the Frances Baard District Municipality (1204.22km).



### III. John Taolo Gaetsewe District Municipality

The John Taolo Gaetsewe District Municipality together with its local municipalities is responsible for the remainder of the roads.

Figure 3.2: Rail network

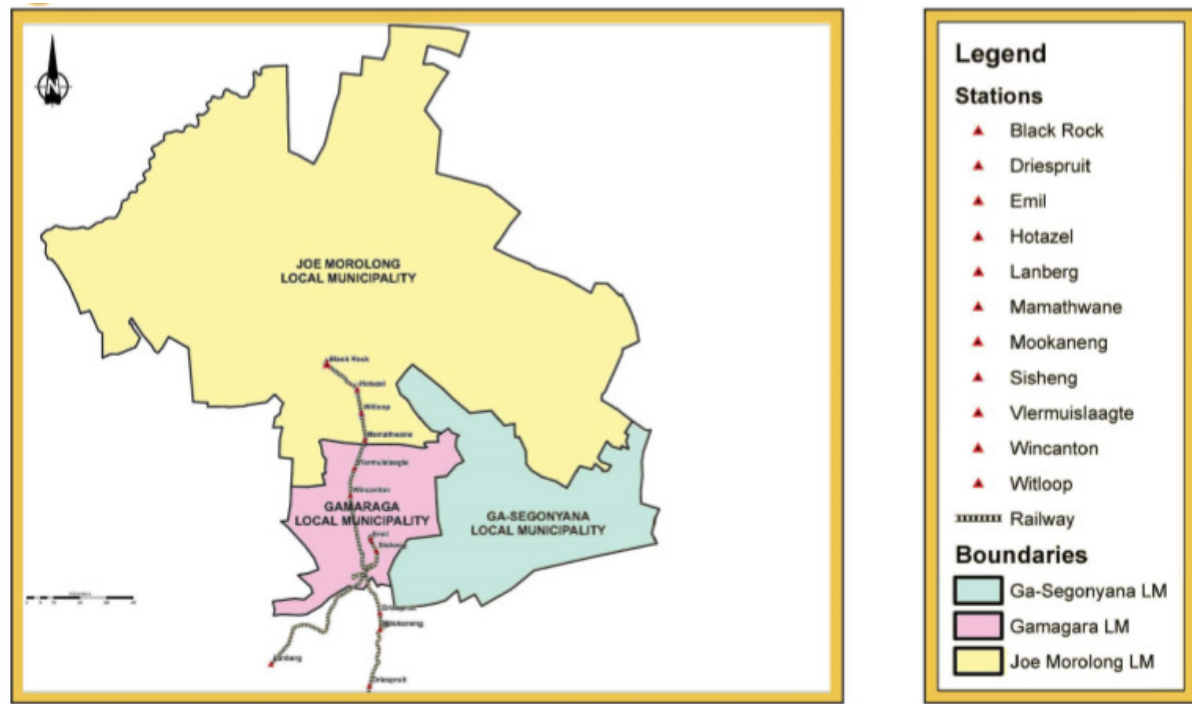
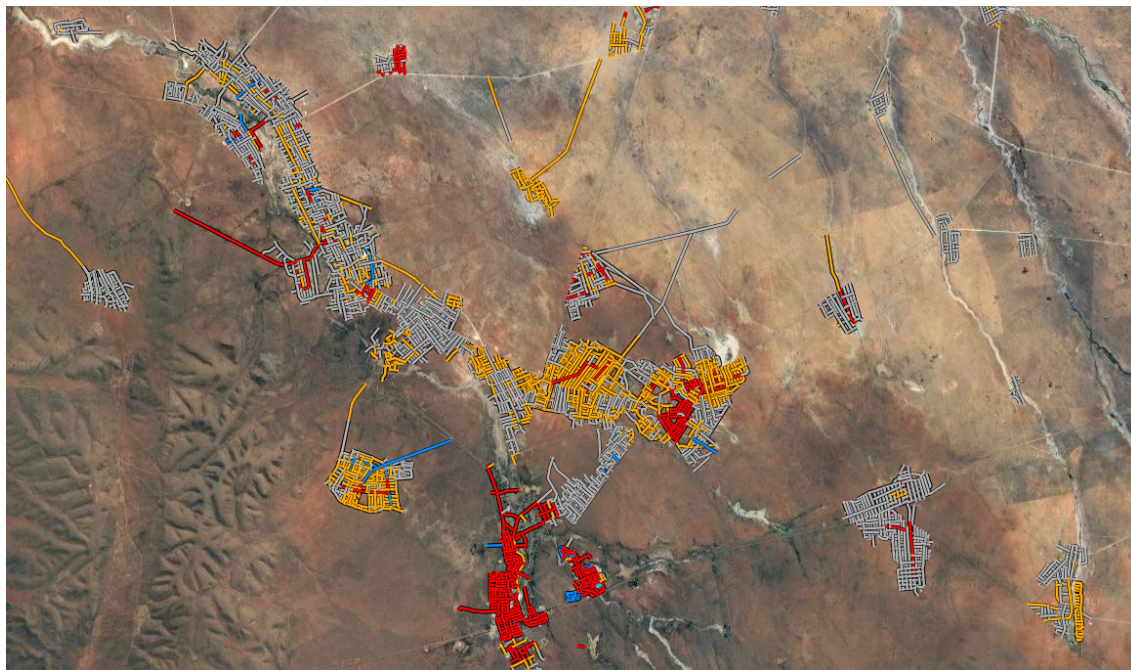


Figure 3.3: Road Network





### 3.5.3. Public Transport Facilities

The railway lines and roads that provide links between various destinations have been discussed in the previous sections of this chapter. The facilities that complement public transport services for effective, safe and convenient operations are discussed below.

#### I. Railway Stations

There are no commuter services present in the John Taolo Gaetsewe District Municipality. The existing stations and sidings within the district municipality are mainly used for transportation of goods.

#### II. Bus Termini and Stops

The Current Public Transport Record (CPTR) and the Rationalization Plan (RatPlan) for John Taolo Gaetsewe District Municipality provide information on the bus termini and stops within the District.

There is only one formal facility located in Ga-Segonyana LM (Kuruman). Most of the facilities do not have shelters, ablution facilities or water supply for passengers. The existing bus facilities are shown in Table 3.7. The locations of bus facilities are shown in Figure 3.4.

Figure 3.4: Bus facilities

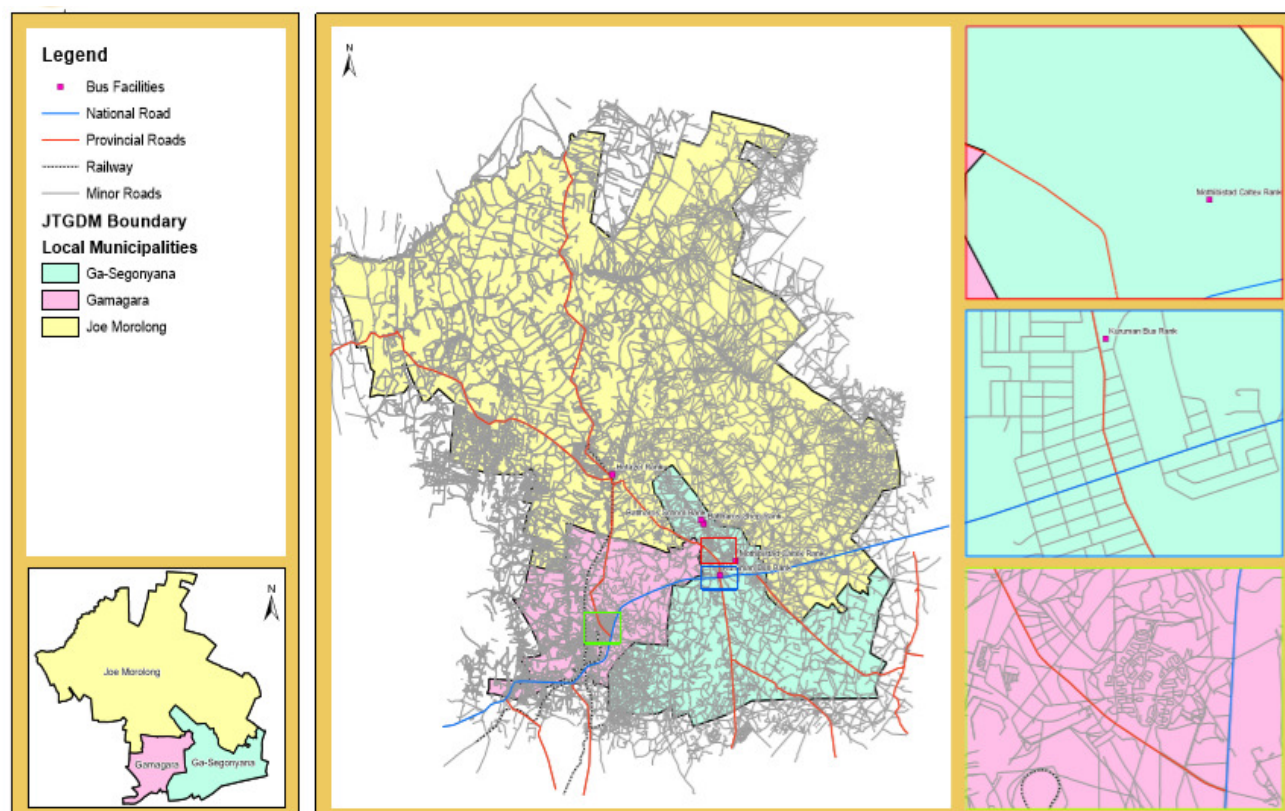


Table 3.7: Existing Bus Facilities

<b>Table 3.7: Existing Bus Facilities</b>							
<b>No</b>	<b>Location</b>	<b>Number of Facilities</b>				<b>Basic Infrastructure</b>	
		<b>Formal</b>	<b>Semi Formal</b>	<b>Informal</b>	<b>Major Stops</b>	<b>Shelter</b>	<b>Ablutions</b>
<b>1</b>	<b>Work Area</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>1</b>
<b>2</b>	<b>Home Area</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>0</b>
<b>TOTAL</b>		<b>1</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>1</b>

The grading would refer to formal facilities, semi-formal facilities and informal facilities. The formal facilities would refer to facilities which at least have a surfaced area with isles and shelter within the loading area; the semi-formal facilities would refer to facilities which at least have a surfaced area, and the informal facilities would refer to facilities located on virgin land and not surfaced or have any infrastructure for operations.

In addition to the facilities, there is a depot which is located in Mothibistad as shown in Table 3.8.

Table 3.8: Bus Depots

<b>Table 3.8: Bus Depots</b>			
<b>No</b>	<b>Bus Company</b>	<b>Depot</b>	<b>Operations per Local Municipality</b>
<b>1</b>	<b>Mega Bus</b>	<b>Mothibistad</b>	<b>Ga-Segonyana LM, Gamagara LM and Joe Morolong LM</b>

### III. Taxi Ranks and stops

The Current Public Transport Record (CPTR) and the Operating Licences Strategy (OLS) for John Taolo District Municipality provide information on the taxi ranks and stops within the District.

In terms of the ranking facilities, there are 36 within the JTGDM area. Of these, 3 are considered formal ranks, 23 are informal and 10 are hiking spots. It must however be noted that of these 3 formal ranks, 1 is only operating in the morning. Table 3.9 indicates the number of ranks with various amenities provided. The locations of taxi facilities are shown in Figure 3.5.

Figure 3.5: Taxi Facilities

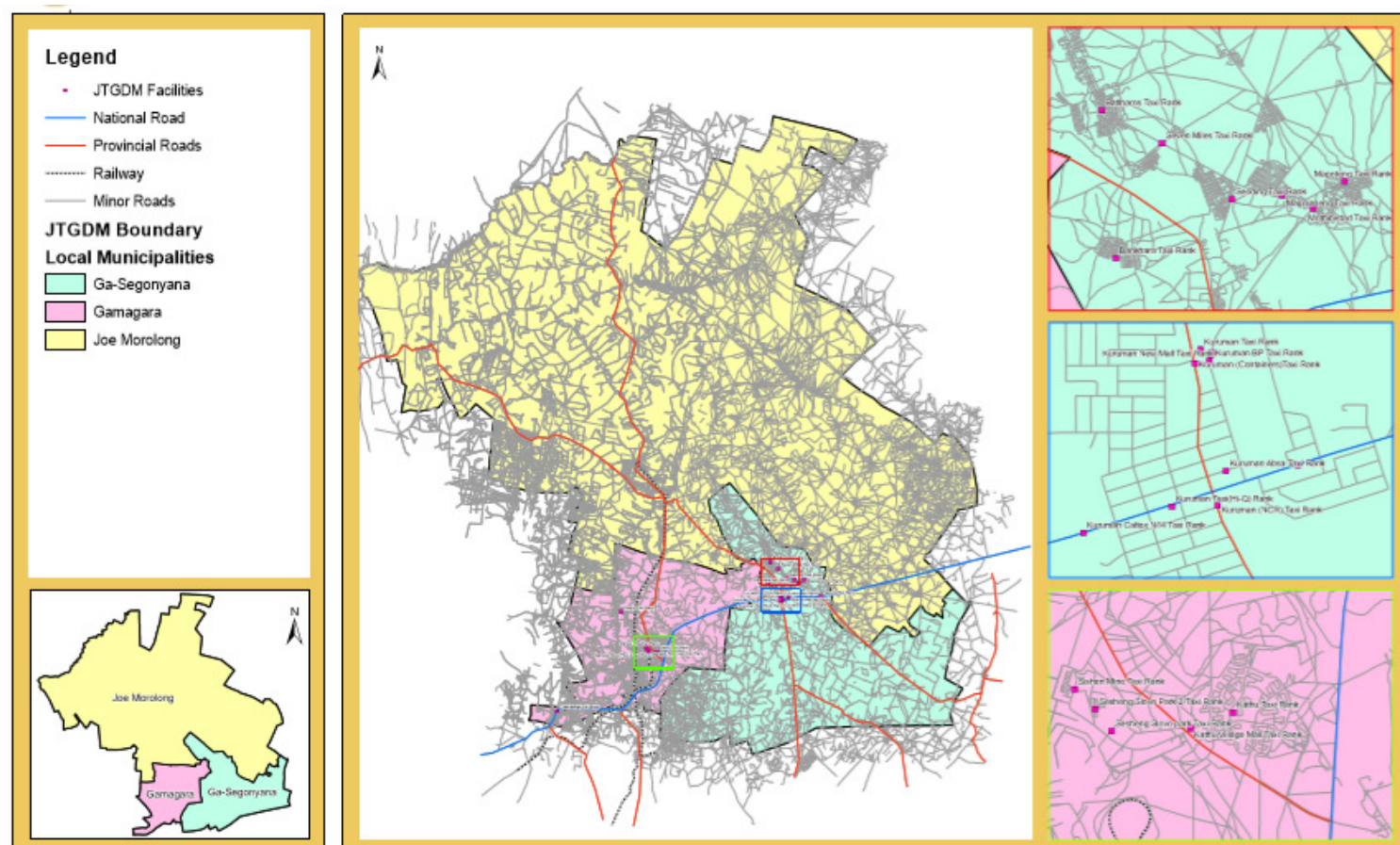


Table 3.9: Existing Taxi Facilities

No	Location	Number of Facilities			Basic Infrastructure	
		Formal	Hiking Spots	Informal	Shelter	Ablutions
1	Work Area	2	10	12	2	2
2	Home Area	1	-	11	1	1
<b>TOTAL</b>		3	10	23	3	3

It can therefore be noted more that 90% of the facilities in the District do not have proper shelter for passengers. The shelter would normally be viewed as a basic amenity to be provided on relatively busy ranks. Furthermore, many taxi ranks have no ablution facilities. In most cases where they exist, their conditions need to be upgraded. This is the case with other amenities which are also in a poor state of repair.

### **3.5.4. Freight Transport Facilities**

It has earlier been alluded that the railway network within the district municipality is owned by Transnet Freight Rail as it is mainly used for freight. Furthermore, a number of main roads within the district municipality are also used for freight transport.

Three mining groups are active in the JTGDM, these being the Sishen Iron Ore Mine; Samancor Ltd, with mines in Hotazel, Mamatwan and Wessels; and Assmang Ltd with mines in Blackrock and Gloria.

The freight transport from these mines includes the following:

- Sishen Iron Ore Mine with approximately thirty (30) trucks (34 - 35 ton) per week carrying fuel and four (4) trucks (34 - 35 ton) and two (2) 6-ton trucks per month carrying oil
- Samancor with one (1) 8-ton truck per day carrying materials and one (1) petrol tanker (9 000 litre) every three (3) months
- Assmang with one (1) 8-ton truck every fortnight carrying explosives.

With regard to future expansions, only Assmang Ltd mentioned that they were planning to open a further mine at Tswaneng 3.

The mining industry represents one of the biggest employment creators and income generators for the John Taolo Gaetsewe DM, and although a relative decline of the mining industry was experienced in the 1980's, the region stays dependent on its contribution to the economy. In discussions with representative of the mining houses concern was noted with regard to the relative condition of the roads utilised by their trucks. Specific mention was made of the following routes:

- Kuruman to Vryburg
- The Laxey/Blackrock road

Of note was use of rail to move the mining products as well as materials and diesel (in the case of the Samancor mines).

### **3.5.5. Aviation Infrastructure**

The airport is located approximately 24km from Kathu CBD and is accessible via the N14 and R325 to Sishen. The Sishen airport is located in close proximity to Kumba's Iron Ore mine, service the broader mining community of Kathu. The Sishen Airport has two terminals. One terminal is used for arrivals and the other one for departures. The service offers flights to Lanseria in Johannesburg and there is now a new service available to O.R Tambo International.

The service will allow travellers from as far afield as Postmasburg and the new Kolomela mine as well as Kuruman and Olifantshoek.

### **3.5.6. NMT Infrastructure**

The Non-Motorised Transport (NMT) is a form of transport that is generally used to transport persons or small goods over short distances within and between urban or rural areas. The non-motorised transport basically includes, inter alia, the following modes:

- Walking
- Wheelbarrows
- Handcarts
- Animal-drawn carts
- Bicycles and tricycles
- Bicycle trailers

The prevalent non-motorised means of transport in the District Municipality include walking and bicycles.

Higher volume pedestrian corridors have been identified during site visits in the following areas:

- Kuruman
- Kathu
- Olifantshoek

As noted above, the non-motorised transport within the District is slowly developing and has to date not been given substantial attention to reach appreciable impact in the District. Most of the non-motorised transport was noted during the cordon counts exercise and relevant data was captured on NMT. Unfortunately, the information captured was only on the major corridors within the District. The extent of non-motorised transport within the District will need to be comprehensively quantified in the future.

## **3.6. PUBLIC TRANSPORT SERVICES**

### **3.6.1. Rail Services**

The passenger rail services currently fall under the competency of the national government and have neither been devolved to the provincial nor local government competency. The South African Rail Commuter Corporation (SARCC) used to act as an agent for the Department of Transport (DOT) where commuter services were provided. The long distance passenger services, now also known as Shosholoza Meyl, provided by Transnet Freight Rail. However, the two passenger rail agents (SARCC and Shosholoza Meyl) have been integrated into a single agent named; Passenger Rail Agency of South Africa (PRASA). However; as noted before, there are no passenger services within JTGDM.

It needs to be noted that Transnet Freight Rail bases its core competency on the transportation of freight, containers and mainline passengers on rail. It is made up of the following businesses, namely:

- PRASA
- Coal line
- Iron Ore line

- General Freight Business
- Freight Rail International Joint Ventures

There are no passenger services that are operated within the John Taolo Gaetsewe District Municipality.

### 3.6.2. Bus Transport Services

The bus services currently fall under the competency of the Provincial Government (Department of Transport, Safety and Liaison). The Provincial Government is responsible for aspects such as regulation and control of the bus operations, planning, implementation and monitoring of bus services through tendered contracts as well as management of bus subsidies.

The bus company operating within the John Taolo Gaetsewe District Municipality is subsidized and privately owned and it is running on interim contracts. The Department of Transport is currently undertaking various studies to investigate the possibilities of extending the bus subsidies to other parts of the province, especially the rural areas where the services are needed most.

The bus operator provides services in John Taolo Gaetsewe District Municipality. The bus operator, subsidy status and number of routes operated are shown in Table 3.10(a).

TABLE 3.10(a): Bus Services

TABLE 3.10(a): Bus Services					
No	Operator	Subsidy Status	Number of Routes	Subsidized Routes	Daily Passengers
1	Megabus	Interim	43	43	-

As noted in Table 3.10(a), the information pertaining to buses is incomplete; as indicated by hyphens in the table.

Whilst the types of bus operators who currently operate passenger transport services have been explained above, it also needs to be noted that four types of subsidized bus services are offered in the country and these include:

- Tariff Subsidy Scheme has been in operational in the country for more than 50 years. This type of scheme makes it possible for commuters to pay less than the normal fare and the operator is paid the balance by the government in the form of a subsidy. This result in the operator receiving the full economic fare made up of the passenger contribution and the government's subsidy payment. The passenger benefits by paying a lower fare, and the subsidy is paid to the service provider.
- Competitive Tendering is where prospective operators tenders for the right to operate subsidized services. This system aims at promoting a degree of off the road competition between operators. Various ways can be used to structure these tendered contracts. This kind of service is constantly been monitored to ensure that

an appropriate level of service is maintained, as penalties are imposed for failing to meet set standards

- Negotiated Contracts are based on contracts documents similar to those drawn up for the competitive tenders, and operators are also paid a rate per revenue kilometer.
- Interim Contracts are operated on a month-to-month basis and are commonly used in areas where competitive tendering system is not utilized.

The privately owned, subsidized buses, i.e. Megabus are currently operating on Interim Contracts which means that their contracts are revised on a monthly basis.

There are two services offered by Megabus namely:

- Commuter Services with 36 routes
- Mine Services with 7 routes

### 3.6.2.1 Commuter Services

Currently twelve (36) routes are being operated; eleven of these originate from Kuruman to destinations in Joe Morolong and Ga-Segonyana. Further to these one routes is being operated from Bathlaros to Kathu.

Table 3.10(b) gives an indication of the commuter service routes operated and their calculated distance.

TABLE 3.10(b): Commuter Services Routes Distances

Origin	Destination	One-way Distance (km)
Kuruman	Ntswelengwe	28
	Sedibeng	42
	Motlhoeng	85
	Kuruman ERF	4
	Batlharos	11
	Ga-Masepe	48
	Maruping	16
	Kagung	19
	Magojaneng	11
	Mothibistad	10
	Gasehubane	29
	Kathu	100

Table 3.10(c) gives an indication of the commuter service utilization per route. The information on utilization was determined from the on-board surveys to establish the relative utilisation of the bus services.

TABLE 3.10(c): Commuter Services Route Utilisation

<b>TABLE 3.10(c): Commuter Services Route Utilisation</b>					
<b>Origin</b>	<b>Destination</b>	<b>Average Capacity (All Trips)</b>	<b>Average Maximum Service Capacity</b>	<b>Average Total Number of Passengers Per Trip</b>	<b>Average % Utilisation</b>
<b>Kuruman</b>	<b>Ntswelengwe</b>	81	162	127	78%
	<b>Sedibeng</b>	84	84	66	79%
	<b>Motlhoeng</b>	N/A	N/A	N/A	N/A
	<b>Kuruman ERF</b>	80	80	71	89%
	<b>Batlharos</b>	82	584	86	40%
	<b>Ga-Masepe</b>	83	83	63	76%
	<b>Maruping</b>	80	80	68	85%
	<b>Kagung</b>	85	85	47	55%
	<b>Magojaneng</b>	82	82	63	77%
	<b>Mothibistad</b>	83	125	24	16%
	<b>Ga Sehubane</b>	81	81	49	60%
<b>Batlharos</b>	<b>Kathu</b>	85	255	165	65%

From the table above it can be shown that the capacity utilisation of the services operated by Megabus is generally good with the following routes being under-utilized:

- Kuruman to Batlharos
- Kuruman to Mothibistad

### 3.6.2.2 Mine Services

Further to the commuter services being offered, Megabus also operates a seven (7) mine services routes, these being provided according to a contract with the mines.

Table 3.10(d) gives an indication of the mine service routes operated and their relative distance.



TABLE 3.10(d): Mine Services Routes Distances

TABLE 3.10(d): Mine Services Routes Distances		
Origin	Destination	One-Way Distance (km)
Mothibistad	Blackrock	100
Ntsweng	Blackrock	96
Bathlaros	Sishen Mine	100
Blackrock	Kuruman	109
	Mothibistad	100
Hotazel	Kuruman	83
	Mothibistad	76

Table 3.10(e) gives an indication of the mine service utilization per route. The information on utilization was determined from the on-board surveys to establish the relative utilisation of the mine services.

TABLE 3.10(e): Mine Services Route Utilisation

TABLE 3.10(e): Mine Services Route Utilisation					
Origin	Destination	Average Capacity (All Trips)	Average Maximum Service Capacity	Average Total Number of Passengers Per Trip	Average % Utilisation
Mothibistad	Blackrock	85	128	98	72%
Ntsweng	Blackrock	81	81	28	34%
Bathlaros	Sishen Mine	85	85	56	66%
Blackrock	Kuruman	N/A	N/A	N/A	N/A
	Mothibistad	86	86	69	80%
Hotazel	Kuruman	86	86	22	26%
	Mothibistad	86	86	53	62%

From the table above it can be shown that the capacity utilisation of the mine services operated by Megabus is generally good with the following routes being under-utilized:

- Ntsweng to Blackrock
- Hotazel to Kuruma

### Figure 3.7:1 Megabus Routes

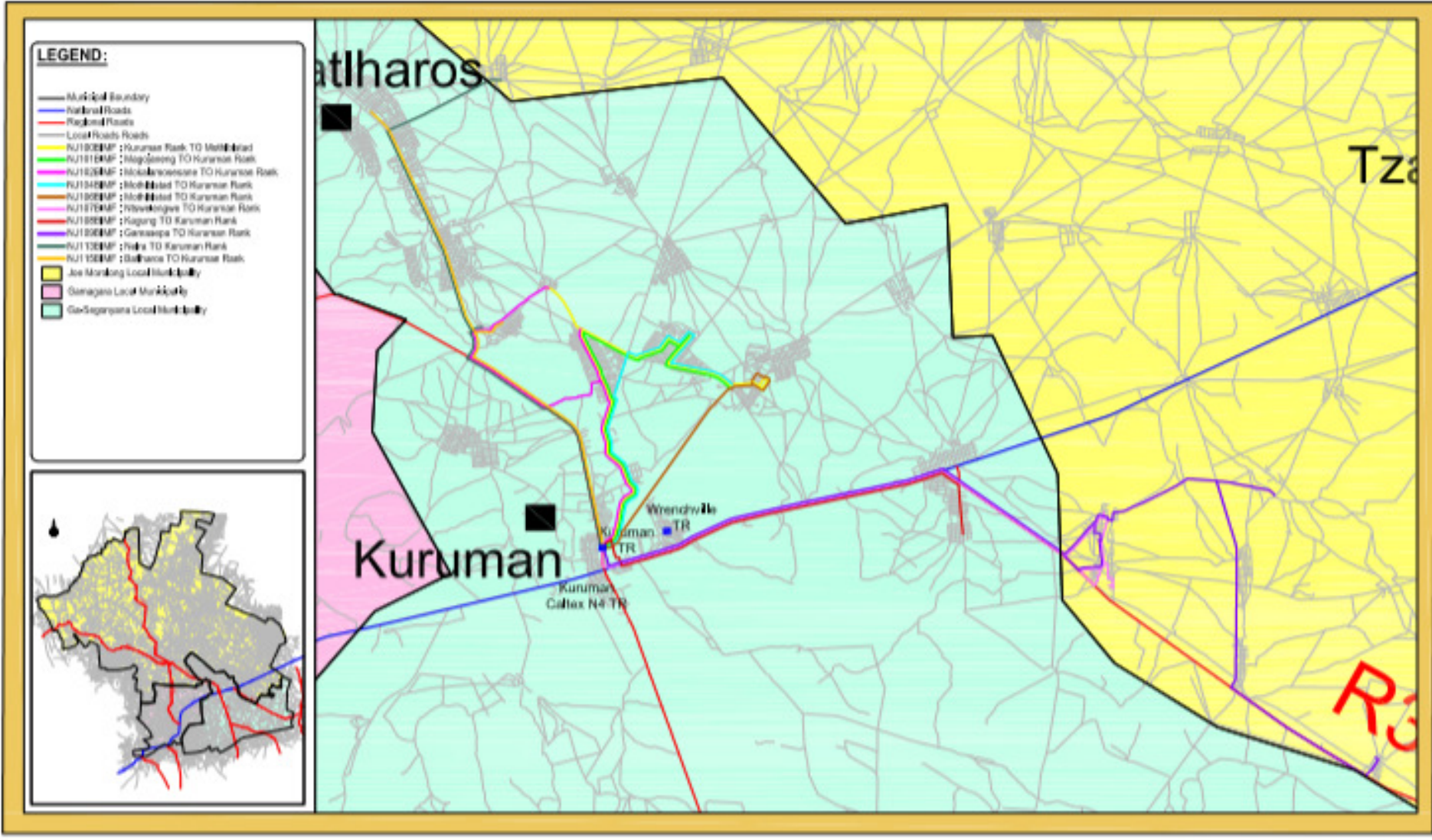


Figure 3.7:2 Megabus Routes

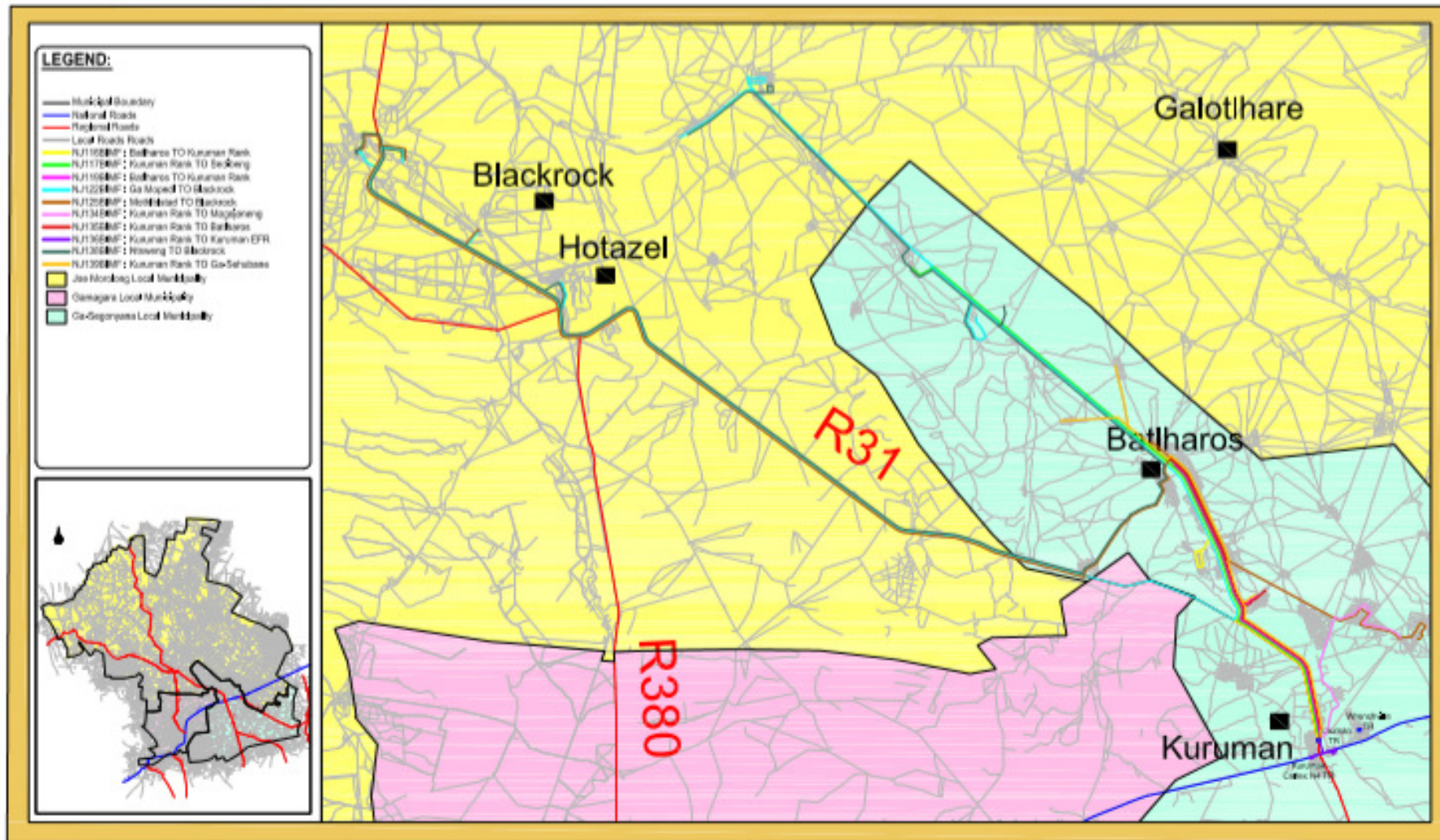




Figure 3.7:3 Megabus Routes

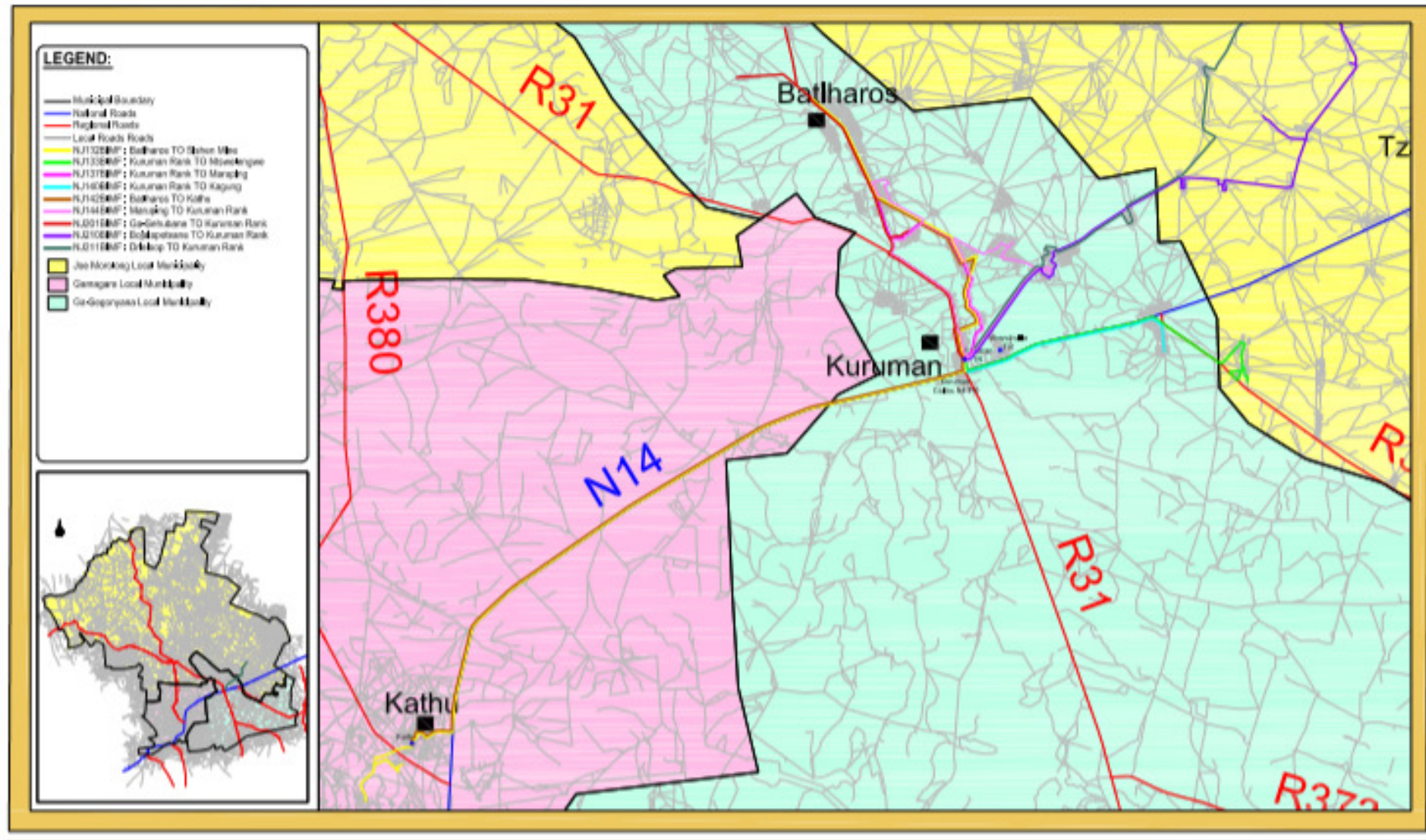
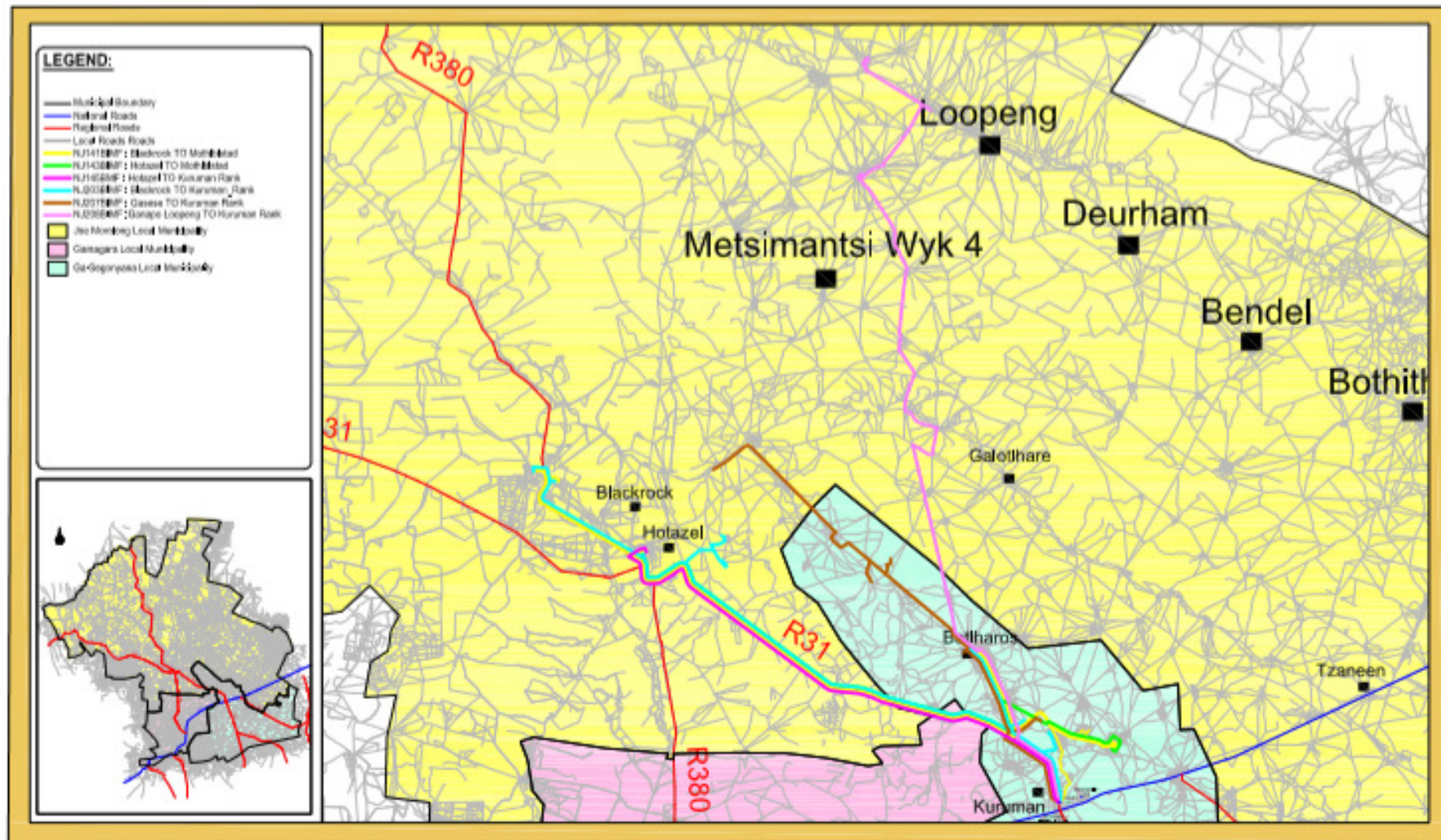




Figure 3.7:4 Megabus Routes



### 3.6.3. Taxi Transport Services

The minibus taxi services currently fall under the competency of the operators and has not yet been managed by the Government. The ownership within the taxi industry is still not formalized. The taxi industry is still an agglomeration of individually-owned micro-businesses. The operators have grouped themselves together to accrue the benefits of collective representation through taxi associations. Members of a taxi association allow a taxi operator the following:

- Access to a route or number of routes currently through the operating license system.
- Access to ranking facilities provided by the local municipality.
- Negotiations with Authorities through Regional Taxi Council.

Despite the established structures, it needs to be noted that there are still challenges within the taxi industry in terms of its formalization process and obtaining operating licences. On the other hand, the taxi recapitalization process has now been initiated but the process has not met its targets. There are continuous reviews of the recapitalization process and extended into the future mainly due to its unaffordable strategies.

#### 1. Taxi Associations Information

All associations are represented by the provincial and regional arm of the South African National Taxi Council (SANTACO). This Council assists taxi associations operating in the District. There are four (4) taxi associations of which all are represented by the Council. The associations and their affiliation to the Region Taxi Council are shown in Table 3.11.

Table 3.11: Taxi Associations Representation

<b>Table 3.11: Taxi Associations Representation</b>			
<b>No</b>	<b>Association</b>	<b>Representation</b>	
		<b>Council</b>	<b>N/A</b>
1	ITEKENG TAXI ASSOCIATION (ITA)	✓	
2	KURUMAN TAXI ASSOCIATION (KTA)	✓	
3	GA-SEGONYANA TAXI ASSOCIATION (GTA)	✓	
4	KATHU TAXI ASSOCIATION (KATA)	✓	

The details of contact persons for each of the nine (4) taxi association are shown in Table 3.12.

Table 3.12: Taxi Associations Contact Details

<b>Table 3.12: Taxi Associations Contact Details</b>				
<b>No</b>	<b>Association</b>	<b>Contact Details</b>		
		<b>Person</b>	<b>Position</b>	<b>Number</b>
<b>1</b>	<b>ITA</b>	<b>Mr M. Boysen</b>	<b>Chairman</b>	<b>072 111 4537</b>
<b>2</b>	<b>KTA</b>	<b>Mr. T. Mangale</b>	<b>Secretary</b>	<b>082 720 6235</b>
<b>3</b>	<b>GTA</b>	<b>Ms. N. Modise</b>	<b>Secretary</b>	<b>072 990 9170</b>
<b>9</b>	<b>KATA</b>	<b>Mr. T. Chakapedi</b>	<b>Secretary</b>	<b>073 968 8847</b>

The information pertaining to association members, vehicles in that association, the routes used by each association and ranks used by each association was not provided by the Province: Department of Transport, Safety and Liason.

## 2. Taxi Routes Information

The taxi routes are shown in Figure 3.8 for all four taxi associations. The routes served are summarised as follows:

1. Itekeng Taxi Association (ITA) provides services between Kuruman CBD, Damrose, Masohatshe and Joe Morolong area. There are a total of twenty five routes as shown in Figure 3.8.
2. Kuruman Taxi Association (KTA) provides services between Kuruman CBD and some areas around Joe Morolong and Ga-Segonyana. There are a total of ninety routes as shown in Figure 3.8.
3. Ga-Segonyana Taxi Association (GTA) provides some services along the same routes as KTA and local routes. There are a total of twenty three routes as shown in Figure 3.8.
4. Kathu Taxi Association (KATA) provides services between Kathu CBD, Sesheng, Dibeng and Olifantshoek. There are a total of twelve routes as shown in Figure 3.8.
5. Cross-Boarder Long Distance Taxi Association (CLDTA) provides services between Postmasburg, Upinton, Kakamas, Kamus, and Johannesburg.

As noted there are 174 routes in total. The taxi associations which operating in parallel to each other and competing for the same market in all or some of the routes include:

- a) KTA and GTA which basically share all routes.
- b) ITA and KTA share some of the routes in the Joe Morolong area.

Figure 9 shows the overall public transport routes, i.e both Mini-Bus Taxis and Buses combined.



Figure 3.8:1 Taxi Routes Routes

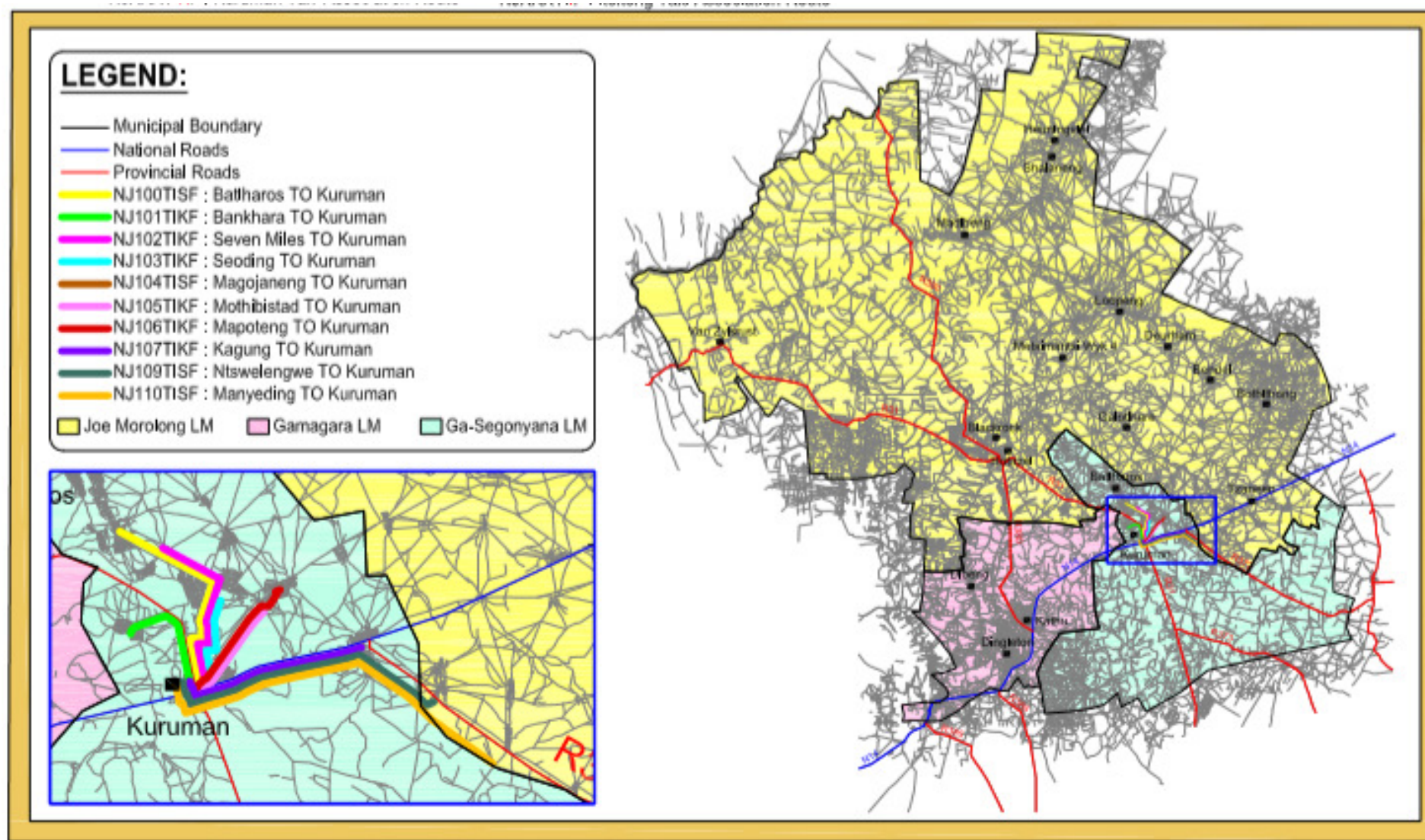




Figure 3.8:2 Taxi Routes Routes

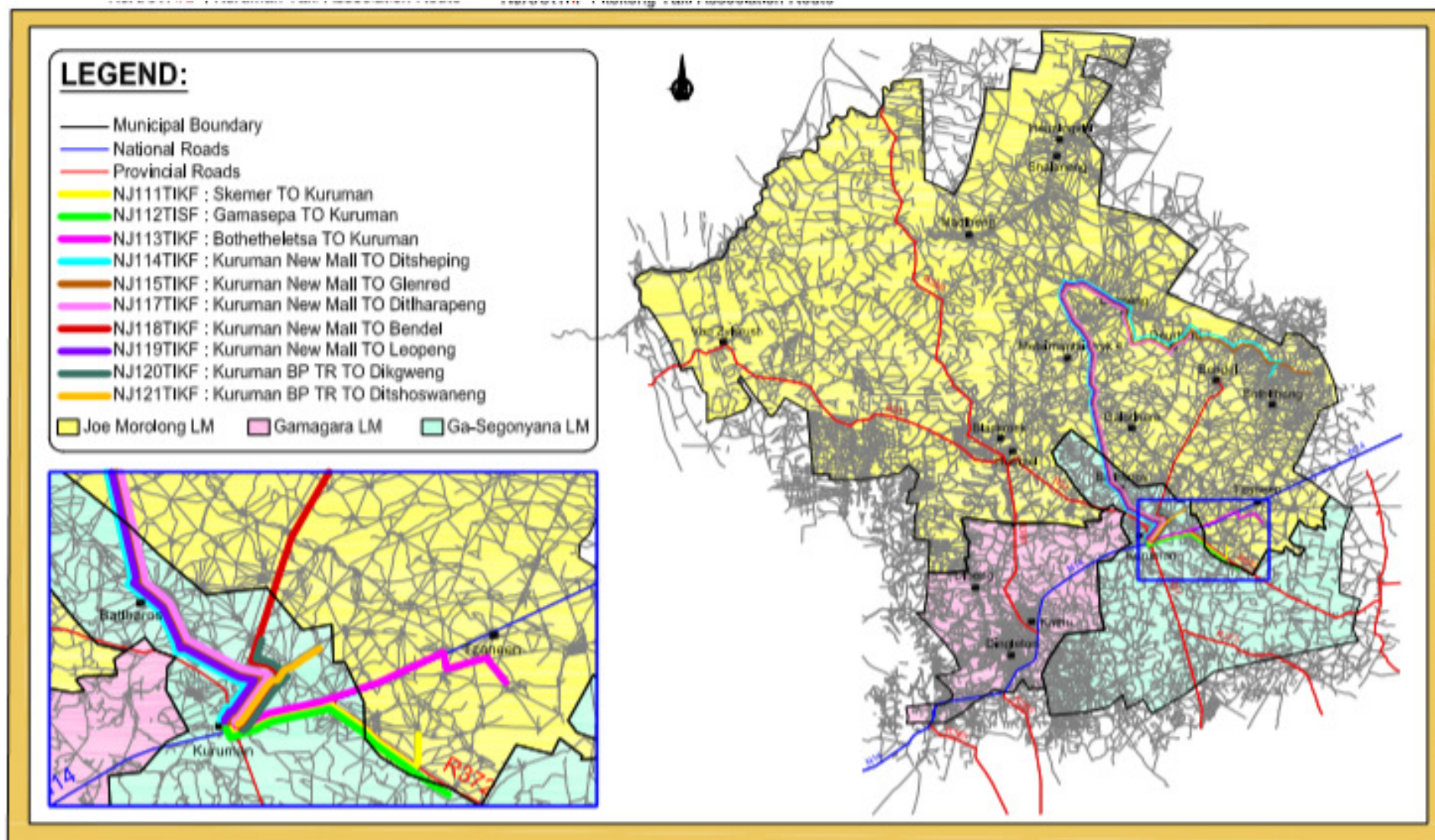


Figure 3.8:3 Taxi Routes Routes

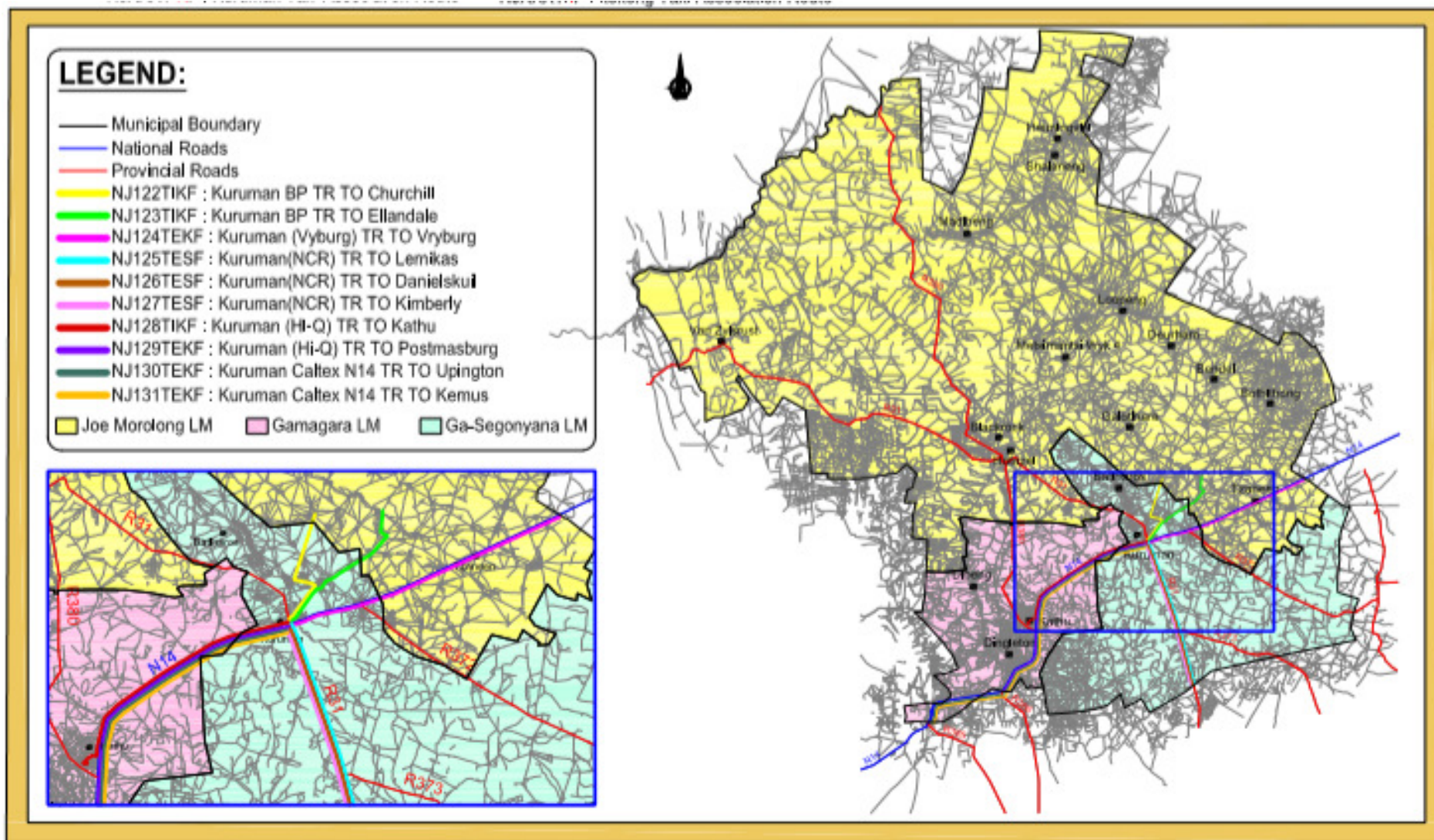




Figure 3.8:4 Taxi Routes Routes

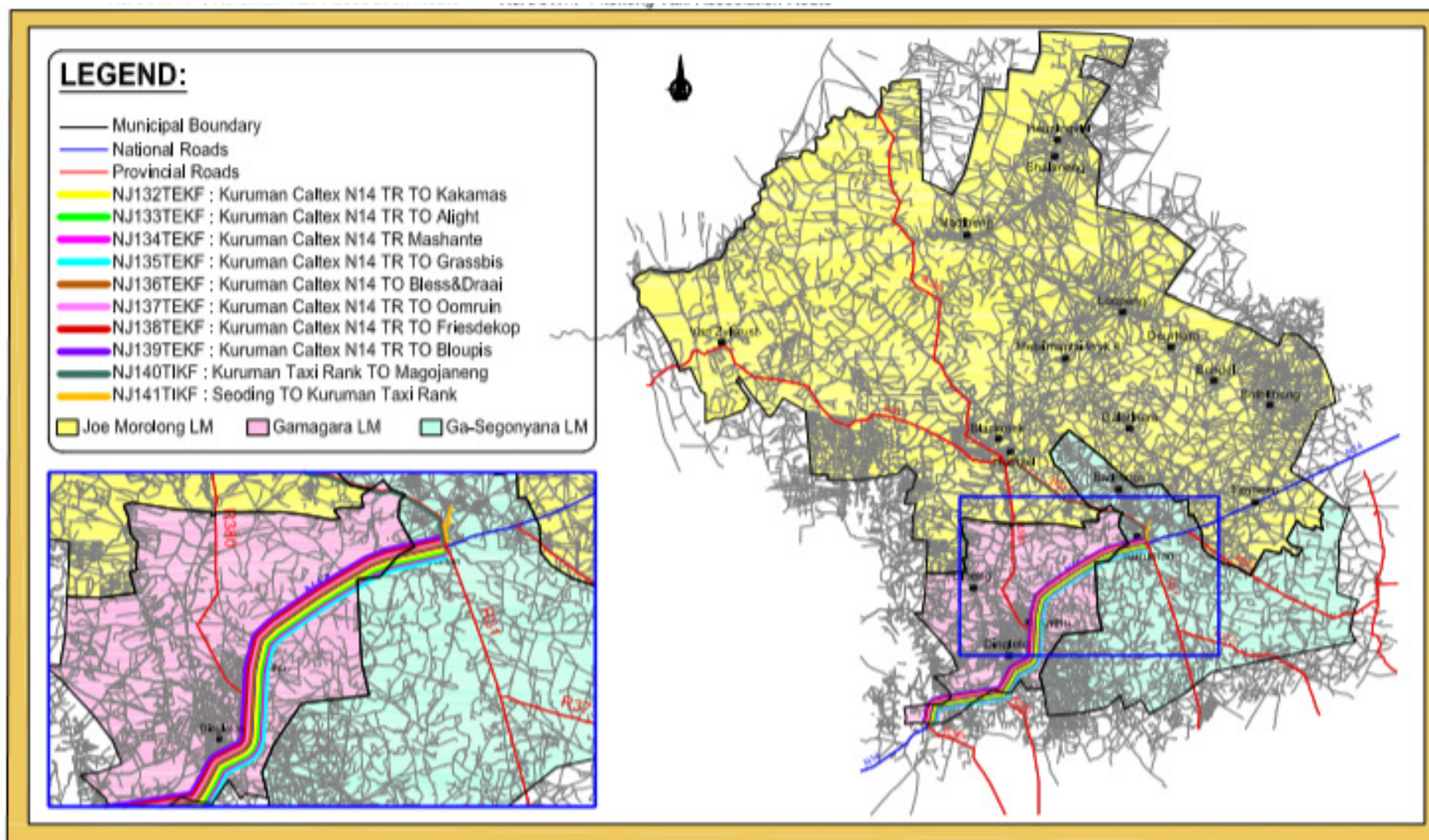


Figure 3.8:5 Taxi Routes

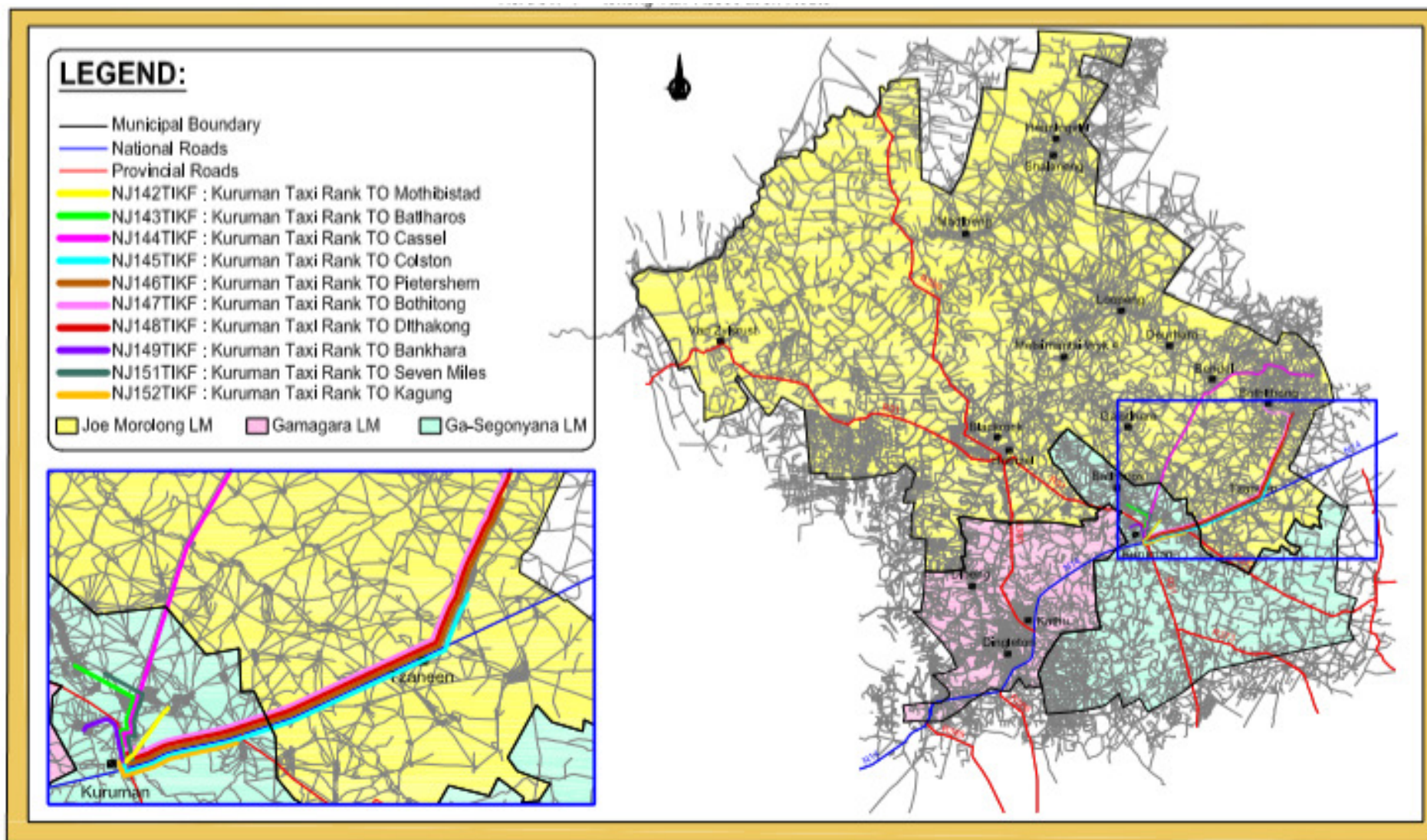




Figure 3.8:6 Taxi Routes Routes

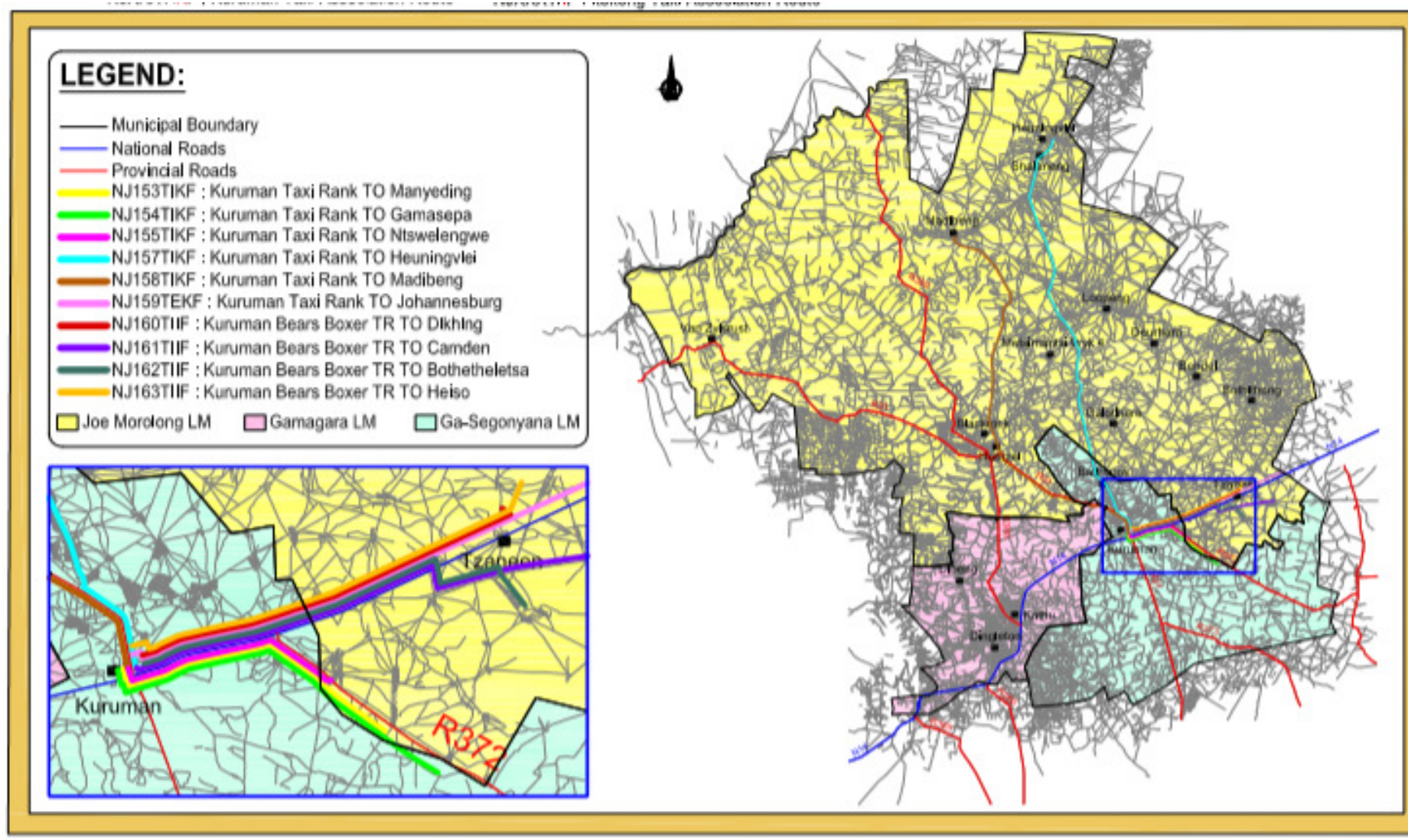


Figure 3.8:7 Taxi Routes Routes

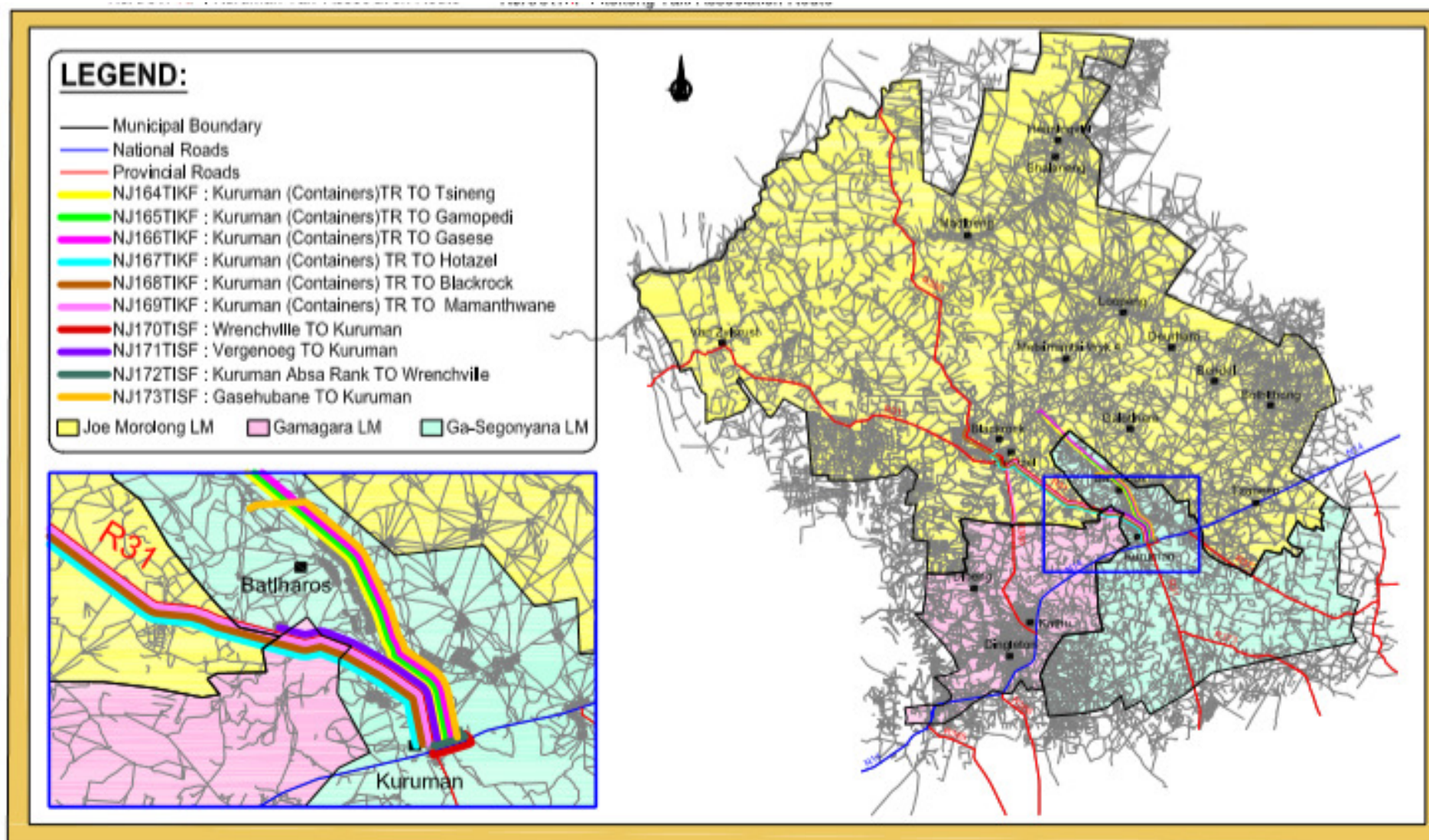




Figure 3.8:8 Taxi Routes Routes

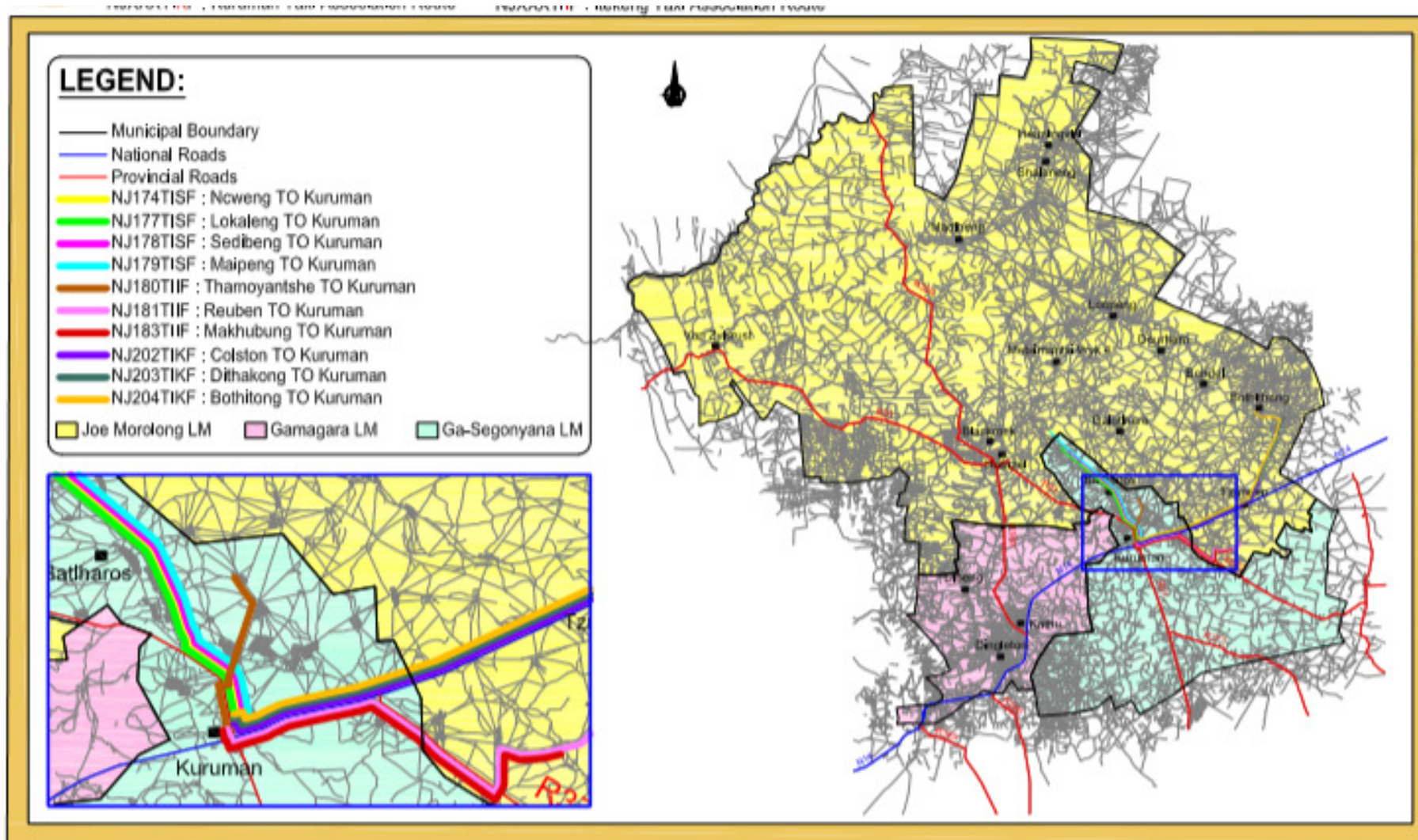


Figure 3.8:9 Taxi Routes Routes

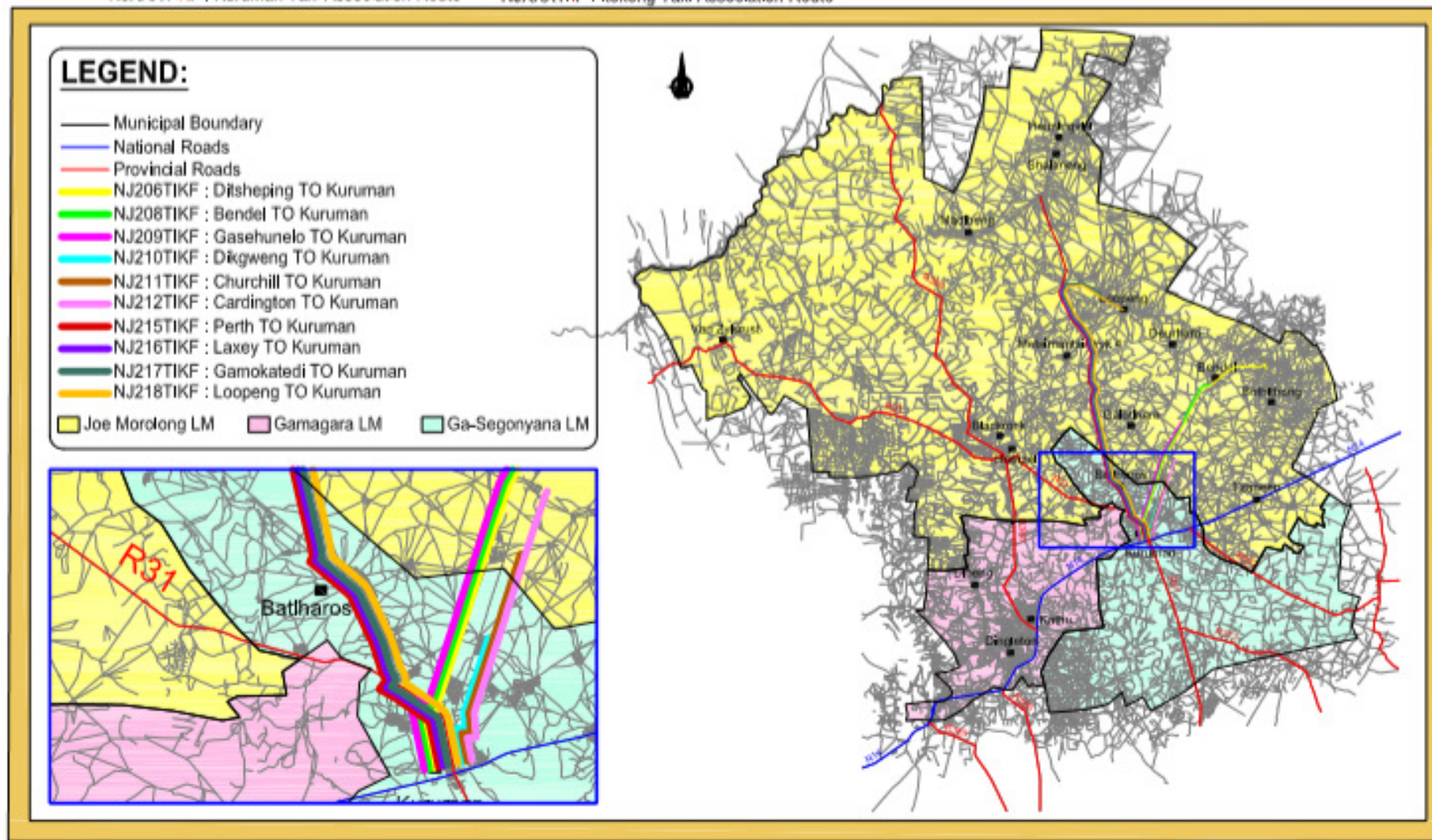


Figure 3.8:10 Taxi Routes Routes



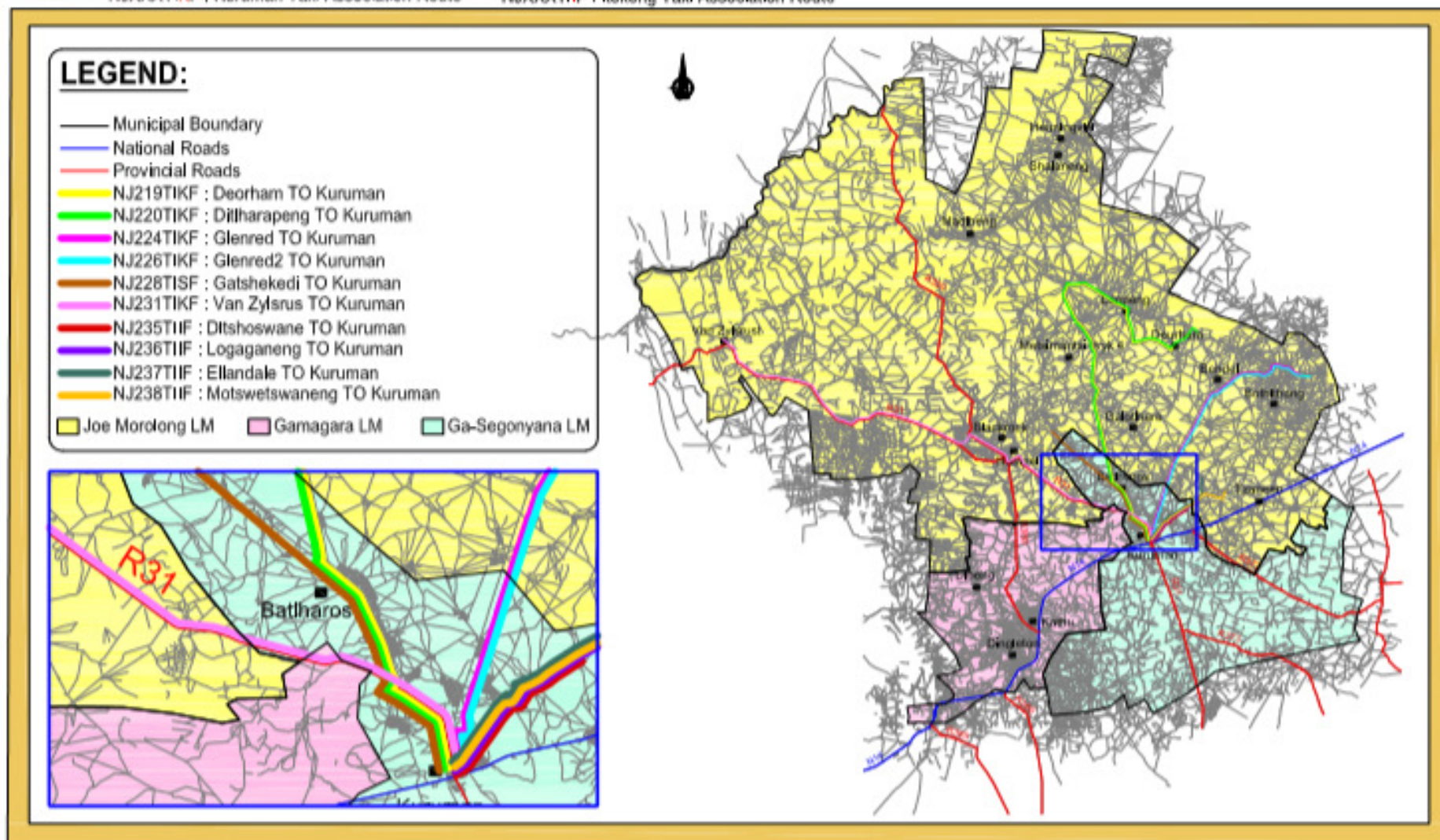


Figure 3.8:11 Taxi Routes Routes

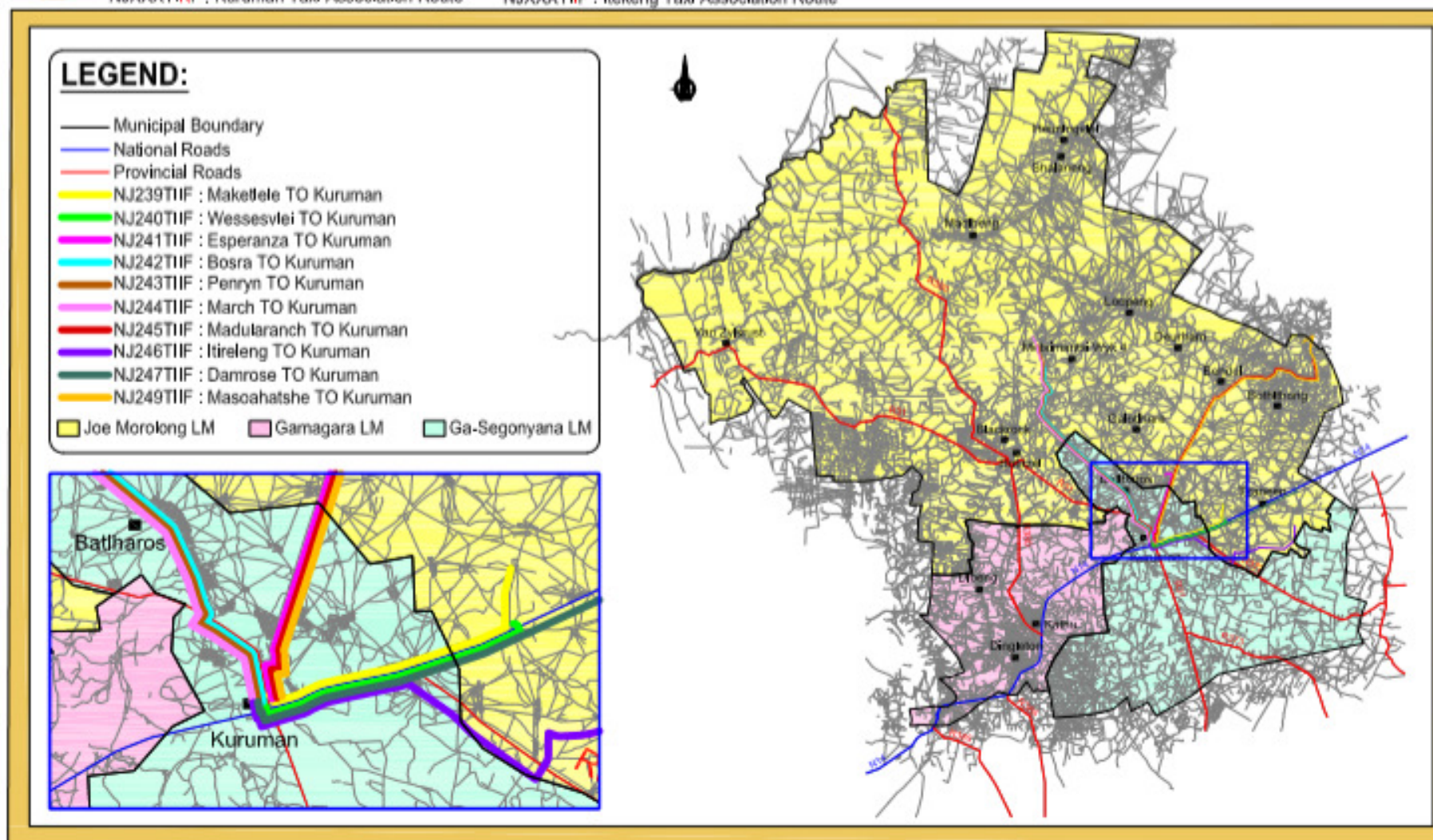


Figure 3.8:12 Taxi Routes Routes



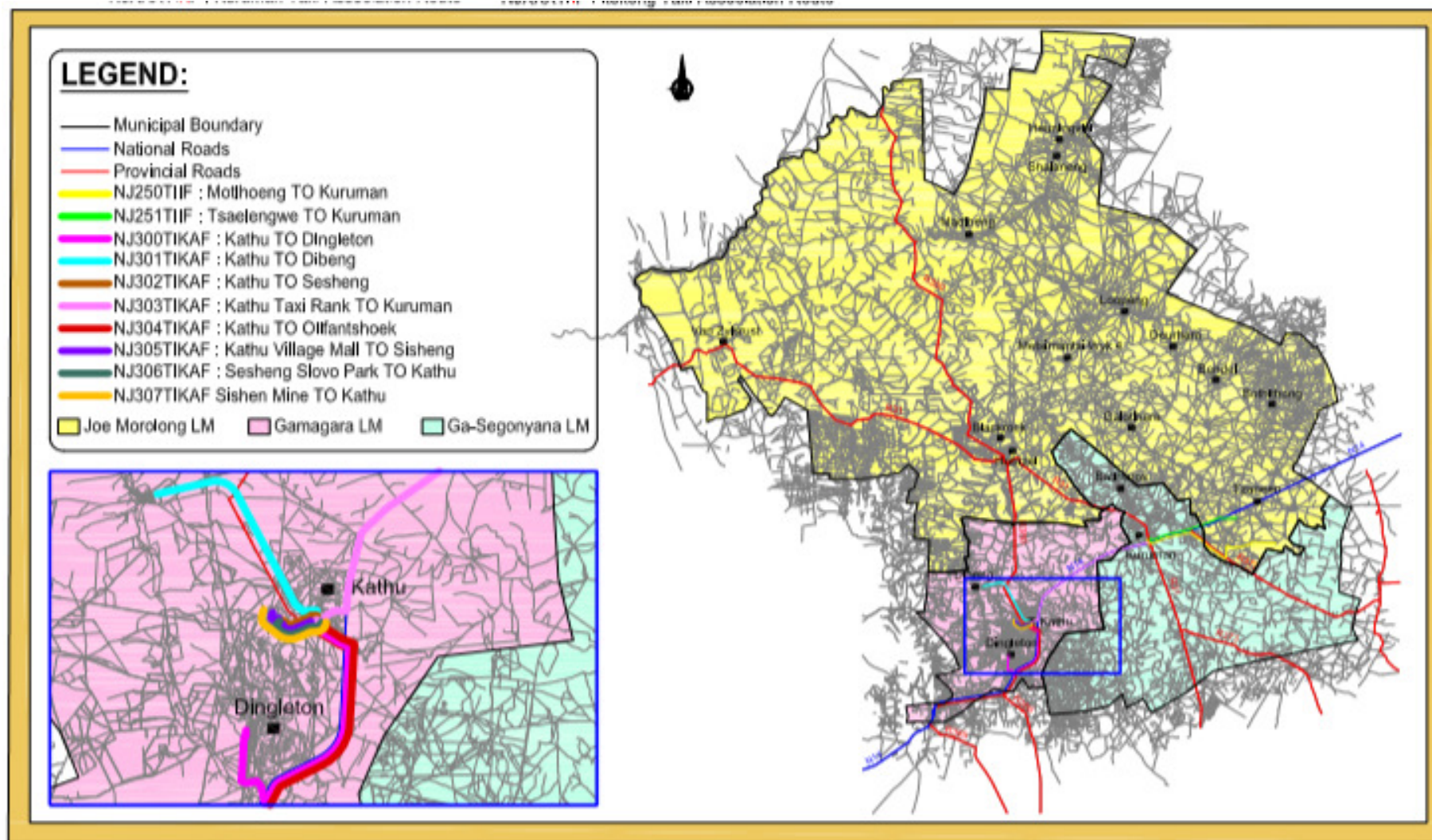


Figure 3.8:13 Taxi Routes Routes

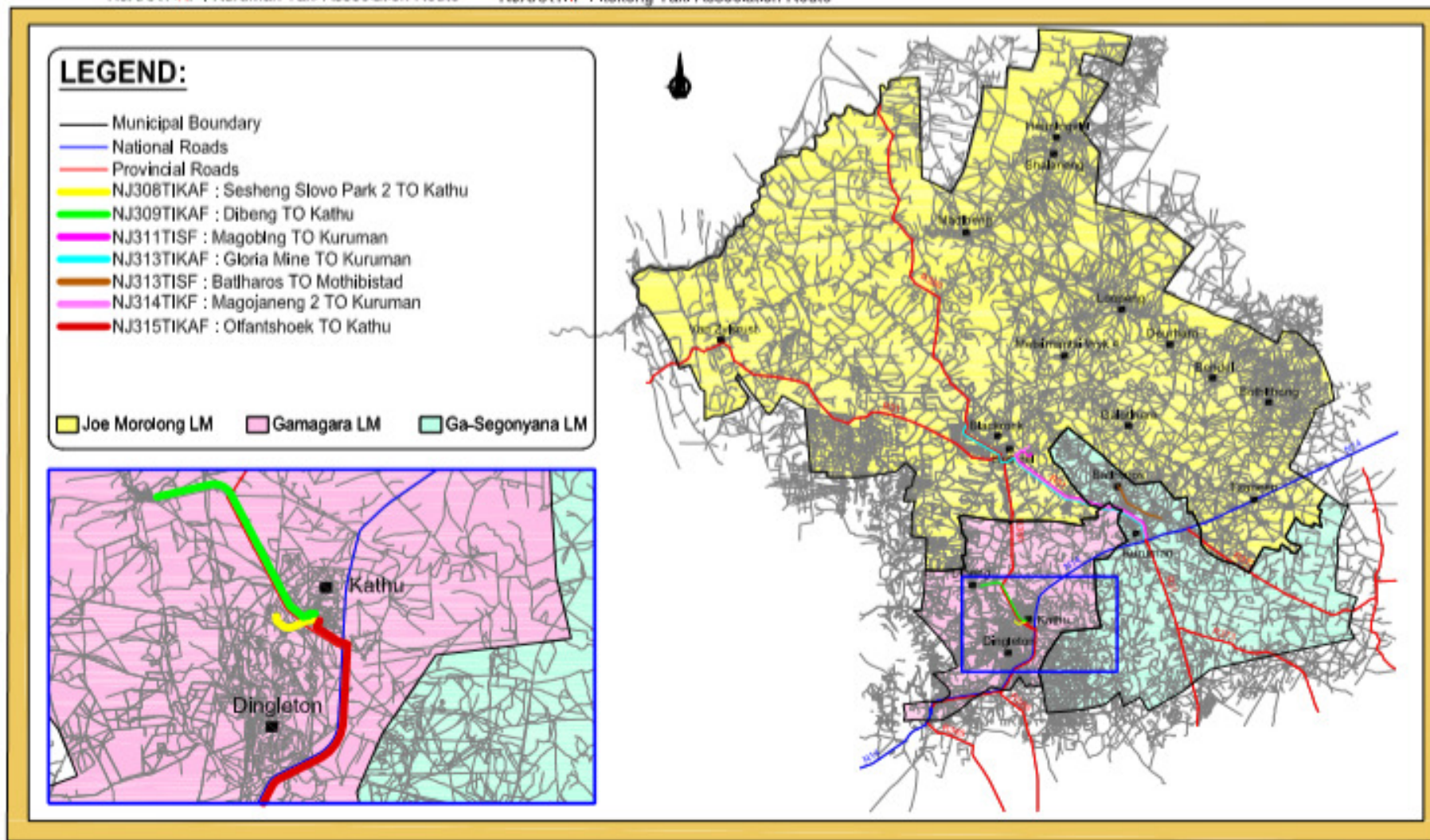
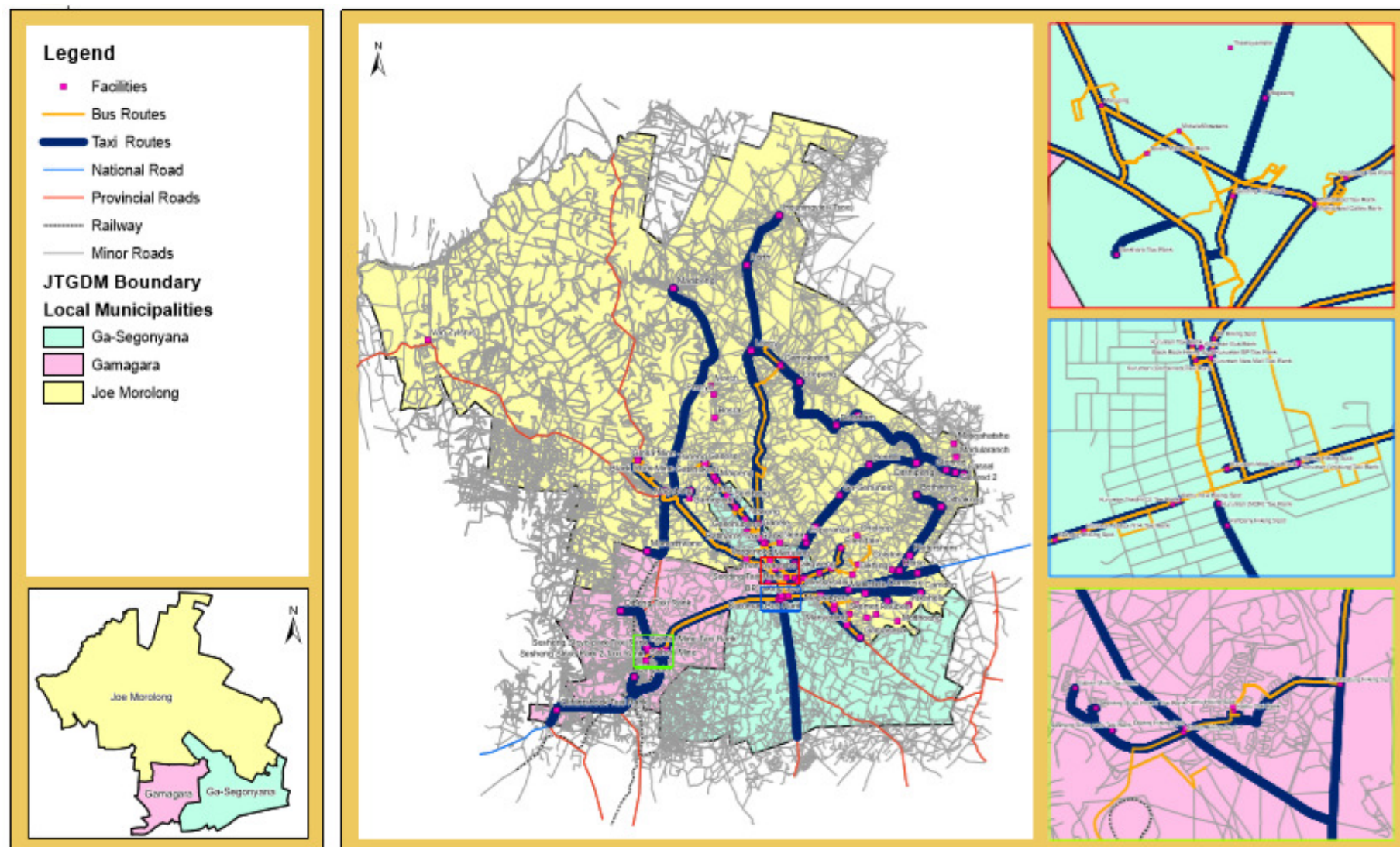


Figure 3.9: Combined Routes





#### **3.6.4. Aviation Transport Services**

The John Taolo Gaetsewe District Municipality has an airport called Sishen Airport. It is run by ACSA (Airport Company South Africa) on behalf of the Republic. There are two companies that provide air public transport in Kimberley International Airport. They are SAA Express and AirLink.

The Sishen Airport serves two airlines for passengers. One route is between Kathu and Johannesburg O.R Tambo by SAA Express while AirLink serves only the Kathu – O.R Tambo route.

#### **3.6.5. Non-Motorised Transport Services**

There are no programmes in place in the Municipality in terms of the Non-Motorised Transport Services. Community around Joe Morolong Municipality mostly walk and use donkey carts to travel from one place to the other.

#### **3.6.6. Other Services**

There other services, over and above commuter and passenger services provided by the main three modes of transport discussed above, that are provided in the John Taolo Gaetsewe District Municipality. These basically include:

- Scholar Transport
- Sedan and LDV Taxis
- Non-Motorised Transport (NMT)

The latter two modes have been discussed separately above.

##### **I. Scholar Transport**

Scholar transport in John Taolo Gaetsewe is not well catered for and learners in the rural areas walk distances to schools especially in the Joe Morolong Local Municipality. In the Ga-Segonyana Local Municipality learners depend on public transport to go to schools.

##### **II. Sedan and LDV Taxis**

Sedan taxis which are normally referred to as “4+1” taxis operate in conjunction with LDVs (or “bakkie taxis”) in some areas where the road infrastructure is not conducive, i.e. mostly dirt roads. Only operational data has been obtained from the District Municipality about these modes. The sedan and LDV taxis are apparently not formally registered and have no fixed routes as they deliver passenger randomly. They therefore pose a challenge in the public transport industry and need to be formalized. There are no particular facilities used by these modes as they operate anywhere.

It will therefore be necessary to initiate means in the future to also capture data pertaining to these services, where possible, so that their impact on the provision of organized and formalized public transport could be determined with reasonable accuracy.

### **III. Metered Taxis**

There are no metered taxis operating within the John Taolo Gaetsewe DM. There is a need for the service in Kuruman town. The following are the proposed areas where taxi meters could service:

- Bus Rank to Mokala Mall
- Bus Rank to Oasis Casino
- Bus Rank to Hospital or Clinic
- Bus Rank to Industrial Area
- Bus Rank to Traffic Office
- Kuruman to Kuruman Airport
- Kuruman to Obama Hills (via Buitekant street)
- CBD to Kuruman Residences

An application is being considered by the Ga-Segonyana LM for meter taxi to operate between Kuruman and Obama Hills. Engagements will be planned to be done with the taxi Associations and other affected stakeholders in the coming year.

## **3.7. INSTITUTIONAL STRUCTURE**

### **3.7.1. Introduction**

Whilst the vision, goals and objectives have been set for the John Taolo Gaetsewe District Municipality so as to be a working together for a better life for all, it needs to be noted that all the developmental processes will take place within a determined institutional structure. The political, administrative and stakeholder participation will have an influence on the delivery of transport infrastructure and services and, hence, on the achievement of the goals. It is therefore important to outline the institutional arrangements of the John Taolo Gaetsewe District Municipality so as to enhance its role in the transport sector.

### **3.7.2. Political Structure**

The political structure of John Taolo Gaetsewe District Municipality has slightly changed following the restructuring of the Municipality. The District has an Executive Mayor who heads the District Municipality. The mayor takes overall strategic and political responsibility of the District Municipality and leads a mayoral committee. The individual members of the Mayoral Committee are responsible for different aspects of municipal government. These include:

- Corporate and Community Services
- Planning and Development
- Infrastructure Services
- Financial Department

The approved organisational structure is shown in Figure 3.10.

### **3.7.3. Municipal Administration**

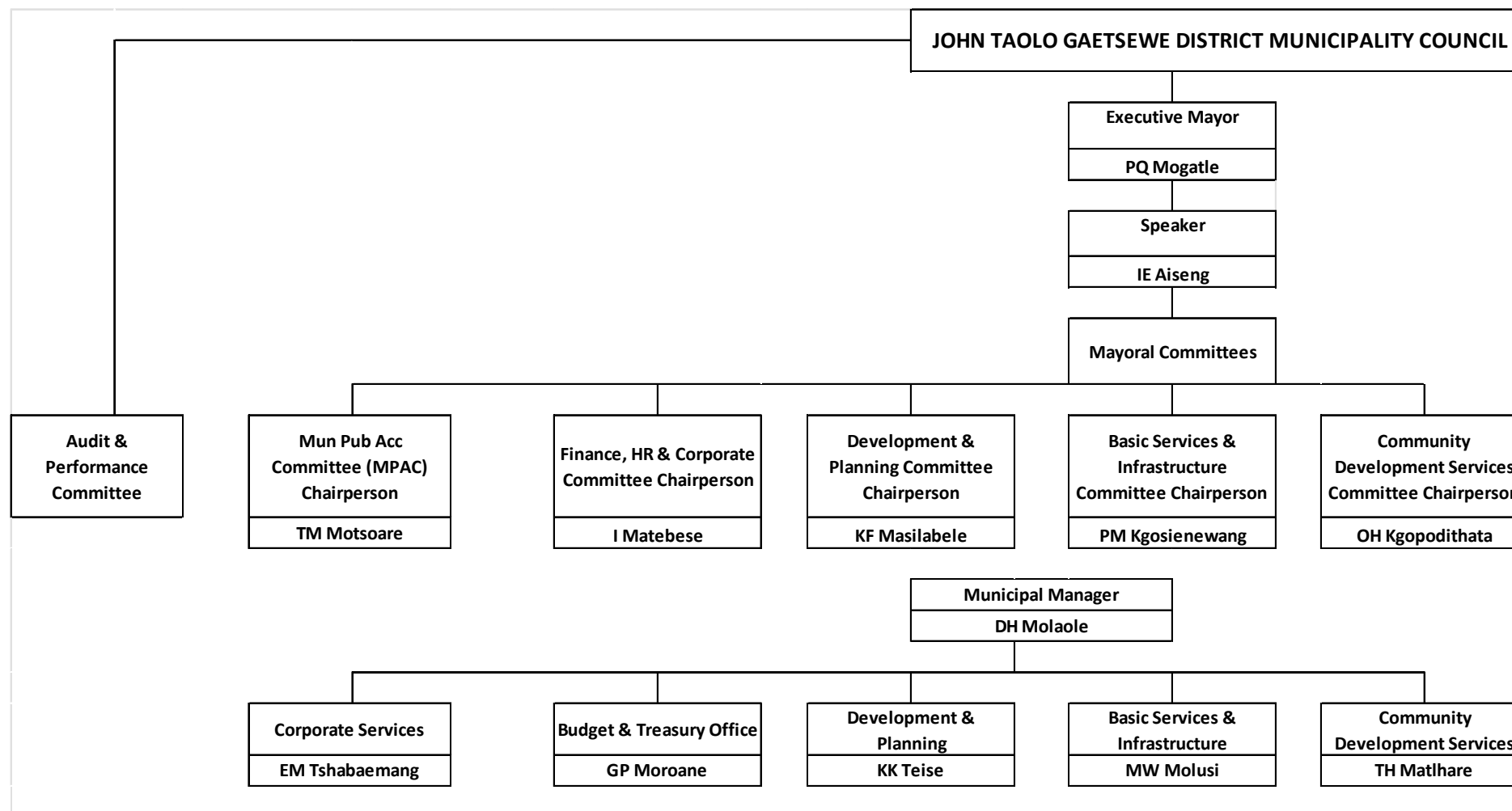
The Municipal Manager heads the administration of the John Taolo Gaetsewe District Municipality along with Departmental Directors for the following departments:

- Corporate Services
- Budget and Treasury Office
- Development and Planning
- Basic Services and Infrastructure
- Community Development Services
- 

The Municipal Manager provides a link between the political and administrative arms of the District Municipality. The District Departmental Directors implement mayoral committee's decisions and monitors and evaluates the respective Departments



Figure 3.10: Overall Organisational Structure



#### **3.7.4. Transport Related Departments**

The John Taolo Gaetsewe District Municipality has a number of units which fall under various departments. The transport related directorates and/or units have been highlighted differently and fall under the basic services and infrastructure department. The directorates and/or units that would have a direct or indirect role in transport development include:

- The whole Planning and Development Directorate
- The whole Infrastructure Services Directorate
- Budget and Treasury Unit

The development of Integrated Development Plans (IDP), Geographic Information System (GIS) and Project Information Management System (PIMS) fall under the planning and developmental department. The major part of the function of the department is to consolidate programmes from the various departments and prioritize projects for implementation in all fields of development.

The infrastructure services department include planning and design, housing and project management units which will ensure the implementation of identified projects. This basically relates to the development of infrastructure in the District Municipality. Due to insufficient resources, limited co-ordination and limited planning for transport function especially public transport within the District Municipality, the units involved with transport have had shortcomings in meeting transport objectives as highlighted in Chapter 1.

The budget and treasury unit of the Directorate: Finance will be involved with making certain that a financial pot is created for the transport related projects. This will also assist in consolidating various funds which will support activity nodes and corridors.

#### **3.7.5. Present Structural Operations**

Presently, Northern Cape Provincial Government: Department of Transport, Safety and Liaison provide support in determining the transport initiatives expedited at provincial level and at district municipality level. The province is also involved with support funding and co-ordination of transport planning at district level.

The role played by the provincial department on co-ordination of transport planning is supported as it promotes transport and modal integration, especially between various districts. However, assistance with financial resources to capacitate districts with transport management units has not been successfully implemented and this has brought challenges and lack of adequate resources at the districts.

It is therefore important that the province ensures that it continues to fulfil its co-ordinating role through, inter alia, the development of appropriate policy and legislation, facilitation of planning processes of the various districts and assistance on funding of projects for their implementation. In so doing, the province should further provide assistance for the establishment of institutional structures at district level to effectively implement transport planning functions.

In turn, the district should also continue to fulfil co-ordinating role through, inter alia, the monitoring of the implementation of policy and legislation, facilitation of planning processes

of the various local municipalities and assistance on funding of projects with provincial and district significance.

### **3.7.6. Possible Improved Structure**

It has been noted that in the entire Northern Cape Province there has been no Metropolitan Transport Area (MTA) declared in accordance with the Urban Transport Act. Hence, the

Urban Transport Act could not be used to establish specific transport planning unit in the John Taolo Gaetsewe District Municipality and also ensure the integration of transport and land use.

A number of municipalities have explored the idea of establishing Transport Authorities through feasibility studies. A Transport Authority (TA) is a juristic person who is an organ of state established alongside a municipality and consists of a governing body of councillors of that municipality. It is basically established to effect improved transport service delivery in a municipality by grouping transport functions into a single, well-managed and focused institutional structure.

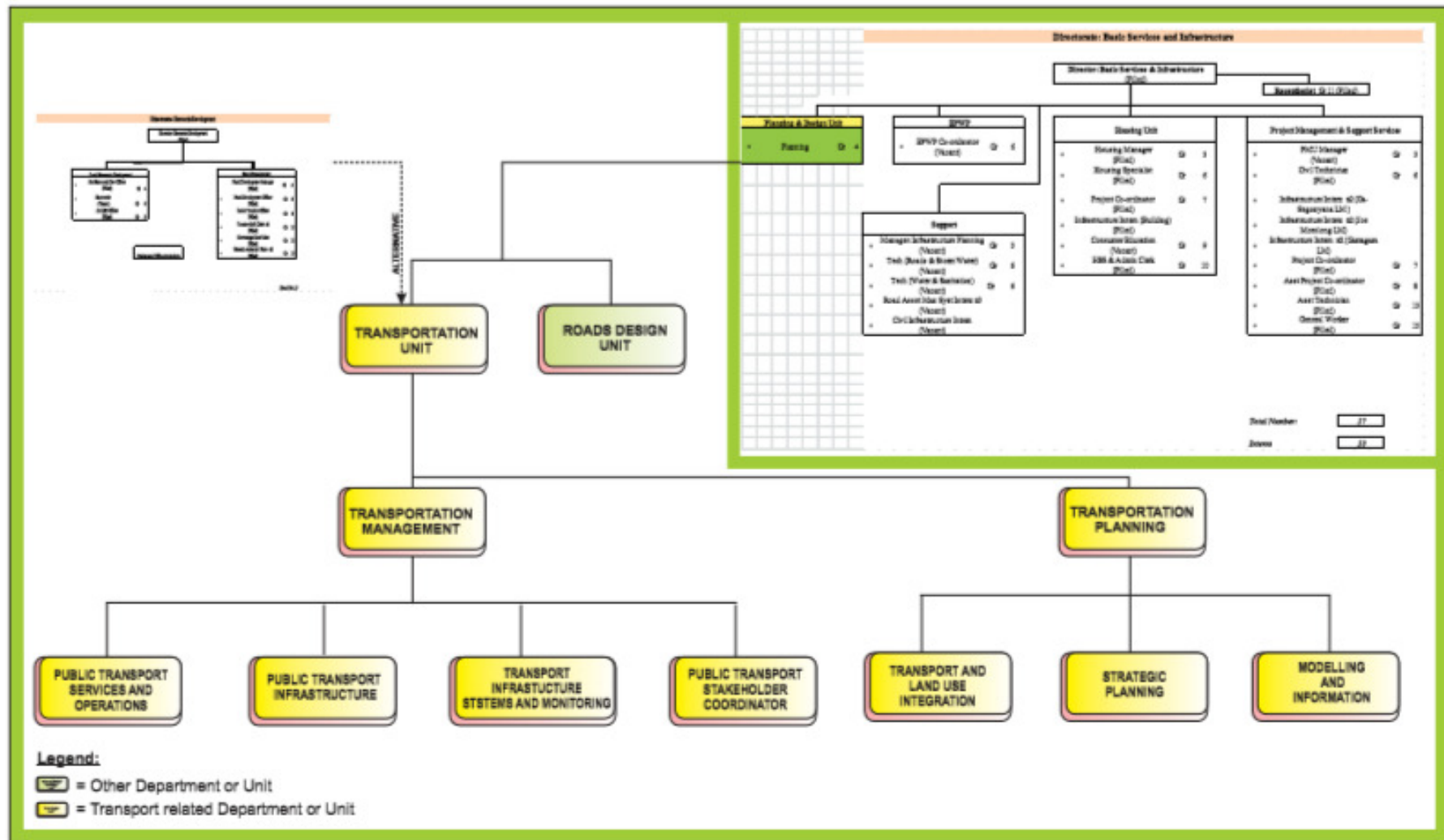
However, in the light of limited resources within the district, it might be too early to explore the development of a TA. The applicability of the six mandatory functions and self-funding mechanisms are likely not to be achievable in the short-term. It is advisable to continue to operate as a Planning Authority (PA) in which case functions can be tackled step by step whilst obtaining financial support from the Province.

The proposed improved (enhanced) structure that should be developed in the short-term to work towards a functional PA in the medium-term is shown in Figure 3.12. As noted in Figure 3.12 it is proposed that the planning and design unit in the infrastructure directorate enhanced to include the transportation and road design sub-units.

As an alternative option, the transportation unit could be part of the planning and development unit. However, this would mean that continual interaction with the infrastructure department would be required so that the transportation unit does not seem as one of the departments to be provided with planning information only but should have input in the implementation of projects.

The proposed transportation unit should be in a position to successfully support the local municipalities and continuously engage the province in terms of its mandate. The local municipalities do not have transportation units/departments. The municipalities have technical services departments which concentrate on roads and other infrastructure with limited, if none, capacity on transportation planning and operations.

Figure 3.12: Enhanced Organizational Structure



Whilst the district is still developing, there will therefore be no need for competing services such as funding management, transport economics, corporate image and infrastructure provision which will be required when a TA is formed. These functions can still be provided at the district level by the existing financial, infrastructure services, and financial directorates. Furthermore, the development of policies could still be handled at provincial level to incite integrated development within the province.

The concept of shared services to maximize the utilization of limited resources will be much more practical in the district municipality as opposed to the establishment of a Transport Authority which will constitute an unfunded mandate by the National Government and this concept cannot be self-sustaining in the developing districts.

### **3.7.7. Role of Municipalities**

The National Land Transport Act, 2009 (Act 5 of 2009) points the way for a more rational division of responsibilities between the spheres of government, i.e. to ensure that there is clear accountability and that the planning, management and monitoring of particularly public transport is located in one place. Hence the objective is to consolidate land transport functions and locate them in the appropriate sphere of government.

The Act gives national government a strategic planning function and the power to assign functions to the most appropriate sphere of government, as well as other powers such as the ability to regulate tourism transport and the capacity to act as a contracting authority for various contracts. The Act further allows for provinces to adopt a planning, co-ordination and facilitation role between municipalities and other government departments whose work impacts on transport and land use planning.

There is also an explicit role for provinces outside the metros. This includes ensuring the implementation of the provincial integrated development strategy and a public transport strategy with due attention to rural areas with the focus on less capacitated municipalities or those that do not fulfil their responsibilities in respect of transport service delivery, either by direct implementation or assistance that ensures they are capacitated. The idea of having separate transport authorities has been dropped and the responsibility now rests firmly with the municipality to which powers have been assigned.

The strengthened responsibilities of municipalities as outlined in the National Land Transport Act, 2009 (Act 5 of 2009) give a clear context for the scale and importance of transport services envisaged. They include:

#### **I. Responsibilities**

- a) Developing a land transport policy and strategy based on national and provincial guidelines (to cover the municipality's area of jurisdiction). This must include its vision and incorporate spatial development policies on matters such as densification and infilling as well as development corridors.
- b) Promulgating municipal by-laws and concluding appropriate agreements in the municipal sphere.
- c) Ensuring coordination between municipal departments and agencies that are responsible in some way for transport and land use planning issues, and bringing together the relevant officials when necessary.
- d) Preparing transport plans, ensuring the implementation thereof and monitoring its performance in achieving its goals and objectives.

- e) Managing the movement of persons and goods on land within its area by coordinating such movement.

## **II. Saving time, costs and the environment**

- a) Financial planning with regard to land transport within or affecting its area of jurisdiction, with particular reference to transport planning, infrastructure, operations, services, maintenance, monitoring and administration, with due focus on the rehabilitation and maintenance of infrastructure.
- b) Encouraging and promoting the optimal use of available travel modes so as to enhance the effectiveness of the transport system and reduce travelling time and costs.
- c) Developing, implementing and monitoring a strategy to prevent, minimise or reduce any adverse impacts of the land transport system on the environment.

## **III. Communication and awareness**

- a) Developing, operating and maintaining a land transport information system.
- b) Encouraging, promoting and facilitating public consultation and participation in the planning, regulation and implantation of public transport, and applying the requirements of the Systems Act in that regard.
- c) Marketing and promoting public transport.
- d) Providing information to users or potential users of public transport.

## **IV. Passenger needs**

- a) Promoting safety and security in public transport.
- b) Providing for the needs of special categories of passengers in planning and providing public transport infrastructure, facilities and services to meet such needs, in so far as is possible.
- c) Liaising on a continuous basis with the South African Police Service, Road Traffic Management Corporation, the relevant provincial and municipal law enforcement authorities or agencies, and the inspectors appointed under the Cross-Border Act, so as to ensure coordinated transport law enforcement.

## **V. Road traffic and corridors**

- a) Applying traffic management techniques aimed at improving road traffic movement.
- b) Undertaking functions relating to municipal roads, as well as measures to limit damage to the road system.
- c) Planning, implementing and managing modally integrated public transport networks and travel corridors and liaison in that regard with neighbouring municipalities.
- d) In relation to the planning functions contemplated, the inclusion of service level planning for passenger rail on a corridor network basis in consultation with PRASA.

## **VI. Ticketing and fares**

- a) Introducing, establishing or assisting in or encouraging and facilitating the establishment of integrated ticketing systems and the managing thereof,

including thorough determining measures for the regulation and control of revenue-sharing among operators involved in such systems.

- b) The setting of standards for interoperability between fare collection and ticketing systems (subject to standards established by the Minister).
- c) Formulating and applying travel demand management measures.
- d) In the case of gross cost contracts for subsidised services, determining fare structures and fare levels and periodically adjusting fares after publishing the proposed adjustment for public comment.
- e) Determining concessionary fares for special categories of passengers.
- f) Exercising control over service delivery through the setting of operational and technical standards and monitoring compliance therewith and management of contracts and concessions.
- g) Concluding subsidised service contracts, commercial service contracts and negotiated contracts with operators for services.
- h) Developing and managing intelligent transport systems in the prescribed manner.

As noted above, the District Municipality is well positioned to carry-out the above tasks. The major challenge is to create the required funding to make sure that its anticipated mandate will be met with dedication and efficiency.

## **4. CHAPTER 4: SPATIAL DEVELOPMENT FRAMEWORK**

### **4.1 BACKGROUND**

Various pieces of legislation have an impact on the spatial development of the Country, i.e. South Africa. These pieces of legislation basically foster the integration of land use and transport planning which will result in an efficient and improved urban form within each of the municipalities. The relevant legislation to this effect includes the following:

- Spatial Planning & Land Use Management Act (SPLUMA), Act 16 of 2013
- National Land Transport Act (NLTA), Act 5 of 2009
- Municipal Systems Act, Act 32 of 2000

SPLUMA sets out principles that promote efficient and integrated land development through the integration of urban and rural land development. It also promotes the availability of employment opportunities closer to the places of residence, optimization of existing resources including roads and transport services. It basically discourages urban sprawl in the process of land development. The NLTA states that transport planning must be integrated with land development processes. The transport plans must be developed within the context of the integrated development plan and the land development objectives. The Municipal Systems Act provides principles that enable municipalities to become developmental institutions. These include integrated social, economic, spatial, infrastructural and institutional aspects.

It is therefore necessary to consider land use aspects in relation to transport planning so that the developmental principles stated above are addressed with efficiency. The Spatial Development Framework (SDF) basically establish the preconditions for viable public transport and offers spatial details that will essentially work towards the development of transport strategies.

Hence, the SDF provides the spatial component of the Integrated Development Plan (IDP) and concretizes many of the urban-form imperatives of the District Strategies. It, usefully, begins to establish the preconditions for viable public transport and offers concrete spatial detail that will be essential to work with in developing the transport strategy.

### **4.2. SDF VISION**

A number of provincial and municipal strategic and sector planning documents have been prepared over the last five years, which all include visions for the development of the district. The vision of the 2017-JTGDM SDF is located in, and supportive of these visions, and reads as follows:

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

- a) Engage in viable and sustainable wealth generating economic activities. This has resulted in the eradication of poverty and 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 have brought an end to the deep poverty and the destitution of the Joe Morolong Local Municipality. Due to well researched and tested desert-resistant agricultural practices, high-value rural products are being produced and over-grazing and soil erosion is no longer a problem. Serious investment in and exploitation of renewable sources of energy has not only resulted in the district becoming self-reliant in the generation of electricity, but seen it make a sizeable injection on the national electricity grid.

- b) Live in sustainable human settlements that are safe, vibrant and in balance with the environment. Young people grow up with the prospect of a bright future, either in the district, or anywhere else in the world that the quality education they received, has prepared them for. Walking and cycling are the two most common modes of movement within towns and villages, while a safe and reliable minibus system provides transport between these settlements. Traffic management and road maintenance mean that mining trucks no longer pass through settlements and potholes are a thing of the past. Water and energy-use, energy generation and the construction of housing, are 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 does not take place and environmental damage is minimised.
- c) Participate in the governance of the district, including settlement formation and expansion, economic development, education, and the provision of basic services. Plans are prepared with full participation of all interested and affected parties, are based on accurate information and are implemented. Elected politicians and officials serve the people and corruption and misappropriation of funds are rare occurrences. Traditional leaders serve on a civil society advisory body that is consulted on all strategic decisions by the elected politicians. Decisions that affect the public are 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 are financially viable and desirable places to work in.

This not only ensures that the district is truly “home” to all of its people, but also a sought-after national and international investment and tourism destination.

#### **4.3. SETTLEMENTS DENSITY AND TENURE**

The density of human settlement in the Northern Cape Province of 3 persons per km<sup>2</sup> is considerably lower than (1) the national density of 39.5 persons per km<sup>2</sup>, and (2) the densities in the other eight provinces. (The Free State Province has the second lowest provincial population density at 23 persons per km<sup>2</sup>.) On a district level, the JTGDMD had a population density of 7.0 persons per km<sup>2</sup> 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 km<sup>2</sup> in 1995 to 6.5 persons per km<sup>2</sup> in 2001 and to 6.8 persons per km<sup>2</sup> 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. The density map is shown in Figure 4.1.

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 km<sup>2</sup>. 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 km<sup>2</sup>.

The areas of largest concentration in the district are: (1) Kuruman and surrounds, and (2) Mothibistad in the Ga-Segonyana LM. Smaller concentrations can be found in (1) Bathlaros and Morupeng 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 154 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 density of dwellings within a 5km radius is shown in Figure 4.2

The density of dwellings within a 2km, 10km, 15km and 20km radius are shown in Figure 4.3

With regard to tenure status, the majority of the households in the district own and have paid off their properties in the Ga-Segonyana LM and the former Moshaweng LM (and by inference the Joe Morolong LM). It is only the Gamagara LM and the former DMA where high levels of renting prevail – 46.2% and 67.1% of households respectively. This is most likely a function of the temporary, hostel-type accommodation generally associated with the mining sector. The percentage distribution of households by tenure status and municipality is shown in Table 4.1 below.

TABLE 4.1: Percentage Distribution of Households by Tenure Status

TABLE 4.1 : Percentage Distribution of Households by Tenure Status									
Municipality	Census 2001				Community Survey 2007				
	Owned & fully paid off	Owned but not yet paid off	Rented	Occupied rent-free	Owned & fully paid off	Owned but not yet paid off	Rented	Occupied rent-free	Other
John Taolo Gaetsewe DM	67.0	4.2	18.8	17.9	73.9	2.9	16.5	6.0	0.7
Gamagara LM	36.4	12.6	35.1	15.9	37	6.3	46.2	6.7	3.8
Ga-Segonyana LM	56.9	4.7	9.4	29.0	78.7	4.0	10.3	7.0	0
Joe Morolong LM	NA	NA	NA	NA	NA	NA	NA	NA	NA
Former Moshaweng LM	88.2	1.9	3.8	6.0	94.9	0.3	2.4	2.5	0
Former DMA	16.4	0.9	31.9	50.8	9.2	1.2	67.1	22.5	0
Northern Cape	48.6	12.1	15.7	23.5	56.9	9.7	16.0	16.4	0.9

**John Taolo Gaetsewe District Municipality**

**Total population per mesozone**

**Legend**

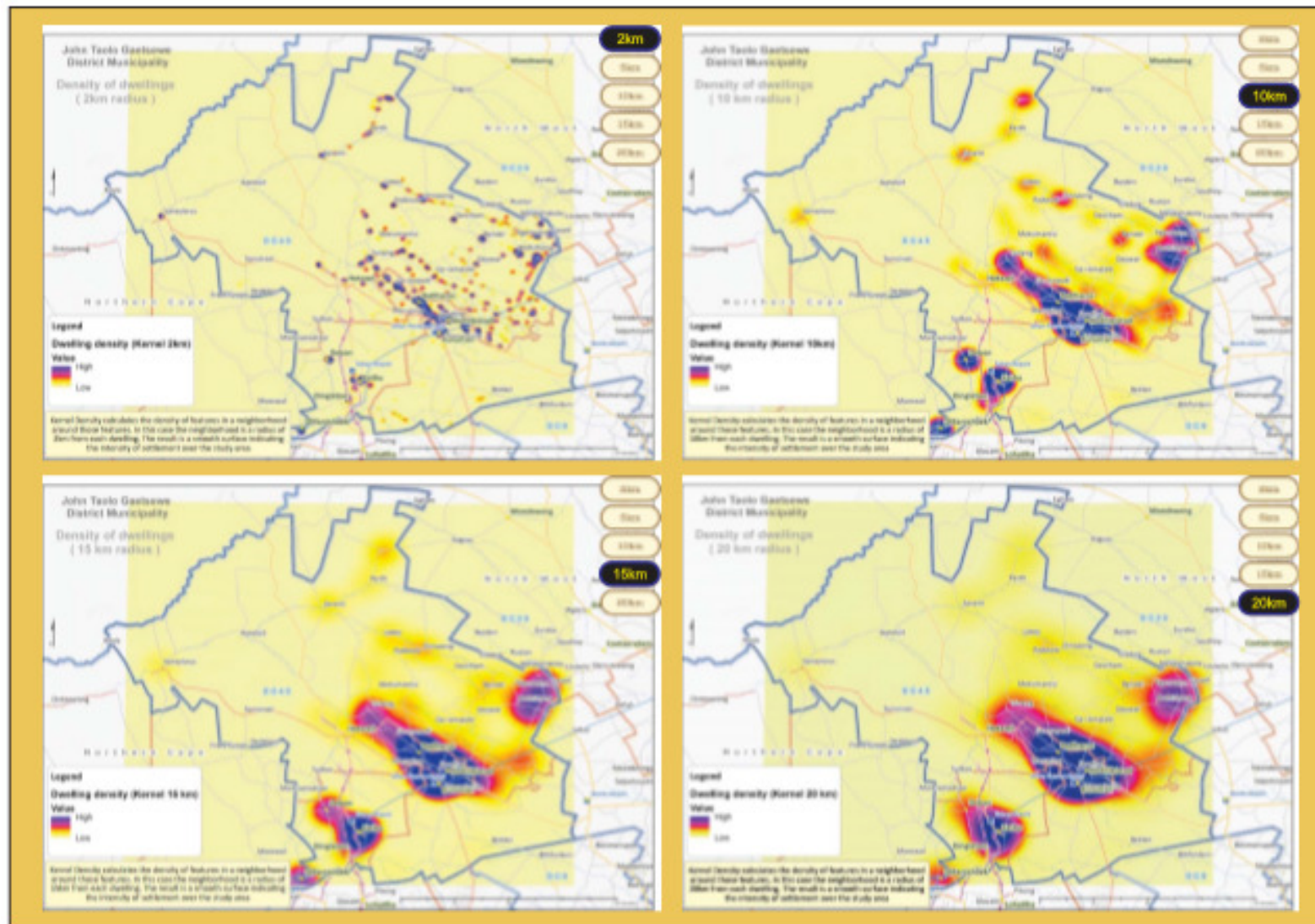
**Population 2008**

0 - 30
31 - 100
110 - 200
210 - 700
710 - 3,200
3,300 - 5,600
5,700 - 9,900
10,000 - 17,000
18,000 - 26,000
27,000 - 56,000

[illegible]



Figure 4.3



## 4.4. HOUSING TYPES

With regards to housing in the district, 67.99% of the households in the JTGDM live in a “House or brick structure on a separate stand” as shown in Table 4.2. This figure is 8.74% above that for South Africa as a whole at 59.25%, but 7.28% below the figure for the Northern Cape Province at 75.27%. In comparison to the four other DMs in the province, the JTGDM has the second lowest percentage of households living in a “House or brick structure on a separate stand”. Amongst the three LMs in the district, the Ga-Segonyana LM has the highest percentage of households living in a “House or brick structure on a separate stand” (76.39%). Nearly half (45.6%) of all households in the DM living in such a dwelling are located in this LM.

TABLE 4.2: Dwelling Type per Municipality, Community Survey 2007

Municipality	House or brick structure on a separate stand or yard	Traditional dwelling	Flat in block of flats	Town/cluster/semi-detached house	House/flat/room in back yard	Informal dwelling/s shack in back yard	Informal dwelling/s shack NOT in back yard	Room/flat/et not in back yard but on a shared property	Caravan or tent	Workers hostel (bed/room)	Other
John Taolo Gaetsewe DM	67.99	15.18	0.53	0.06	1.95	0.90	7.57	0.35	0.14	5.10	0.22
Gamagara LM	57.93	1.22	2.49	0.17	3.47	0.82	12.61	1.37	0.13	18.93	0.85
Ga-Segonyana LM	76.39	7.84	0.20	0.00	3.05	1.84	10.41	0.03	0.00	0.08	0.16
Joe Morolong LM	64.15	28.52	0.00	0.08	0.20	0.02	2.57	0.21	0.29	3.96	0.00
Foremr Moshaweng LM	65.33	31.79	0.00	0.00	0.00	0.00	2.18	0.13	0.29	0.28	0.00
Former DMA	54.63	2.24	0.00	0.73	1.82	0.16	5.72	0.88	0.26	33.56	0.00

The lowest percentage of households in the DM living in a “House or brick structure on a separate stand”, are located in the Gamagara LM as shown in Table 4.3. This LM incidentally has the highest percentages of households in the district living in (1) a “Workers’ hostel (bed/room)”: 18.93% and (2) an “Informal dwelling/shack not in backyard”: 12.61%. Both these figures are significantly higher than the respective national and NC provincial figures of

(1) “Workers’ hostel (bed/room)”: 2.88% and 4% and (2) “Informal dwelling/shack not in backyard”: 9.71% and 8.89%. On a district-scale, 67.33% of all households living in a

“Workers’ hostel (bed/room)” are located in this LM. This corresponds with the fact that

31.7% of households in the Gamagara LM consist of only one member, a function of the prevalence of the mining industry in the area.



TABLE 4.3: Dwelling Type Distribution Across the JTGDM

Municipality	House or brick structure on a separate stand or yard	Traditional dwelling	Flat in block of flats	Town/cluster/semi-detached house	House/flat/room in back yard	Informal dwelling/shack in back yard	Informal dwelling/shack NOT in back yard	Room/flat/et not in back yard but on a shared property	Caravan or tent	Workers hostel (bed /room)	Other
John Taolo Gaetsewe DM	100	100	100	100	100	100	100	100	100	100	100
Gamagara LM	15.45	1.45	84.44	48.15	32.24	16.58	30.20	71.43	16.67	67.33	70.65
Ga-Segonyana LM	45.60	20.98	15.56	0.00	63.50	82.63	55.80	3.40	0.00	0.60	29.35
Joe Morolong LM	38.95	77.57	0.00	51.85	4.26	0.79	14.00	25.17	83.33	32.06	0.00
Former Moshaweng LM	35.29	76.90	0.00	0.00	0.00	0.00	10.56	13.61	75.00	2.05	0.00
Former DMA	3.66	0.67	0.00	51.85	4.26	0.79	3.45	11.56	8.33	30.01	0.00

Higher-density living in the district seems not to be a popular and/or well-provided dwelling type, with only 0.53% of households living in a “Flat in a block of flats” and 0.06% living in a “Town/cluster/semi-detached house”. Both these figures are far below the national and Northern Cape Provincial figures of 4.77% and 1.45% respectively in the case of a “Flat in a block of flats” and 2.7% and 2% respectively in the case of a “Town/ cluster/semi-detached house”. In comparison to the situation in the other four DMs in the province, the JTGDM has the lowest percentage of households living in these two types of dwelling. Again, in this case, the Gamagara LM is significantly different to the other two LMs in the district, with 2.49% of households in this LM living in a “Flat in a block of flats” and 0.17% living in a “Town/cluster/semi-detached house”. While the figure for “Town/cluster/semi-detached houses” in this LM is far below the provincial figure, the percentage for a “Flat in a block of flats” is higher than the provincial figure.

With regards to the prevalence of informal dwellings in the DM, 8.47% of households live in an informal dwelling, which is significantly below the national figure of 14.43% and somewhat below the provincial figure of 10.49%. In terms of the spatial location of informal dwellings in the district, the bulk of the households living in (1) an “Informal dwelling/shack in a back yard” (82.63%) and (2) an “Informal dwelling/shack not in a back yard” (55.8%), are located in the Ga-Segonyana LM and to a lesser extent in the Gamagara LM as shown in Table 4.4. In the case of the latter, the percentage of households living in (1) an “Informal dwelling/shack in a back yard” is 16.58%; and (2) an “Informal dwelling/shack not in a back yard”, 30.2%. This significant concentration in these two LMs is most likely a result of rapid in-migration to the towns of Kuruman and Kathu from especially the Joe Morolong LM.

TABLE 4.4: % of Households Living in Formal and Informal Dwellings

<b>TABLE 4.4: % of Households Living in Formal and Informal Dwellings</b>				
Municipality	% Formal Dwelling		% Informal Dwellings	
	2001	2007	2001	2007
John Taolo Gaetsewe DM	70.1	70.9	6.8	8.5
Gamagara LM	84.3	65.4	14.5	13.5
Ga-Segonyana LM	72.5	79.7	8.6	12.2
Joe Morolong LM	NA	NA	NA	NA
Former Moshaweng LM	63.3	65.5	3.3	2.2
Former DMA	82.7	58.0	5.7	5.9
Northern Cape	81.0	80.4	11.3	10.5

The settlements maps showing the land cover in 2001 and the dwelling count in 2010 is shown in Figure 4.4 to 4.6.

Figure 4.4

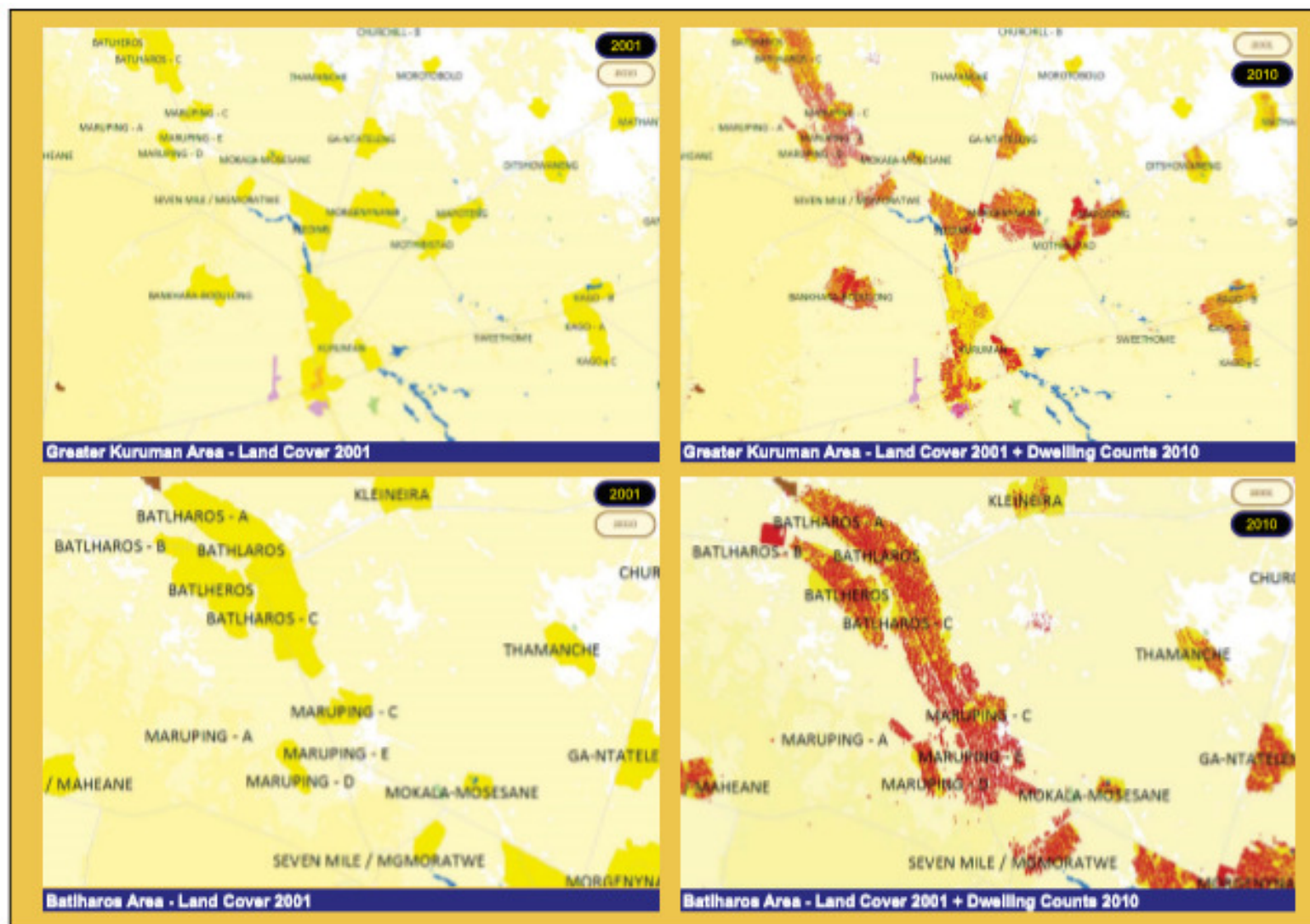


Figure 4.5

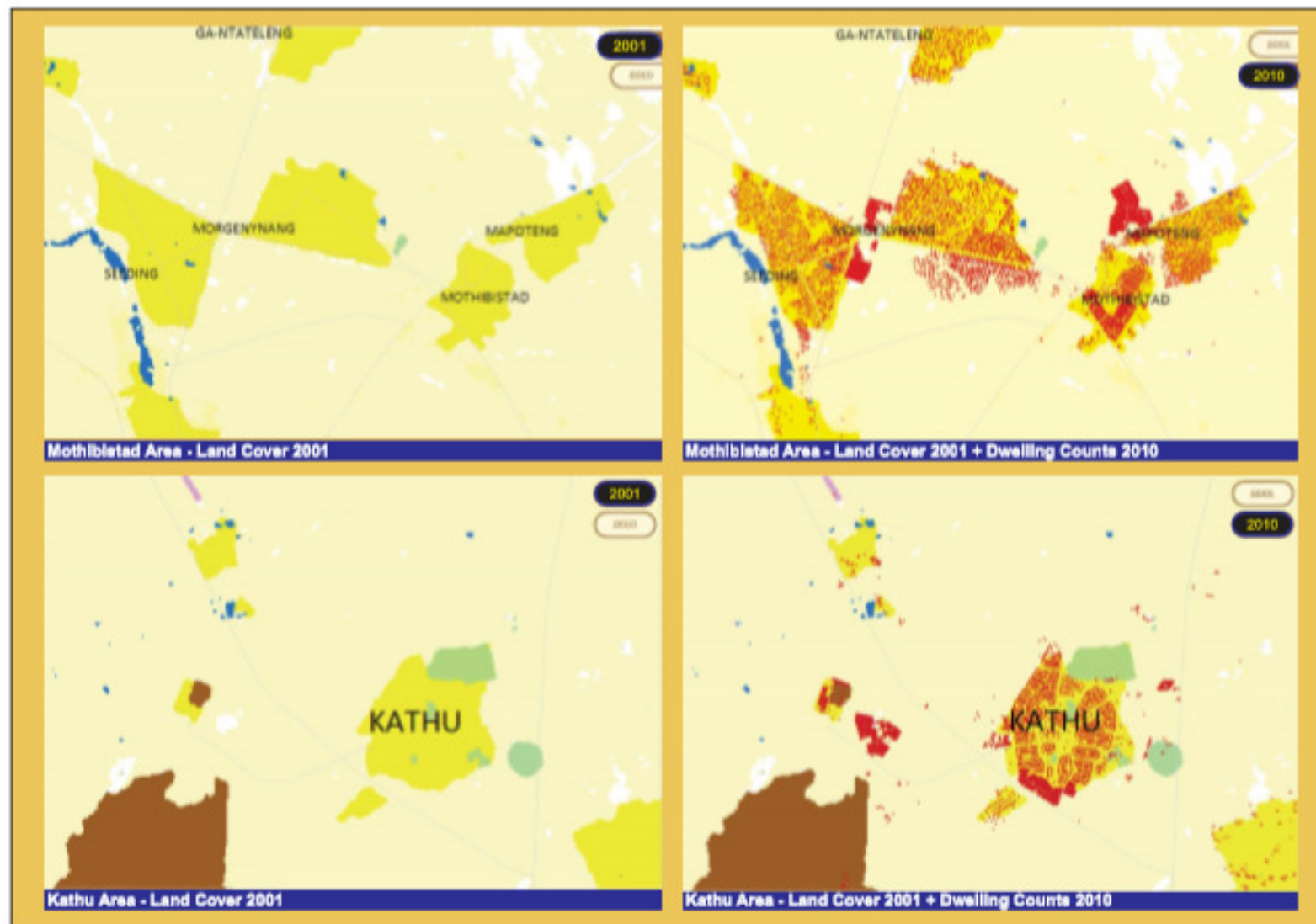
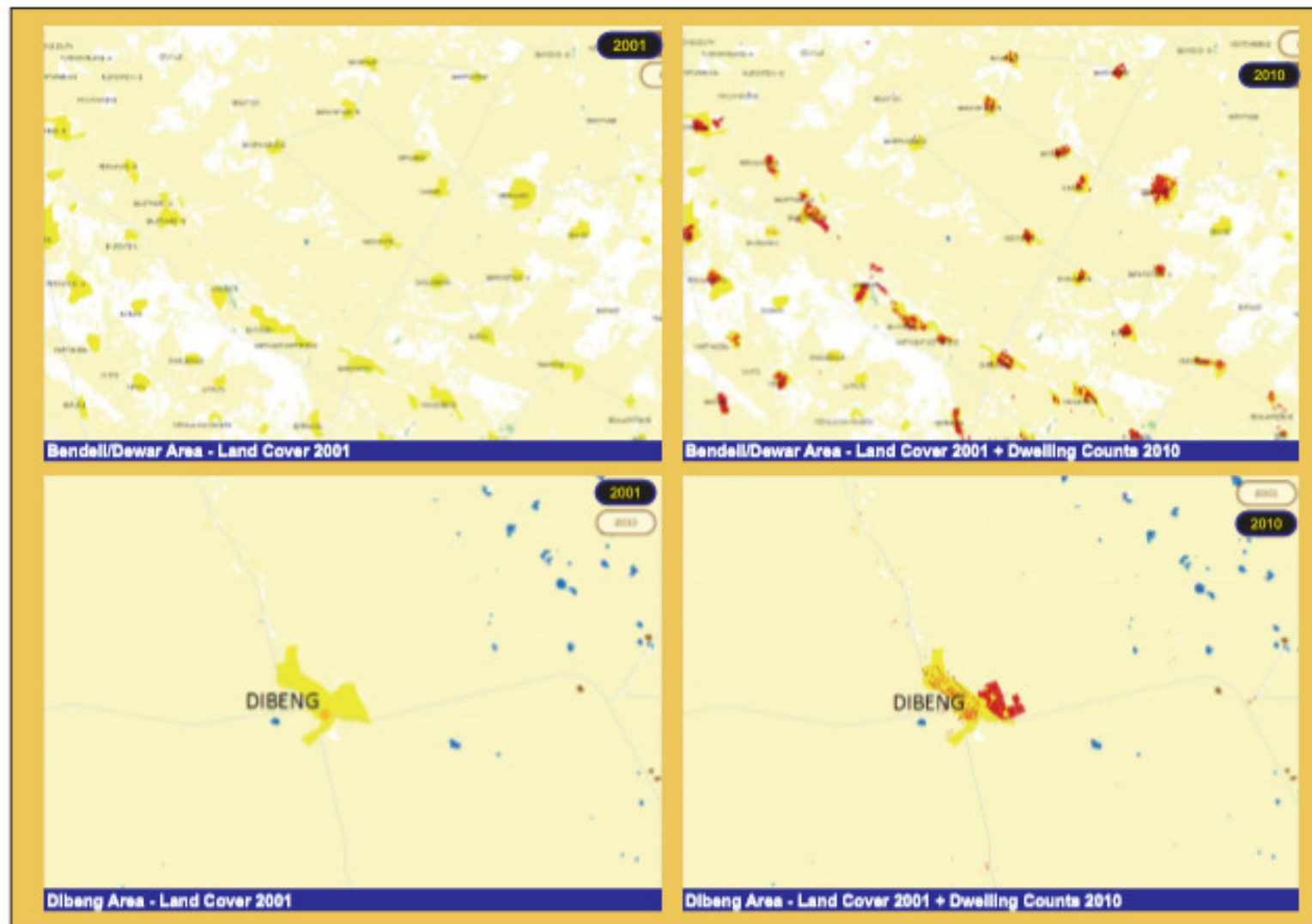




Figure 4.6



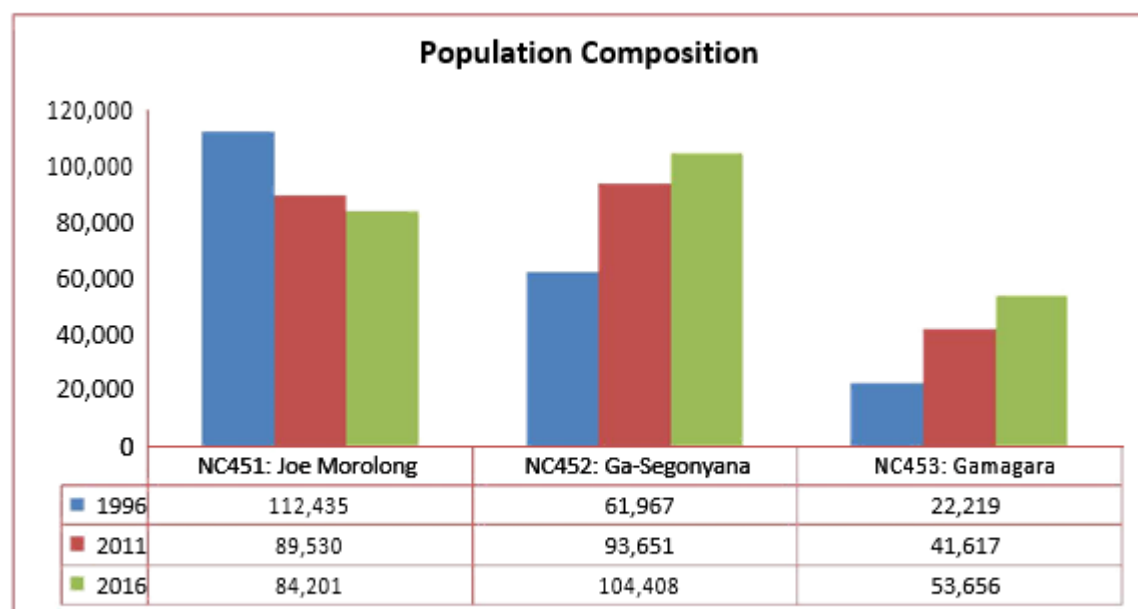


## 4.5. POPULATION TRENDS

### 4.5.1. Population Growth

The population of the John Taolo Gaetsewe District Municipality has had an increase of about 17 465; 224 799 in 2011 to 242 264 in 2016. The increase of the population in the District is evident in the local municipalities of Ga-Segonyana (11.49) and Gamagara (28.93). There has been a major decline of about 6.3% in the population of Joe Morolong Local Municipality; this is mainly due to the out-migration from the municipality to the Ga-Segonyana and Gamagara Local Municipalities.

**Table 4.7: JTG Population Composition**

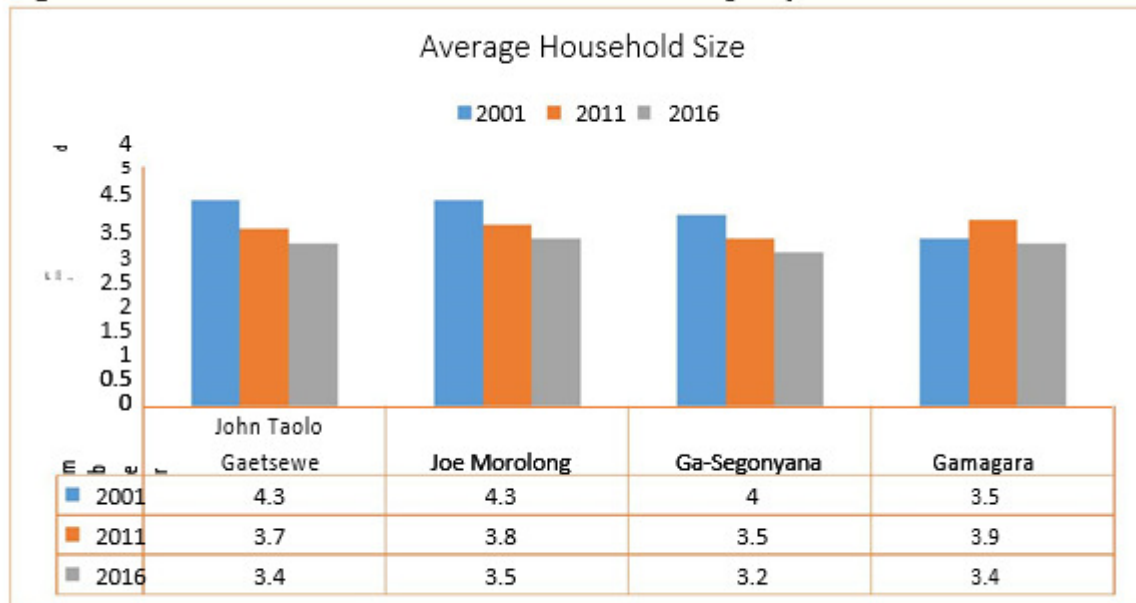


*Source: StatsSA 2011 & 2016*

### 4.5.2. Household size

The household sizes 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 LM. 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.

**Figure 4.8: Household size within JTG District Municipality**



*Source: StatsSA 2011 & 2016*

#### 4.5.3. Population Migration

An understanding of where demand originates from, and from whom can inform decisions regarding the types, tenure and location of homes needed as well as decisions on spending and prioritisation. Households have preferences with regards to choice of settlement, as well as tenure aspirations that should be respected. Urbanisation and a rapid increase in population affect future trends that guide planning and the setting of priorities.

Urban migration occurs for a number of reasons and there are pushing and pulling forces.

##### **Typical pulling forces can be:**

- Job opportunities
- Better living conditions
- Political and / or religious freedom
- Education
- Better medical care
- Attractive climates
- Security
- Family links
- Industry
- Better chances of marrying

### Typical pushing forces can be:

- Job opportunities;
- Opportunities (economic, social and physical);
- Education;
- Access to basic engineering services;
- Environmental degradation;
- Political;
- Medical care / health;
- Natural disasters; and
- Poor housing.

At a provincial level, migration plays an important role in the population growth of provinces. Between 2001 and 2011, the Northern Cape experienced a net out-migration of -6 735 persons, resulting from an in-migration of 62 792 persons and an outmigration of 69 527 persons. The highest migration interaction was with the North West and the Western Cape, although the Northern Cape gained more people from the North West than it lost to it (17 000 versus 11 478), while it lost more people to the Western Cape than it gained from it (17 577 versus 10 566).

The people of the Northern Cape are relatively immobile and tend to stay in the same place for their lifetime. In 2011, 83.2% of the Northern Cape's population had been there at least since 2001 or born later and not moved.

The portion of the Districts population that has been living in the same place since 2001 (both born before and after 2001) totals 79%, while 19% (both born before and after 2001) have not been living in the same place since 2001.

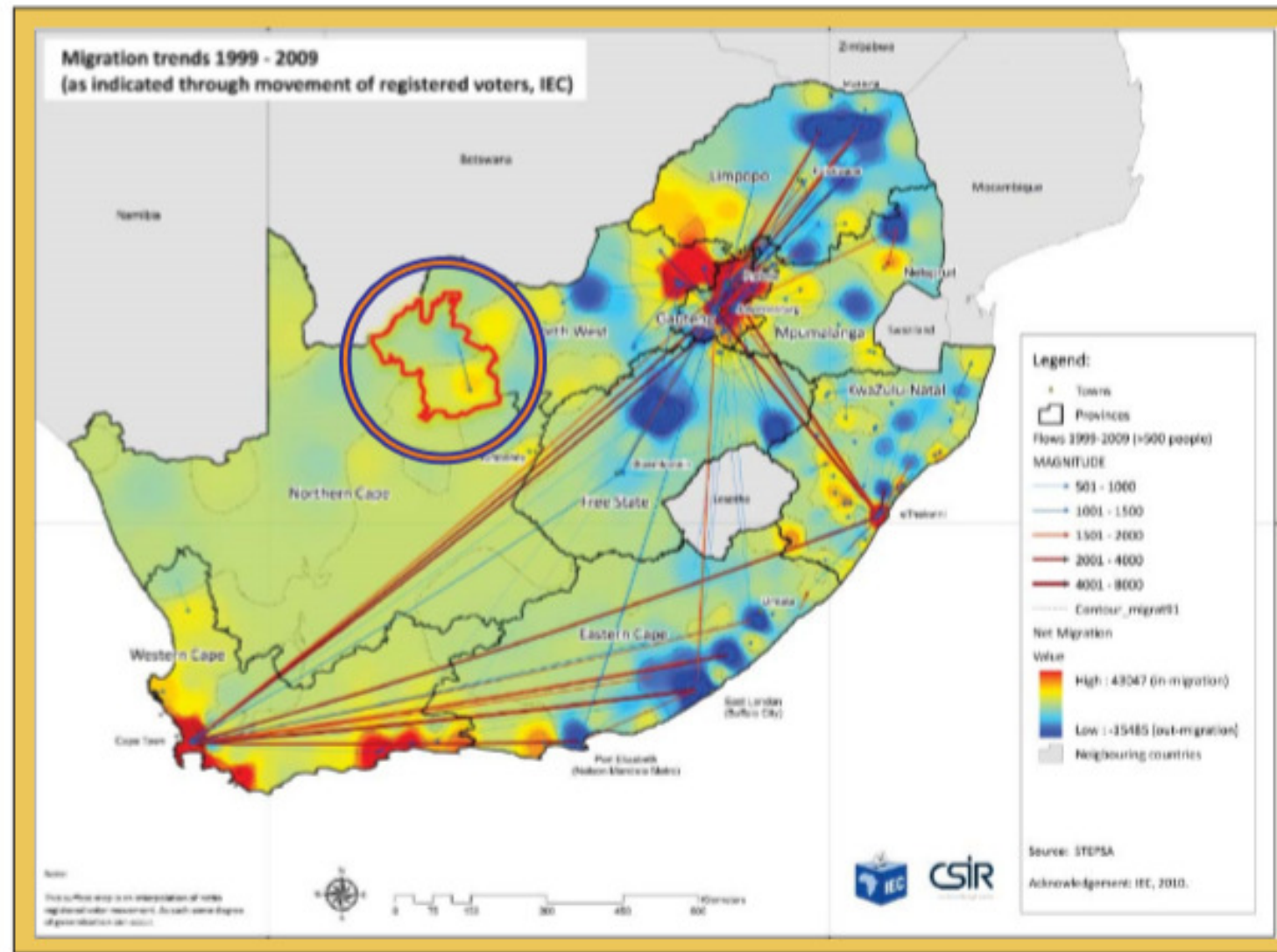
Figure: Population living in the same place since October 2001

Living in this place since 2001	Number of Individuals	Percentage of Total
Yes	130,514	58%
No	37,971	17%
Born after October 2001 but never moved	47,961	21%
Born after October 2001 and moved	4,987	2%
Not Applicable	3,366	1%
Total	224,799	100%

*IHSSP 2016/17*

It has been highlighted in the SDF that there is a general emptying of population out of the District. This has been noted as a concern as it is generally the most skilled and entrepreneurial who move. The migration patterns are shown in Figure 4.7.

Figure 4.7: Migration Patterns

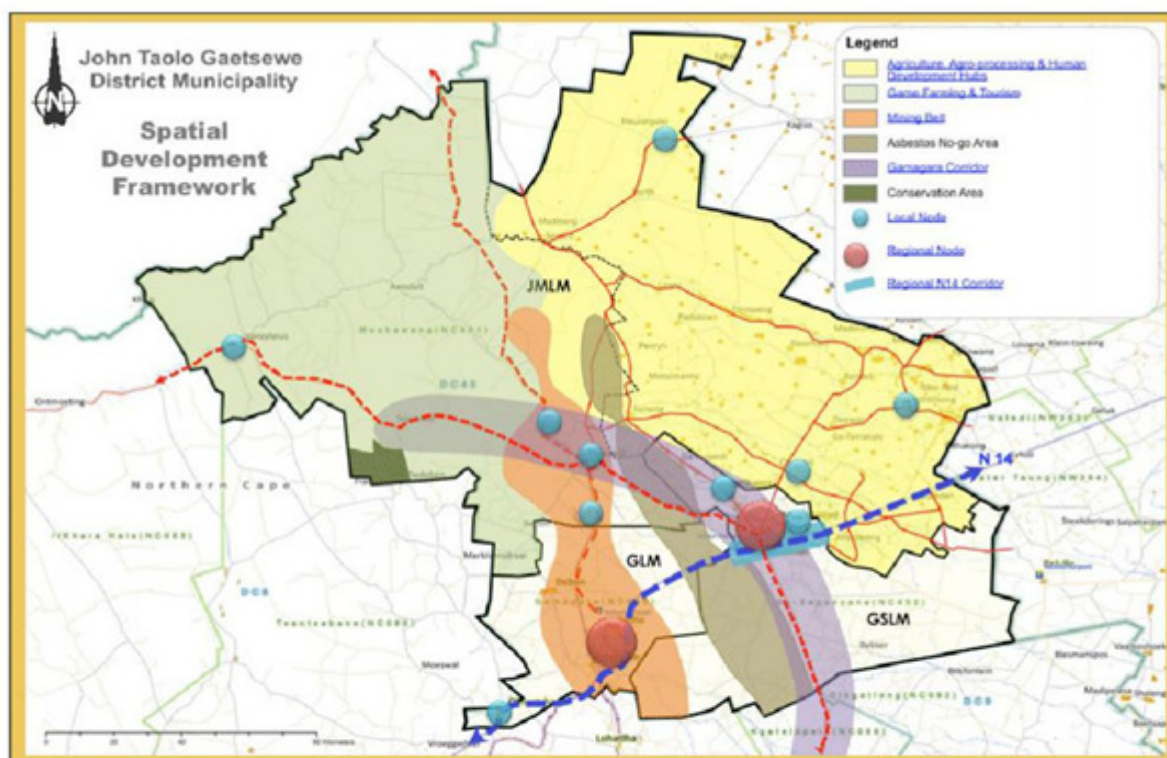


#### 4.6. SPATIAL DEVELOPMENT OBJECTIVES

The Spatial Development Framework (SDF) of a Municipality is the futuristic view (vision) of how the citizens and the governors see the city in the forthcoming years. The SDF of JTGDMD addresses areas that constitute the twelve (12) Development Objectives of the District which include the following:

The following objectives 1 to 4 are set out under the District - Wide Spatial Development Objectives

- Objective 1: To enforce environmental and land-use management regulations;
- Objective 2: To institute/do proper traffic and freight management;
- Objective 3: To attract new business, especially manufacturers, to the district and retain existing ones;
- Objective 4: To explore the viability of the Gamagara Corridor and a regional development corridor on the N14 as shown in the figure below;



**The following objective 5 to 8 are set out under the 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;
- Objective 6: To develop a limited number of villages along a public transport corridor into Human Development Hubs;
- Objective 7: To develop Local Nodes in places like Churchill, Bothithong, Heuningvlei, Blackrock, Hotazel, Mmamathane and Vanzylsrus;



- 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;

**The following objective 9 to 10 are set out under the Ga-Segonyana Local Municipality Spatial Development Objectives:**

- Objective 9: To redevelop and rejuvenate the Regional Node of Kuruman;
- Objective 10: To develop Local Nodes in Mothibistand and Batlharos

**The following objective 11 to 12 are set out under the 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; and
- Objective 12: To develop a Local Node in Olifantshoek

Following on from the twelve Spatial Development Objectives six Development Strategies aimed at their realisation, were prepared. These Development Strategies, the Spatial Development Objectives they seek to achieve, the Local Municipalities they are to be deployed in, the roleplayers to be involved, and useful Development Indicators by which their effectiveness can be measured, are set out in this section. The six Development Strategies are as follows:

#### **4.6.1. Development Strategy 1**

The continued expansion of the mining industry, but in such a way that its negative impacts are minimised and better managed, and its benefits shared by all

##### **4.6.1.1 The spatial development objectives pursued are the following:**

- To enforce environmental and land-use management regulations
- To institute/do proper traffic and freight management
- To explore the viability of the Gamagara Corridor and a regional development corridor along the N14
- To redevelop and rejuvenate the Regional Node of Kuruman
- To manage land use and settlement expansion in Kathu and Sishen/Dingleton, and amalgamate the two towns into a single Regional Node

##### **4.6.1.2 The role players to be involved are the following:**

- John Taolo Gaetsewe District Municipality
- Gamagara Local Municipality
- Ga-Segonyana Local Municipality
- Joe Morolong Local Municipality
- The Northern Cape Provincial Government
- National Government Departments
- Traditional Leaders
- Mining Companies
- Organised Labour

#### **4.6.1.3 The local municipal areas to be deployed in the following municipalities:**

- Ga-Segonyana Local Municipality
- Gamagara Local Municipality
- Joe Morolong Local Municipality

#### **4.6.1.4 The useful development indicators to measure by are the following:**

- Reduction in unemployment
- Increase in income levels and value of economic output
- Increase in use of local contractors
- Reduction in poverty
- Reduction in inequality
- Improvement in food availability and accessibility
- Reduction in social ills, such as prostitution, alcohol and drug abuse
- Reduction in incidence of child labour
- Improvement in payment for municipal services
- Increase in school attendance
- Improvement in ratio of teachers to learners
- Improvement in adult literacy rate
- Improvement in qualifications of teachers
- Improvement in the situation of women's rights
- Improvement in matriculation rate
- Increase in prevalence of residents with tertiary qualifications
- Increase in segment of adult population in further education and training programmes
- Reduction in school drop-out rate
- Decrease in incidence of hunger
- Decrease in incidence of malnutrition
- Increase in housing stock in terms of quantity and quality
- Increase in access to potable water
- Increase in access to electricity
- Increase in access to proper sanitation
- Increase in access to regular refuse removal
- Improvement in infant mortality rate

#### **4.6.2. Development Strategy 2**

The rejuvenation and expansion of the economies of Kuruman and Kathu, but within a complimentary, polycentric network of settlements

##### **4.6.2.1 The spatial development objectives pursued are the following:**

- To redevelop and rejuvenate the Regional Node of Kuruman
- To manage land use and settlement expansion in Kathu and Sishen, and amalgamate the two towns into a single Regional Node
- To attract new businesses, especially manufacturers, to the district and retain existing ones
- To enforce environmental and land-use management regulations

#### **4.6.2.2 Role Players to be involved:**

- John Taolo Gaetsewe District Municipality
- Gamagara Local Municipality
- Ga-Segonyana Local Municipality
- Joe Morolong Local Municipality
- The Northern Cape Provincial Government
- National Government Departments
- Traditional Leaders

#### **4.6.2.3 The local municipal areas to be deployed in the following municipalities:**

- Ga-Segonyana Local Municipality
- Gamagara Local Municipality
- Joe Morolong Local Municipality

#### **4.6.2.4 The useful development indicators to measure by are the following:**

- Reduction in unemployment
- Increase in income levels and value of economic output
- Increase in use of local contractors
- Reduction in poverty
- Reduction in inequality
- Improvement in food availability and accessibility
- Reduction in social ills, such as prostitution, alcohol and drug abuse
- Reduction in incidence of child labour
- Improvement in payment for municipal services
- Decrease in incidence of hunger
- Decrease in incidence of malnutrition
- Increase in housing stock in terms of quantity and quality
- Increase in access to potable water
- Increase in access to electricity
- Increase in access to proper sanitation
- Increase in access to regular refuse removal
- Reduction in petty crime
- Reduction in serious crime
- Reduction in murder rate
- Reduction in incidence of hate crimes and xenophobia
- Reduction in incidence of crimes committed with firearms
- Reduction in damage to roads due to over- and inappropriate use
- Improvement in roads-infrastructure
- Increase in number of businesses in the area

#### **4.6.3. Development Strategy 3**

The development of a series of smaller economic growth centres around a series of existing, smaller towns

##### **4.6.3.1 The spatial development objectives pursued are the following:**

- To develop a Local Node in Olifantshoek

- To develop Local Nodes in Mothibistad and Balthabo
- To develop Local Nodes in places like Churchill, Bothithong, Heuningvlei, Blackrock, Hotazel, Mmamathane and Vanzylsrus
- To attract new businesses, especially manufacturers, to the district and retain existing ones

#### **4.6.3.2 Role Players to be involved:**

- John Taolo Gaetsewe District Municipality
- Gamagara Local Municipality
- Ga-Segonyana Local Municipality
- Joe Morolong Local Municipality
- The Northern Cape Provincial Government
- The Business Community
- Traditional Leaders

#### **4.6.3.3 The local municipal areas to be deployed in the following municipalities:**

- Ga-Segonyana Local Municipality
- Gamagara Local Municipality
- Joe Morolong Local Municipality

#### **4.6.3.4 The useful development indicators to measure by are the following:**

- Reduction in unemployment
- Increase in income levels and value of economic output
- Increase in use of local contractors
- Reduction in poverty
- Reduction in inequality
- Improvement in food availability and accessibility
- Reduction in social ills, such as prostitution, alcohol and drug abuse
- Reduction in incidence of child labour
- Improvement in payment for municipal services
- Decrease in incidence of hunger
- Decrease in incidence of malnutrition
- Increase in housing stock in terms of quantity and quality
- Increase in access to potable water
- Increase in access to electricity
- Increase in access to proper sanitation
- Increase in access to regular refuse removal
- Improvement in infant mortality rate
- Improvement in under-five mortality rate
- Improvement in life-expectancy rate
- Improvement in number of children immunised against vaccine-preventable diseases
- Decrease in HIV/AIDS and other sexually-transmitted diseases
- Decrease in cases of diarrhoea
- Reduction in petty crime
- Reduction in serious crime
- Reduction in murder rate
- Reduction in incidence of hate crimes and xenophobia

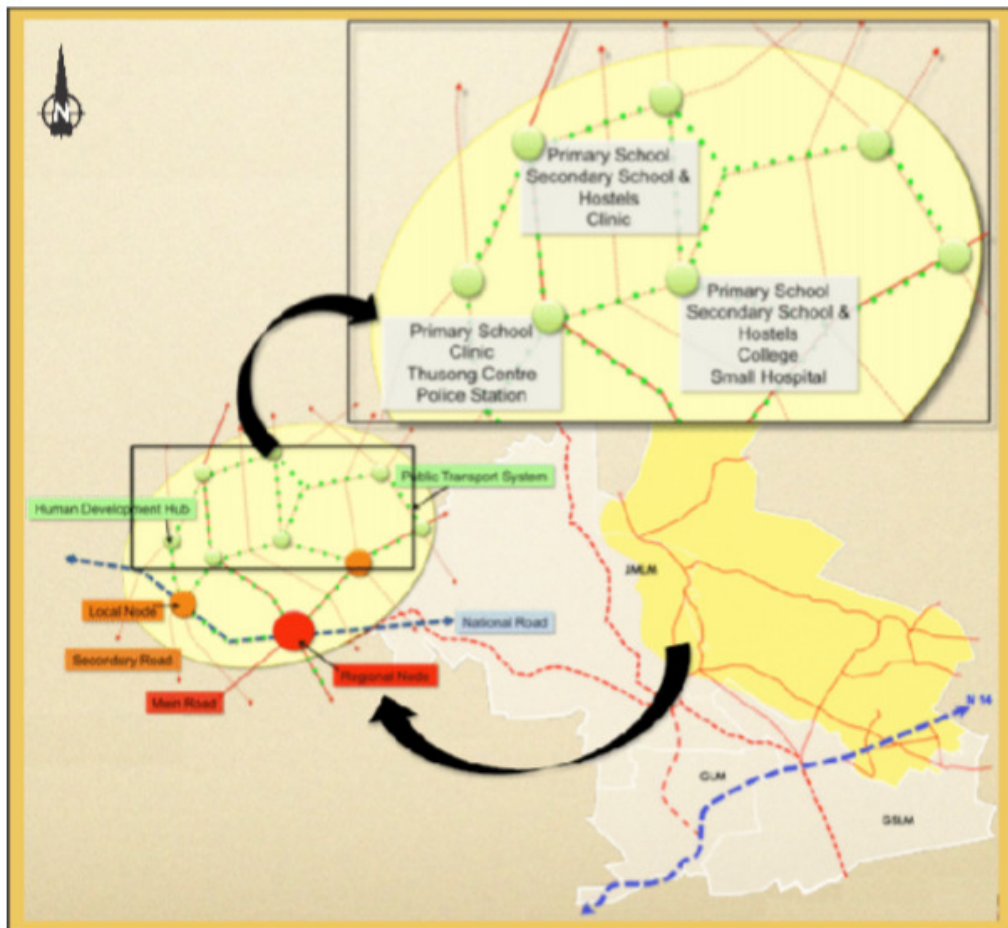
- Reduction in incidence of crimes committed with firearms
- Reduction in damage to roads due to over and inappropriate use
- Improvement in roads infrastructure
- Increase in agricultural production
- Increase in number of businesses in the area

#### 4.6.4. Development Strategy 4

The development of a polycentric network of “Human Development Hubs” in the densely populated rural areas

##### 4.6.4.1 The spatial development objectives pursued are the following:

- To develop a limited number of villages along a public transport corridor into Human Development Hubs
- To enforce environmental and land-use management regulations



##### 4.6.4.2 Role Players to be involved:

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality
- The Northern Cape Provincial Government
- National Government Departments
- Traditional Leaders



- Mining Companies
- Organised Labour
- The Farming Community
- The Business Community

#### **4.6.4.3 The local municipal areas to be deployed in the following municipalities:**

- Joe Morolong Local Municipality

#### **4.6.4.4 The useful development indicators to measure by are the following:**

- Reduction in unemployment
- Increase in income levels and value of economic output
- Increase in use of local contractors
- Reduction in poverty
- Reduction in inequality
- Improvement in food availability and accessibility
- Reduction in social ills, such as prostitution, alcohol and drug abuse
- Reduction in incidence of child labour
- Improvement in payment for municipal services
- Increase in school attendance
- Improvement in ratio of teachers to learners
- Improvement in adult literacy rate
- Improvement in qualifications of teachers
- Improvement in the situation of women's rights
- Improvement in matriculation rate
- Increase in prevalence of residents with tertiary qualifications
- Increase in segment of adult population in further education and training programmes
- Reduction in school drop-out rate
- Decrease in incidence of hunger
- Decrease in incidence of malnutrition
- Increase in housing stock in terms of quantity and quality
- Increase in access to potable water
- Increase in access to electricity
- Increase in access to proper sanitation
- Increase in access to regular refuse removal
- Improvement in infant mortality rate
- Improvement in under-five mortality rate
- Improvement in life-expectancy rate
- Improvement in number of children immunised against vaccine-preventable diseases
- Decrease in HIV/AIDS and other sexually-transmitted diseases
- Decrease in cases of diarrhea
- Decrease in incidence of domestic violence
- Reduction in child abuse
- Reduction in petty crime
- Reduction in serious crime
- Reduction in murder rate
- Reduction in incidence of hate crimes and xenophobia

- Reduction in incidence of crimes committed with firearms
- Reduction in air pollution
- Reduction in groundwater pollution
- Reduction in water pollution
- Reduction in damage to roads due to over- and inappropriate use
- Improvement in roads-infrastructure
- Increase in agricultural production
- Increase in number of businesses in the area

#### 4.6.5. Development Strategy 5

The introduction of an economy based on intensive agricultural production and agro-processing in the densely populated rural areas



##### 4.6.5.1 The spatial development objectives pursued are the following:

- To rationalise the fragmented, scattered pattern and build a new intensive agriculture and agro-processing economy in the area
- To attract new businesses, especially manufacturers, to the district and retain existing ones
- To enforce environmental and land-use management regulations

#### **4.6.5.2 Role Players to be involved:**

- John Taolo Gaetsewe District Municipality
- Gamagara Local Municipality
- Ga-Segonyana Local Municipality
- Joe Morolong Local Municipality
- The Northern Cape Provincial Government
- National Government Departments
- Traditional Leaders
- Mining Companies
- Organised Labour
- The Farming Community
- The Business Community

#### **4.6.5.3 The local municipal areas to be deployed in the following municipalities:**

- Joe Morolong Local Municipality

#### **4.6.5.4 The useful development indicators to measure by are the following:**

- Reduction in unemployment
- Increase in income levels and value of economic output
- Increase in use of local contractors
- Reduction in poverty
- Reduction in inequality
- Improvement in food availability and accessibility
- Reduction in social ills, such as prostitution, alcohol and drug abuse
- Reduction in incidence of child labour
- Improvement in payment for municipal services
- Increase in school attendance
- Ratio of teachers to learners
- Improvement in adult literacy rate
- Improvement in qualifications of teachers
- Improvement in the situation of women's rights
- Improvement in matriculation rate
- Increase in prevalence of residents with tertiary qualifications
- Increase in segment of adult population in further education and training programmes
- Reduction in school drop-out rate
- Decrease in incidence of hunger
- Decrease in incidence of malnutrition
- Increase in housing stock in terms of quantity and quality
- Increase in access to potable water
- Increase in access to electricity
- Increase in access to proper sanitation
- Increase in access to regular refuse removal
- Improvement in infant mortality rate
- Improvement in under-five mortality rate
- Improvement in life-expectancy rate
- Improvement in number of children immunised against vaccine-preventable diseases

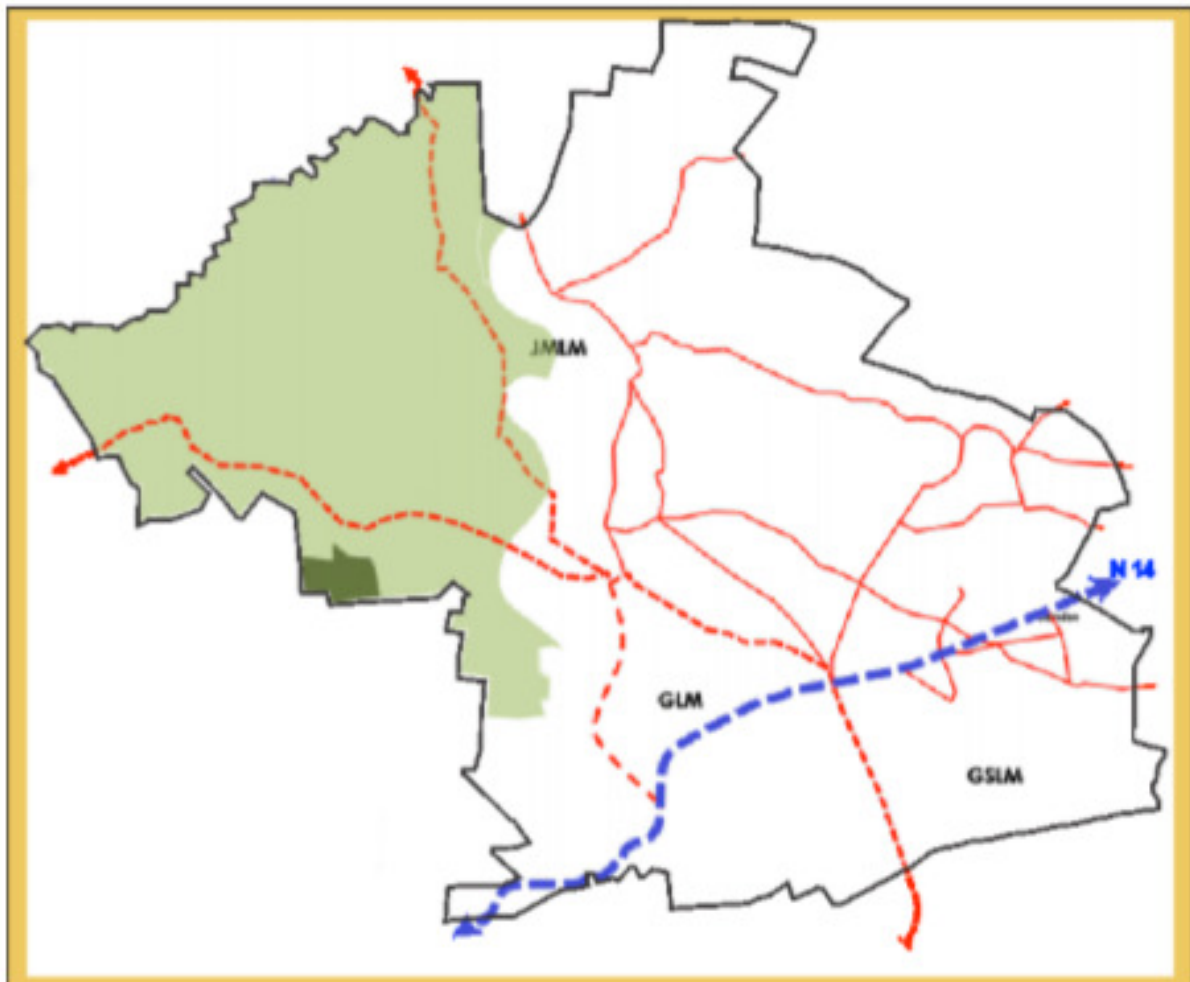
- Decrease in HIV/AIDS and other sexually-transmitted diseases
- Decrease in cases of diarrhoea
- Decrease in incidence of domestic violence

#### 4.6.6. Development Strategy 6

The retention and deepening of the game-farming and tourism-based economies in the less densely populated rural areas

##### 4.6.6.1 The spatial development objectives pursued are the following:

- To manage, protect and further develop the existing extensive game and cattle-farming and tourism area to the west of the mining belt
- To enforce environmental and land-use management regulations



#### **4.6.6.2 Role Players to be involved:**

- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality
- The Northern Cape Provincial Government
- The Farming Community
- The Business Community

#### **4.6.6.3 The local municipal areas to be deployed in the following municipalities:**

- Joe Morolong Local Municipality

#### **4.6.6.4 The useful development indicators to measure by are the following:**

- Reduction in unemployment
- Increase in income levels and value of economic output
- Increase in use of local contractors
- Reduction in poverty
- Reduction in inequality
- Improvement in food availability and accessibility
- Reduction in social ills, such as prostitution, alcohol and drug abuse
- Reduction in incidence of child labour
- Improvement in payment for municipal services
- Improvement in adult literacy rate
- Increase in prevalence of residents with tertiary qualifications
- Reduction in school drop-out rate
- Decrease in incidence of hunger
- Decrease in incidence of malnutrition
- Increase in housing stock in terms of quantity and quality
- Increase in access to potable water
- Increase in access to electricity
- Increase in access to proper sanitation
- Increase in access to regular refuse removal
- Improvement in infant mortality rate
- Improvement in under-five mortality rate
- Improvement in life-expectancy rate
- Improvement in number of children immunised against vaccine-preventable diseases
- Decrease in HIV/AIDS and other sexually-transmitted diseases
- Decrease in cases of diarrhoea
- Decrease in incidence of domestic violence
- Reduction in child abuse
- Reduction in petty crime
- Reduction in serious crime
- Reduction in murder rate
- Reduction in incidence of hate crimes and xenophobia
- Reduction in incidence of crimes committed with firearms
- Reduction in air pollution
- Reduction in groundwater pollution
- Reduction in water pollution



- Reduction in damage to roads due to over- and inappropriate use
- Improvement in roads-infrastructure
- Increase in agricultural production
- Increase in number of businesses in the area

#### **4.7. STRATEGIC FACTOR ANALYSIS**

An identification and analysis of the key factors that shape, drive and/or constrain the spatial development of the district enables the identification of:

- The key district issues, aspects and trends to be addressed; and
- The strategic triggers, which if well understood and utilised, can be used to ensure the progressive change as desired.

In this section, the five key factors in the district as identified in the analysis are listed and described, 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.

##### **4.7.1. Factor 1**

An economy, which has a strong mining sector, but which is otherwise undiversified and vulnerable

##### **The descriptions are hereby discussed below:**

- 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.
- 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.
- 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.
- 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.
- Mining trucks are causing severe damage to the roads in the district, without the mining companies contributing adequately to their maintenance.
- 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).
- 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.
- 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.

- 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
- 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. 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 to work hard at school and think about innovative ways to make a living, as there are quick routes to wealth “through a job in a/the mine”.

The actions are hereby discussed below:

- 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.
- While important for the economy, mines are not above the law. Municipalities in the district must hence regulate and manage the negative externalities of the sector through inter alia proactive land-use management.
- 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.
- 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.
- 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.
- There are farming, agricultural beneficiation and tourism opportunities in the district that the JTGDM, together with its development partners in the district, should be able to transform into viable industries.

#### **4.7.2. Factor 2**

Persisting and deepening prevalence of poverty, a lack of economic development and unregulated settlement expansion in the Joe Morolong Local Municipality

**The descriptions are hereby discussed below:**

- 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
- Local Municipality. This has meant the perpetuation of a fragmented, scattered settlement pattern without an internal spatial logic.
- 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.
- 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.
- 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.

**The actions are hereby discussed below:**

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

### **4.7.3. Factor 3**

An already harsh climate, which is set to get worse, due to global warming

**The descriptions are hereby discussed below:**

- 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.
- 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.
- Underground water sources are being used faster than they can be replenished, spelling an impending catastrophe for the district.
- 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.
- In addition to this, serious water conservation and settlement planning and development in water-scarce areas is not being pursued.

**The actions are hereby discussed below:**

- Climate change is one of the most discussed and researched topics, both in the local and the international world of research. 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.
- 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. 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.

#### **4.7.4. Factor 4**

A growing threat of unplanned and unmanaged settlement expansion and an absence of traffic management in the core towns in the district

**The descriptions are hereby discussed below:**

- 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.
- 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.
- 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.
- 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.

**The actions are hereby discussed below:**

- 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.
- The movement is also tied to the small number of employment opportunities and generally low quality of life in the Joe Morolong Local Municipality.
- In order to address the challenge, a district-wide perspective and series of development proposals are required.
- Given that the migration to Kuruman is a reality, a special redevelopment plan will need to be prepared for this settlement. 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

**4.7.5. Factor 5**

A lack of visionary, transformative spatial development planning, not only in the district, but in the province as a whole

**The descriptions are hereby discussed below:**

- While legal requirements in the area of development and planning are being met and the required plans are being prepared, there seems to be a lack of visionary planning that could place the province and the district on a new economic growth trajectory.
- While the district has benefited from the mining boom of the last decade, it has not been able to capitalise on this and use this boom to radically alter the development profile of the district. The mining boom essentially seems to have by-passed the bulk of the settlements in the district and a large slice of the local population.
- While the mines and the jobs they bring are surely not unwelcome, the allocation of mining licences far away from the district can possibly have resulted in municipalities viewing the development of their district proceeding in a particular way irrespective of what they do. This could on the one hand have contributed to a feeling of despondency, and on the other, to a feeling that there is no need to do proper local economic development planning.

**The actions are hereby discussed below:**

- The district cannot adopt a “wait and see what happens”-approach with regards to the mining sector. Even though there will be some increases in local employment with every new mine that opens, this will not be enough to absorb the huge numbers of unemployed persons in the district.
- The district must prepare and implement a viable regional economic development plan, which relies on local endeavour and ingenuity, is sustainable and places real power in the hands of local people. This will not only require vision, local creativity and persistence, but also elicit these crucial qualities in genuine local economic development.



## 4.8. FUTURE SCENARIOS

Since their first appearance in the 1960s, scenarios have become a key feature in futures research. Scenarios have been defined as “a hypothetical sequence of events constructed for the purpose of focusing attention on causal processes and decision points”. As such, they do not seek to present accurate (future) predictions, but rather to highlight drivers shaping the future, and to (1) steer action away from actions that could lead to undesirable futures, or to prepare for futures very different from the present. Essentially, they seek to engage and change our “mental map/image” of the future. This they do by:

- Reminding us of what is possible and “what can be”, if (1) we and others change our ways for the better, (2) frame-conditions improve, and (3) external events take a favourable turn; and
- Warning us of what could happen, if (1) we and others continue along set, detrimental ways, (2) frame-conditions remain the same, and (3) external events take a turn for the worse.

In this section, three possible scenarios are presented, based on past trends and patterns and frame/contextual conditions, key drivers and the experience of other places and people finding themselves in similar initial conditions, profiles and trend sets. These scenarios are named based on their most prominent features.

### 4.8.1. Scenario 1: 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 has 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.

#### **4.8.2. Scenario 2: 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.

#### **4.8.3. Scenario 3: More of the Same – The Desert Ghetto & Increasingly Threatened**

##### **Castle**

Being brave in spatial development planning circles is something that seemingly had its heyday in the utopian, high-modernist 1920s and 1930s. South Africa is unfortunately no stranger to the lack of bold, brave spatial development planning and planners. This is unfortunate, as this is exactly what the country needed at the end of the first decade of the 21st Century, but did not get from its planners.

It is this lack of boldness and braveness that also contributed in this situation the district now finds itself in. Confronted with a difficult situation, but still one in which there were distinct possibilities to rectify the situation inherited from the Apartheid era, those with the power to act in the John Taolo Gaetsewe District, did not do so. Instead, they focused on preparing small plans that said more about the analytical talents and mapping skills of their crafters than they did about the development of the area. What was lacking was a serious engagement between all three spheres of government, the private sector, traditional leaders and other community leaders on the needs and potentials of the area. Even more so was the deliberation and development of a radically different future in which (1) the unequal distributional patterns of ownership of resources and access to opportunities were addressed; (2) rural economies were regenerated and settlements redeveloped and regenerated; and (3) the challenges that climate change would soon bring, were engaged.

The result of the absence of such high-level, strategic interaction, was that little was done in, and through planning that really made a positive difference to the lives and life chances of people living in the district. Whenever planners and planning do this (i.e. do nothing), it means that they, together with those that already enjoy “the good life”, try to “keep things the way they are”. As for those that are not on “the fortunate side of the fence”, the best that such planning can offer, is for a select few “on the outside” to try their utmost best to make

their way into the world of “the fortunate ones”. This has been the development and planning model deployed in South Africa since 1994, and the one which was also deployed in the JTG District. The result, today, decades later, is the continuing deepening of poverty, growing marginalisation and unhappiness, and an ever more impoverished and disillusioned African population.

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.

#### **4.8.4. The Chosen 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.

## **4.9. PRINCIPLES OBSERVED AND PURSUED**

The National Planning Commission's National Development Plan 2030, and the Spatial Planning and Land Use Management Act, Act 16 of 2013, provide a series of principles to be observed and pursued in all spatial development planning activities and land use management decisions. These are summarised in the set below:

### **4.9.1. Spatial Justice**

The principle of spatial justice, whereby— past spatial and other development imbalances must be redressed through improved access to and use of land; spatial development frameworks and policies at all spheres of government must address the inclusion of persons and areas that were previously excluded, with an emphasis on informal settlements, former homeland areas and areas characterised by widespread poverty and deprivation; spatial planning mechanisms, including land use schemes, must incorporate provisions that enable redress in access to land by disadvantaged communities and persons; land use management systems must include all areas of a municipality and specifically include provisions that are flexible and appropriate for the management of disadvantaged areas, informal settlements and former homeland areas; land development procedures must include provisions that accommodate access to secure tenure and the incremental upgrading of informal areas; and a Municipal Planning Tribunal considering an application before it, may not be impeded or restricted in the exercise of its discretion solely on the ground that the value of land or property is affected by the outcome of the application;

### **4.9.2. Spatial Sustainability**

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

### **4.9.3. Spatial Resilience**

Short-sighted settlement development and expansion, a lack of economic diversity, a loss of collective concern for nature and community, an unresponsive and distant State and a disregard for the impacts of decisions on ecosystems, people and economic systems, have placed the globe at serious risk from ecological, economic and social shocks. This needs to be addressed by developing more sustainable settlement development (as set out above), diversifying the economy, pursuing food security, developing the local economy and deepening local social connectedness through promoting both greater collective care and individual involvement in and accountability to “the collective”.



#### **4.9.4. Spatial Quality**

The environments that were created over the last four-hundreds of years of settlement development in South Africa, in most cases lack quality in terms of visual appeal, vibrancy, safety and the celebration of what is good about coming together in urban spaces. This has been aggravated by the inequalities that were built into settlements through decades of colonial and apartheid rule. This needs to be attended to urgently, not only to enhance the quality of life of all South Africans, but also to instil pride and dignity, to make people feel respected, and to establish a sense of equality through the sharing of quality public and not the skewed privileging of some in quality private spaces. From an economic development perspective, higher quality settlements will also improve the marketability of settlements in the attraction of outside investment and the retention of endogenous investors and investments.

#### **4.9.5. Spatial Efficiency**

The principle of efficiency, whereby land development optimises the use of existing resources and infrastructure; decision-making procedures are designed to minimise negative financial, social, economic or environmental impacts; and development application procedures are efficient and streamlined and timeframes are adhered to by all parties;

### **4.10. SUSTAINABLE HUMAN SETTLEMENT**

In accordance with national government's "Breaking New Ground Strategy" and the statements around the kind of settlements to be developed in South Africa in the National Planning Commission's National Development Plan 2030, a sustainable human settlement that has the following characteristics:

- **Sustainability:** Sustainable human settlements are well-managed entities in which economic growth and social development are (1) in balance with the carrying capacity of the natural ecosystems on which they depend for their existence, and (2) lead to sustainable development, shared wealth creation, poverty alleviation and equity.
- **Inclusive, transparent and accountable governance:** Sustainable human settlements are governed by democratically elected representatives that act (1) in the best interests of their citizens and in accordance with the precepts outlined in the Bill of Rights, (2) in terms of agreements reached with other spheres of government on development objectives and outcomes, (3) in accordance with Integrated Development Plans prepared in a participatory way, (4) with a strong commitment to the management of service and infrastructure provision, and (5) on a partnership basis with local communities and the private sector.
- **Multi-functionality:** The inhabitants of sustainable human settlements live in safe and secure environments and have adequate access to (1) economic opportunities, (2) a mix of safe and secure housing and tenure types, (3) reliable basic services, (4) educational, entertainment and cultural activities, and (5) health, welfare and police services.
- **Location and accessibility:** Land utilisation in sustainable human settlements is well-planned, managed and monitored to ensure the development of compact, mixed land-use, diverse, life-enhancing environments with maximum possibilities for

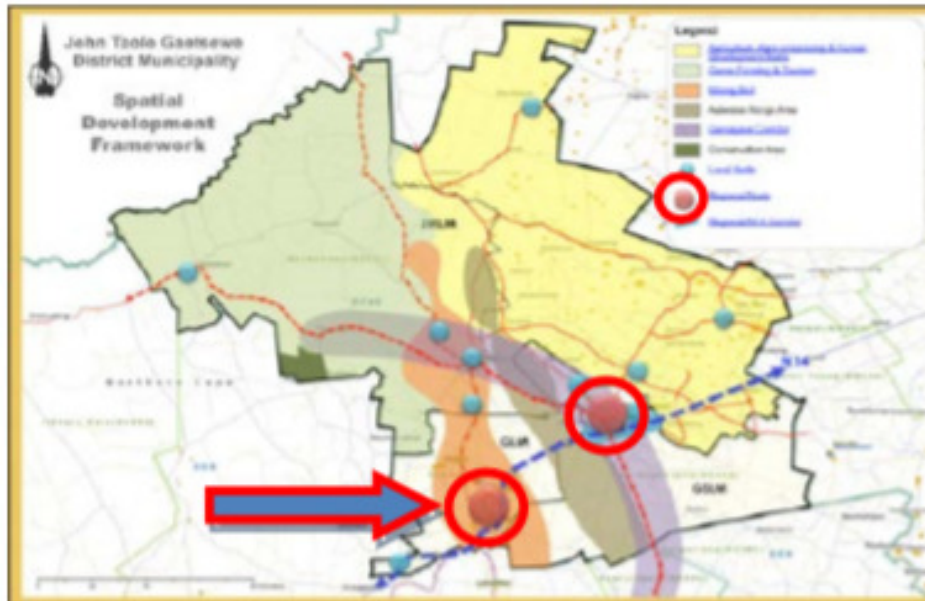
pedestrian movement and transit via safe and efficient public transport in cases where motorised means of movement is required. Specific attention is paid to ensuring that low-income housing is provided in close proximity to areas of opportunity, and for such areas to, over time, become likewise. Under these conditions, a dwelling in a sustainable human settlement becomes a crucial injection in the local economy, and a desirable asset that grows in value and acts as a generator and holder of wealth for its owner.

- **Pro-poor:** Sustainable human settlements ensure the inclusion of vulnerable and marginalised groups and individuals in the economy, social fabric and space. In order to give effect to this, (1) social spending and skills development are focused on previously disadvantaged groups, (2) investment by government is geared towards areas in which such groups are concentrated, and (3) the business community is levered into investing in such areas through the innovative use of incentives and disincentives.
- **Resilience:** A sustainable human settlement is able to withstand and counter social, economic and ecological challenges, as (1) it is wellgoverned, (2) its citizens live in balance with the natural carrying capacity of the immediate region and regions further afield to which it is systemically linked, (3) its infrastructure and buildings adhere to safety standards and building regulations, and (4) its economy is diversified and built on real economic development potentials.

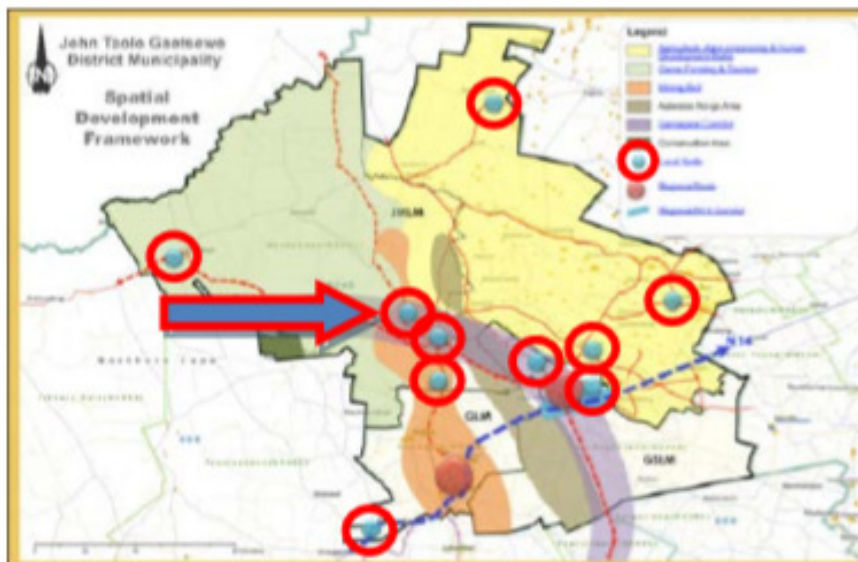
#### **4.11. NODES**

Three types of nodes and a corridor are discussed in the SDF. Each of these can be defined as follows:

- **Regional Node:** A node that has functional linkages with and impacts extending beyond the borders of the Local Municipality in which it is located. Typically such a node will include; (1) the full spectrum of schools from primary to secondary, including boarding schools; (2) one or more Further Education and Training College; regional offices of national government departments; (4) a regional hospital; (5) the full spectrum of health services provided by private medical practitioners; (6) a regional police station; (7) a diversity of housing types, ranging from medium to higher density apartment blocks, townhouses and freestanding houses on separate stands; (8) at least one shopping area/ district with the full spectrum of national chain shops, take away shops and family restaurants; (9) regional branches of Banks; and (10) a light industrial district/area.

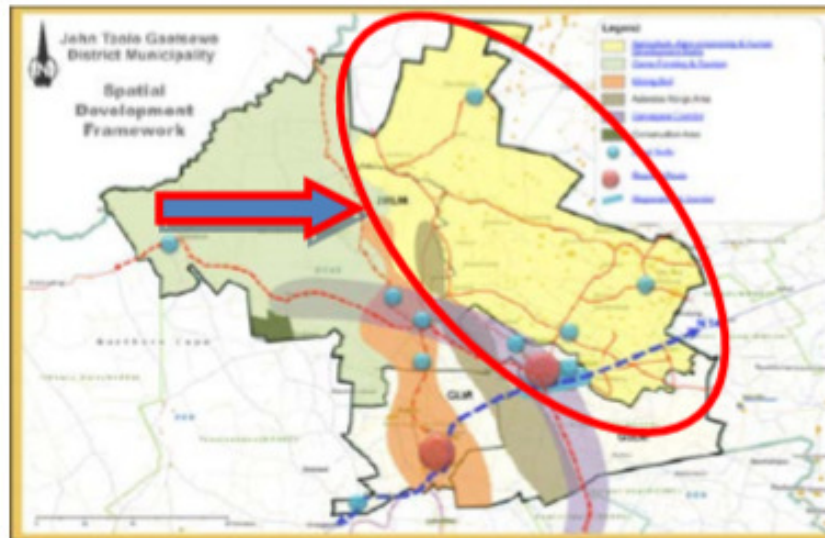


- **Local Node:** A node that has functional linkages with and impacts not extending beyond the borders of the Local Municipality in which it is located. Typically such a node will include: (1) the full spectrum of schools from primary to secondary; (2) a number of clinics offering basic health services; (3) a number of general health practitioners and dentists' offices; (4) a local police station; (5) a limited range of housing types, with the freestanding house on a separate stand still the most dominant form; (6) a shopping area/district with many of the national chain shops and a number of take away shops and maybe a family restaurant; (7) branch offices of Banks; and (8) a few light industries, typically located in or around the central business district.



- **Human Development Hub:** 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. Typically such a node will include (1) primary schools, and in some cases, secondary schools with boarding facilities; (2) clinics; (3) formal freestanding houses on separate stands; (4) a local or mobile police office; (5) a multi-service Thusong Centre; and (6) a number of locally-owned and operated shops, take away shops and the occasional

restaurant. In addition to this, and in accordance with the concept of the “polycentric regional network”, such a hub, together with a series of other such human development hubs, jointly offer the full spectrum of public services.



- **Regional Development Corridor:** A linear “spine” consisting of a major road or series of roads and/or a railway line or lines, that connects a series of Regional and Local Nodes. Given the high levels of interconnectedness between the nodes on the corridor, the whole corridor can be viewed as an “elongated, highly integrated linear macro-regional node”. Corridors like these are marked by high levels of inter-nodal movement by which economic activities in the different nodes are synergistically linked-up with each other. While the activities that take place in the nodes and along the corridor, mutually support each other, they also enable the corridor to develop a critical regional mass by which it can “engage”, collaborate and compete with other such corridors and nodes of regional and even national and international significance. In order to function as a regional corridor, there have to be strong regional nodes with high density human settlement, high intensity economic activity and high technology, reliable infrastructure, communications networks and municipal services in the corridor. Typically there will be at least a regional airport or a harbour in one of the nodes in the corridor. It is also not uncommon for such corridors to span municipal, provincial and even national borders. Where this happens, it often results in the setting up of some or other form of regional planning, research, advisory and/or decision-making body with representation from the various governance entities and private sector, organised labour and community-based role-players in the corridor.

## 4.12. SPATIAL INTERVENTIONS

### 4.12.1. Strengthening and/or Regenerating Existing Node

- Focusing infrastructure investment and upgrading in nodal areas
- Instituting town-planning legislation and zoning regulations that allow for, and incentivise greater mixing of land uses, higher densities and in-fill development, in nodal areas
- Improving land use management, enforcement of building codes in nodal areas
- Promulgating legislation enabling the setting up of City/Business Improvement Districts in nodal areas and assisting the private sector with doing so

- Improving safety and policing in nodal areas
- Instituting supporting funding mechanisms, such as attractive rates and property tax reductions in nodal areas
- Providing for, but regulating and clearly demarcating informal trading zones/areas, in nodal areas
- Supporting informal traders in nodal areas with business and other skills-development programmes to enable them to make a decent quality of life and to over move into the more formal side of the economy
- Making special provision for attraction young and creative people that could add to the liveliness of nodal areas, to these areas
- Making nodal areas more attractive through landscaping sidewalks and regular refuse removal
- Hosting festivals and/or regular special day/week events (e.g. “late shopping nights”) in nodal areas
- Focusing public works programmes in nodal areas
- Devising a branding and marketing strategy for nodal areas

#### **4.12.2. Creating or Strengthening Activity/Development Corridors**

- Increasing accessibility in corridors without unnecessarily compromising mobility
- Reducing mobility by limiting travel speeds in corridors and increasing access on corridors
- Reducing the municipal rates and property taxes payable in corridors and increasing them in non-corridor areas
- Limiting or restricting movement on the corridor of vehicles that do not add to the development in the corridor, e.g. heavy trucks that transport raw materials from mines to harbours
- Improving the provision, quality and frequency of public transport services in the corridor
- Building connector roads to the corridor
- Using State-owned land in corridors to build high-density housing and/or to lever in private sector developments
- Expropriate land in corridors and use these to build high-density housing in corridors
- Improving traffic management and policing on the corridor
- Providing or constructing dedicated bus lanes in corridors
- Providing more facilities for non-motorised transport, e.g. pedestrian and bicycle paths
- Rewarding public transport users in corridors with food vouchers, education vouchers, etc.
- Subsidising fares for public transport to and in the corridor for a fixed period of time to attract people to the corridor
- Constructing pedestrian over-bridges in the corridor
- Devising a branding and marketing strategy for the corridor
- Focusing public works programmes in the corridor

#### **4.12.3. Creating New Nodes**

- Limiting the approval of development rights in existing nodal areas

- Incentivising the location of new activities in “new” nodes through infrastructure investment and lenient zoning regulations
- Reducing the municipal rates and property taxes payable in new nodes and increasing them in existing nodes
- Requiring that all new government buildings and services are located in “new” nodes
- Preparing detailed land development plans for “new” nodes and marketing these amongst local and international investors
- Placing requirements for “tied investment” in “new” nodes when investing in existing nodal areas
- Devising a branding and marketing strategy for “new” nodes
- Focusing public works programmes in “new” nodes

#### **4.12.4. Instituting “No-Go Areas”**

Restricting or preventing development in specified areas through town planning and/or environmental legislation

Redirecting development to other areas through the provision of incentives

Withholding the investment or maintenance of infrastructure in “no-go areas”



## **5. CHAPTER 5: TRANSPORT NEEDS ASSESSMENT**

### **5.1. INTRODUCTION**

The preparation of Integrated transport plan includes various stakeholders which may be of National, Provincial, District and Local Governments. This enables proper planning, decision making process and attainment of good communication. Consulting the public opens a greater way of communication and access to decision making process which may involve all people that are within the district municipality. Members of the general or public representatives are being involved to take part in sharing of information and taking part on the planning process.

According to Section 11c(x) of the National Land Transport Act No 5, 2009 “The Municipal sphere of government is responsible for encouraging, promoting and facilitating public consultation and participation in the planning, regulation and implementation of public transport, and applying the requirements of the Systems Act.” This chapter mainly deals with the engagement of transport stakeholders and clear understanding of their needs in order to address the community problems and reach a consensus on what needs to be done in terms of acquiring transport related projects.

Public participation plays a major role in developing an integrated transport plan. The public is being consulted to address their concerns and they are therefore consulted for planning and on decision making process.

### **5.2. STAKEHOLDER PARTICIPATION**

The preparation of the district integrated transport plan revolves around various stakeholders which may be National, Provincial, District and Local governments. The National Land Transport Act suggests that stakeholders be engaged throughout the process. The inclusion of stakeholder initiates and oversees the briefing facilitation of input session in order to identify stakeholders need in respect to transport planning aspects in the district.

The aims of the stakeholder’s consultation process are to facilitate the decision making process and also to achieve stakeholder’s endorsement in the development of the District Integrated Transport Plan. The following concepts/aspects have been addressed:

- Establish and confirm the requirements of the project
- Determine key needs and issues critical for the strategies and plans
- Determine and ensure the buy-in into the proposed interventions
- Develop and agree on preferred initial proposals

The following techniques, found appropriate, were used in the public participation and consultation process:

- Steering Committee with appropriate representation
- Stakeholder meetings
- Stakeholder or role player workshops
- Surveys and focus group interviews

### **5.2.1. Steering Committee**

As part of the process of consultation, a DITP Steering Committee was formed consisting of representatives from the following:

- Department of Transport, Safety and Liaison
- Department of Public Works & Roads
- John Taolo Gaetsewe District Municipality
- Joe Morolong Local Municipality
- Ga-Segonyana Local Municipality
- Gamagara Local Municipality
- Professional team

The steering committee has provided the direction to the accomplishment and compilation of District Integrated Transport Plan and also incorporated the common interests of the three Local Municipalities

### **5.2.2. Stakeholder Meetings**

John Taolo Gaetsewe Municipality formulated a Transport Forum which was established the committee within the district. This was done through the engagement of other relevant stakeholders and/or focus groups so as to address their needs. It is ideal for each district municipality to formulate their transport forums and also local municipality.

The District Municipality is required to co-ordinate the Transport Forum meetings on an annual basis from which the deliberated discussions formed part of the reviewed document.

The following stakeholders formed of the Forum that sat on the 17th of November 2016:

- Joe Morolong Local Municipality
- Ga-Segonyana Local Municipality
- John Taolo Gaetsewe District Municipality
- John Taolo Regional Taxi Council
- Kalagadi Manganese Mine
- Provincial Department of Transport, Safety & Liaison
- Megabus
- Sakoor Bus

### **5.2.3. Role-Player Workshops**

To make certain that the process of consultation was all-inclusive, so far one workshop has been held at one of the three municipalities. The workshop intended on identifying needs and problems, create and generate plans and projects, and prioritise transport projects or interventions which will be valuable outcomes of the District Integrated Transport Plan.

The following stakeholders were invited at the workshops:

- Department of Transport, Safety and Liaison
- Department of Environment and Nature
- Department of Public Works & Roads

- Department of Cooperative Governance Human Settlement and Traditional Affairs
- Department of Mineral Resources
- Kumba Iron Ore
- Sishen Mine
- BHP Biliton
- Kalagadi Mining
- Golder Mining
- Tshipi e ntle Manganese
- John Taolo Gaetsewe House of Traditional Leaders
- Department of Rural Development
- John Taolo Regional Taxi Council

#### **5.2.4. Surveys and Focus Group Interviews**

In the surveys conducted, passengers were interviewed to find their perception, attitude and belief on the services rendered by the taxi drivers. From the survey we got to see all the positive and negative perceptions passengers have towards the whole operation.

Most of the passengers complained about the waiting time, fare structure, accessibility, reliability, and conditions of the taxis but most importantly lack of amenities at the facilities such as toilets, shelter, and seats. Passengers further explained that they are forced to hike private transport because of the poor service and reckless driving of the d taxi drivers.

Then cordon counts were conducted at the main entrances and exit points within the district.

### **5.3. SUMMARY OF ISSUES**

The summary of issues that emanated from the steering consultation participation are outlined as follows:

- Institutional
- Law and Safety
- Financial
- Management
- Operational
- Infrastructure
- Integration

### 5.3.1. Institutional Needs and Issues

Focus Area	Item	Issue
Arrangements		There is a need to formulate transport forum at District level to meet on a monthly basis so as to address transport issues and make input towards the development and implementation of transport functions.  The Provincial Government has established District Forums and should meet on a monthly basis to discuss the transports issues in the District.
		The involvement of the Associations at the Provincial and District Level is limited to SANTACO. The Regional Taxi Council is not happy about these issue because their needs are not addressed accordingly
		There are no appropriate institutional structures in place within the District to carry out devolved various transport functions including planning and control of public transport. A functional Planning Authorities could be considered in the District.
		There is a need for a Transport Operating Licence Administrative Unit within the Planning Authorities which will interact with the Provincial Government on administration of operating licences within the District.
Communication		There is a lack of communication between stakeholders because other stakeholders do not attend meetings and workshops as scheduled. They struggle to know the progress of transport service in the District.

### 5.3.2. Law and Safety Needs and Issues

Focus Area	Item	Issue
By-laws		There are no by-laws formulated within the district, but yet the introduction of by-laws on the transportation of dangerous goods should formulate.
Law Enforcement		Traffic Officers should monitor traffic during peak periods to avoid accidents around the major town and avoiding congestion They should also be in position to eradicate illegal operations
		The illegal operations issue is exacerbated by the concern that Traffic Officers seem to target taxis only, especially with regards to overloading, leaving the pirating vehicles. This approach is bankrupting the taxi industry and hence the tax base of the country, leaving pirates to thrive.
		There is a proposal that Tribal Authorities need to be involved with the assistance of addressing illegal public transport services through piracy and without licences.

A list of law and safety issues with respect to transport in the District raised during consultation sessions with role players includes the following:

### 5.3.3. Financial Needs and Issues

Focus Area	Item	Issue
Allocations		The limited financial resources as a result of competing resources within the Province limit the capacity of the District and its Local Municipalities to implement projects. In addition, this limits additional personnel required to be allocated on the transport planning tasks.
Subsidies		There is a need for financial support by the Municipalities on national roads passing through their centres. The maintenance of roads is currently a split function where National Department is able to maintain its sections regularly, whilst the Municipalities are not able to due to limited financial resources. The N14 section passing through Gasegonyane and Gamaraga should be proclaimed and be given to Municipalities.
		The NMT is discouraged due to lack of proper infrastructure; the future planning should allow bicycle lanes in Kuruman and Hotazel. Infrastructure Development and Maintenance is important especially in terms of providing primary health care.
		Create boulevards where pedestrians' are dominant and the Traditional Leaders are not keen with bicycle grants because communities are lazy to work and relies on Government grants.
Fare System		There are no uniform fare structures in the Province and District Municipality. Bus and sedan fares are seen as lower than minibus taxi fares which cannot compete on the same basis.
		Taxis and Buses industries seem to be self-regulatory. New entrants in the industry do not have access to Operating Licence.

A list of financial issues with respect to transport in the District raised during consultation sessions with role players includes the following:

### 5.3.4. Management Needs and Issues

Focus Area	Item	Issue
Buses		There is a need to introduce monitoring of subsidised services to improve public transport services and also to make sure that the services keep to schedules. Of additional importance is the availability of data for assessment of subsidised services.
		The Department of Transport only accepts cash from operators and private companies like mines believe in non-cash payment and this pose a problem when companies want to renew their licences.
		The tendered scholar transport routes discourage business development as the Provincial Department accepts low tender rates and also significantly delay payments.  The low rates in most cases result in un-roadworthy vehicles providing such services, exposing children to safety and health issues.  In addition, most contracts are given to one company depriving others of an opportunity to participate on such contracts and hence spread economic benefits.
Taxis		Acquiring Operating Licence is very difficult these days due to high interruptions experienced by taxi operators
		The taxi industry is concerned that the Provincial Government has a problem in issuing operating licences. The way the process is handled is not satisfactory and it would appear that the Provincial Government does not implement the requirements of the NLTA appropriately. In addition, the process and timeframes allocated for issuing of the Licences are also not satisfactory.
Freight	6	The introduction of fixed and mobile weigh bridges within the Districts will assist with the management and control of overloading within Districts and their Municipalities. This will assist with extending the life expectancy of internal routes and also raise funds on un-conforming loads.

A list of management issues with respect to transport in the District raised during consultation sessions with role players includes the following:



### 5.3.5. Operational Issues

Focus Area	Item	Issue
Rail		Transnet to bring back freight services within the province and formulate commuter rails.
Taxis		Public transport needs to be rationalised in a way that measures are put in place to improve the service as well as the taxis themselves.
		There is a lack of amenities where the ranks are situated, there is a need to upgrade or develop them.
		The need to provide more public transport in rural areas as people get late to work and other destinations.
		Illegal operations remain an issue within the province whereby some taxi drivers drive without licences; light vehicles pick up passengers without operating licences.
		There are insufficient public transports in rural areas and hiking remains an issue within the district especially in places like Damrose, Camden, Vergenoeg, Washington, Ditshoswaneng and all other places which are situated far from town.
Freight		Heavy vehicles travelling around town causing traffic congestion especially around the Kuruman town and on the N14 moving along the route to Kathu
Special Needs Persons		Light Delivery Vehicles are not considerable to transport learners as they may in danger the life's of scholars
Traffic		Legible signs for road users and also eradicating congestion around Kuruman town especially during peak hours.

A list of operational issues with respect to transport in the District raised during consultation sessions with role players includes the following:

### 5.3.6. Infrastructure Issues

Focus Area	Item	Issue
Buses		There is a need to introduce monitoring of subsidised services to improve public transport services and also to make sure that the services keep to schedules. Of additional importance is the availability of data for assessment of subsidised services.
		The Department of Transport only accepts cash from operators and private companies like mines believe in non-cash payment and this pose a problem when companies want to renew their licences.
		The tendered scholar transport routes discourage business development as the Provincial Department accepts low tender rates and also significantly delay payments.  The low rates in most cases result in un-roadworthy vehicles providing such services, exposing children to safety and health issues.  In addition, most contracts are given to one company depriving others of an opportunity to participate on such contracts and hence spread economic benefits.
Taxis		Acquiring Operating Licence is very difficult these days due to high interruptions experienced by taxi operators
		The taxi industry is concerned that the Provincial Government has a problem in issuing operating licences. The way the process is handled is not satisfactory and it would appear that the Provincial Government does not implement the requirements of the NLTA appropriately. In addition, the process and timeframes allocated for issuing of the Licences are also not satisfactory.
Freight	6	The introduction of fixed and mobile weigh bridges within the Districts will assist with the management and control of overloading within Districts and their Municipalities. This will assist with extending the life expectancy of internal routes and also raise funds on un-conforming loads.

A list of infrastructure issues with respect to transport in the District raised during consultation sessions with role players includes the following:

### 5.3.7. Integration Issues

Focus Area	Item	Issue
Integration		New housing developments along the Gamagara Corridor and other areas must be integrated in the transport plans to be serviced by the taxi and bus industry.
		The province should involve the district and municipalities on permitting permits and issuing operating licences. This enables effective communication within the spheres of government.

A list of integration issues with respect to transport in the District raised during consultation sessions with role players includes the following:

#### **5.4. CONTEXTUAL FRAMEWORK**

In the context of issues that have been identified within the district municipality as outlined in the previous section, there are three principal features to consider. These considerations include:

Over and above all, public service remains a challenge in the district. The districts together with the relevant representatives need to come together and ensure that they promote an efficient and effective service to the public. Measures need to be put in place in which the institutional structure and functions within the district municipality are strengthened.

Once that has been achieved, the relevant plans can be implemented at the district level and coordination with the other spheres of government on provision of infrastructure.

## **6. CHAPTER 6: RATIONALISATION OF TAXIS**

### **6.1. BACKGROUND**

The Rationalisation of Mini-bus Taxis (previously referred to as “Operating Licences Strategy”) as per Section 49 of the NLTA, prepared will set out and develop parameters and criteria which will be used by John Taolo Gaetsewe District Municipality (JTGDM) to make recommendations to the Provincial Government which will enable the Province, in disposing of applications regarding operating licences, to achieve a balance between public transport supply and utilisation that is both effective and efficient, and which is in response to customer needs.

The operating licence issued will afford the applicant (taxi operator) to operate a particular mode of transport on a specific route(s).

### **6.2. PREVIOUS OLS**

The Integrated Transport Plans for John Taolo Gaetsewe District Municipality was carried out in May 2004. In 2004 ITP and the requirements of the Operating Licences Strategy (OLS) were covered in detail and also developed in the May 2004 Operating Licences Strategy based on the waiting time and fleet factor evaluation methods.

Africon prepared the OLS on behalf of Kgalagadi District Municipality and was completed in May 2004. The prepared OLS was seen as a document towards the formulation of the ITP. The relevant policy issues relating to the preparation of an OLS were described and most of the policy statements contained in the OLS were coming directly from the national, provincial and local government levels policy directives. It was however noted that there still plenty of room for policy formulation at local level as the process of transformation in transport goes.

### **6.3. PURPOSE AND OBJECTIVES**

#### **6.3.1. OLS Purpose**

The purpose of the Rationalisation of Mini-bus Taxis (“OLS”) as prepared by John Taolo Gaetsewe District Municipality, taking note of the impact on passengers and giving priority to the needs of customers, is:

- a) TO provide circumstances in which operating licences authorising the operation of public transport within any part of the Planning Authority Area could be allowed.
- b) TO provide structured and informed responses to the applications for operating licences which are to be provided by Planning Authorities to the Provincial Regulatory Entity (previously referred to as “the Operating Licensing Boards”).
- c) TO enable the Provincial Regulatory Entity in disposing of applications regarding operating licences, so as to achieve a balance between public transport supply and utilisation that is both effective and efficient, and which is in response to customer needs.

- d) TO identify the role of each public transport mode and of the preferred road based mode or modes with regard to operations in the Planning Authority Area, including transport into or from the Areas of other Planning Authorities and inter-provincial transport.
- e) TO, in the longer term, also address the restructuring of all modes forming part of the public transport system, including inter alia rail concession (if it becomes applicable) and the recapitalisation of the taxi industry.

### **6.3.2. OLS Objectives**

Taking note of Chapter 5, Clause 40 of the NLTA, which requires Planning Authorities to take steps as soon as possible after the date of commencement of the NLTA to integrate services subject to contracts in their areas, as well as appropriate un-contracted services, into the larger public transport system; it becomes apparent that the following objectives need to be formulated in order to achieve the said purpose:

- a) TO rationalise within and between public transport modes, including services across local and provincial borders.
- b) TO avoid wasteful competition between public transport services and operators.
- c) TO ensure that passenger demand is met effectively and efficiently.
- d) TO conclude commercial service contracts for unsubsidised public transport services.
- e) TO facilitate and promote modal integration.

### **6.4. LEVEL OF SERVICE**

The Level of Service (LOS) refers to the speed, convenience, comfort and security of transportation facilities and services as experienced by users. It is also referred to as Quality of Service and in the instances where taxi services are provided we note the following:

- a) The services provided between Kuruman CBD, Mothibistad and Batlharos are satisfactory, i.e. good. The taxis provide services throughout the day.
- b) The services provided in Gamagara Local Municipality are also satisfactory. The taxis provide services throughout the day.
- c) The services in Joe Morolong Municipality are not satisfactory, especially between the work places and home places. The service is inadequate with only one or two taxis per village depending on the number of people available in a particular day.
- d) Generally services within the District Municipality are also not satisfactory. This is mainly due to long waiting times of taxis, resulting in commuters resorting to hitchhiking along the N14 between Kagung, Kuruman and Kathu and R31 between Hotazel, Kuruman and Kimberly route.

As to the facilities provided, they are not adequate and there is a need to provide additional formal facilities where taxis are mostly ranking. There is only one formal facility in Gamagara, two in Ga-Segonyana Local Municipality and no facility in Joe Morolong Local Municipality.

Taking note of the above, the LOS could be improved overtime through the restructuring of urban areas and public transport services.

## **6.5. OBSERVATIONS**

In terms of the taxi services within the John Taolo Gaetsewe District Municipality, the following observations have been made:

- a) There is a lack of taxis in the Joe Morolong area due to road conditions and people use vans to go to town. Commuters usually call for bookings and when there is a full load a taxi operates
- b) There are no ranks in Hotazel area (mining area) and people use buses in the morning and evening and hitchhike during the day.
- c) In Kuruman, operators erected informal facilities along the N14 and R31 to discourage people from hitchhiking.
- d) The Kuruman taxi rank gets overcrowded during the off-peak period due to the lack of facilities in the municipality.
- e) There are illegal operations within Kuruman CBD. Bakkies and unregistered taxis operate within the CBD.
- f) The taxis start to operate normally during the evening peak at Kuruman as most of the commuters make use of the taxis. However, some of the potential commuters hitchhike and this tends to reduce patronage in the public transport sector.
- g) There are few formal taxi facilities in the District. Most of the facilities are located at the CBD. Although in some places no formal ranking was observed, it will be appropriate to provide formal facilities at home areas.
- h) The shortest distance provided along the taxi routes is  $\pm 5$  km and the longest route is  $\pm 525$  km. The shortest distance exists between Wrenchville and Kuruman CBD and the longest route between Kuruman and Johannesburg.

## **6.6. POLICY FRAMEWORK**

The rationalisation of taxis must fit within the overall policy framework of John Taolo Gaetsewe District Municipality and the Provincial Government. However, the Northern Cape Provincial Government has developed the 2013/2017 Provincial Land Transport Framework (PLTF). The formulation of this PLTF has been guided by the first PLTF completed in May 2003 and by the White Paper on National Transport Policy, the National Land Transport Act (NLTA), the National Land Transport Strategic Framework (NLTsf) and the Moving South Africa - Action Agenda and the Northern Cape National Transport Master Plan (NATMAP) 2050, over and above corporate plans, policies and strategies.

### **6.6.1. OLS Guiding Principles**

The rationalisation of taxi services has been done in terms of the NDOT set of guidelines for the preparation of public transport plans. Of importance is that, the purpose of transport planning is to bring into being a co-ordinated, integrated transport system for an area in accordance with the goals and objectives contained in national policy on passenger transport.

The operating licences strategy should gradually address challenges faced in the taxi industry so that the taxis could finally be incorporated into the formalised public transport system. In order to line up with the rationalisation of buses, it will be important to also



address the operational component of the taxis so as to adopt changes with time as the Integrated Transport Plan evolves and develops. The focus will hence be on the following:

- Short-term focus with attention paid to current taxi services and their rationalisation; aimed at addressing over-supply and under-supply of taxis on different routes and development of policies around hitchhiking. In addition, the District needs to expand on the Be Legal Campaign (BLG) to encourage the Taxi Operators to register and comply, whilst support is obtained through the Province by lifting moratorium on registrations. The short term is taken as a period of one to three years. This will assist in improving public transport patronage and profitable operations in the taxi industry.
- Medium term focus with attention paid to the development of a framework for the design of future service contracts, taking cognisance of the total system, its modes and operators. The medium term is taken as a period of three to five years. This will assist in formulating strategies to integrate taxis into subsidised contracts and commercial contracts, thereby formalising their operations within the District.
- Long term focus with attention paid to recommendations on types of services and operations to be implemented and a basis for identification of suitable routes for the implementation of taxi recapitalisation (35-seater vehicles) process and commercial contracts, and a basis for the design of bus rapid transit and rail operations; thereby facilitating the restructuring required to attain an effective and efficient system over time. The long term is taken as a period of five years and beyond. This focus area is extremely lagging in the District and will only start if rationalisation of buses and taxis are addressed over a number of consecutive years in the Province.

Taking note of the above focus periods, the following policy framework aspects were identified and would need to be addressed in the development of the rationalisation of taxis over time:

- a) The need to maintain stability during the transition phase of the focus periods. Current services will therefore form the basis for formulating the future services.
- b) The need for elimination of obvious and unjustifiable disparities in the operational component.
- c) The need to make reconsideration on loss-making routes due to over-supply and reduce taxi fleet on those routes based on impact assessment.
- d) The need for the rationalisation of services where other modes (bus and/or rail taxi) provide services in the same corridor and where mini-bus taxis are not appropriate for such routes (i.e. they unnecessarily travel excessive distances) or the other modes have extra capacity.
- e) The need to consider implementing Taxi Recapitalisation midi-bus vehicles, having had formalised the taxi industry, in a pilot project within the District Municipality.

#### **6.6.2. OLS Policy Aspects**

The guiding principles of the rationalisation of taxis above provided the basis on which the plan can be developed over time. The principles must have policy aspects guided by the vision, goals and objectives of the District Municipality and the Provincial Government. This section unpacks the vision further to provide a policy framework for generating and evaluating proposals for service provision in the future.

### **6.6.2.1 Role of Different Modes**

In assessing the role of each mode in the present and future public transport system we have considered policy aspects related to capacity and cost. In terms of the capacity, it will be appropriate that modes be selected that can carry the passenger volume over the required distance. In terms of the cost, modes will be selected on the basis of least cost over the distance operated.

The capacity and cost aspects have initially been based on available research undertaken in other provinces and overseas. The various modes have proven to provide a least cost on number of passengers and distance travelled when compared. It is recommended that:

- The minibus taxis provide services along routes where passenger volumes are less than 800 per day per direction.
- The midi-bus taxis provide services along routes where passenger volumes are between 800 and 6 000 per day per direction.
- The standard buses provide services along routes where passenger volumes are between 6 000 and 20 000 per day per direction.
- The articulated buses provide services along routes where passenger volumes are between 20 000 and 40 000 per day per direction.
- The trains provide services along routes where passenger volumes are in excess of 40 000 per day per direction

It needs to be noted that the above passenger ranges may in practice indicate more than one suitable mode for a given situation. They should be used to give broad guidance on which mode the District should support and possibly be subsidised. At the same time commercial or non-subsidised operations could be permitted using the other modes.

### **6.6.2.2 Targeted Travel Distances**

In assessing the need for travelling within the District in the present and future, we have considered policy aspects related to restructuring, land use and socio-economic development. The District should adopt a policy on public transport feeder system to help achieve the aims of restructuring public transport operations, supporting land use restructuring, and providing basic mobility to all its population.

Hence, it is recommended that:

- a) The route network and feeder system be designed to ensure access to the closest appropriate employment centres, health and education facilities, shopping and other social services. This will improve on public transport operations and income by eliminating inefficiencies; and focus operations at the correct markets and utilise available modes effectively.
- b) Existing services for longer distance travel be allocated to appropriate larger modes and shorter distance travel to smaller modes. We propose the “watershed” distance to be kept at 30km for smaller modes. However, care should be taken to ensure that feeder systems do not perpetuate economically irrational settlement patterns.

### **6.6.2.3 Competition of Operators**

In assessing the provision of competition in public transport within the District in the present and future public transport system we have considered policy aspects related to subsidy, contracts and economic aspects. We recommend that:

- a) The District should presently not promote competition among unsubsidised services as passenger volumes are still low. In the long term competition could be encouraged when passenger volumes are high so as to broaden the range of choices, innovation and quality available to users, but not at the expense of safety.
- b) The policy on competition for commercial and subsidised services should start to look on bringing a larger range of operators into the industry. Opportunities for repackaging subsidised bus contracts into smaller units, thereby allowing smaller operators and new players to tender for services, should be pursued.

### **6.6.2.4 Balancing Supply and Demand**

In assessing the provision of balancing supply and demand in public transport within the District in the present and future public transport system one needs to consider policy aspects related to supply and demand. The number of vehicles that are required to meet the demand cannot be based solely on the peak hour passenger demand and the capacity of the vehicle. It also needs to take into account the demand in other hours of the day, the turn-around time, the excessive delay caused by peaking and the need for stand-by vehicles. We recommend that:

- a) Supply and demand should never be exactly matched as peaks and off-peaks have different requirements. Supply should always be more than demand.
- b) Longer routes have longer travel times with lower repeat trips being possible. This could result in longer waiting times and the need for more licences on the route to ensure more convenient service to passengers.

Hence it can be noted that this policy aspect needs functional relationships and the factor by which the value of peak hour passenger demand versus vehicle capacity over various distances needs to be determined in estimate the number of vehicles required to meet the demand on a route.

### **6.6.2.5 Residential Densities**

In assessing the provision of residential densities in public transport within the District in the present and future public transport system one needs to consider policy aspects related to densification and nodal developments. In line with the recommendations contained within the District Spatial Development Framework, the rationalisation of taxis supports the promotion of higher residential density in order to restructure the John Taolo Gaetsewe into a more efficient District to the benefit of all the residents.

The motivation for higher density and nodal developments is driven by the following factors:

- The cost of providing public transport infrastructure and services.

- Increased social interaction and access to amenities.
- Reductions in air pollution through a lowering in emissions.

However, studies undertaken in other Provinces have indicated that there is no single formula to relate level of density to the most cost effective level of public transport provision, and as a result it has been concluded that the relationship between densification and provision of public transport services, is a complex one.

#### **6.6.2.6 Minimum Off-Peak Service**

It is important that minimum service levels for off-peak services (including weekends and public holidays) be specified to ensure that a minimum level of basic access is provided. As such this applies to high volume corridor services that are intended to provide a backbone safety net” of basic mobility, as shall be the case with the future strategic high-level network proposed.

At present minimum off-peak standards cannot be extended to minibuses services, but this could happen in future, once their relationship to the backbone network is clarified and minibus services are let in terms of commercial (unsubsidised) services. Without any evidence to the contrary, it is suggested that a minimum frequency for off-peak services should be at least one vehicle trip per hour along the backbone network.

This standard could obviously be raised over time once passenger demand increases.

### **6.7. RESPONSIBILITIES**

In order to rationalise and restructure public transport and to achieve a more cost effective and efficient system, a holistic and integrated approach is necessary. It needs to be noted that rationalisation within one public transport mode (in this case, taxis) will not necessarily render an optimal result.

However, to follow an integrated approach and include all three public transport modes is complicated by the fact that the planning responsibilities for these modes are situated with various spheres of government, its institutional structures and agencies. The responsibilities are as discussed below.

#### **6.7.1. Rail Mode**

Rail planning is currently done at National Level with the Passenger Rail of South Africa (PRASA) managing the operations and concession process on behalf of the National Government. This poses a challenge in planning for Rail within the District and concerns have already been raised on some of the passenger services which have been discontinued without the involvement of the Provincial Government and the District Municipality.

Although it is anticipated that this responsibility will be devolved to the Provinces in future and this devolution may even go further to Transport Authorities, it is critical that a transport forum be constituted within the District to discuss integration matters and other public transport issues.

### **6.7.2. Bus Mode**

The bus services currently fall under the competency of the Provincial Government (Department of Transport, Safety and Liaison). The Provincial Government is responsible for aspects such as regulation and control of the bus operations, planning, implementation and monitoring of bus services through tendered contracts as well as management of bus subsidies.

The bus company operating within the John Taolo Gaetsewe District Municipality is subsidized and privately owned and it is running on interim contracts. The current subsidies that were inherited from the National Department of Transport are only for the Kimberley, Kuruman and Hartswater areas. The Department of Transport is currently undertaking various studies to investigate the possibilities of extending the bus subsidies to other parts of the province, especially the rural areas where the services are needed most.

Although this function may be devolved to local government (Transport Authorities) in future, it is critical that a transport forum be constituted within the District to discuss integration matters and other public transport issues.

### **6.7.3. Taxi Mode**

Taxis are regulated and controlled through operating licenses issued by public transport licensing boards (now referred to as provincial regulatory entities) after consultation with local authorities. In this instance, the relationships have been successful mainly due to the fact that the local authorities have to provide infrastructure for the taxi mode.

### **6.7.4. Cross Border Services**

In general, public transport services in many cases cross local, as well as provincial borders. We therefore need to know how to deal with the cross border services in terms of the rationalisation of taxis and know which planning authorities' OLS should address the strategy of these services. We recommend that:

- a) In the case of Provinces, the planning authority at the destination end of a service deal with such a service as part of its OLS. This will have to be done involving both provinces affected. For the sake of comprehensiveness, all planning authorities affected by a specific service may include the joint OLS of such a service in their plans.
- b) In the case of Municipalities, the affected planning authorities must deal with the OLS of such a service jointly, and where a Province is still responsible for such a service, it should coordinate the discussion.

### **6.7.5. Role-players Cooperation**

From the above it becomes clear that in order to follow an integrated planning approach, close cooperation between the respective levels of government is essential. Whilst the sphere of government, authority or entity responsible for the administration of the specific service under consideration for restructuring and rationalisation could be tasked with the responsibility to ensure that the necessary inter-authority discussion, coordination and

corporation take place, it is seen critical that Transport Forum consisting of Technical Working Groups be constituted for participation of all public transport operators within the District.

## **6.8. EVALUATION AND CONDITIONS**

In view of the fact that taxis normally wait at the rank or pick-up points until they are full during peak periods, the capacity utilisation of taxis is not a reliable measure of over-supply and under-supply. For this reason alternative criteria to evaluate over-supply and under-supply have been developed as described below.

### **6.8.1. Evaluation Methods**

The alternative criteria in evaluating over-supply and under-supply involve the waiting time and the fleet factor methods.

#### **6.8.1.1 Waiting Time Method**

The most reliable method of evaluating over-supply and under-supply of taxis is the average waiting time of commuters when queuing at the loading point, compared to the waiting time inside the taxi before it departs, and acceptable waiting times have been found to be in the order of 10 to 15 minutes as determined by the National Passenger Panel of the NDOT.

Hence, waiting times outside a vehicle for short distance commuting (i.e. less than 30 km) can be categorised as follows:

- Less than 5 minutes would be acceptable and additional licences should not be considered.
- Between 5 and 15 minutes would mean caution and licences should not be considered without further investigation.
- More than 15 minutes would be unacceptable and additional licences could only be considered after further investigation.

Waiting times outside a vehicle for long distance commuting (i.e. more than 30 km) can be categorised as follows:

- Less than 15 minutes would be acceptable and additional licences should not be considered.
- Between 15 and 30 minutes would mean caution and licences should not be considered without further investigation.
- More than 30 minutes would be unacceptable and additional licences could only be considered after further investigation.

Although the waiting time method could genuinely determine over-supply and under-supply of taxis, care should be exercised on using information obtained from site as taxis could wait longer due to some commuters waiting outside to explore other possible means of transport before entering into the taxi. This is the case in John Taolo Gaetsewe District Municipality as taxis have to wait longer for commuters to fill the taxi before departure; whilst other commuters could be waiting outside to seek for alternative travel means through hitchhiking.



On the basis of the above, the waiting time method will be complemented by the fleet factor method as discussed below as an alternative method for evaluating over-supply and under-supply of taxis.

#### **6.8.1.2 Fleet Factor Method**

The fleet factor method is a less reliable method of evaluating over-supply and under-supply of taxis and is most applicable as a screening tool if waiting times are not available or less accurate. The method involves the estimation of the theoretical number of taxis that would be required to satisfy the passenger demand over the peak period compared to the actual number of taxis.

The theoretical fleet size is determined by first calculating the turn-around time for taxis on a specific route. This is the time taken from starting to load commuters at the origin point, travelling to the destination, dropping off commuters and returning again to the starting point. The turn-around time is therefore based on the route distance, the average speed, and the time spent to off-load and load commuters at both ends of the route.

From the turn-around time and the hourly commuter volumes for each of three hours over the morning or afternoon peak period, the theoretical fleet size would then be determined. For each hour the fleet size is determined by dividing the number of commuters by the capacity of the taxi. A reserve, fleet size of 25% was also assumed, providing for additional taxis in case of break-downs or accidents. The fleet size required for each hour is further adjusted by means of the turn-around time as short turn-around times allow the same taxi to return in time to pick up more commuters during the three-hour period.

On the basis of the above, the following criteria were applied to apply the fleet factor, which is the ratio of the theoretical fleet size to the actual fleet size:

- Fleet Factor less than 0.75 would be acceptable and additional licences should not be considered.
- Fleet Factor between 0.75 and 1.0 would mean caution and licences should not be considered without further investigation.
- Fleet Factor greater than 1.0 would be unacceptable and additional licences could only be considered after further investigation.

This method was also used in the case of John Taolo Gaetsewe District Municipality and compared with the waiting time method, taking into consideration the waiting time inside the taxi. The results obtained reflect a reasonable simulation of the site conditions. We recommend that any outcome based on these methods should be investigated further for each of the routes, especially where additional licences are most likely to be issued.

## 6.8.2. Licences Conditions

### 6.8.2.1 Vehicle Licencing

John Taolo Gaetsewe District Municipality has to take part on operating licences and make certain that the following conditions will apply to the successful granting, renewal or transfer of an operating licence:

- a) All vehicles used by the operator will comply with SABS standards and specifications.
- b) Annual compulsory roadworthiness test of the vehicle will be undertaken to ensure the safety of the passengers.
- c) If for any reason, the Entity ("board"), in disposing of an application does not act according to the OLS and the recommendation and representation made by the District Municipality, the District Municipality should not accept financial responsibility, present or future, for the Operating Licences issued.

In addition, the following conditions are to be attached to the issuance of an operating licence:

- d) All vehicles for which an operating licence is issued must be insured.
- e) All vehicles must display the required decals in the required positions.
- f) Unless otherwise stated, all passengers must be loaded and off loaded at the specified ranks/termini or stops as stated in the operating licence.

In terms of managing licences, the following recommendations should be considered:

- g) In the case of over-supply:
  - Determine the extent of illegal operations on those routes with over-supply.
  - Remove illegal operators on the routes by means of law enforcement.
  - If over-supply is still experienced, restrict the issue of additional licences on such routes until the imbalance between demand and supply is reduced.
- h) In the case of under-supply:
  - Verify the actual extent of under-supply by means of a detailed investigation on a route for route basis. (The findings on this route could be the result of CPTR uncovered information or seasonal demand).
  - If the extent of under-supply is confirmed in a detailed investigation it is recommended that consideration be given to increasing the number of licences to closer to the theoretical number of vehicles required.
- i) In cases where the under-supply or over-supply is low, i.e. below 3:
  - Maintain the status quo, as the difference between demand and supply is too low to warrant substantial intervention.

Furthermore, applications should be rejected, amongst others, for the following reasons:

- j) To minimize conflict between the taxi associations, the District Municipality will recommend that a person applying for an operating licence to provide a mini-bus taxi services on an existing mini-bus taxi route must belong to the same associations as the operators that are currently providing the service on the particular route, otherwise the licence will not be issued.
- k) Each operating licence is needs driven; so if the Provincial Regulatory Entity does not see the need for more operating licences on a certain route, they will decline to issue further licences.

The above conditions should be considered as a complement to Part 2 (Sections 50 to 79) of the NLTA and all the requirements and conditions stipulated therein should be adhered to.

### 6.8.2.2 Facilities Capacity

In terms of section 57 of the NLTA, an operating licence must be considered having had taken authorised ranks, terminals or other facilities into account. Where the need for public transport services from the user's perspective is justified and the planning authority is unable to provide the required capacity at the origin or destination rank or alongside the route at the time of which the application is made, the District Municipality will recommend that an operating licence be issued for a fixed period of one year. From time to time the District Municipality has to provide the required capacity at the rank by means of:

- a) Investigating the management of the facilities and where possible recommend a management strategy that would increase the capacity of the facility, or
- b) Providing additional capacity at the facility.

### 6.8.2.3 Operating Licences

Utilisation relates to extent to which current number of seats available on specific route is utilised. If seating capacity is not fully utilised, conclusion is that there is no need for additional operating licences. Issuing more licences could result in lower utilisation and less balance between supply and demand. In the case of issuing more licenses it is important that the current utilisation is very high, especially if commuters are unlikely to pay more. Balance of demand and supply would also be affected by the fares that commuters are willing to pay. Higher fares could result in modal shifts.

Certain standards are set for acceptable waiting times for commuters during peak periods. Waiting times has impact on whether commuters arrive at their destinations on time as well as the level of dissatisfaction with the mode in question. Waiting times would affect the patronage of the specific mode. Waiting times that are unacceptably long, could lead to modal shifts if there are alternatives available (like subsidised services or hitchhiking). Commuters could consider walking in cases of shorter distances with unacceptable waiting times.

Provincial Regulatory Entity (PRE) should look at the following in assessing an application for an operating license:

- Utilisation on the route
- Estimated number of operating licenses

There are additional findings with various combination parameters which also need to be taken into account:

- Combination of number of existing licenses that is close to the estimated number of operating licenses and a high level of route utilisation (above 85%) – could be the basis for issuing an extra operating license.
- If on the other hand, the difference between the existing number of licenses and the estimated number of licenses is big and the route utilisation is low, then this constitutes a basis for not issuing an operating license.
- Further investigation is necessary when the match between the actual and estimated number of licenses are not supportive of level of utilisation.
- Typical response should be for PRE request for submitting the theoretical number of licences and request that they be compared with existing number of licences. Subject to level of utilisation, if the existing number of licences is more, then the operating license should not be issued.

Routes excluded from this OLS evaluation (due to unavailability of information) will require separate investigation before any licences could be issued. The principles under which such licences could be issued can be similar to the above except that it be preceded by an investigation to determine the necessary information on which a decision can be based.

## **6.9. RESTRUCTURING AND INTERVENTIONS**

The previous chapter addressed the evaluation criteria and conditions to be applied in the rationalization of taxi services. This chapter develops specific strategy proposals and interventions required to achieve the strategy for the commuter taxi services including all the four association services in the District.

Each taxi route surveyed in the Current Public Transport Record (CPTR) has been evaluated to determine whether there is an over-supply or under-supply of taxis to serve the commuter demand. Two main objectives have been considered:

1. The commuters must be provided with a satisfactory and efficient service and therefore transport must be accessible (minimize walking time) and available when required (minimize waiting time).
2. The commercial viability and stability of, the taxi industry must be considered. An over-supply of taxis often lead to aggressive competition, possible violence and taxi operators and drivers find it difficult to survive commercially and develop their businesses. Hence the design of the public transport services should be planned on the basis of where they have the highest impact on reducing the total cost of traveling.

### **6.9.1. Restructuring Strategy**

The strategy adopted in the rationalisation of taxi services is in line with the policy framework developed for the John Taolo Gaetsewe District Municipality as provided for in section 6.6 above. Policy issues of particular relevance to the rationalization of taxi services are as follows:

- a) The need for public transport to serve both captive and non-captive users in order to increase patronage within the District Municipality. This would mean that there is a need for basic access to be improved for captive users, i.e. survival and sensitive user segments, including the stranded.

In addition, it should in the long terms be considered to create a public transport network of sufficiently high quality to attract non-captive users from their cars, i.e. the selective, mulish and stubborn. This will assist in reducing reliance on cars.

- b) The need to provide an appropriate mode for various parts of the public transport network based on capacity, cost and contributions to the District's objectives of promoting SMME's and achieving certain public transport quality levels.
- c) The need to target a "safety net" of basic services to the poor, ensuring access to the closest appropriate employment centres, health and education facilities, shopping and other social services.

- d) The need to not encourage competition in the present and near future until commuter volumes reach higher levels, i.e. more than 6 000 one-way daily commuters.
- e) The need to provide a minimum off-peak level of basic service to at least one vehicle trip per hours along the public transport network.

### **6.9.2. Restructuring Criteria**

The following are the main criteria applied in the taxi rationalization strategy:

1. The need to consider any current dispersed routes and be transformed into more focused and simplified routes along specific corridors linking main origin and destination nodes.

Bearing in mind the need for a practical transition from the current situation to an ideal strategic public transport network in the longer-term, an attempt was made in the short to medium term to still accommodate the current main commuter movements as directly as possible on the network.

2. The need to discourage or minimise parallel taxi routes, except where there are more than 6 000 one-way daily passengers. It is noted that in the existing routes, the thresh-hold for daily commuters provided does not appear to be reached on any of the current taxi services.

### **6.9.3. Corridor Intervention Proposals**

The volume of commuters carried during the day by taxis is shown in Figures 6.1 to 6.3 for the morning peak, off-peak and afternoon peak periods, respectively. As noted in Figures 6.1 to 6.3 the volumes of commuters transported by taxis are lower than the anticipated threshold 800 commuters per day per direction. The highest volume is 716 commuters between Kuruman and Batlharos, and the lowest volume is 0 commuters between Kuruman and Postmasburg.

The intervention proposals for the 63 route are summarised in Figure 6.4, and discussed in detail below, together with the proposed packaging of the commercial contracts.

#### **6.9.3.1 No Additional Licences**

The current routes do not need additional licences. However some routes could be considered for reduction on licences with an improvement on revenue by the remaining members of the affected associations. However, the reduction in the number of taxis is nominal and would amount to only one taxi. These routes include:

1. Sesheng Slovo Park 2 to Kathu
2. Although it is recommended that one vehicle be reduced on the Sesheng Slovo Park 2 to Kathu, this service could be moved to an off-peak period to provide the necessary fleet required. However, this will be feasible if taxis are operating on the basis of commercial contracts. This option should however be investigated in detail.

#### **6.9.3.2 Maintain Current Licences**

There are sixty one routes which would require the status quo to be maintained in terms of the licences. Should additional licences be required on these corridors, then further investigation would be required.

Figure 6.1: 3hr AM Peak – Taxi Passengers Volume

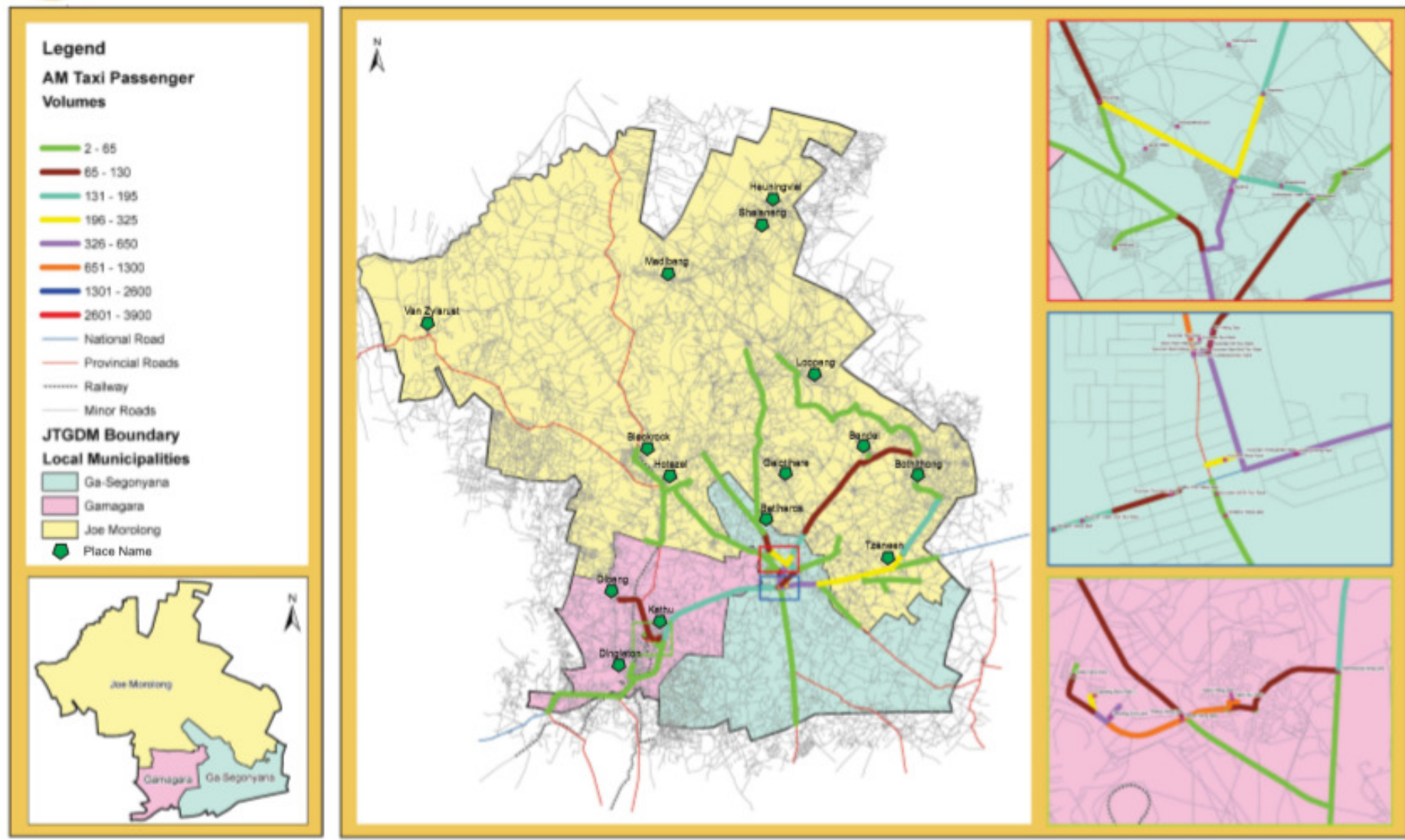






Figure 6.3: 3hr Afternoon Peak – Taxi Passengers Volume

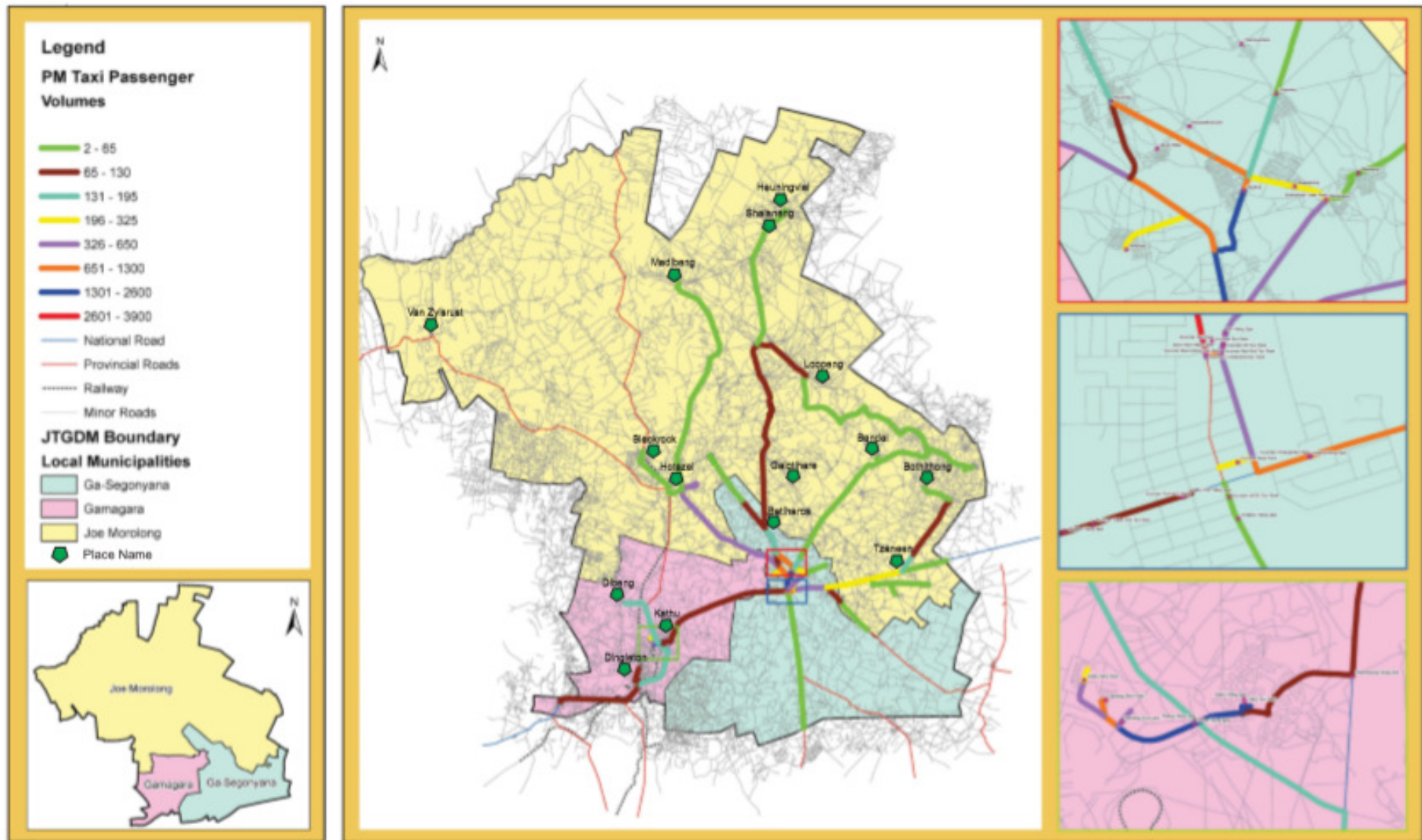




Figure 6.4: Corridor Intervention Proposals

[illegible]

Although it is recommended that the service between Kuruman and Batlharos be maintained, it will be better if the existing taxis could be replaced with recapitalised taxis (35-seater vehicles). This will make provision for efficient operations in the morning peak, off-peak and afternoon peak operations.

On the same basis, besides that the volumes would be low, is to provide the service through the 35-seater vehicles between Kuruman and Kimberley, Kuruman and Vryburg, Kuruman and Upington and Kuruman and Johannesburg. These are long distances and need to be balanced in terms of an appropriate mode. Ideally 35-seater vehicles should be considered on all long distance routes.

It may be necessary for the long-haul routes to be operated under new contracts to be decided by a negotiation process to allow minibus-taxi and bus-operators currently operating to form joint operating entities and be part of a new contract. The transformation will include both current bus and minibus-taxi operators. The strategy will be to support current minibus-taxi operators and bus operators to form new mutually owned entities that can form the basis of contracts for defined routes in the future. This option should however be investigated in detail.

#### **6.9.3.3 Provide Additional Licences**

There are two routes which may require that additional licences be provided. These routes include:

1. Kuruman to Postmasburg
2. Kuruman to Heuningvlei

As noted, the additional vehicles required are not substantial which means that the patronage will need to significantly increase before extensive restructuring could take place.

### **6.10. FACILITIES INTERVENTION PROPOSALS**

An assessment on the utilisation of rank capacity in the John Taolo Gaetsewe District Municipality is summarised in Figure 6.5. Only Three out of Twenty six facilities are formal.

In general the available space to accommodate taxis at the facilities appears not reasonable, with the exception of the following facilities:

- a) Bankhara Taxi Rank;
- b) Mapoteng Taxi Rank;
- c) Kuruman (NCR) Taxi Rank;
- d) Kuruman Caltex N14 Taxi Rank, and
- e) Sishen Mine Taxi Rank

Figure 6.5: Existing Facility Interventions

No.	FACILITY				NO. OF BAYS	UTILIZATION		% UTILIZATION	COMMENT	ADD AREA (m <sup>2</sup> )	ADD NO. OF BAYS	RECOMMENDATIONS	LOCAL MUNICIPALITY
	NAME	CODE	TYPE	USAGE		MAX. NO. OF VEHICLES	TIME OF MAX. UTILIZATION						
1	Bathwana Taxi Rank	NUTR100	Informal	Combined	12	85	09:00 - 09:15	83%	This rank operates only in the morning	185	5	New Rank Required	Ga-Segonyane
2	Bathwana Taxi Rank	NUTR101	Informal	Combined	4	3	07:15 - 07:30	75%	This rank operates only in the morning	0	0	New Rank Required	Ga-Segonyane
3	Sosno Miles Taxi Rank	NUTR102	Informal	Combined	4	4	08:30 - 08:45	100%	This rank operates only in the morning	165	5	Not critical to add bays	Ga-Segonyane
4	Seeding Taxi Rank	NUTR103	Informal	Combined	5	7	12:15 - 12:30	140%	This rank operates only in the morning	90	3	Super stop required	Ga-Segonyane
5	Mogojong Taxi Rank	NUTR104	Informal	Combined	8	12	08:30 - 08:45	150%	none	180	6	New Rank Required	Ga-Segonyane
6	Motlatsi Taxi Rank	NUTR105	Informal	Combined	8	90	11:30 - 11:45	82%	none	90	3	New Rank Required	Ga-Segonyane
7	Mopotong Taxi Rank	NUTR106	Informal	Combined	3	2	12:30 - 12:45	67%	none	0	0	Super stop required	Ga-Segonyane
8	Kagang Taxi Rank	NUTR107	Informal	Combined	4	6	08:00 - 08:15	150%	This rank operates next to the R54 and cannot provide formal services	90	3	Super stop required	Ga-Segonyane
9	Karuman New Mall Taxi Rank	NUTR108	Informal	Combined	27	48	15:30 - 15:15	178%	This facility utilizes space earmarked for general parking at a private mall	881	27	New Rank Required	Ga-Segonyane
10	Karuman BP Taxi Rank	NUTR109	Informal	Combined	14	85	01:00 - 01:15	607%	This facility operates at a filling station. This is an extension to Karuman Taxi Rank	85	2	New Rank Required	Ga-Segonyane
11	Karuman (Vryburg) Taxi Rank	NUTR110	Informal	Combined	4	7	08:45 - 09:00	175%	This is an extension to Karuman Taxi Rank	132	4	Super stop required	Ga-Segonyane
12	Karuman (PCR) Taxi Rank	NUTR111	Informal	Combined	6	3	12:00 - 12:15	50%	This is an extension to Karuman Taxi Rank	0	0	Super stop required	Ga-Segonyane
13	Karuman Taxi (H-Q) Rank	NUTR112	Informal	Combined	4	4	14:30 - 14:45	100%	This is an extension to Karuman Taxi Rank	33	1	Not critical to add bays	Ga-Segonyane
14	Karuman Calson R54 Taxi Rank	NUTR113	Informal	Combined	21	12	02:15 - 02:30	57%	This is an extension to Karuman Taxi Rank	0	0	Not critical to add bays	Ga-Segonyane
15	Karuman Taxi Rank	NUTR114	Formal	Combined	38	110	14:45 - 15:00	289%	There is no enough space for all taxis to operate in this facility hence operation of informal ranks around Karuman CBD and to also need hitch-hiking	3036	52	Need Upgrading	Ga-Segonyane
16	Karuman (Bom-Bom) Taxi Rank	NUTR115	Informal	Combined	6	7	13:45 - 14:00	117%	none	85	2	Super stop required	Ga-Segonyane
17	Karuman (Concession) Taxi Rank	NUTR116	Informal	Combined	26	23	11:00 - 11:15	91%	none	180	6	New Rank Required	Ga-Segonyane
18	Katse Taxi Rank	NUTR101	Formal	Combined	10	22	12:15 - 12:30	220%	There is no enough space for all taxis to operate in this facility	462	14	Need Upgrading	Karagane
19	Katse Village Mall Rank	NUTR102	Informal	Combined	4	6	14:30 - 14:45	150%	The taxis operate inside the mall (using private parking space)	90	3	Super stop required	Karagane
20	Sechong Shwag park Taxi Rank	NUTR103	Informal	Combined	3	90	16:00 - 16:15	333%	none	264	8	Super stop required	Karagane
21	Sechong Miles Taxi Rank	NUTR104	Informal	Combined	18	3	13:30 - 13:45	18%	none	0	0		Karagane
22	Sechong Shwag Park 2 Taxi Rank	NUTR105	Informal	Combined	4	6	08:00 - 08:15	150%	none	90	3	Super stop required	Karagane
23	Dibong Taxi Rank	NUTR106	Informal	Combined	2	34	16:00 - 16:15	1700%	none	1180	36	New Rank Required	Karagane
24	Wenderville Taxi Rank	NUTR117	Formal	Combined	3	8	08:30 - 08:45	267%	This formal rank only operates in the morning	180	6	Need Upgrading	Ga-Segonyane
25	Karuman-Rosa Rank	NUTR118	Informal	Combined	3	6	13:45 - 14:00	200%	This facility operates in a private parking	132	4	Super stop required	Ga-Segonyane
26	Offshore Taxi Rank	NUTR119	Informal	Combined	1	1	11:30 - 11:45	100%	none	33	1	Super stop required	Karagane

Figure 6.6: New Facility Interventions

No	ROUTE CODE	ORIGIN RANK	DESTINATION	TYPE OF SERVICE	FACILITY AT A POINT	FACILITY AT B POINT	NO OF FACILITIES NEEDED	AREA FACILITY NEEDED	FLEET SIZE	ADDED AREA (m <sup>2</sup> )	ADDED No BAYS	RECOMMENDATIONS	LOCAL MUNICIPALITY
1	NJ100TBF	Bulthanas Taxi Rank	Kuruman	Consider	Bulthanas Taxi Rank	NONE	1	Bulthanas	16	165	5	A taxi rank may be constructed	Ge-Segonyapane
2	NJ104TBF	Mogojaneng Taxi Rank	Kuruman	Consider	Mogojaneng Taxi Rank	NONE	1	Mogojaneng	12	198	6	A taxi rank may be constructed	Ge-Segonyapane
3	NJ114TBF	Kuruman New Mall Taxi Rank	Dithigong	Consider	Kuruman	NONE	1	Kuruman	46	891	27	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
4	NJ115TBF	Kuruman New Mall Taxi Rank	Glenod	Consider	Kuruman	NONE	1	Kuruman	46	891	27	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
5	NJ116TBF	Kuruman New Mall Taxi Rank	Camatubu	Consider	Kuruman	NONE	1	Kuruman	46	891	27	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
6	NJ117TBF	Kuruman New Mall Taxi Rank	Dithigong	Consider	Kuruman	NONE	1	Kuruman	46	891	27	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
7	NJ118TBF	Kuruman New Mall Taxi Rank	Bontel	Consider	Kuruman	NONE	1	Kuruman	46	891	27	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
8	NJ119TBF	Kuruman New Mall Taxi Rank	Looping	Consider	Kuruman	NONE	1	Kuruman	46	891	27	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
9	NJ120TBF	Kuruman BP Taxi Rank	Dithigong	Consider	Kuruman	NONE	1	Kuruman	15	96	2	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
10	NJ121TBF	Kuruman BP Taxi Rank	Dithigong	Consider	Kuruman	NONE	1	Kuruman	15	96	2	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
11	NJ122TBF	Kuruman BP Taxi Rank	Churchill	Consider	Kuruman	NONE	1	Kuruman	15	96	2	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
12	NJ123TBF	Kuruman BP Taxi Rank	Elendole	Consider	Kuruman	NONE	1	Kuruman	15	96	2	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
13	NJ165TBF	Kuruman (Containers) Taxi Rank	Ge-Mopedi	Consider	Kuruman	NONE	1	Kuruman	23	198	6	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
14	NJ166TBF	Kuruman (Containers) Taxi Rank	Gasose	Consider	Kuruman	NONE	1	Kuruman	23	198	6	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
15	NJ168TBF	Kuruman (Containers) Taxi Rank	Blackrock	Consider	Kuruman	NONE	1	Kuruman	23	198	6	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane
16	NJ169TBF	Kuruman (Containers) Taxi Rank	Maruthwane	Consider	Kuruman	NONE	1	Kuruman	23	198	6	A taxi rank may be constructed/Extension in Kuruman Taxi Rank	Ge-Segonyapane



In addition, there is a need for new taxi facilities to support the existing ones at the end of other corridors. The required new facilities are shown in Figure 6.6. It is recommended that taxi rank facilities be provided at three areas including the following:

1. Batlharos;
2. Magojaneng, and
3. Kuruman;

There are a couple of informal facilities in Kuruman CBD and these facilities can be converted into a one formal facility or extension of Kuruman Taxi Rank. As for the remaining areas, taxi lay-bys could be provided.

### **6.11. IMPLEMENTATION STRATEGIES**

The implementation strategy for the rationalisation and restructuring of taxis cannot be concluded in isolation and it will hence be important to follow an integrated approach and include the buses, and relevant authorities, over and above the private taxi and bus operators. This will effectively be achieved through the formulation of a Transport Forum within the District so as to discuss integration matters and other public transport issues.

The formulated Transport Forum will begin to address critical aspects in providing integrated public transport operations and services and will initiate actions in line with the Moving South Africa: Action Agenda which include:

1. Focus the scope of the transport system by concentrating assets and investments to consolidate high volume routes and nodes to make up various urban and rural strategic networks. The strategic networks would form the backbone of the transport system, underpinned by supporting networks;
2. Deploy transport modes in the strategic and supporting networks (and their component routes) in order to capture the best economies of scale possible according to the ability of modes to meet customer needs, and
3. Create an environment in which customers are empowered and transport service providers are enabled to improve efficiency, productivity and competitiveness.

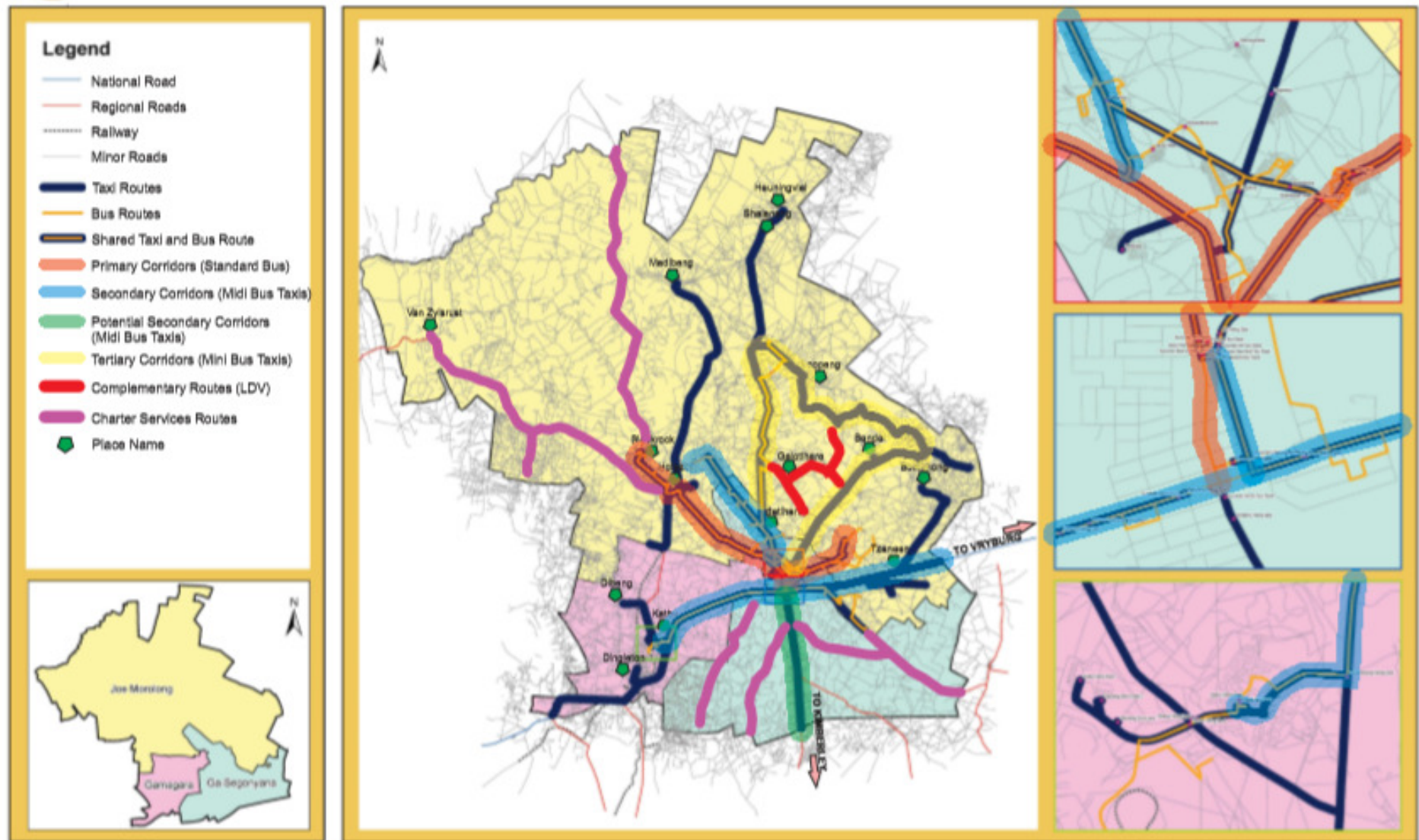
Whilst facing the challenges of critical mass or the required population densities to create the strategic network as provided for in Figure 6.7, it is expected that as contracts of the buses are renewed, the introduction of the medium to long term objectives be effected, that is:

- a) Prepare to phase-out the existing bus contracts in the short-term with the intention of replacing them with appropriate mode and service. As noted in Figure 6.7, some of the corridors will still provide for buses during the peak periods and be complemented by mini-bus taxis during the off-peak periods, and other corridors will initially be well served by midi-buses instead of standard buses complemented by feeder service of mini-bus taxis from low population density areas.
- b) Design future services based on appropriate mode for different times of the day. It is noted that standard buses are providing services in the morning and afternoon peak periods only and do not entirely reach the expected destinations of commuters within

a radius of 1 km. Hence, there is a need for combination of modes to provide for peak and off-peak periods efficiently. The off-peak task can be achieved by the utilisation of mini-bus and midi-bus taxis.

- c) Introduce charter services for areas not covered adequately by mini-bus taxis, areas include Van Zylsrust, Madibeng, Shalaneng, Heuningvlei and any other area in the Joe Morolong and Ga-Segonyana Local Municipalities.
- d) Introduce complementary routes to be served by Adapter Light Delivery Van (ALDV's) and/or minibus taxis to feed into the Kuruman-Batlharos-Metsimantsi Wyk 4-Loopeng-Deurham-Bendel loop.
- e) Introduce negotiations between the bus industry and the taxi industry to agree on the formulation of cooperatives which will tender for the newly designed public transport services encouraging the adoption of recapitalised public transport vehicles. The intention of negotiations should lead to negotiated contracts including the two industries in the medium term with the intention of upgrading them to tendered contracts in the long term.
- f) Roll-out the negotiated contract having had introduce appropriate modes to provide frequent and efficient services within the District and monitor operations for improved future packages, i.e. competitive tendered contracts.

Figure 6.7: Implementation Strategy



As noted, the above strategy seems an ambitious set of actions which cut against the direction of current trends, especially in the light of low population densities but it aims at turning the current commuter-based service into a viable, customer-based public transport system. The key thrusts to achieve this are to increase the density of public transport demand, to make maximum use of an optimal mode for a given demand and distance, and to improve firm-level productivity to meet the evolving needs of customers.

We believe that through a systematic process of unwinding the inherited legacy of the past, a new rationalised public transport system will emerge which will meet the needs of the majority of customers, whilst at the same time being able to innovate and meet the needs of customers with differentiated and special needs, especially during off-peak periods.

The above strategy will address both the Urban Passenger Vision and Rural Passenger Vision as stated in the Moving South Africa: Action Agenda. The visions are as follows:

- Urban Passenger Vision for 2020 - Public Transport First

*"By 2020, urban customers will be able to participate fully in the various activities of city life by using a public transport network that provides as much city-wide coverage as possible and which is affordable, safe, secure, fast and frequent."*

As noted, this vision is more appropriate for urban areas in the District including Kuruman and Kathu.

This would mean that localised public transport services should ideally be provided using mini-bus taxis for both home-work trips and feeder services for other longer distance modes, including midi-buses and standard buses.

This mainstream urban public transport operations will meet the needs of currently marginalised users, including the stranded and survival customer segments, scholars, users with disabilities, prioritised tourist customers and transferring long distance passengers.

- Rural Passenger Vision for 2020

*"By 2020, transport infrastructure and services in rural areas will provide the basic means of access and mobility to support the integration of sustainable rural communities into the social and economic life of South Africa."*

As noted, this vision is more appropriate for rural areas and small planned settlements in the District, inter alia, including Madibeng, Shalanang, Heuningvlei, Van Zylsrust, Galotlhare, Bendel and Bothithong.

This would mean that road infrastructure needs to be provided and improved for localised public transport services which should ideally be provided using mini-bus taxis and/or adapter light delivery vehicles for feeder services so that the rural community could be linked to the places of economic activity.

Through provision of infrastructure and feeder services, the rural population in the District will be enabled to affordably and conveniently access markets, employment, economic activity, health care, welfare services, communication systems, retail services, and social activity.

## **6.12. LAW ENFORCEMENT**

Law enforcement policy is not only monitoring and control of the general traffic situation, but also road traffic safety and the protection of roads itself and other transport infrastructure by means of the enforcement of the “rules of the road” as laid down in the National Road Traffic Act (Act No. 93 of 1996). The Law Enforcement requirements are also covered in the NLTA, Chapter 7, sections 85 to 91.

Now, mini-bus taxis are small businesses that are required to be legally regulated, but due to the inadequate application of law enforcement, illegal operations, oversupply and conflict are endemic to the industry. The practical result has been that many operators do not hold valid operating licences and use non-roadworthy vehicles.

In addition, mini-bus taxi businesses operate without government subsidises and consequently have no obligation to render services. This means that the industry operates only at times and on routes that are profitable. Prevalent speeding of overloaded non-roadworthy vehicles is also a frequent consequence of the need to meet income targets

Whilst the above is noted, there is a crucial need to redevelop a quality formal public transport system in order to hold back the growth of car traffic and also to provide accessibility for all citizens, and thereby facilitate the socio-economic development of the District. It is against this background that safety and effective law enforcement within the District must be promoted as vital factors in the land transport management and regulatory systems.

In the light of limited resources, efforts of all component authorities and functionaries must coordinate to prevent duplication.

### **6.12.1. Role-players**

Within the present environment the control of traffic law enforcement should be managed by various agencies, including:

- a) South African Police Services
- b) Provincial Traffic Services
- c) District Traffic Services
- d) Local Councils Traffic Officials

It is important that the efforts of all these authorities be coordinated to prevent duplication of function. This will improve on law enforcement along critical public transport roads and roads with heavy traffic.

### **6.12.2. Liaison Structure**

John Taolo Gaetsewe District Municipality must be represented on the licence coordinating Committee so that the District's policy is understood by all authorities and be enforced through law enforcement in line with the relevant acts.

### **6.12.3. Strategic Enforcement Initiatives**

The following important initiatives should be considered within the District, if not yet applied:

- a) Regulations of the mini-bus taxi industry
- b) Increased roadside law enforcement
- c) Better management of ranks and modal facilities

### **6.12.4. Mini-bus Taxi Regulation**

The formalization of the mini-bus taxi industry will enable authorities to:

- a) Establish communication links
- b) Control market entry
- c) Prevent illegal operations
- d) Facilitate industry development
- e) Facilitate the conversion to scheduled service providers
- f) Provide industry protection

For the successful implementation of the Rationalisation of Mini-bus Taxis ("Operating Licence Strategy"), focus must be placed on compliance with operating licence conditions. This can be achieved through:

- a) Establishing procedures to ensure effective functioning of the enforcement processes on the road and through the justice system.
- b) Roadside and on-road operations jointly undertaken by the SA Police Services, the Traffic Police and South African National Defense Force.
- c) Checking of permits through the NATIS and PRE databases.
- d) Checking of vehicle roadworthiness.
- e) Establishing suitable facilities for temporarily impoundment of illegal and un-roadworthy vehicles.

### **6.12.5. Taxi Facilities**

New management structures can be introduced into public transport at some of the mini-bus taxi ranks. This will be done with the aim of improving the day-to-day operational management of the facilities to the general benefit of the public transport user. The ranks and transfer facilities are suitably located for the establishment of controls and effective enforcement. Some initiatives that must be promoted regarding Public transport facilities include:

- a) Joint Provincial and local initiative, provision, operation, maintenance of Public transport facilities, which includes personal safety and security.
- b) Private sector involvement in the development and maintenance of the facilities must be promoted.
- c) Planning and provision of facilities must accommodate multi-modalism and integrated transport through a process where all stakeholders are consulted.
- d) Discourage ownership of such facilities by transport operators.



- e) Taxi industry could be allowed to manage and control taxi ranks, with effective monitoring by the Municipalities and application of penalties if compliance is not adhered to
- f) Province must formulate comprehensive guidelines for the provision of transport facilities.

## **7. CHAPTER 7: RATIONALISATION OF BUSES**

### **7.1. BACKGROUND**

The Rationalisation of Buses or existing scheduled services (referred to as “Rationalisation Plan”) as per Section 48 of the NLTA, prepared will set out and develop parameters and criteria which will be used by John Taolo Gaetsewe District Municipality (JTGDM) to make recommendations to the Provincial Government which will enable the Province, in putting out contracts or concessions to tender regarding subsidized public transport services, to achieve a balance between public transport supply and utilization that is both effective and efficient, and which is in response to customer needs.

The contracts tendered will afford the applicant to operate a particular mode of transport on specific route(s).

### **7.2. PREVIOUS RATPLANS**

The Integrated Transport Plans for John Taolo Gaetsewe District Municipality previously known as Kgalagadi District Municipality was carried out in May 2004. The requirements of the Rationalisation Plan were fairly covered but due to the confidential nature, some information pertaining number of daily passenger trips was not provided.

In 2004 ITP workshops were held with the different public transport service providers and different operators were identified. Objectives were set emanating from the CPTR and the Rationalisation Plan conducted in 2004.

### **7.3. PURPOSE AND OBJECTIVES**

#### **7.3.1. RatPlan Purpose**

The purpose of the Rationalisation Plan (RatPlan) as prepared by John Taolo Gaetsewe District Municipality, taking note of the impact on passengers and giving priority to the needs of customers is:

- 1) TO eliminate inefficiencies within the subsidised bus system, which become apparent from an assessment of the Current Public Transport Register (CPTR).
- 2) TO create a framework for the restructuring of tendered bus contracts, taking cognisance of the total public transport system and its modes, in order to obtain a more efficient and cost effective public transport system.
- 3) TO in the longer term also address the restructuring of all modes forming part of the public transport system, including inter alia rail concession (if it becomes applicable) and the recapitalisation of the taxi industry.

### **7.3.2. RatPlan Objectives**

Taking note of Chapter 5, Clause 40 of the NLTA, which requires Planning Authorities to take steps as soon as possible after the date of commencement of the NLTA to integrate services subject to contracts in their areas, as well as appropriate un-contracted services, into the larger public transport system; it becomes apparent that the following objectives need to be formulated in order to achieve the said purpose:

- 1) TO rationalise within and between public transport modes, including services across local and provincial borders
- 2) TO determine the extent of subsidisation of services
- 3) TO determine where and to whom subsidies should be targeted
- 4) TO minimise levels of subsidy
- 5) TO minimise competition between public transport services and operators
- 6) TO stimulate competitive bidding between public transport operators through the structuring of tenders
- 7) TO ensure that passenger demand is met effectively and efficiently
- 8) TO facilitate and promote modal integration

### **7.4. TYPES OF SUBSIDISED SERVICES**

Whilst the extent of subsidisation of the bus service operator (i.e. Megabus) has been indicated in Chapter 3, it also needs to be noted that four types of subsidised bus services are offered in the country. The types of subsidised bus services are discussed below.

#### **7.4.1. Subsidised Service Contracts**

Subsidised Service Contracts have been in operational in the country for more than 50 years. This type of scheme (contract) makes it possible for commuters to pay less than the normal fare and the operator is paid the balance by the government in the form of a subsidy. This result in the operator receiving the full economic fare made up of the passenger contribution and the government's subsidy payment.

The passenger benefits by paying a lower fare, and the subsidy is paid to the service provider.

This type of contract should not exceed 7 years in terms of the NLTA, clause 42.

#### **7.4.2. Tendered Contracts**

Tendered Contracts are contracts where prospective operators tender for the right to operate subsidised services. This system aims at promoting a degree of off the road competition between operators. Various ways can be used to structure these tendered contracts.

This kind of service is constantly been monitored to ensure that an appropriate level of service is maintained, as penalties are imposed for failing to meet set standards. This type of contract should not exceed 7 years.

#### **7.4.3. Negotiated Contracts**

Negotiated Contracts are based on contracts documents similar to those drawn up for the competitive tenders, and operators are also paid a rate per revenue kilometer. This type of contract should not exceed 12 years in terms of the NLTA, clause 41.

#### **7.4.4. Interim Contracts**

Interim Contracts are operated on a month-to-month basis and are commonly used in areas where competitive tendering system is not utilised. This type of contract should not exceed 3 years.

#### **7.4.5. Contract in Place**

As highlighted in Chapter 3, the subsidised bus service is running on interim contracts. The services which have been part of the Northern Cape Province within the John Taolo Gaetsewe District Municipality are based on interim contract.

It needs to be noted that interim bus contracts provide very limited scope for major restructuring and large gains in financial effectiveness and negotiated bus contracts may also provide limited efficiency gains as a result of targeting intra-operator (focusing on subsidised bus services only) mainly; hence intra-modal rationalisation.

Tendered bus contracting on the other hand provides the real opportunity for major interventions, restructuring of bus services and bringing about substantial savings in subsidy. Thus, it is important that the tendered bus contracting process not be unnecessary delayed as it is not desirable.

However, it may be possible that the Northern Cape Province may have delayed in the design process of tendered bus contracts in anticipation of the finalisation of rationalisation plans.

### **7.5. LEVEL OF SERVICE**

The Level of Service (LOS) refers to the speed, convenience, comfort and security of transportation facilities and services as experienced by users. It is also referred to as Quality of Service and in the instances where bus services are provided we noted the following:

- a) The service provided in Joe Morolong Municipalities is not satisfactory, i.e. poor. There are no services provided during off-peak hours and there are also no commuter facilities along the routes.
- b) The services provided in Ga-Segonyana Municipality are also not satisfactory but fair. Although there are few services provided during off-peak hours, there are also no commuter facilities provided along the routes.
- c) There is only one service provided in Gamagara Municipality and there are no commuter facilities provided along the routes.

The bus service industry seems not to be receiving support from Planning Authorities in terms of infrastructural development. As already highlighted in Chapter 3, a large number of facilities for buses are informal and there is only one formal and do not have basic amenities, hence semi-formal and is in the state of dilapidating.

### **7.6. OBSERVATIONS**

In terms of the bus services within the John Taolo Gaetsewe District Municipality, the following observations have been made:

The MegaBus Service enjoys the monopoly of the market including fleet and routes serviced. This can be noted as shown in Table 7.1 below.

TABLE 7.1: Bus Operations

TABLE 7.1: Bus Operations			
No	Bus Company	Fleet Size	No. of Routes
1	Megabus	29	43
TOTAL		29	43

- a) There is at least one operation per rural area including areas like Ntswelengwe, Ga-Masepa, Ntsweng, Ga-Sehubane, Loopeng, Bojalapotsane and Gasese. Having had stated the above, it needs to be noted that the operations do not cover all the remote areas and operations are not enough especially during month ends.
- b) There are no formal bus facilities in the District. There is only one formal facilities located in the work area (Kuruman). As a result buses hold at their depots and some at the driver's homes or nearby overnight (concept called "sleeping grounds").
- c) Most commuters rely on hitch-hiking especially in Joe Morolong Municipality due to lack of public transport.

Some commuters on the Loopeng, Sedibeng-Kuruman routes walk long distances to and from their homes because the bus routes do not extend through-out the areas.

- a) There is hence a need for annual route reviews by relevant planning authorities because many of the bus users complain about walking long distances before or after their bus trips and not enough buses during month ends. With this point in mind, bus commuters have no platform to make inputs or to air their grievances about commuting issues; extending the need for the Public Transport Forum to be set up.
- b) The shortest distance provided along the bus routes is  $\pm 20$  km and the longest route is  $\pm 100$  km. Whilst a route with a total distance of  $\pm 60$  km has been observed, it was noted that the route traverses off-course destinations before reaching the terminal point.

The average distance travelled is  $\pm 45$  km.

## 7.7. POLICY FRAMEWORK

As for the mini-bus taxis, bus rationalisation strategy must fit within the overall policy framework of John Taolo Gaetsewe District Municipality and the Provincial Government, and as previously highlighted in Chapter 6 the Northern Cape Provincial Government has not yet finalised the Provincial Land Transport Framework (PLTF).

## **RatPlan Guiding Principles**

The initial rationalisation of bus services was done in terms of business plans required by the National Department of Transport (NDOT) and based on the Fast Track Public Transport Planning Process in 1998. As noted, the restructuring followed the NDOT set of guidelines for the preparation of public transport plans. These guidelines state, inter alia, that the purpose of transport planning is to bring into being a co-ordinated, integrated transport system for an area in accordance with the goals and objectives contained in national policy on passenger transport.

The restructuring plan had a strong operational component that will guide short-term decisions. The operational component was important in the light of Government's policy of introducing regulated competition. The operational component of the plan has therefore been adapted as the Integrated Transport Plan evolves and develops.

The focus terms has been lined with that of the mini-bus taxis and is based on the following:

- Short-term focus with attention paid to subsidised bus services and its rationalisation; aimed at subsidised interim bus contracts expiring in the near future. The short term is taken as a period of one to three years. This has been achieved within the District but no further action has been taken to move the next development focus.
- Medium term focus with attention paid to the development of a framework for the design of future service contracts, taking cognisance of the total system, its modes and operators. The medium term is taken as a period of three to five years. This period has been exceeded by the prevailing situation and hence the focus area has not yet been initiated as bus contracts are still running on their interim and negotiated basis.
- Long term focus with attention paid to recommendations on types of services and operations to be implemented and a basis for identification of suitable routes for the implementation of taxi recapitalisation (35-seater vehicles) process and commercial contracts, and a basis for the design of bus rapid transit and rail operations; thereby facilitating the restructuring required to attain an effective and efficient system over time. The long term is taken as a period of five years and beyond. This focus area is extremely lagging in the District and will only start if rationalisation plans are developed over a number of consecutive years in the Province.

Taking note of the above focus periods, the following policy framework aspects over and above the ones developed for mini-bus taxis were identified and would need to be addressed in the development of the rationalisation plan over time

- The need for transformation of the subsidised bus contract system with the intention to open the subsidised bus contract system to previously excluded operators.
- The need to consider the implementing Taxi Recapitalisation midi-bus vehicles in a pilot project within the District Municipality.

It needs to be noted that the first four policy framework aspects stated in Chapter 6 have not been repeated here as they are the same as those of the mini-bus taxis and need to be referred to for completeness.

### **7.7.2. RatPlan Policy Aspects**

As previously alluded to, the guiding principles of the rationalisation plan above provided the basis on which the plan can be developed over time. The principles must have policy

aspects guided by the vision, goals and objectives of the District Municipality and the Provincial

Government. This section unpacks the vision further to provide a policy framework for generating and evaluating proposals for service provision in the future.

Some of the policy aspects have been discussed in Chapter 6 and are outlined in this chapter for background.

#### **7.7.2.1 Role of Different Modes**

The role of different modes has been discussed in detail in Chapter 6 and it needs to be noted that each of the modes operates efficiently within certain limits of passengers as provided for below:

- The minibus taxis provide services along routes where passenger volumes are less than 800 per day per direction.
- The midi-bus taxis provide services along routes where passenger volumes are between 800 and 6 000 per day per direction.
- The standard buses provide services along routes where passenger volumes are between 6 000 and 20 000 per day per direction.
- The articulated buses provide services along routes where passenger volumes are between 20 000 and 40 000 per day per direction.
- The trains provide services along routes where passenger volumes are in excess of 40 000 per day per direction

The passenger ranges should be used to give broad guidance on which mode the District should support and possibly be subsidised. At the same time commercial or non-subsidised operations could be permitted using the other modes, provided these do not affect the overall subsidy amount.

In selecting appropriate modes their ability to promote other objectives such as BBBEE objectives, SMME promotion, or achieving a certain service quality to attract car users, will be taken into account.

#### **7.7.2.2 Targeted Subsidies**

In assessing the provision of subsidies within the District in the present and future public transport system we have considered policy aspects related to restructuring, land use and socio-economic development. The District should adopt a policy on the subsidisation of public transport to help achieve the aims of restructuring public transport operations, supporting land use restructuring, and providing basic mobility to all its population. The long term goal should be based on reducing the need for transport subsidies, by improving population incomes and its ability to pay for its transport by addressing the underlying problems of, inter alia, poverty, training and access to employment.

Hence, it is recommended that:

- Whilst, this may pose challenges due to different responsibilities, the District should strive to exert maximum influence on the subsidy spending of other authorities with



subsidisation functions within the JTGDM area, particularly the Northern Cape Provincial Government: Department of Transport, Safety and Liaison.

- Since resources are limited, it will be important to set priorities in a subsidy policy. We propose that transport subsidy be primarily targeted at providing a “safety net” of basic services to the poor – whether this be low income adults, learners, children, pensioners or people with disabilities.
- Whereas the main aim of the rationalisation plan is to reduce the overall subsidy budget by eliminating inefficiencies, it is also important to target subsidies at the correct markets and utilise available subsidies effectively. The related bus route network should be designed to ensure access to the closest appropriate employment centres, health and education facilities, shopping and other social services.
- Care should be taken to ensure that subsidies do not perpetuate economically irrational settlement patterns. Existing subsidies for longer distance travel should be phased out and no new subsidised services should be introduced within the District area over an agreed distance. We propose the “watershed” distance to be kept at 60 km, but can be progressively shortened as spatial redistribution occurs.

This will assist in encouraging rational settlement patterns, with the phasing out of longer distance subsidies, and finally reducing the watershed to 40 km as suggested in the 1996 White Paper.

It has to be recognised that the current subsidy system has created dependencies amongst both public transport operators and passengers who have benefited from the subsidy. As a result, any new subsidy policy and strategy will have to be phased in over time. The implementation process will need to try and minimize the negative effects of the changes.

#### **7.7.2.3 Competition of Operators**

The provision of competition in public transport within the District in the present and future public transport system has been discussed in detail in Chapter 6. However, in terms of buses it is recommended that:

- The policy on competition in public transport should closely be related to the subsidy policy. The District should presently not promote competition among unsubsidised services as passenger volumes are still low. However, for subsidised services the District should start to encourage competitive tendering, with the aim of reducing subsidy costs over time.

In the long term competition could be encouraged when passenger volumes are high so as to broaden the range of choices, innovation and quality available to users, but not at the expense of safety.

- The policy on competition for subsidised services should start to look on bringing a larger range of operators into the industry. Opportunities for repackaging subsidised bus contracts into smaller units, thereby allowing smaller operators and new players to tender for services, should be pursued.

#### **7.7.2.4 Balancing Supply and Demand**

The provision of balancing supply and demand in public transport within the District in the present and future public transport system has been discussed in detail in Chapter 6.

#### **7.7.2.5 Residential Densities**

The provision of residential densities in public transport within the District in the present and future public transport system has been discussed in detail in Chapter 6. We however need to emphasise that the motivation for higher density and nodal developments is driven by the following factors:

- The cost of providing public transport infrastructure and services.
- Increased social interaction and access to amenities.
- Reductions in air pollution through a lowering in emissions.

#### **7.7.2.6 Minimum Off-Peak Service**

Contrary to the mini-bus taxi services, it is suggested that a minimum frequency for off-peak services should be at least one vehicle trip per two hours along the backbone network.

This standard could obviously be raised over time once passenger demand increases.

### **7.8. RESPONSIBILITIES**

In order to rationalise and restructure public transport and to achieve a more cost effective and efficient system, a holistic and integrated approach is necessary. It needs to be noted that rationalisation within one public transport mode (in this case, buses) will not necessarily render an optimal result.

However, to follow an integrated approach and include all three public transport modes is complicated by the fact that the planning responsibilities for these modes are situated with various spheres of government, its institutional structures and agencies. The responsibilities for the planning of various modes of transport have been discussed in detail in Chapter 6. These include:

- Rail Mode is currently managed at National Level by Passenger Rail of South Africa (PRASA);
- Subsidised Bus Mode is currently managed by the Provincial Government and in some instances by parastatals, and
- Taxi Mode is regulated and controlled through operating licenses issued by provincial regulatory entity, but managed by Taxi Associations.
- In terms of Cross Border Services and in the case of Provinces, the planning authority at the destination end of a service should deal with such a service as part of its rationalisation plan. In the case of Municipalities, the affected planning authorities must deal with the rationalisation of such a service jointly, and where a Province is still responsible for such a service, it should coordinate the discussion

As highlighted in Chapter 6, it becomes clear that in order to follow an integrated planning approach, close cooperation between the respective levels of government is essential. Whilst the sphere of government, authority or entity responsible for the administration of the specific service under consideration for restructuring and rationalisation could be tasked with the responsibility to ensure that the necessary inter-authority discussion, coordination and corporation take place, it is seen critical that Transport Forum consisting of Technical Working Groups be constituted for participation of all public transport operators within the District.

## **7.9. RATIONALISATION STRATEGY AND CRITERIA**

This section firstly addresses the strategy and criteria to be applied in the rationalization of bus services, and then develop specific rationalization proposals for the subsidised bus services including Megabus services.

### **7.9.1. Rationalisation Strategy**

The strategy adopted in the rationalisation of bus services is in line with the policy framework developed for the John Taolo Gaetsewe District Municipality as provided for in section 7.7 above. Policy issues have been structured to be the same as those applied to the mini-bus taxis and of particular relevance to the rationalization of subsidized bus services are summarised as follows:

- The need for public transport to serve both captive and non-captive users in order to increase patronage within the District Municipality.
- The need to provide an appropriate mode for various parts of the public transport network based on capacity, cost and contributions to the District's objectives of promoting SMME's and achieving certain public transport quality levels.
- The need for subsidised services to target a "safety net" of basic services to the poor, ensuring access to the closest appropriate employment centres, health and education facilities, shopping and other social services.
- The need to not encourage competition in the present and near future until commuter volumes reach higher levels, i.e. more than 6 000 one-way daily commuters.
- The need to provide a minimum off-peak level of basic service to at least one vehicle trip per two hours along the subsidized public transport network.

### **7.9.2. Rationalisation Criteria**

The rationalisation criteria are also lined up with the criteria for the mini-bus taxis detailed in Chapter 6. The following are the main criteria applied in the bus rationalization strategy:

- The need to consider any current dispersed routes and be transformed into more focused and simplified routes along specific corridors linking main origin and destination nodes.

- The need to discourage or minimise parallel subsidized bus routes, except where there are more than 6 000 one-way daily passengers. It is noted that in the existing routes, the threshold for daily passengers provided does not appear to be reached on any of the current subsidized bus services.
- The need to consider subsidized network serves origins where the majority of the poor are likely to live; make certain that subsidized services are available throughout the day for different trip purposes (not just in the peak for workers as is currently the case with the subsidized contracts), and make certain that the network allows for maximum accessibility to the most destinations through its design and transfer nodes

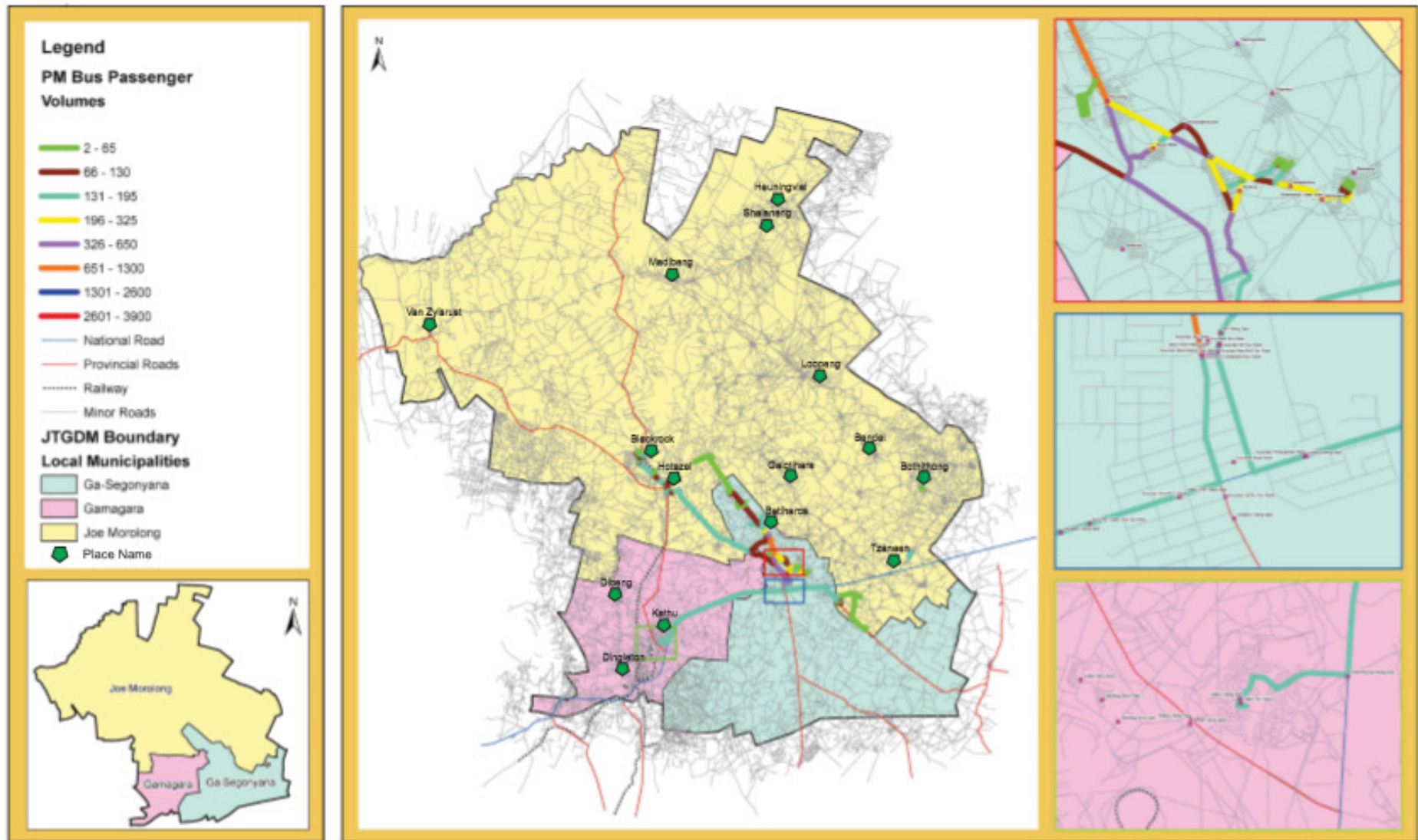
This would be done having had taken nationally approved subsidy mechanism based on competitive tendering that is based on revenue kilometres into account.

#### **7.10. RESTRUCTURING PROPOSALS**

The volumes of passengers carried during the day by Megabus are shown in Figures 7.1 and 7.2 for the morning and afternoon peaks, respectively. There are no subsidised off-peak services provided by the bus company



Figure 7.2: Bus Afternoon Peak Volumes





As noted in Figures 7.1 and 7.2 the volumes of passengers transported by buses are lower than the anticipated threshold of 800 passengers per day per direction. The highest volume is 204 passengers in the morning peak between Kuruman and Ga-Sehubane and the lowest volume is 169 passengers in the afternoon peak between Kathu and Batlharos.

The rationalisation proposals for the Megabus services for each of the existing corridors are summarised in Figure 7.3, and discussed in detail below, together with the proposed packaging of the subsidized competitive contracts.

As noted, it may be necessary for the routes to be operated under new contracts to be decided by a negotiation process to allow minibus-taxi and bus-operators currently operating to form joint operating entities and be part of a new contract. The transformation will include both current bus and minibus-taxi operators. The strategy will be to support current minibus-taxi operators and bus operators to form new mutually owned entities that can form the basis of contracts for defined routes in the future, as shown in Figure 6.7.

Following on the rationalization strategy and criteria developed in 7.9 above, it is proposed that the current Phumatra Pampierstad services should be rationalized as follows:

- The existing tendered contract for bus services between Bojalapotsane and Kuruman and Mothibistad and Blackrock be maintained and an additional mini-bus taxis be introduced in the morning peak for supplementary services, especially from 05h30 to 07h30 in hourly intervals.

Although there may be mini-bus taxi services during the off-peak period in some areas, they do not operate efficiently as they are mostly touting and not transporting passengers to anticipated destinations in time. This is one aspect that encourages hitch-hike along bus corridors.

Figure 7.3A: Summary of Conclusions and Recommendations

No	Bus	Corridor Description	Route Code	Origin Terminal	Destination Terminal	Service Type	Period	Vehicle Trips [No]	Passenger Volumes [No]	Route Utilisation [%]	Recommendation	Local Municipality
1	MB	KURUMAN TO MOTHIBISTAD	NJ100BIMF	Kuruman Bus Rank	Mothibistad	Commuter	AM Peak	1.0	5	6.0%	Consider Taxi Service	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	2.0	43	25.0%	Consider Mid-buses	
2	MB	MAGOJANENG TO KURUMAN	NJ101BIMF	Magojaneng	Kuruman Bus Rank	Commuter	AM Peak	1.0	56	69.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Taxi Service	
3	MB	MOKALAMOSESAN E TO KURUMAN	NJ102BIMF	Mokalamosesane	Kuruman Bus Rank	Commuter	AM Peak	1.0	22	28.0%	Consider Mid-buses	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Introduce Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Status Quo	
4	MB	MAGOJANENG TO KURUMAN	NJ103BIMF	Magojaneng	Kuruman Bus Rank	Commuter	AM Peak	1.0	72	89.0%	Complement with Taxi	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Taxi Service	
5	MB	MOTHIBISTAD TO KURUMAN	NJ104BIMF	Mothibistad Depot	Kuruman Bus Rank	Commuter	AM Peak	1.0	64	79.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Taxi Service	
6	MB	MOTHIBISTAD TO KURUMAN	NJ105BIMF	Mothibistad Depot	Kuruman Bus Rank	Commuter	AM Peak	1.0	69	85.0%	Complement with Taxi	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Status Quo	
7	MB	MOTHIBISTAD TO KURUMAN	NJ106BIMF	Mothibistad Collex	Kuruman Bus Rank	Commuter	AM Peak	1.0	3	4.0%	Maintain Taxi Service	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Taxi Service	
8	MB	NTSWELONGWE TO KURUMAN	NJ107BIMF	Ntswolongwe	Kuruman Bus Rank	Commuter	AM Peak	1.0	57	71.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Status Quo	
9	MB	KAGUNG TO KURUMAN	NJ108BIMF	Kagung	Kuruman Bus Rank	Commuter	AM Peak	3.0	96	40.0%	Reduce ONE Trip	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Taxi Service	
10	MB	GA-MASEPA TO KURUMAN	NJ109BIMF	Ga-Masepa	Kuruman Bus Rank	Commuter	AM Peak	1.0	47	55.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Status Quo	
11	MB	KURUMAN TO GA-MASEPA	NJ110BIMF	Kuruman Bus Rank	Ga-Masepa	Commuter	AM Peak	0.0	N/A	N/A	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	1.0	63	76.0%	Maintain Status Quo	
12	MB	NEIRA TO KURUMAN	NJ113BIMF	Neira	Kuruman Bus Rank	Commuter	AM Peak	1.0	52	61.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Consider Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Status Quo	
13	MB	BATLHAROS TO KURUMAN	NJ115BIMF	Batlharos	Kuruman Bus Rank	Commuter	AM Peak	1.0	46	54.0%	Consider Mid-buses	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Consider Taxi Service	

**Legend:**  
MB = Mega Bus

Figure 7.3B: Summary of Conclusions and Recommendations

No	Bus	Corridor Description	Route Code	Origin Terminal	Destination Terminal	Service Type	Period	Vehicle Trips [No]	Passenger Volumes [No]	Route Utilisation [%]	Recommendation	Local Municipality
14	MB	BATLHAROS TO KURUMAN	NJ116BIMF	Batlharos	Kuruman Bus Rank	Commuter	AM Peak	2.0	77	45.0%	Consider Midi-buses	Ga-Segonyana
							OFF Peak	0.0	0	N/A	Maintain Taxi Service	
							PM Peak	1.0	1	1.0%	Consider Taxi Service	
15	MB	KURUMAN TO SEDIBENG	NJ117BIMF	Kuruman Bus Rank	Sedibeng	Commuter	AM Peak	0.0	N/A	N/A	Consider Taxi Service	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Consider Taxi Service	
							PM Peak	1.0	66	79.0%	Maintain Status Quo	
16	MB	BATLHAROS TO KURUMAN	NJ119BIMF	Batlharos	Kuruman Bus Rank	Commuter	AM Peak	2.0	55	32.0%	Consider Midi-buses	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Taxi Service	
17	MB	MAGOJANENG TO KURUMAN	NJ120BIMF	Magojaneng	Kuruman Bus Rank	Commuter	AM Peak	1.0	7	9.0%	Maintain Taxi Service	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	0.0	N/A	N/A	Maintain Taxi Service	
18	MB	MOTHEBISTAD TO BLACKROCK	NJ125BIMF	Mothibistad Depot	Blackrock	Commuter	AM Peak	2.0	146	86.0%	Complement with Taxi	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Status Quo	
							PM Peak	1.0	49	58.0%	Maintain Status Quo	
19	MB	BATLHAROS TO SISHEN MINE	NJ132BIMF	Batlharos	Sishen Mine	Commuter	AM Peak	1.0	56	66.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Status Quo	
							PM Peak	0.0	N/A	N/A	Maintain Status Quo	
20	MB	KURUMAN TO NTSWELENGWE	NJ133BIMF	Kuruman Bus Rank	Ntswelengwe	Commuter	AM Peak	0.0	N/A	N/A	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Status Quo	
							PM Peak	2.0	127	78.0%	Maintain Status Quo	
21	MB	KURUMAN TO MAGOJANENG	NJ134BIMF	Kuruman Bus Rank	Magojaneng	Commuter	AM Peak	1.0	64	79.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Taxi Service	
							PM Peak	1.0	62	76.0%	Maintain Status Quo	
22	MB	KURUMAN TO BATLHAROS	NJ135BIMF	Kuruman Bus Rank	Batlharos	Commuter	AM Peak	0.0	N/A	N/A	Maintain Taxi Service	Ga-Segonyana
							OFF Peak	1.0	43	54.0%	Maintain Taxi Service	
							PM Peak	6.0	128	25.0%	Reduce THREE Trip	
23	MB	KURUMAN TO KURUMAN ERF	NJ136BIMF	Kuruman Bus Rank	Kuruman ERF	Commuter	AM Peak	1.0	71	89.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Status Quo	
							PM Peak	0.0	N/A	N/A	Maintain Status Quo	
24	MB	KURUMAN TO MARUPING	NJ137BIMF	Kuruman Bus Rank	Maruping	Commuter	AM Peak	0.0	N/A	N/A	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Status Quo	
							PM Peak	1.0	68	85.0%	Complement with Taxi	
25	MB	NTSWENG TO BLACKROCK	NJ138BIMF	Ntsweng	Blackrock	Commuter	AM Peak	1.0	31	38.0%	Maintain Status Quo	Ga-Segonyana
							OFF Peak	0.0	N/A	N/A	Maintain Status Quo	
							PM Peak	1.0	24	30.0%	Maintain Status Quo	

**Legend:**

MB = Mega Bus

Figure 7.3C: Summary of Conclusions and Recommendations

No	Bus	Corridor Description	Route Code	Origin Terminal	Destination Terminal	Service Type	Period	Vehicle Type (No)	Passenger Volume (No)	Route Utilization (%)	Recommendation	Local Municipality
26	MB	KULUMAM TO GA-SEHUBANE	NJ1300MB	Kuruman Bus Rank	Ga-Sehubane	Commuter	AM Peak	1.0	26	33.0%	Maintain Status Quo	Ga-Singanyana
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	1.0	21	38.0%	Maintain Status Quo	
27	MB	KULUMAM TO KAGUNG	NJ1400MB	Kuruman Bus Rank	Kagung	Commuter	AM Peak	1.0	47	55.0%	Maintain Status Quo	Ga-Singanyana
							OFF Peak	0.0	NA	NA	Maintain Taxi Service	
							PM Peak	0.0	NA	NA	Maintain Taxi Service	
28	MB	BLACKBOK TO MOYIBESDAD	NJ1410MB	Blackbok	Mothibistad	Commuter	AM Peak	0.0	NA	NA	Maintain Status Quo	Ga-Singanyana
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	1.0	50	50.0%	Maintain Status Quo	
29	MB	BATHARON TO KATHU	NJ1420MB	Batharon	Kathu	Commuter	AM Peak	0.0	NA	NA	Maintain Status Quo	Ga-Singanyana
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	0.0	NA	NA	Maintain Status Quo	
30	MB	HOTJAZEL TO MOYIBESDAD	NJ1430MB	Hotjazel	Mothibistad	Commuter	AM Peak	0.0	NA	NA	Maintain Status Quo	Ga-Singanyana
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	1.0	50	50.0%	Maintain Status Quo	
31	MB	MANGING TO KULUMAM	NJ1440MB	Manging	Kuruman Bus Rank	Commuter	AM Peak	1.0	50	50.0%	Maintain Status Quo	Ga-Singanyana
							OFF Peak	0.0	NA	NA	Maintain Taxi Service	
							PM Peak	0.0	NA	NA	Maintain Status Quo	
32	MB	HOTJAZEL TO KULUMAM	NJ1450MB	Hotjazel	Kuruman Bus Rank	Commuter	AM Peak	1.0	20	20.0%	Maintain Status Quo	Ga-Singanyana
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	0.0	NA	NA	Maintain Status Quo	
33	MB	GA-SEHUBANE TO KULUMAM	NJ2010MB	Ga-Sehubane	Kuruman Bus Rank	Commuter	AM Peak	0.0	304	40.0%	Reduce FWD Trip	Joe Morolong
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	4.0	124	38.0%	Reduce CHB Trip	
34	MB	GAHENE TO KULUMAM	NJ2070MB	Gahene	Kuruman Bus Rank	Commuter	AM Peak	1.0	20	20.0%	Consider Makhutsho	Joe Morolong
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	0.0	NA	NA	Maintain Status Quo	
35	MB	GAHAPA TO KULUMAM	NJ2080MB	Gahapa/Loopeng	Kuruman Bus Rank	Commuter	AM Peak	1.0	21	20.0%	Maintain Status Quo	Joe Morolong
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	0.0	NA	NA	Maintain Status Quo	
36	MB	BOJALAPOTJANE TO KULUMAM	NJ2100MB	Bojlapotjane	Kuruman Bus Rank	Commuter	AM Peak	1.0	94	111.0%	Discontinued with Taxi	Joe Morolong
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	0.0	NA	NA	Maintain Status Quo	
37	MB	DRINKOP TO KULUMAM	NJ2110MB	Drinkop	Kuruman Bus Rank	Commuter	AM Peak	1.0	41	48.0%	Maintain Status Quo	Joe Morolong
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	0.0	NA	NA	Maintain Status Quo	
38	MB	KATHU TO BATHARON	NJ2000MB	Kathu	Batharon	Commuter	AM Peak	0.0	NA	NA	Maintain Status Quo	Garagapa
							OFF Peak	0.0	NA	NA	Maintain Status Quo	
							PM Peak	2.0	160	50.0%	Maintain Status Quo	

Legend:

MB = Mega Bus

- The existing tendered contract for bus services between Kuruman and Maruping be maintained for both the morning and afternoon peak periods. Additional services could be provided by mini-bus taxis at 2-hour intervals from 06h00 to 12h00 and 16h00 to 18h00.
- Although there may be bakkies touting and providing passenger services in Joe Morolong, they are not appropriate for the service and do not operate efficiently. However, it needs to be noted that in terms of the NLTA, section 71, adapted light delivery vehicles may be used for public transport services in a particular area in prescribed circumstances where there is no other appropriate or acceptable public transport, and subject to prescribed conditions.
- The existing tendered contract for bus services between Kagung and Kuruman be maintained for both the morning and afternoon peak periods, except for the morning period in which one bus service could be reduced and three bus services be reduced between Kuruman and Batlharos in the afternoon period as they travel almost empty.

There are presently adequate taxis providing services during the off-peak period at an average of 2-hour headways.

It needs to be highlighted that the above recommendations have been made in terms of the existing situation with a view to maintaining the viable operations and working towards improvement in operations where possible without necessarily creating a loss on profitability of operations. In essence, the overall passenger volumes in the morning and afternoon peaks are still below the threshold of 800 passengers per day per direction.

The optimal solution in the medium term would be the introduction of contracts operated through recapitalised taxis (35-seater vehicles) at 15-min intervals during the peak periods and 1-hour intervals during the off-peak periods. This option should however be investigated in detail.

## **7.11. IMPACT ON ALL MODES**

As it may already have been noted, the overall public transport system is economically inefficient with many services in direct competition with each other resulting in unprofitable bus and taxi trips, especially in the light of low population densities as highlighted in the Spatial Development Framework, i.e. Chapter 4.

Against the background of inefficient public transport system and low population densities, the bus rationalisation and restructuring proposals are meant to steadily address the existing inefficient supply-driven system and gradually develop focus on providing a passenger-orientated, demand-driven, economically efficient and integrated system in line with the proposed development potentials within the District.

In this regard, the impacts that bus rationalisation and restructuring proposals have on the other modes of public transport have been discussed below. Figure 6.7 shows corridors which will be impacted by these proposals.

### **7.11.1. Rail Mode**

In the light of no commuter services provided in the District, there will be no impact on the rail by the rationalisation and restructuring proposals of the bus mode.

### **7.11.2. Bus Mode**

Noting that the volume of passengers transported per day is less than the threshold of 800 passengers per day per direction, the usage of standard bus on certain bus routes may not be appropriate at this stage. It will be more appropriate to consider midi-bus contracts on the following corridors:

- Kuruman Bus Rank-Mothibistad Corridor
- Mokalamosesane-Kuruman Corridor
- Mothibistad Caltex-Kuruman Corridor
- Batlharos-Kuruman Corridor
- Magojaneng-Kuruman Corridor

This will result in the reduction of standard buses and an increase in the midi-buses, thereby improving on operational efficiency.

On the other hand, taxis are providing services along Kuruman – Joe Morolong corridors, and it will be appropriate to consider the service to be provided by standard buses as the distance is too long. Whilst volumes are low, detailed investigation would be required to seek for improvement on patronage.

### **7.11.3. Taxi Mode**

The taxis are in direct competition with the bus mode presently and this affects the efficiency of the public transport system. Noting that the volume of passengers transported per day in the bus corridors is less than the threshold of 800 passengers per day per direction, the taxis would be an appropriate mode of transport in the bus corridors noted above presently. However, some of the distances will not make the taxi a viable mode and hence the midi-buses could be more viable. Taxis would be more appropriate where travel distances are less than 30km. These relevant midi-bus corridors would include:

- 1) Gasese-Kuruman Corridor : 85 km

This corridor could also be further investigated for standard buses.

A combination of buses and midi-buses to operate during the peak periods and mini-bus taxis to operate during off peak periods in most of the bus corridors is proposed and this will result in reduction of mini-bus taxis operating during peak hours, thereby reducing the carbon print.

## **7.12. BENEFITS TO CUSTOMERS**

As it may already have been noted, the overall public transport system is economically inefficient with many services in direct competition with each other resulting in unprofitable bus and taxi trips, especially in the light of low population densities as highlighted in the Spatial Development Framework, i.e. Chapter 4.



The current public transport services and operations are not benefiting the commuters to the fullest and with the restructuring of the bus operations in the medium to long term, the following benefits will be realised by the commuters (“customers”):

- 1) There will be an opportunity for public transport to serve both captive and non-captive users through potentially increased patronage within the District Municipality, due to more frequent and spaced public transport services.
- 2) There will be no parallel subsidized and un-subsidised public transport services and subsidies will benefit the customers better and be used appropriately to subsidise the majority of customers.
- 3) There will be a tendency to primarily subsidise the targeted “safety net” of basic services to the poor including low income adults, learners, children, pensioners and/or people with disabilities, in the light of spread-out all day services.
- 4) There will be an opportunity for customers to move towards public transport usage as a result of improved frequency of service and reduced travel cost per kilo-metre thereby reducing the need to hitchhike.
- 5) There will be a reduction in customers simply making their own choices due to the concept of one-size-fits all (i.e. providing standard buses only) policy, which leads to an on-going exit from public transport into the private car (i.e. hitchhiking) over time.

Whilst the above-mentioned benefits are anticipated in the medium to long term, it needs to be emphasised that the proposed restructuring is not meant to be achieved over-night as it may destabilise the existing operations. It is expected that as contracts of the buses are renewed, the introduction of the medium to long term objectives be effected, that is:

- a) Prepare to phase-out the existing contracts in the short-term with the intention of replacing them with contracts providing for appropriate mode and service.
- b) Design future services based on appropriate mode for different times of the day, i.e. combination of buses, midi-taxis and mini-taxis
- c) Introduce appropriate modes to provide frequent and efficient services within the District.

The process of restructuring will work towards the 1996 White Paper on National Transport Policy Vision which envisages to:

*"Provide safe, reliable, effective, efficient, and fully integrated transport operations and infrastructure which will best meet the needs of freight and passenger customers at improving levels of service and cost, in a fashion which supports government strategies for economic and social development whilst being environmentally and economically sustainable."*

### **7.13. IMPLEMENTATION STRATEGY**

The implementation strategy for the rationalisation and restructuring of buses cannot be concluded at the District level and it will hence be important to follow an integrated approach and include the Provincial Government, the District and Local Municipalities, over and above the private operators.

### **7.13.1. Formulate Transport Forum**

It needs to be highlighted that the subsidised bus contracts are currently operated by private operators who are in turn managed by the Provincial Government. It will hence be critical that a Transport Forum be constituted within the District to discuss integration matters and other public transport issues.

The formulated Transport Forum will begin to address critical aspects in providing integrated public transport operations and services and will initiate actions in line with the Moving South Africa: Action Agenda which include:

- a) Focus the scope of the transport system by concentrating assets and investments to consolidate high volume routes and nodes to make up various urban and rural strategic networks. The strategic networks would form the backbone of the transport system, underpinned by supporting networks;
- b) Deploy transport modes in the strategic and supporting networks (and their component routes) in order to capture the best economies of scale possible according to the ability of modes to meet customer needs, and
- c) Create an environment in which customers are empowered and transport service providers are enabled to improve efficiency, productivity and competitiveness.

### **7.13.2. Renew Bus Contracts**

Whilst facing the challenges of critical mass or the required population densities to create the strategic network as provided for in Figure 6.7, it is expected that as contracts of the buses are renewed, the introduction of the medium to long term objectives be effected, that is:

- a) Prepare to phase-out the existing contracts in the short-term with the intention of replacing them with appropriate mode and service. As noted in Figure 7.3, some of the corridors will still provide for buses during the peak periods and be complemented by mini-bus taxis during the off-peak periods, and other corridors will initially be well served by mid-buses instead of standard buses complemented by feeder service of mini-bus taxis from low population density areas.
- b) Design future services based on appropriate mode for different times of the day. It is noted that standard buses are providing services in the morning and afternoon peak periods only and do not entirely reach the expected destinations of commuters within a radius of 1 km. Hence, there is a need for combination of modes to provide for peak and off-peak periods efficiently.
- c) Introduce negotiations between the bus industry and the taxi industry to agree on the formulation of cooperatives which will tender for the newly designed public transport services encouraging the adoption of recapitalised public transport vehicles. The intention of negotiations should lead to negotiated contracts including the two industries in the medium term with the intention of upgrading them to tendered contracts in the long term.
- d) Roll-out the negotiated contract having had introduced appropriate modes to provide frequent and efficient services within the District and monitor operations for improved future packages, i.e. competitive tendered contracts.

### **7.13.3. Customer-based System**

As noted, the above strategy seems an ambitious set of actions which cut against the direction of current trends, especially in the light of low population densities but it aims at turning the current commuter-based service into a viable, customer-based public transport system. The key thrusts to achieve this are to increase the density of public transport demand, to make maximum use of an optimal mode for a given demand and distance, and to improve firm-level productivity to meet the evolving needs of customers.

We believe that through a systematic process of unwinding the inherited legacy of the past, a new rationalised public transport system will emerge which will meet the needs of the majority of customers, whilst at the same time being able to innovate and meet the needs of customers with differentiated and special needs, especially during off-peak periods.

The above strategy will address both the Urban Passenger Vision and Rural Passenger Vision as stated in the Moving South Africa: Action Agenda and detailed in Chapter 6. The anticipated outcomes of the visions are summarised below.

#### **a) Urban Passenger Vision for 2020 - Public Transport First**

This vision is more appropriate for urban areas in the District including Kathu, Kuruman and Mothibistad, Batlharos, Maruping, Sesheng and Wrenchville.

This would mean that localised public transport services should ideally be provided using mini-bus taxis for both home-work trips and feeder services for other longer distance modes, including midi-buses and standard buses.

#### **b) Rural Passenger Vision for 2020**

This vision is more appropriate for rural areas and small planned settlements in the District, inter alia, including Kagung, Laxey, Ellendale, Ga-Masepa, Ncweng, Gasese and Tsineng.

This would mean that road infrastructure needs to be provided and improved for localised public transport services which should ideally be provided using mini-bus taxis for feeder services so that the rural community could be linked to the places of economic activity.

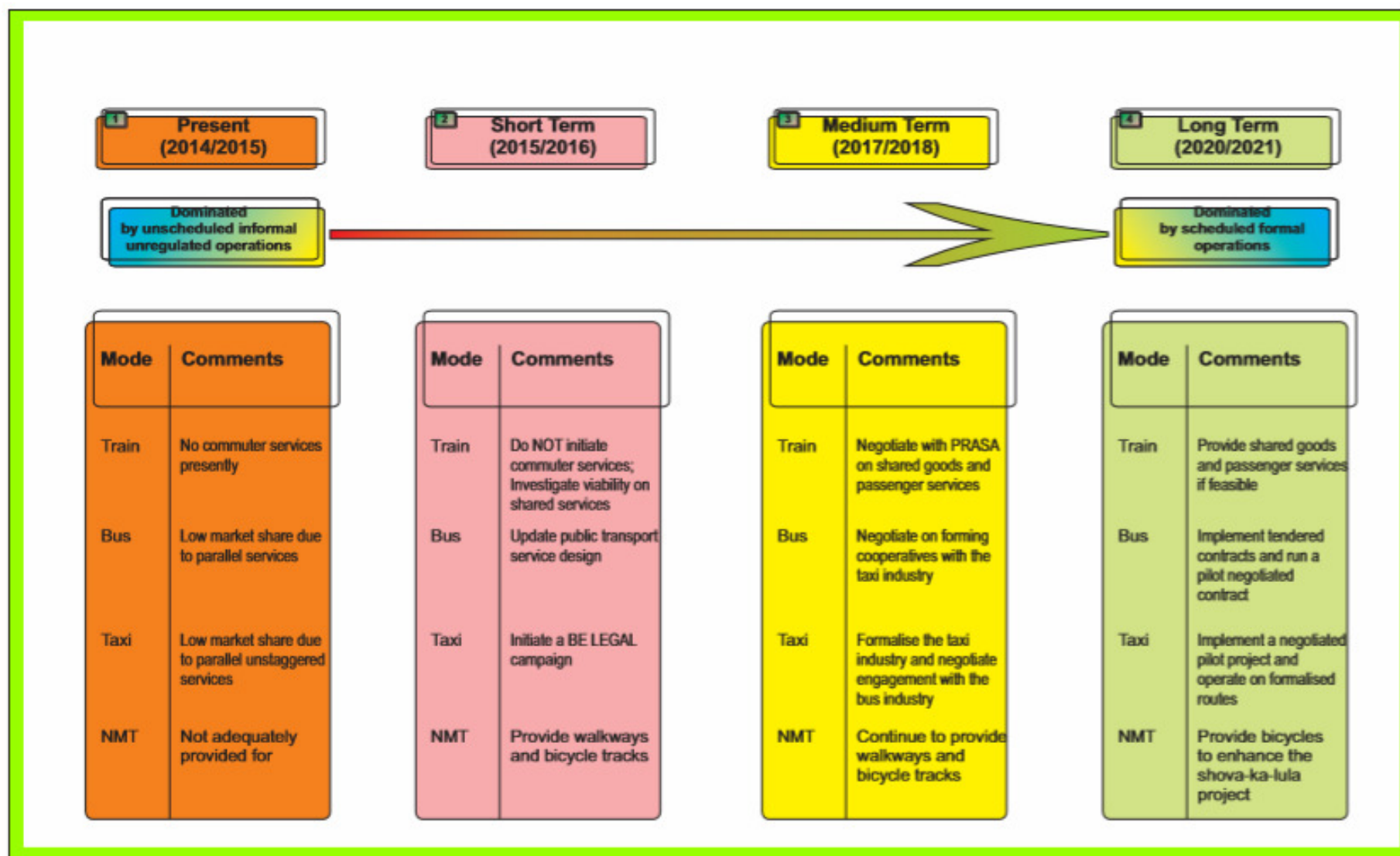
### **7.13.4. Transition Process**

The process of moving from the present system to that desired for 2020 must be managed through a transition process. For this reason the Short Term Implementation Project, scheduled for implementation in 2015/2016, is the first important stage towards which John Taolo Gaetsewe District Municipality will direct its efforts. Figure 7.4 provides a roadmap of the transition process. The key steps in the transition are as follows:

- a) Establish public transport forum with secretarial services
- b) Lift moratorium on registration of taxis and implement BE LEGAL campaign
- c) Resource the Panning Authority with dedicated financial pot
- d) Train and implement capacity building of taxi operators and drivers

- e) Investigate urban and rural access for public transport services
- f) Update public transport services design
- g) Develop cooperatives for combined taxi and bus industry
- h) Repackage tender contracts for subsidised services into viable units
- i) Introduce effective enforcement and monitoring of services
- j) Implement negotiated contract as a pilot in identified areas
- k) Upgrade facilities and non-motorised transport infrastructure

Figure 7.4: Transition Process to 2020



## **8 CHAPTER 8: OTHER TRANSPORT STRATEGIES**

### **8.1. BACKGROUND**

This Chapter covers other transport strategies including Non-Motorised Transport (NMT), Private Vehicles, Freight Transport and Airport Transport. It addresses the plans and proposals required for these modes on the road network and taking into consideration all other vehicles including public transport vehicles.

### **8.2. NON-MOTORISED TRANSPORT**

#### **8.2.1. Background**

In South Africa, as in other developing and emerging economies, the transportation burden faced by the developing rural, peri-urban and urban communities on a daily basis is real and substantial. Mobility and access to social services and the economic mainstream come at a high social and economic cost. Furthermore, the growing urbanization, congestion and excessive demand for fossil fuel has dictated a need for the South African transport sector and policy makers to start looking seriously at developing, implementing and promoting alternative and viable modes of transport.

As noted to date, there is minimal usage of non-motorised transport (NMT) as most people depend on motorised transport. Until recently, NMT has been at the bottom of the transportation system agenda and priorities. However, there has been growing realisation that one key element and potential area of improvement of mobility is the use of non-motorised transport systems which provide low cost, healthy and optimum utilization of space while reducing externalities associated with transportation.

The challenge is to change the mindset of people on the use of non-motorised transport. In order to succeed in making NMT an attractive viable mode of transport, there are a number of interventions that are necessary to transform the mindsets and the priorities in the planning, design, operation and marketing of the transport systems. As noted, NMT is occasionally taken for granted in the planning of transportation networks and the land use arrangements associated with it. Walking plays an important role in the lives of many South Africans and it is often the only means of transport, particularly for people living in rural areas.

NMT is not only the most affordable method of travelling, but has the least impact on the environment, is the most sustainable way to travel and has health benefits. The benefits of NMT for a society are numerous and thus they should be promoted within the John Taolo Gaetsewe District Municipality in its many forms.

With the advent of urban sprawl where commuting distances are increasing, there exists a greater potential to promote the usage of cycling than to encourage pedestrians to walk further. The majority of the population is poor, and with motorised transport costs increasing and the aspect of overloading and road safety, cycling as a means of non-motorised transport should be addressed. Cycles are generally affordable and if promoted correctly, this potential can only increase.



### **8.2.2. Definition**

Non-motorised transport includes all modes of transport that are not propelled by a motor. Non-motorised transport (NMT) is either non-mechanised i.e. pedestrians (walking) or mechanised which includes bicycles, wheelchairs, prams, trolleys, animal drawn carts, rickshaws and wheelbarrows.

Walking and cycling are the most predominant mode of NMT within the John Taolo Gaetsewe District Municipality with animal drawn transport being the least predominant and found mostly in rural low income communities.

### **8.2.3. Design Aspects**

NMT in urban areas generally takes the form of walking, and to a lesser extent, cycling. As vehicles are more prevalent in urban environments, NMT can be disadvantaged where wide busy roads make walking and cycling difficult as a result of lack of infrastructure. In addition, this could make the road conditions unsafe due to the conflict with fast-moving vehicles.

Hence, the increased use of walking and cycling, as alternative modes of non-motorised transport, and the sensitive application of facilities for these vulnerable road users, can make a significant difference to road safety and congestion levels. They also represent sustainable transport modes, which are beneficial to the environment.

There is therefore a need for formal infrastructure, such as sidewalks and cycle ways, in both urban and rural environments of which their design would be important. Continuity in the network, “directness” of routes, and the engineering design of the pathway can contribute significantly to the usefulness of the infrastructure. Universal design principles should always be used in designing and building the infrastructure so that as many people, including those with special needs (such as users of wheelchairs, prams, etc.) can make use of the infrastructure.

### **8.2.4. NMT Strategy**

There is a need for an elaborate and systematic plan of action for the provision of infrastructure for non-motorised transport in the District. The plan should be guided by the following:

#### **1) Reduce the cost of transport for NMT users**

This can be achieved by increasing the speed, user directness and safety of NMT traffic. This primarily requires proper access walkways, extra NMT only route links to avoid detours and separate walkways and frequent crossings along all important motor transport roads.

#### **2) Enable the safe use of bicycles for longer distance trips**

The bicycle is an extremely attractive low-cost transport option when many trips are made annually. Traffic safety elements must be increased to enable and promote cycling as a transport mode. This must be supplemented by an efficient bicycle route network and programmes targeting women and children.

#### **3) Reduce the number of pedestrian casualties**

Pedestrians are the most vulnerable road users when it comes to traffic accidents and hence separate infrastructure for pedestrians to isolate their movement will greatly assist in reducing accidents.

#### **4) Integration of NMT and public transport**

Widespread provision of secure end-of-trip facilities is required especially when an integration of NMT and public transport is required.

#### **5) Promote NMT infrastructure**

Safe pedestrian crossing facilities are essential on all roads, and the crossings must be frequently placed so that pedestrians do not jaywalk and form inappropriate desire lines. Separate pedestrian walkways that are inaccessible for motor vehicles are necessary.

#### **6) Develop pedestrian malls in the CBD areas of the District**

Pedestrian malls (boulevards) are powerful tools in urban renewal strategies and should be integrated with public transport facilities.

#### **7) Promote and facilitate non-motorised travel**

Promote and facilitate non-motorised travel in the area as a viable transport mode including promoting walking and cycling through initiatives such as Shova-ka-lula. This will include improving the security and attractiveness of walking and cycling and education and training while involving communities and schools.

### **8.2.5. NMT Infrastructure**

The non-motorised transport infrastructure has been developed in an ad-hoc fashion and there is a need for a pedestrian sidewalk and cycle path master plan to be developed for John Taolo Gaetsewe District Municipality. Whilst the master plan is key, the infrastructure developed to date is discussed below.

#### **8.2.5.1 Pedestrian Walkways**

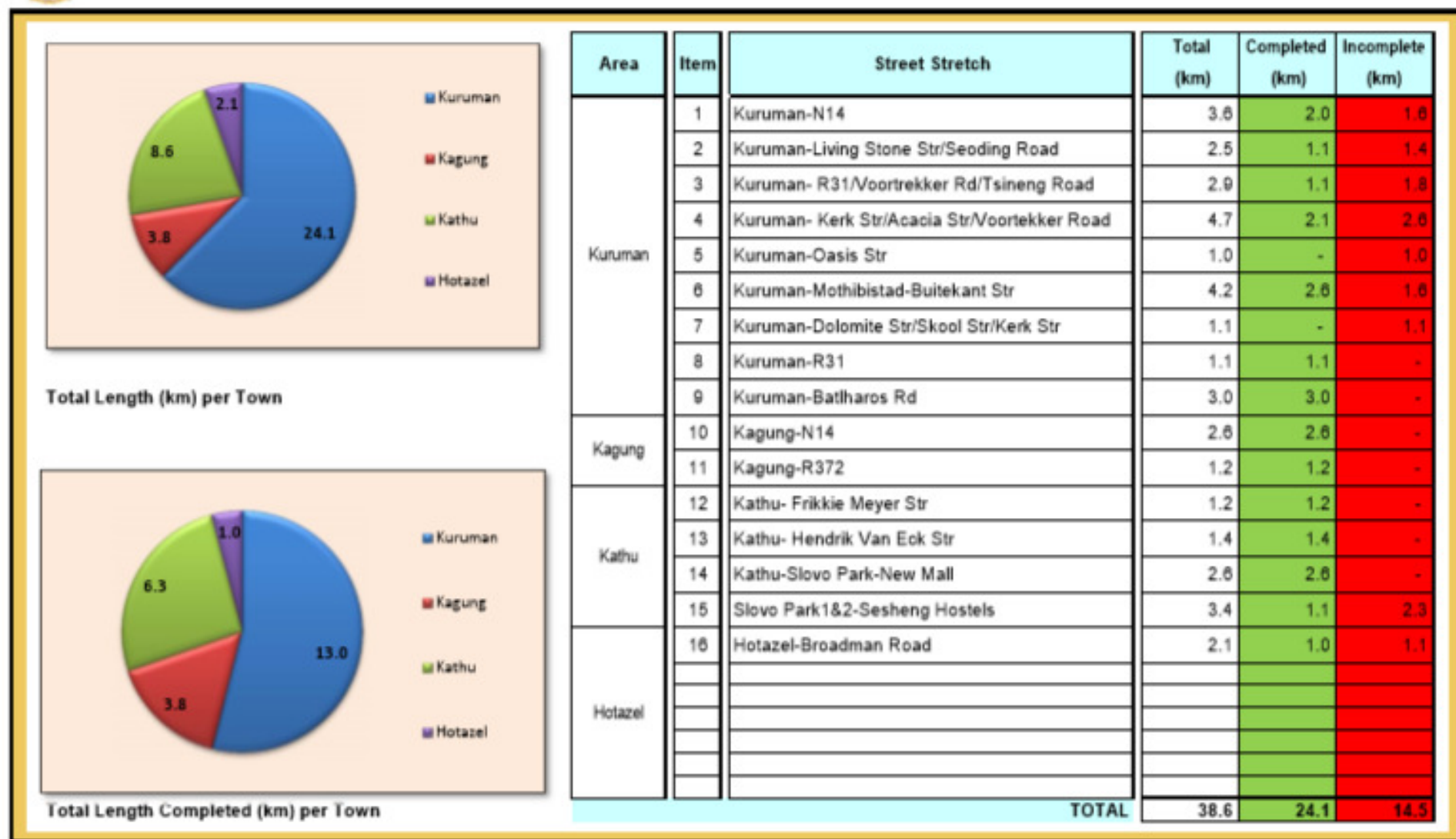
It has earlier been alluded to (Chapter 3) that higher volume pedestrian corridors have been identified during site visits in the Kuruman, Wrenchville, Kathu and Kagung. There are other identified corridors which may need paving as shown in Figure 8.1.

The total walkways to be paved is shown in Figure 8.2 and will need to be investigated further and be planned, designed appropriately and constructed according to acceptable standards.

Figure 8.1: High Volume Pedestrian Routes



Figure 8.2: Length of Pedestrian Routes



The summary of prevalent walkways is shown in Table 8.1.

Table 8.1: Summary of Walkways

Table 8.1: Summary of Walkways				
No	Town	Distance (km)	Completed (km)	Incomplete (km)
1	Kuruman	24.1	13.0	11.1
2	Kagung	3.8	3.8	0.0
3	Kathu	8.6	6.3	2.3
4	Hotazel	2.1	1.0	1.1
TOTAL		38.6	24.1	14.5

This is related to walkways that have been identified and will need to be investigated further.

### 8.2.5.2 Bicycle Routes

It has earlier been alluded to that there is some provision made for pedestrian walkways but no provision has been made for bicycle infrastructure within the District Municipality

We hence propose that the use of bicycles be promoted through the Shova-ka-lula programme, an initiative that is being actioned by the Department of Transport. The objective of the Shova-ka-lula (Ride Easy) programme, which was implemented as a pilot programme in 2001, is to promote and maximize the use of Non-Motorised Transport (NMT) in order to enable communities to access social and economic opportunities at a lower cost.

As highlighted in Chapter 3, the programme implementation is now in phase 4 and has a target of rolling out 1 million bicycles countrywide by 2011, targeting mainly learners, youth and adults walk long distances. The target for the Northern Cape Province is 6 600 bicycles by 2011/2012. However, it has been observed that this programme was only rolled out in Sol Plaatje Local Municipality, particularly around Kimberley.

Even though this programme is managed at provincial level, it is implemented through the district municipalities. It is noted that the problem with Shova-ka-lula is that it is not well marketed. Bicycles are only displayed at District Municipalities and not at Local Municipalities. There is a need for a vigorous marketing programme to promote Shova-ka-lula. This marketing should be done through newspapers, community radios, visits to schools and to rural communities.

It is also important to note that Shova-ka-lula also aims at creating an enabling environment that will mainstream bicycle transport into the public transport system through the provision of institutional support mechanisms. The main focus of this project is to promote cycling as a low cost mobility solution to low-income households, targeting mainly scholars, women and farm workers. We hence propose that this initiative be actively pursued.

Hence, in order to actively pursue the Shova-ka-lula programme, it will be necessary to follow the framework that has been developed by the Department of Transport in which the following have been addressed:

- 1) Vision
- 2) Mission
- 3) Objectives
- 4) Guiding principles
- 5) Nature of business
- 6) Management approach
- 7) Institutional arrangements
- 8) Parameters of using funds
- 9) Pillars of the programme
- 10) Funds

Of particular importance is the development of the pedestrian sidewalk and cycle path master plan which will provide background to the commitment of investing in NMT; thereby supporting the pillars of the programme which include:

- a) Acceptance of NMT as a mobility solution by the society, politicians, government officials, cycling community and business sector;
- b) Establishment of the NMT market and the need to reinforce it;
- c) Continued support to lower the cost of NMT transport through the pricing and regulating framework;
- d) Extending the target and beneficiary groups by popularising the use and benefits of NMT;
- e) Setting up of a good institutional arrangement and funding mechanism;
- f) Ensuring eagerness by the Provinces to expand the programme, and
- g) Establishing a local manufacturing plant or forge stronger international links to avoid exorbitant transport costs.

Although certain sidewalk infrastructure is in place, a clear understanding is required to assess the impact of major trip attractors within the JTGD. The fundamental approach is to evaluate the existing land usage and analyse the movement of people between residences and their applicable attractors; that is:

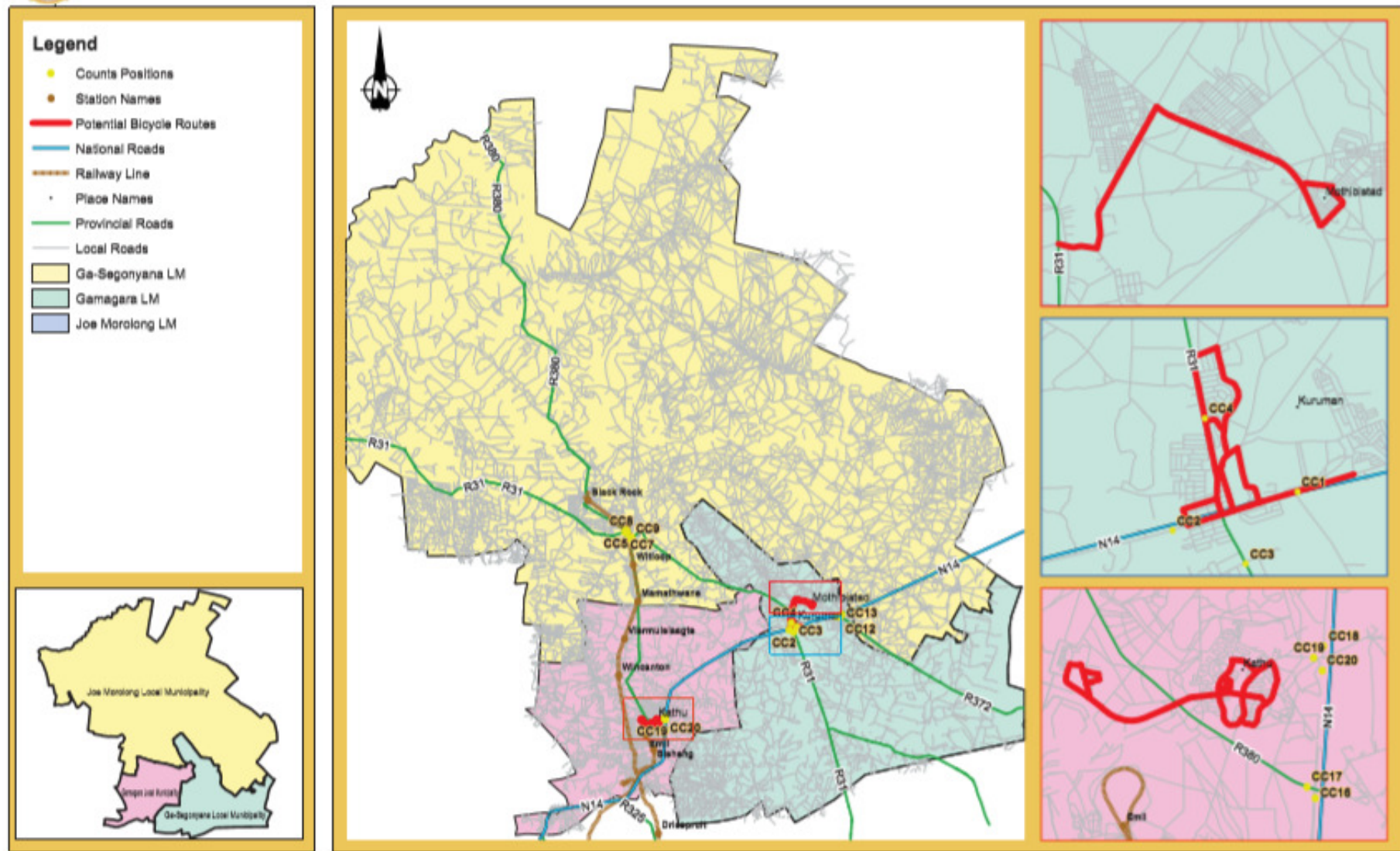
- Industrial and Agricultural Activities – Plants and farms;
- Educational facilities – Schools and colleges
- Commercial Facilities – Shopping centres, garages and offices
- Health and Welfare Facilities – Hospitals, Clinics and pension payout points
- Recreational and Sporting facilities – Parks and sports fields
- Transportation Centres – Taxi Ranks, Bus terminals, Airport and Railways
- Tourism Sites
- 

Based on the above, we initially propose that the cycling paths as shown in Figure 8.3. Whilst these cycling paths are recommended, a detailed study will provide more depth into



the necessary paths for prioritisation and this will easily be achieved through the pedestrian sidewalk and cycle path master plan.

Figure 8.3: Proposed Pilot Bicycle Paths



### 8.2.5.3 Animal Drawn Carts Routes

Cordon counts were carried-out during the Current Public Transport Record (CPTR) data collection at strategic locations within the three Local Municipalities. Over and above the pedestrian and bicycle data collected, the Mobile Farming Implements (MFI) and Animal Drawn Cards (ADC) data was collected. The highest of the values obtained in each of the Local Municipalities is shown in Table 8.3.

Table 8.3: Highest ADC and MFI Data

Table 8.3: Highest ADC and MFI Data			
No	Town	ADC (No)	MFI (No)
1	Kuruman	5	0
2	Kagung	57	0
3	Hotazel	1	0
4	kathu	2	0
TOTAL		65	0

As noted in Table 8.3, the volumes are not significant but there may be a need to start to make provision for Animal Drawn Cards (ADC) along the N14 in Kagung. The locality of the impact area is shown in Figure 8.4. Although the emphasis on pedestrian and cycle path master plan has been placed, there would also be a need to incorporate Animal Drawn Cards (ADC) as part of the overall Non-Motorised Transport Master Plan within the District.

### 8.2.6. NMT Guidelines

The Department of Transport has already developed Pedestrian and Bicycle Facility Guidelines which will assist municipalities in developing their master plans especially with regards to technical specifications. The Pedestrian and Bicycle Facility Guidelines prepared by the Department of Transport, deals primarily with pedestrians and cyclists and acknowledge the needs of persons with special needs. The guidelines highlight a number of key issues to consider in the provision of pedestrian and bicycle facilities and provides excellent detail for planning and designing facilities for pedestrians, cyclists and wheelchair users by providing guidance and engineering detail, and ends with a planning process for NMT. Both the rural and urban environments are acknowledged.

Previous guidelines were the Pedestrian Facility Guidelines: Manual to plan, design and maintain safe pedestrian facilities, 1993, Report No 92/126; and Guidelines for the planning and design of bicycle facilities, 1987, Report No PG 3/87. The contents of the guidelines are:

- Part A: Pedestrian and Bicycle Controls
- Part B: Pedestrian and Bicycle Crossings
- Part C: Pedestrian and Bicycle Ways
- Part D: Pedestrian and Bicycle Amenities and Support
- Part E: Pedestrian and Bicycle Places
- Part F: Pedestrian and Bicycle Planning
- Appendices: Pedestrian and Bicycle Road Signs and Markings, and Bibliography

Figure 8.4: Proposed Animal Drawn Cart Path



In addition, the Guidelines for Human Settlement Planning and Design (Department of Housing/CSIR) provides a good resource for guiding planning with regards to the development and incorporation of NMT into the design of areas (particularly urban). Chapter 5 of the guidelines provide good examples of how to plan and retrofit areas. The National Road Traffic Act (Act 93 of 1996, as amended) and Regulations SADC and South African Road Traffic Signs Manual (Department of Transport, 1999); and South African Road Safety Manual (Department of Transport, 1999) are also relevant.

These guidelines could be used to develop the overall Non-Motorised Transport Master Plan for the District.

### **8.3. PRIVATE TRANSPORT**

Whilst it would have been beneficial to use transport modelling outputs not only to provide greater insight into prevailing private transport demands but also, in terms of other DITP work, from the point of being able to use such outputs to promote and derive more holistic public transport solutions; modelling work within the District has not been undertaken in detail and extensive outputs in this regard will not be obtained at this stage. Consequently the information provided herein has been compiled for the most part using processed survey information through cordon counts undertaken.

#### **8.3.1. Level of Service**

Bearing in mind the unavailability of transport modelling output, a concerted effort was made to use available processed traffic count data in conjunction with known road network information (e.g. type of facility, number of lanes provided etc.) to provide an assessment of the Level of Service (LOS), as defined in the Highway Capacity Manual Special Report 209 of the Transportation Research Board, prevailing along the major roads in the District area.

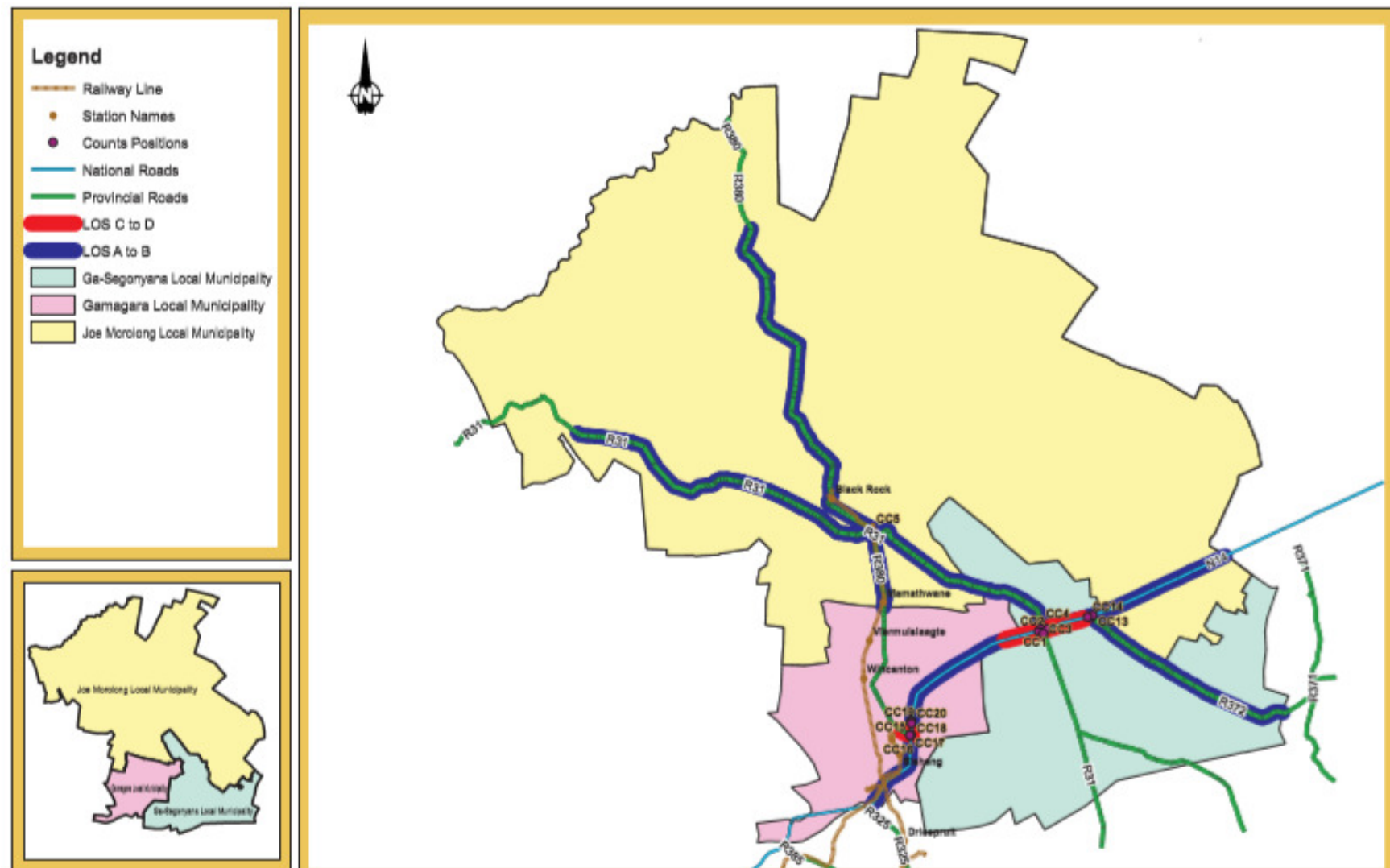
As noted in Figures 8.5 and 8.6 the LOS for all the major roads is generally good. In the overall, there is no poor LOS along all the major routes and it can be concluded that JTGDGM has adequate capacity along its routes to provide for future growth.

Figure 8.5: Calculated Level of Service

Position	Municipality	Town	Road Name	Direction 1	Direction 2	AM Peak Hour		PM Peak Hour		Road Capacity	Direction 1		Direction 2	
						Direction 1	Direction 2	Direction 1	Direction 2		V / C	LOS	V / C	LOS
CC01	Ga-Segonyana	Kuruman	N14	East-bound	West-bound	1 685	1 793	506	538	1 600	0.32	B	0.34	B
CC02	Ga-Segonyana	Kuruman	N14	East-bound	West-bound	2 679	1 549	804	465	1 600	0.50	C	0.29	B
CC03	Ga-Segonyana	Kuruman	31	North-bound	South-bound	601	466	180	140	1 400	0.13	A	0.10	A
CC04	Ga-Segonyana	Kuruman	31	North-bound	South-bound	1 559	1 882	468	565	1 400	0.33	B	0.40	C
CC05	Ga-Segonyana	Hotazel	31	North-bound	South-bound	658	566	197	170	1 400	0.14	A	0.12	A
CC07	Ga-Segonyana	Hotazel	Kgalagadi Road	East-bound	West-bound	245	143	74	43	1 200	0.06	A	0.04	A
CC08	Ga-Segonyana	Hotazel	31	East-bound	West-bound	279	388	84	116	1 400	0.06	A	0.08	A
CC09	Ga-Segonyana	Hotazel	380	East-bound	West-bound	435	627	131	188	1 400	0.09	A	0.13	A
CC10	Ga-Segonyana	Hotazel	31	North-bound	South-bound	675	755	203	227	1 400	0.14	A	0.16	A
CC11	Ga-Segonyana	Hotazel	31	North-bound	South-bound	598	1 485	179	446	1 400	0.13	A	0.32	B
CC12	Ga-Segonyana	Kagung	372	North-bound	South-bound	571	433	171	130	1 400	0.12	A	0.09	A
CC13	Ga-Segonyana	Kagung	N14	East-bound	West-bound	634	776	190	233	1 600	0.12	A	0.15	A
CC14	Ga-Segonyana	Kagung	N14	East-bound	West-bound	1 254	1 873	376	562	1 600	0.24	A	0.35	B
CC15	Gamagara	Kathu	N14/R380	North-bound	South-bound	952	898	286	269	1 600	0.18	A	0.17	A
CC16	Gamagara	Kathu	N14/R380	North-bound	South-bound	1 514	1 648	454	494	1 600	0.28	B	0.31	B
CC17	Gamagara	Kathu	380	East-bound	West-bound	1 920	1 153	576	346	1 400	0.41	C	0.25	A
CC18	Gamagara	Kathu	N14	North-bound	South-bound	1 364	1 079	409	324	1 600	0.26	B	0.20	A
CC19	Gamagara	Kathu	N14/R380	East-bound	West-bound	1 278	1 032	383	310	1 600	0.24	A	0.19	A
CC20	Gamagara	Kathu	N14/R380	North-bound	South-bound	880	1 042	264	313	1 600	0.17	A	0.20	A



Figure 8.6: Cordon Points and Level of Service



### **8.3.2. Travel Demand Management**

Travel demand management is very complex and the results will not be immediately noticeable. It is closely related to land development policies. Improved spatial distribution of work and social amenities and densification policies all serve to facilitate travel demand management.

The size and complexity of the factors influencing demand require a comprehensive set of coordinated measures. The combined effect of all the efforts might be significant and make it worthwhile. Both population and economic growth will result in an increase in the number of person trips. These trips should be managed to such an extent that the potential detrimental effect be reduced.

The following strategies should be pursued and defined in more detail in the future:

- Concentration of trips
- Reducing the demand for vehicular trips
- High occupancy vehicle lanes

Whilst Travel Demand Management (TDM) may not presently be significantly required due to the high spare capacity of the roads within the District, care should be taken in towns such as Kuruman CBD.

It needs to be noted that intersections are the primary points of congestion on the existing road network, and these will be the focus of traffic management strategies. The following activities to manage traffic better should be undertaken:

- a) Traffic control measures
- b) Advanced traffic signal control systems and up-to-date traffic signal settings.
- c) Road access management and cost effective remedial improvements
- d) Balance road infrastructure and land use development
- e) Parking policy and fees
- f) Promotion of walking and cycling, as well as the deployment of pedestrian walkways, and cycle lanes where necessary.

### **8.3.3. Private Vehicle Future**

Whilst there is no question that the number one priority for the District Municipality should be the promotion of public transport. It also needs to be acknowledged that no matter how successful the District would be in this regard, private vehicle use and/or demand will continue to increase.

To fulfil the objectives of the District SDF and specifically objectives related to the need to reinforce mobility spines (not forgetting that population densities are low and hence roads have high spare capacity), there is a dire need to undertake substantial road related work in various settlements and rural areas. This should target roads that will support public transport activities with the intention of working towards public transport orientated TDM measures, as shown in Figure 8.7.

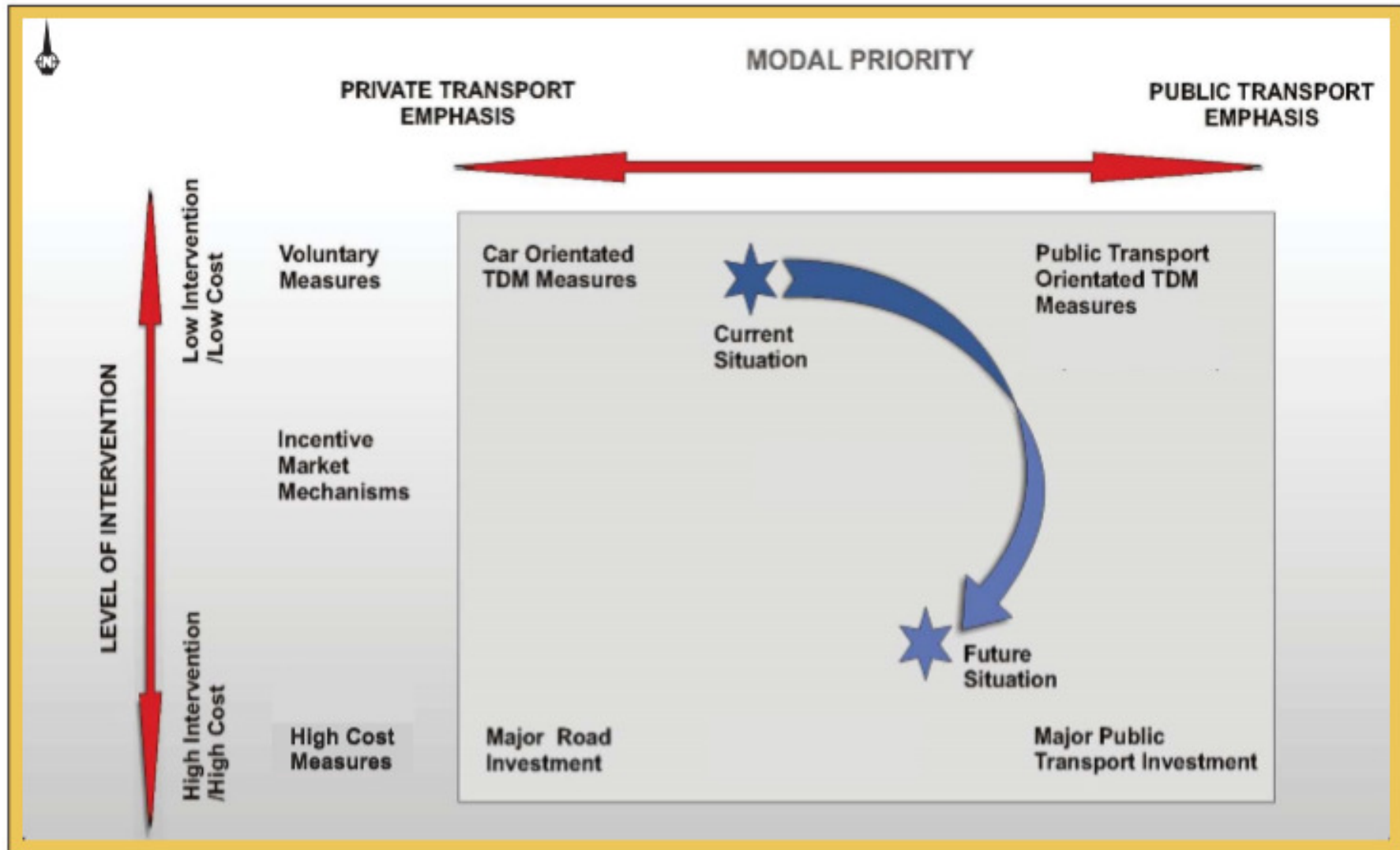
In undertaking work related to road infrastructure improvement, one has to acknowledge that there will be funding constraints and hence one cannot pursue a policy which is in conflict with the primary objective, namely the promotion of public transport. At the same time one has the perception that to simply conclude that the foreseen road related work should be selective, using the funds that are available or that can be directed to this cause, will not by

itself bring about the required end result (i.e. the creation of movement routes and mobility spines). It has to be supported by development initiatives in line with the District SDF.

#### **8.4. FREIGHT TRANSPORT**

Freight operations in South Africa have evolved substantially over the years, particularly since the early 1990's when South Africa lifted tariff barriers and introduced protection measures that had the effect of encouraging certain sectors of industry to become more competitive and to change towards an export focus. This has led to the development of a global market, which under the previous Government was restricted by sanctions. An increase in the level of freight service volume resulted in an increase in infrastructure usage, and as a result this led to an increase in freight related transport by road, rail, air and sea.

Figure 8.7: Modal Priority vs Level of Intervention



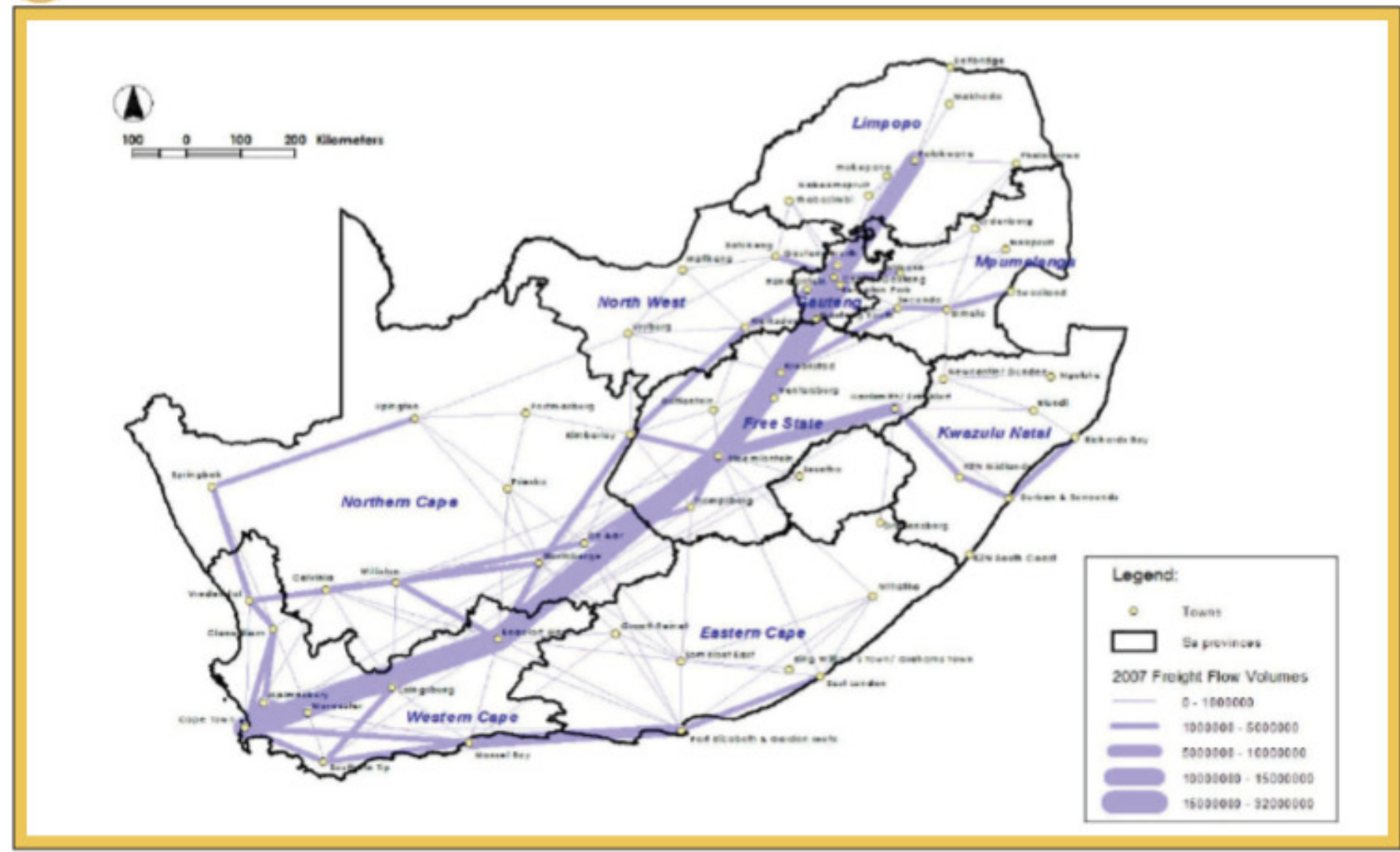
The National Freight Logistics Strategy indicated that the growth of South Africa has been phenomenal and that the predicted 20-year scenario of Moving South Africa was reached in 14 years. The effect of this growth has placed tremendous pressure on road infrastructure and operations to deliver acceptable service. In the light of most freight transport being made by road, it has then become a major contributor to the damage to road infrastructure.

Existing rail transport infrastructure no longer can compete with freight vehicles. Freight vehicles therefore dominate the freight industry. Existing Freight volumes (in tonnage per annum) throughout the Country, originating in the Western Cape Province, are shown in the Figure 8.8.

Whilst freight carried through road is provided for in Figure 8.8, it is also worth noting that Transnet Freight Rail (TFR) also transports freight to the following tune:

- Kammersdam-Postmasburg-Sishen-Hozatel: This corridor is a rail line from Kimberley through Barkley West to Hozatel and carries over 12 million tonnes of freight per annum. The line serves several iron ore and manganese mines, as well as a major cement plant and two lime producers.

Figure 8.8: Freight Flow Volumes





It can be noted that road-based freight has significantly increased and has taken over most of the commodities in terms of transportation.

This would then mean that a Freight Strategy will need to be developed within the District to address the ever-growing freight transport that goes through the District. The District will then have to set itself the goal of lowering the cost of movement of goods and services and to reduce the impact that freight transport has on the commuting public. In developing the freight strategy, the following information has been considered:

- 1) Northern Cape Freight Transport Strategy, Northern Cape Department of Transport, Roads and Public Works, March 2007
- 2) Status Quo Rail Infrastructure Report (Northern Cape Rail Revitalisation Study), January 2008
- 3) National Transport Master Plan (NATMAP) 2050, Northern Cape Province, November 2008
- 4) 2009/2010 Traffic Management System Technical Report, Northern Cape Department of Roads and Public Works, April 2010

#### **8.4.1. Traffic Management System**

The Northern Cape Province has a very successful traffic counting program, developed and maintained by MicroZone using an “Integrated Traffic Management System (ITMS)” software developed specifically for the Department and already operated since the 1990’s. The data collected and analysed at Provincial level has yielded the following results:

- 1) Growth rates differ significantly according to the different road classes. The average growth in total vehicle volumes for the North Cape is between 1.5% and 2% per annum on paved roads. The growth in heavy vehicle volumes is between 1.5% and 6.5% per annum, depending on the road in question. Very little growth is experienced on gravel roads.
- 2) Free Flow and Reasonable Free Flow traffic situations (Level of Service A and B) are experienced on all the highest volume provincial roads in the Province. The projected traffic volumes for 2030 also show that no capacity problems will be experienced at the current traffic growth rates, with very few road links reducing to level of service C (Stable flow) by 2030.

The summaries of the results of heavy vehicle volumes on the paved network and on unpaved road network are shown in Figures 8.9 and 8.10.

As noted in Figure 8.9, the heavy vehicle volumes are dominant in the following paved roads:

Figure 8.9: Heavy Vehicles on Paved Roads



Figure 8.10: Heavy Vehicles on UnPaved Roads



- a) MR980 between Kuruman and Sishen with volumes between 200 and 300 heavy vehicles.
- b) DR3455 between Kuruman and Moffat Ave with volumes between 100 and 200 heavy vehicles.
- c) TR70/2 between Postmasburg and Olifantshoek with volumes between 250 and 300 heavy vehicles.
- d) DR3343 between Hotazel and Blackrock Mine with volumes between 100 and 150 heavy vehicles.
  
- e) TR5/5 between Kuruman and Hotazel with volumes between 175 and 200 heavy vehicles.

As for the gravel roads, the heavy vehicle volumes are low as noted in Figure 8.10.

MicroZone concludes that due to the nonexistence of alternative ways to transport loads, heavy vehicle volumes increased to an abnormal high percentage of the total vehicle volumes. During the last couple of years statistics show heavy vehicle growth rates substantially higher than light vehicles. This is evident also in the District's statistics.

#### **8.4.2. Freight Transport Strategy**

The then Northern Cape Department of Transport, Roads, and Public Works has initiated a process aimed at implementing the National Freight Logistics Strategy (NFLS) in the Province and improving the overall integration of freight needs into the transport planning environment.

The Provincial Government highlights that freight transport or freight logistics refers to the movement of goods and services throughout the economy - from raw materials, through all stages of the manufacturing process, through to the final delivery of finished products to businesses or consumers.

Of importance, is to note that freight logistics encompasses all of the main modes of transport, including road, rail, air, sea, and pipeline. It is also important to note that freight logistics involves more than simply the transportation aspect of moving goods. As such the term freight logistics is probably a more accurate and holistic term than freight transport for describing the wider activities that are critical to facilitating the effective, efficient, and safe movement of goods.

##### **8.4.2.1 National Policy**

The overall strategic plan for South Africa's freight logistics system is determined at the national level of government, with the expectation that provincial and local government strategies will correspond with the broad national framework. The National Freight Logistics Strategy (NFLS) outlines a comprehensive framework for the developmental role of freight logistics. It follows from the White Paper on National Transport Policy which has the following mission statement:

*"To provide safe, reliable, effective, efficient and fully integrated land freight transport operations and infrastructure E34444 which best meet the needs of customers at improving levels of service at an equitable cost in a fashion which support government strategies for economic and social development while being environmentally and economically sustainable."*

However, substantial problems have been identified with regard to some of the infrastructure, as well as its operations and management. Amongst the challenges noted in the NFLS that are of relevance to the Northern Cape and particularly John Taolo Gaetsewe District municipality are:

- a) Continued over reliance on road versus rail infrastructure: CSIR's latest report shows that 84% of total tonnage moved within South Africa went by road in 2004.
- b) Need for more efficient long-haul corridors: Rail is not meeting its potential on long-haul corridors, and more importantly, ineffective rail on long-haul corridors is limiting the potential of intermodal traffic.
- c) Second economy and/or rural divide: Whilst the transport infrastructure linking the major metro areas to export ports is relatively effective, it largely by-passes those most in need.
- d) Intra-urban and especially rural freight links remain much more problematic, substantially constraining economic opportunities for many of the country's poorest citizens.
- e) Inefficient State Owned Enterprises: Whilst the government remains committed to state ownership of critical transport infrastructure, the State Owned Enterprises - particularly related to ports and rail - continue to operate inefficiently and deliver poor service relative to industry norms.
- f) Ineffective regulatory frameworks: In combination with the challenge of State Owned Enterprises there is also an issue of overlapping regulatory mandates and poor enforcement.
- g) Lack of integrated planning across spheres of government, parastatal, and the private sector: This results in part from lack of clear, mandated responsibility for various aspects of infrastructure investment, maintenance, and operations, as well as from the planning regime itself.
- h) Maintaining and managing provincial roads: Financial resources to maintain these roads are often limited and thus gradual degradation has set in.
- i) Overloading: Overloading is in part caused by the fact that marginal hauliers often shift to using provincial roads, knowing that provinces and local municipalities do not have the resources to properly monitor and enforce overloading.

#### **8.4.2.2 Provincial Strategy**

Freight transport planning in the Northern Cape is guided by the strategic objectives and principles identified at the national level, particularly the National Freight Logistics Strategy. In addition it has taken into account the unique context of the province and its own socio-economic objectives.



The Green Paper on Transport Policy in the Northern Cape is the most important policy document that addresses the issue of freight transport in the province. The key strategic objectives with respect to freight noted in the Green Paper are to:

- 1) Promote the provision of seamless intermodal services;
- 2) Promote the provision of operations that are sensitive to the environment;
- 3) Promote the culture of obedience to law enforcement;
- 4) Develop human resource capacity within the province that will assist with the development of land freight within the province;
- 5) Protect the road network by introducing the Road Transport Quality System; and
- 6) Optimise current capacity, maintain and develop the land freight transportation system, and prioritise issues in terms of sustainable economic development needs.

The Green Paper advocates the development of road and rail nodes (including the possibility of inter-modalism), but does not specifically mention aviation or maritime with respect to freight transport. The Green Paper also emphasises the importance of rural freight transport and the province's role in providing adequate infrastructure to support freight access in rural areas.

#### **8.4.2.3 Broad Provincial Goals**

An efficient and competitive freight transport environment is critical to the long-term economic and social well-being of residents in the Northern Cape Province. The Northern Cape Freight Transport Strategy highlights that the freight transport strategy should be designed to support the achievement of four broad goals which include:

- 1) Business competitiveness: providing an efficient freight transport network to ensure that the province offers a competitive environment in which firms can invest and operate.
- 2) Inclusion: ensuring that the freight transport network facilitates access to economic opportunities by the broad population in the province, regardless of location, economic status, and previous sources of disadvantage.
- 3) Sustainability and safety: ensuring a freight transport environment that is safe, secure, and ecologically sustainable.
- 4) Coordination and direction: ensuring clear direction from government based on wide communication and coordination with stakeholders at all spatial levels.

#### **8.4.2.4 Provincial Objectives**

In order to implement a clear action plan for freight transport in the province, a proposed set of eight objectives for the freight transport strategy in relation to the four broad goals identified above have been defined as provided for in Table 8.4.



Table 8.4: Freight Transport Strategy Objectives

<b>Table 8.4: Freight Transport Strategy Objectives</b>					
<b>Objectives</b>		<b>Business Competitiveness</b>	<b>Inclusion</b>	<b>Sustainability and Safety</b>	<b>Coordination and Direction</b>
<b>1</b>	Development and promotion of provincial freight transport corridors	[		[	
<b>2</b>	Maintaining a reliable secondary road network	[	[	[	
<b>3</b>	Promoting inter-modalism and an improved balance of freight traffic across modes	[	[	[	
<b>4</b>	Enhancing rural and SMME across	[	[	[	
<b>5</b>	Enhancing the freight transport knowledge and skills base	[	[		[
<b>6</b>	Expanding access to freight transport information to facilitate evidence based planning			[	[
<b>7</b>	Integration, communication, and coordination amongst and between government and industry			[	[
<b>8</b>	Minimising the safety and environmental impacts of freight transport			[	[

#### 8.4.3. John Taolo Gaetsewe District Freight

It is noted that rail has the potential of removing some of the pressure of freight on the roads. The establishment of an economic rail regulator is being pursued and recommendation in this regard as well as the finalisation of the National Rail Plan should give guidance to this role issue in the future.

However, presently, it is noted that the road-based freight transport within the District Municipality is making use of local roads and hence cause a disproportionately large amount of damage on the internal road network. There is currently no data collected on freight transport within the district and hence proposals on the effective management thereof have not been formulated.

The transportation of freight within the District area can be classified as follows:

- 1) The internal distribution of goods within the District area whereby goods are produced and consumed locally.
- 2) The movement of goods to/from intermodal nodes for export/import or national distribution.
- 3) The movement of goods from/to/past the District area by road to other destinations in South Africa or SADC countries.

Regardless of the above classification, in the vast majority of cases, goods are transported by road within the District area as already highlighted, whether these trips are from/to/past the industrial or major retail areas, agricultural handling or external National Roads.

It is therefore be important to develop priority district freight corridors in line with the overall transport plans.

#### **8.4.3.1 Challenging Issues**

There are challenging issues in the freight transport industry within the District that will need to be addressed to ensure that all goods movement by all modes, within and across provincial boundaries, are efficient, cost effective and controlled within a healthy competitive environment and that all produce reach the markets in time and in good quality.

These issues can be posed as questions and will need to be addressed in detail in the future.

The issues include:

- 1) How can land use planning be influenced such that road-based freight transport is encouraged to make use of dedicated roads within the district municipality?
- 2) How can awareness of movement of dangerous goods be expressed to make sure that these are not moved within the residential areas?
- 3) How can effective law enforcement be ensured to avoid or reduce overloading and road damage?
- 4) How can it be ensured that all modes of transport are utilized efficiently for transportation of goods and services?
- 5) How will the private sector be engaged so that they could participate meaningfully in the development and planning of freight infrastructure in the district municipality?

#### **8.4.3.2 Overloading Control**

The Provincial Government has put forward the goals and objectives for the freight strategy within the Province. The prevailing challenges experienced within the province are also prevalent at District level. In order to develop prioritised district freight corridors, it will be critical that the Provincial Government embark on a project to develop and implement a strategy for controlling overloading in order to protect the road network in support of the District and its Local Municipalities. This should be coordinated with the National Department of Transport as represented by South African Roads Agency (SANRAL).

The District and its Local Municipalities with the support of the Provincial Government will also have to commit themselves to addressing the overloading of vehicles as one of their highest priorities with the intention of developing short, medium and long term strategies with the aim of reducing overloading on district and local roads.

#### **8.4.3.3 Appropriate Freight Routes**

The identification of appropriate freight routes within the urban areas of municipalities is becoming an important aspect as the heavy loads significantly reduce the life expectancy of the roads. Kuruman Central Business District (CBD) is experiencing a challenge of heavy vehicles going through the CBD on the N14.

Not only is the experience of damaging internal roads through heavy load, but in certain areas turning radii have not been designed for inter-link and the situation is exacerbated by slow moving heavy vehicles which increase traffic volumes in the (CBD) of Kuruman and hence impacting on the level of service of the internal roads.

This situation is beginning to spill towards Blackrock and Hotazel where road freight traffic is beginning to increase and could start to cause bottlenecks along R31. Hence it is important that appropriate freight corridors be identified within municipalities and road infrastructure be constructed to stand expected E80's.

#### 8.4.3.4 Hazardous Material Transportation

The legislation for the transportation of hazardous materials is included in Chapter 8 of the National Road Traffic Act, 1996, as well as other additional Sections and Regulations contained in the Act. The South African Bureau of Standards (SABS) has also developed standard specifications relating to the transportation of hazardous materials.

A list of these codes is as follows:

- SABS 0228 - The identification and classification of dangerous goods and substances: This code identifies each of the substances or goods listed as dangerous and set out information including the United Nations number, the correct technical name and other information pertinent to the substance.
- SABS 0229 - The packaging of dangerous goods for road and rail transportation: This code contains information on acceptable packaging for dangerous goods and substances and also includes requirements for the testing of packages and the correct marking and labelling of packages.
- SABS 0233 - Intermediate bulk containers for dangerous substances: This code stipulates the requirements for intermediate bulk containers and covers the suitability of the containers and the substances that are permitted to be transported in the intermediate bulk containers.
- SABS 1518 - Design requirements for road tankers: This code stipulates design requirements for normal road tankers transporting dangerous goods and includes the type of materials permitted in the manufacture of the tankers.
- SABS 1398 - Road tank vehicles for petroleum-based flammable liquids: This code stipulates design specifications for tankers transporting petroleum-based flammables.
- SABS 0230 - Inspection requirements for road vehicles: This code includes statutory inspection requirements for all vehicles transporting classified dangerous goods including the safety aspects of both the motive unit and the goods containment area. Minimum inspection requirements by both in-house and outside agencies are listed.
- SABS 0231 - Operational requirements for road vehicles: This code sets out operational rules and procedures for transporting dangerous goods and substances and includes the responsibilities of the owner/operator of a dangerous goods vehicle. The code specifies driver qualifications and driver duties before transporting dangerous goods as well as behaviour expected on route. The code also includes a statutory requirement for the drafting of operational agreements between the responsible parties for the loading, transportation and off-loading of dangerous goods.
- SABS 0232 Part 1 - Emergency information systems: This code includes details of new placarding requirements for vehicles transporting dangerous goods and information on individual exempt quantities and the compatibility requirements of multi loads.
- SABS 0232 Part 3 - Emergency information systems: This code contains information on emergency response guides to be used in the case of an incident. Certain aspects of the above codes of practice will be incorporated in law enforcement procedures pertaining to the transportation of classified dangerous goods and substances and will be explained during the course of the training.
- SANS 10228:2006, The Identification and Classification of Dangerous Goods for Transport details the classification of dangerous goods and indicates on which modes of transportation the respective goods are dangerous. The standard classifies dangerous goods according to nine classes, relating to the type of hazard and three packing groups relating to the degree of danger posed within the class.

The nine classes of dangerous goods are:

- 1) Class 1 : Explosives
- 2) Class 2 : Gases
- 3) Class 3 : Flammable Liquids
- 4) Class 4 : Flammable solids, substances liable to spontaneous combustion and substances that emit flammable gases on contact with water
- 5) Class 5 : Oxidising substances and organic peroxides
- 6) Class 6 : Toxic and infectious substances
- 7) Class 7 : Radioactive Material
- 8) Class 8 : Corrosives
- 9) Class 9 : Miscellaneous dangerous substances and articles

SANS 10228 forms the basis of all dangerous goods standards because the classification determines how dangerous goods are to be:

- Packaged (SANS 10229-1: Packaging and large packaging for road and rail transport.
- Part 1: Packaging).
- Transported (SANS 10231: Transportation of dangerous goods – operational requirements for road vehicles and Parts 1 to 3 of the SANS 10232: Transportation of dangerous goods – emergency information systems).
- Stored (SANS 10263: The warehousing of dangerous goods - enclosed storage areas and covered and uncovered outdoor storage yards).

Having had taken note of the abovementioned guidelines, it will be important for the District Municipality to take note of the above when the appropriate freight corridors are identified. In addition, the guidelines form a significant part of the Incident Management System for road transportation and also provide a guide on the more appropriate mode of transportation of dangerous goods, which will assist in finalising the routes for transportation of hazardous substances.

#### **8.4.3.5 District Freight Management Plan**

The John Taolo Gaetsewe District Municipality has to take cognisance of National and Provincial strategies in developing its freight management plan. We propose that the District promote safe and efficient transport of freight by road and rail by means of developing a Freight Transport Management Plan considering overload control, transporting hazardous materials and identification of appropriate freight routes.

The Freight Transport Management Plan should be initiated by considering the following:

- 1) Development of priority district and local freight corridors
- 2) Development of prioritised maintenance plan for these roads
- 3) Development of PPP programme for freight roads upgrading and maintenance
- 4) Introduction of district and municipal programme for overloading control
- 5) Expansion of enforcement capacity
- 6) Introduction of voluntary self-regulation scheme in key sectors
- 7) Encouragement of heavy freight transport through rail network

Whilst the Freight Transport Management Plan is proposed for development, it needs to be highlighted that its success will lie on the establishment of a Freight Transport Coordination Committee. We propose that the coordination committee be initially managed by the proposed Transportation Unit of the District Municipality with the objective of maximizing interaction between various stakeholders.

Whilst the above needs to be addressed, it is proposed that weighbridges be introduced at the following proposed locations as shown in Figure 8.11:

- Introduce permanent weighbridge on N14 in Kuruman
- Introduce a new permanent weighbridge on N14 in Kathu
- Provide a mobile weighbridges along R31
- Provide a mobile weighbridge along R380

To date, only one weigh station is installed on the TR70-2, kilometre 13, between Postmasburg and Sishen.

The introduction of weighbridges will assist in providing data for the reporting related to overloading control and will include statistics on top offenders, maximum overloads, commodity and foreign operator statistics, vehicle class statistics and E80 statistics. This will finally provide valuable information for the enhancement of the proposed Freight Transport Management Plan.

## **8.5. AIRPORT TRANSPORT**

It has already been alluded to that the Sishen Airport is small privately owned airport and there is also Kuruman airport which is also a small airport. The runways are 1.7 km and 1.6 km long respectively. The airports are too small to play a substantial role in freight transport.

As noted above, relative to road and rail, airfreight is unlikely to be the primary focus for the District. This is because volumes of freight overall are relatively small, and its impact on SMMEs and rural industries is limited. However, given its potential to stimulate wider development not only of the freight sector itself but also of high value added activities, it is an area to which the District is giving its serious attention.

The District has embarked on the stakeholder engagements to explore the feasibility of establishing the Regional airport around the Kuruman area. The Airport establishment has been incorporated in both the IDPs of John Taolo Gaetsewe District municipality and Ga-Segonyana Local Municipality.

Of interest is to note that investors are unwilling to commit money without assurance that an airline will commit to establishing operations; airlines are unwilling to commit to future operations before facility investments have been made and before they have customers (freight forwarders and producers) who will use the service; customers, for their part, typically want to see the service operating before they commit to using it.

## **8.6. PIPELINE TRANSPORT**

The pipelines have established their place in the transportation system as the most efficient and cost effective means of transporting large quantities of liquids and gases over long distances safely and efficiently.

Taking note of the above, the Northern Cape Province and hence the John Taolo Gaetsewe District Municipality do not have pipeline operation presently.

## 8.7. JTG ROAD ASSET MANAGEMENT

The District through a Rural Road Management System Grant programme has set up Rural Road Asset Management Systems (RRAMS), and collect road, bridge and traffic data on municipal road networks in line with the Road Infrastructure Strategic Framework for South Africa. The systems improve the data on municipal roads and guide infrastructure maintenance and investments thus reducing vehicle operating costs. The District assess road conditions of paved and unpaved municipal roads and structures, conduct road inventory and RISFSA classification, collect traffic data, and prioritise project list for roads to inform municipal infrastructure grant project selection.

The Rural Road Asset Management Systems, is envisaged to assist the Local Municipalities in project prioritisation, maintenance scheduling and application of funding for maintenance and rehabilitation of the roads.

### 8.7.1. Network Overview

The road network is of critical importance for the efficient functioning of the total transport system. Not only does it provide the network for PT and much of the NMT network, but also other business traffic and private car travel. The availability of an efficient and well maintained road network is vital for the economic well-being of John Taolo Gaetsewe Towns, townships and villages.

The information provided focuses only on the municipal roads as captured in the RRAMS.

- The network of JTG consist of 85% of unpaved roads and 15% of paved roads
- Due to rapid increase of population ,mines and Spatial development in the district, the road network is subjected to increase by 5% yearly
- The network was identified between 2013 and 2018

**RCAM per Local Municipality and Road Type**

<b>RCAM</b>	<b>FLEX</b>	<b>GRAV</b>	<b>EARTH</b>	<b>BLOCK</b>	<b>GRAND TOTAL</b>
Gamagara	158.6	25.3	48.4	3.7	236.0
Ga-Segonyana	134.5	292.2	739.0	26.7	1192.4
Joe Morolong	28.3	567.4	554.8	15.3	1165.9
<b>GRAND TOTAL</b>	<b>321.5</b>	<b>884.9</b>	<b>1342.1</b>	<b>45.7</b>	<b>2594.2</b>

# Source 2022/23JTG RAMP



### 8.7.2. Functionality class the of roads

Table 8.7 JTG RIFSA Classification of roads per Surface Type -with respect to TRH26 (South African road classification and access manual)

RCAM Class of all Roads (km)

RCAM	FLEX	GRAV	EARTH	BLOCK	GRAND TOTAL
R4	0.3				0.3
R5		2.6	23.7		26.3
U4A	45.0	23.0	77.2	3.8	149.1
U4B		10.7	23.0	0.2	33.9
U5A	0.6				0.6
U5B	275.6	848.6	1218.2	41.6	2384.1
<b>GRAND TOTAL</b>	<b>321.5</b>	<b>884.9</b>	<b>1342.1</b>	<b>45.7</b>	<b>2594.2</b>

# Source 2021/22 JTG RAMP

### 8.7.3. Engineering Network Condition of John Taolo Gaetsewe District Municipality

Joe Morolong has the largest network in the Very Poor Condition (90.8%), followed by Ga-Segonyana (56.7%).

In total, 67.6% of the total network fall within a Very Poor condition, 7.7% in Poor, 8.5% in Fair, 15.9% in Good and 0.4% in Very Good.

Visual Condition of Road Network per LM and Road Surface (km)

LM;	1. VERY POOR	2. POOR	3. FAIR	4. GOOD	5. VERY GOOD	UN-ASSESSED	GRAND TOTAL
Ga-Magara	17	27	65	95	0	32	236
Ga-Segonyana	623	108	88	271	9	93	1192
Joe Morolong	938	44	47	5		133	1166
<b>GRAND TOTAL</b>	<b>1578</b>	<b>179</b>	<b>200</b>	<b>371</b>	<b>9</b>	<b>258</b>	<b>2594</b>

# Source 2022/23 JTG RAMP

A summary of condition of roads in JTG

- Most of the poor roads are unpaved roads
- The roads owned by the municipality are class 4 and 5
- A total of 183.1 km of paved roads in need of maintenance including rehabilitation, crack sealing, resurfacing and diluted emulsion is estimated to a cost of R421,688,511.62, and R 36 298 506 for unpaved roads which include re-gravelling of gravel roads, blading, reshape and dust treatment

#### 8.7.4. Ancillary Inventory

The ancillary assets were evaluated as on between 2015 to 2018.

There is there is a need for the ancillary data to be updated. The data provided is subjected to changes due to population and developments taking place in the districts.

The ancillary road items owned and maintained by John Taolo Gaetsewe District Municipality are as follows:

Table 8-8: Road furniture/inventory data	
NAME	TOTAL
Bridge	3
Channel	38
Culvert	46
Guardrail	21
Inlet	215
Kerb	350
Manhole	1 109
Mini Traffic Cycle	7
Road Sign	1 405
Sidewalk	18
Speed Hump	169
Traffic Light	52
Bus and Taxi stop	8
<b>TOTAL</b>	<b>3 388</b>

#### 8.7.4. Usage of Assets

The main goal of capturing road usage data on a rural road network is to have objective, comprehensive and up-to-date traffic data on the entire road network that can be used for road planning and management; and to obtain this information in a cost-effective manner. The following table show compliance against the minimum parameters for road usage information for a level II RAMS as per TMH22 Section D.1.

As the collection of traffic data can be very expensive, in most cases the traffic counting strategy adopted is focused on sampling traffic on the road network (on a link or at a node) and then using knowledge of the area, environment, daily, weekly and seasonal variation to make estimates of AADT. JTGDm used this estimation approached. The following Table 8.9 presents the parameters used by JTGDm

Table 8 -9: Minimum Parameters for Road Usage		
PARAMETER	COMPLIANCE IN TERMS OF LEVEL II RAMS	DESCRIPTION

Table 8 -9: Minimum Parameters for Road Usage		
PARAMETER	COMPLIANCE IN TERMS OF LEVEL II RAMS	DESCRIPTION
Traffic volume	Yes	Extrapolated from AADT figures in historical (2016) RNI data. AADT grown at 1% per annum.
Accident data	No	No Accident data is available. Accident data gathering is not executed by service providers appointed for RAMS and it is relied upon the police stations to distribute these data.
Axle load	No	Not applicable for a Level I RAMS
Traffic growth	Yes	1% annual growth assumed – estimated.
Passenger movements	No	Not applicable for a Level I RAMS
Average vehicle speed	No	Not applicable for a Level I RAMS
Traffic volumes (pedestrian & cycle)	No	Not applicable for a Level I RAMS
Traffic spectrum	No	Not applicable for a Level I RAMS
Abnormal loads	No	Not applicable for a Level I RAMS

The latest Traffic counts were conducted in 2019/20 financial year. It was a manual count, Numerators were placed at strategic positions to do the counts. The following were the results;

### **Week days – Average Traffic Trends: (06:00 to 18:00)**



Table 8.10 below shows the usage per road class for different surface types. A total of 657 817 vkm are travelled on JTG's assessed network. Ga-Segonyana's road is travelled the most (45%) followed by Joe Morolong (37%).

Table 8-10: Usage per Functional Class and Surface Type (veh.km)

MUNICIPALITY	RCAM CLASS	FLEX	GRAV	EARTH	BLOCK	GRAND TOTAL
Gamagara	U5B	77 530	12 187	0	498	90 214
Gamagara	U4A	27 047	3 527	0	80	30 653
Gamagara	U4B	0	430	0	0	430
Ga-Segonyana	R4	367	0	0	0	367
Ga-Segonyana	U5A	355	0	0	0	355
Ga-Segonyana	U4B	0	7 990	0	30	8 020
Ga-Segonyana	R5	0	61	0	0	61
Ga-Segonyana	U4A	28 540	13 831	28	34	42 433
Ga-Segonyana	U5B	66 520	172 406	1 119	3 531	243 576
Joe Morolong	R5	0	3 249	0	0	3 249
Joe Morolong	U4B	0	1 012	0	0	1 012
Joe Morolong	U4A	13 398	23 931	0	265	37 594
Joe Morolong	U5B	11 674	185 985	155	2 040	199 853
<b>GRAND TOTAL</b>		<b>225 430</b>	<b>424 609</b>	<b>1 301</b>	<b>6 477</b>	<b>657 817</b>

# Source 2022/23 JTG RAMP

## 9. CHAPTER 9: SUMMARY OF LITPS

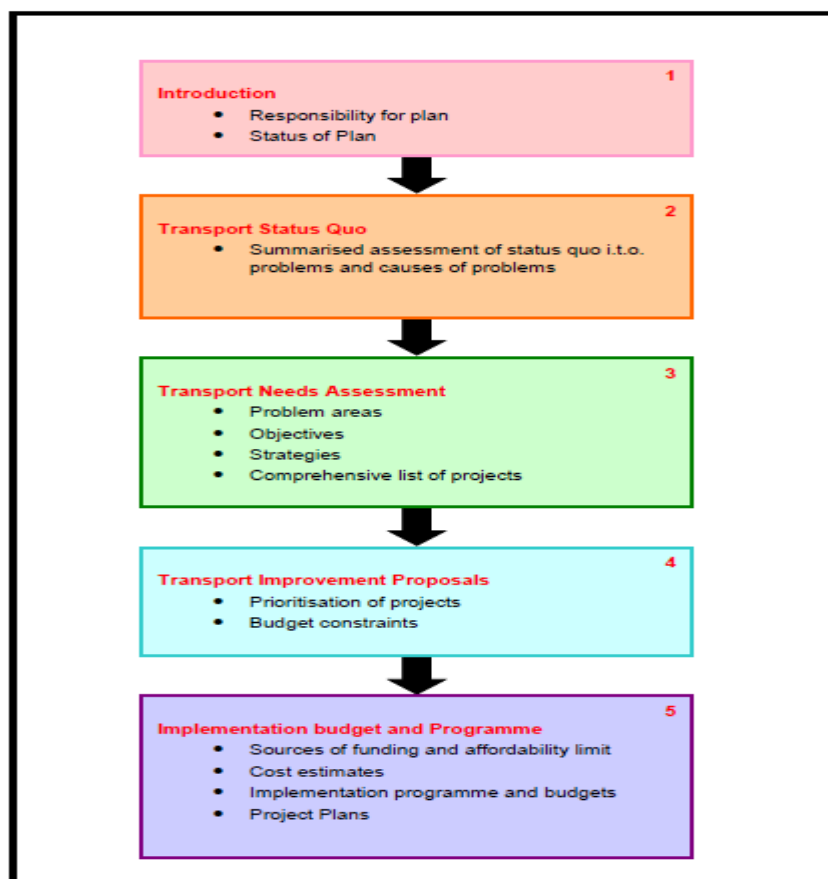
### 9.1. INTRODUCTION

This chapter covers the summary of the Local Integrated Transport Plans (LITPs) prepared by local municipalities in the District Municipality. John Taolo Gaetsewe District Municipality has three local municipalities and are as follows:

- Ga-Segonyana Local Municipality
- Gamagara Local Municipality
- Joe Morolong Local Municipality

All the three local municipalities has not yet met the minimum requirements by developing LITP's. The LITP must be prepared on an annual basis by each local municipality and submitted to its district municipality. The minimum legal requirements for a LITP from a transportation point of view are shown schematically in Figure 9.1

**Figure 9.1 Minimum Contents of a Local Integrated Transport Plan**



### **9.1.1. Public Transport Plan**

#### **9.1.1.1 Operating Licences Strategy**

The following actions were suggested following the formulation of the Operating License Strategy so as to support the successful implementation of the strategy:

The Operating Licences Strategy (OLS) should further be developed once the proposed Strategic Public Transport Network (SPTN) has been accepted by the John Taolo Gaetsewe District municipality. The SPTN is shown in Figure 9.1. This will have to be updated and be lined with the latest developments in the District.

- 1) The Operating License Board (now “Provincial Regulatory Entity”) must legalise the illegal operators. The operators need to be identified and given the final opportunity to register. This action could be coupled to capacity building and information dissemination campaign that should be aimed at speeding up the legalisation process.
- 2) A proper OLS database needs to be established at the Provincial Regulatory Entity (PRE) and at the Taxi Registrar that is up to date and that contains the correct information of the operator.
- 3) The conversion of radius based permits to route based operating licenses must be completed by the 2006 calendar year. The routes should be captured in a GIS and a map indicating the route with the correct route description should be produced for sign-off with the industry, the Registrar and the Transport Authority.
- 4) The impact of the taxi recapitalisation program must be determined in terms of economic viability and proving to the local industry that it would be to their benefit to participate in the recap process.

#### **9.1.1.2 Rationalisation Plan**

The following actions were suggested following the formulation of the Rationalisation Plan so as to support the successful implementation of the plan:

- 1) The Rationalisation Plan (RATPLAN) should further be developed once the proposed Strategic Public Transport Network (SPTN) has been accepted by the Local municipality.
- 2) Contracts should be designed and costed to support the overall policy of the Northern Cape Province by providing services to the poor, low income workers, learners and the marginalised taking note of the following:
  - The improvement of service levels during the off-peak (to hospitals, clinics and pension pay-out points).
  - All services (subsidised and private contract services) should be taken into account in an attempt to maximise the service coverage.
  - Investigate servicing the marginalized such as pensioners, disabled and learners.
  - Investigation into the inclusion of smaller sized vehicles and the taxi industry in future subsidised operations, to increase service quality (i.e. through more frequent services) and improve the profitability of operations.



- 3) An investigation must be done on the inclusion of other operators into the subsidy system, as well as further financial assistance to the taxi industry. As part of this investigation alternative subsidy allocation mechanisms may be considered, which would effectively target public transport passengers with low levels of mobility, such as pensioners, the unemployed, learners and people travelling to clinics and hospitals. In this respect vouchers systems and user-side subsidy mechanisms may provide be viable options to consider.
- 4) A study should be embarked upon that define the role of modes within Kuruman and Kathu. The unique characteristics of each mode should be taken into account and a mode should be allowed to operate only in areas and over distances where it is proven to be the most economic and cost effective mode.

The proposed action plans have been considered in the District ITP. It is becoming apparent that these action plans are becoming critical and will need to be addressed so as to enhance public transport services and operations within the Municipal boundaries and the District.

### **9.1.2. Road Infrastructure Plan**

The road infrastructure plan must be developed as part of the LITP and covered the following plans:

- 1) Roads Master Plan
- 2) Strategic Public Transport Network
- 3) Parking Plan
- 4) Freight Plan

#### **9.1.2.1 Road Master Plan**

The District has developed the Rural Assets Management System and all the three Local Municipalities developed their Road and Stormwater Master Plans in 2019. All the municipalities have incorporated the projects prioritised in the Master plans on how the roads and stormwater may be improved in their IDPs mostly as unfunded projects. The local municipalities relies heavily on SLP funding to address the flagged projects.

#### **9.1.2.2 Parking Plan**

The parking in the Kuruman CBD has developed a parking area including basement parking for their customers which helped relieve the congestion on street parking, however due to the rapid increase of cars in the District the space for parking is still not enough. Taxis now also encroached on the Street parking because the taxi rank space is not sufficient. The Kuruman CBD is congested there is a serious problem in terms of parking and traffic.

In the light of the above background, the following action was suggested for a functional parking plan:

- a) A parking management plan should be developed in Kuruman with its main aim to ensure that the provision of parking is balanced with the demand for the parking and that the parking is provided in the preferred locations.

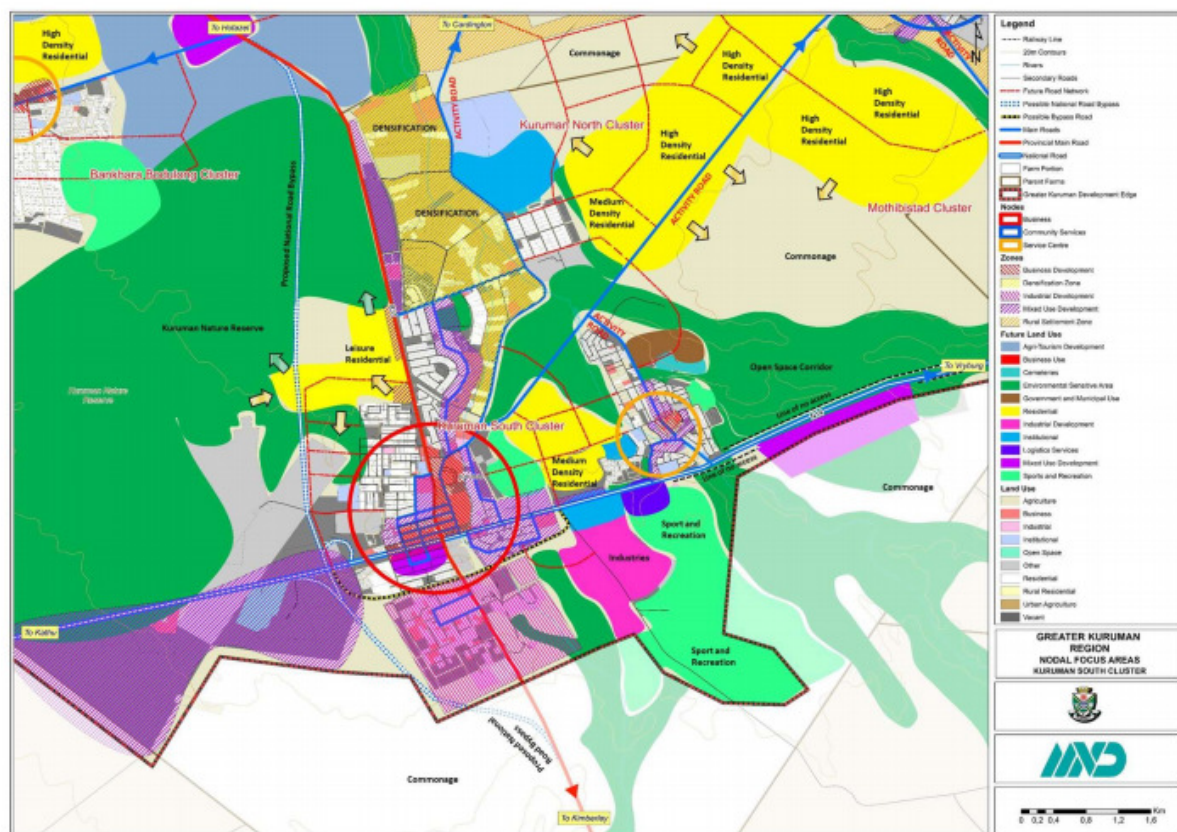
### 9.1.2.3 Road Freight Plan

The Ga-Segonyana Local Municipality experiences challenges of traffic congestion and during peak hours is worse. The heavy vehicles that pass through the town causes traffic congestion.

Due to the challenges mentioned above, the following action plans could be taken into consideration:

- b) A by-pass must be developed to reduce CBD congestion – the preliminary by-pass route has been incorporated in the Ga-Segonyana SDF and its Map has been reflected as Figure
- c) Weigh bridge must be built to raise funding for local streets that are damaged by heavy vehicles
- d) Movement of Dangerous Goods Policy must be developed

**Figure 9.2 Kuruman Spatial Proposal Map**



### 9.1.3. Traffic Management

The traffic management plan would typically support the current measures and introduce new measures that would ensure that the hierarchy of roads to be contained in the Rural Road Asset Management System is supported and strengthened for the function that each road should fulfil.

#### **9.1.4. Closing Remarks**

In the future it will be of assistance to develop local integrated transport plans for all the municipalities so that detailed interventions proposed at municipal level could be incorporated in the District ITP. This will be the case mostly with specific characteristics of individual municipalities, identification of plans to be developed and development of other transport strategies in which private transport, freight transport and non-motorised transport interventions could be addressed in detail.

It is hence proposed that financial support be provided from the Province and District to facilitate the implementation of LITP at the local municipalities as follows:

- Formulate the first LITP for Ga-Segonyana Local Municipality
- Formulate the first LITP for Gamagara Local Municipality
- Formulate the first LITP for Joe Morolong Local Municipality

## **10 CHAPTER 10: FUNDING STRATEGY, SUMMARY OF PROPOSALS AND PROGRAMMES**

### **10.1. INTRODUCTION**

The National Government has restructured funding to concentrate on basic needs that communities were not afforded previously. This has affected the allocation of funds on transport projects to an extent that other means have been explored to fund transport operations and infrastructure. As a result of reduction of funds on transport aspects, proper prioritization of projects is necessary so that maximum benefit can be derived on the selected investment.

Noting the limitations in funding, the implementation of the DITP will require careful financial planning in order for the execution of its projects and programmes to be undertaken successfully. As the responsibility for the transport system is a joint function, with the District Municipality; the three Local Municipalities; the Northern Cape Department of Transport; Safety and Liaison; the Northern Cape Department of Roads and Public Works; the Passenger Rail of South African, and the South African National Roads Agency Limited each having roles and functions, the funding of implementation requires co-ordination.

### **10.2. FUNDING STRATEGY**

John Taolo Gaetsewe District Municipality should recognise that considerable increases in funding beyond current and past spending levels will be needed if the transport system is to be developed according to this Plan. A continuation of the status quo of funding will perpetuate the current system, and restrict the mobility of persons living in the District even further, their ability to reliably travel to work, and their education and shopping opportunities.

The capacity of the District to afford the projects and programmes within its own budget and that of the Local Municipalities derived from their own income is limited. Noting the strategic importance of transport (and particularly public transport) to the District, the District should be prepared to direct as much as can be afforded, but should be seeking partnerships with the other stakeholders as stated above in section 10.1 to ensure that planning, operational and capital projects obtain funding beyond District's capacity.

#### **10.2.1. Funding Arrangements**

The National Land Transport Act (NLTA), Act No 5 of 2009 address the question of funding in "Chapter 3: Funding Arrangements for Land Transport." In the following four Sections of the NLTA specific aspects for funding are addressed, which are summarised below:

##### **1) Section 27: Municipal Land Transport Funds**

It is specified that a municipality is to establish a Municipal Land Transport Fund into which shall be paid: money appropriated by the Minister, money appropriated by the MEC, user charges collected, interest collected on invested cash balances, as-well as donations and contributions received, including foreign aid agencies.

## **2) Section 28: Public Transport User Charges**

A Municipality, which has established a municipal land transport fund may impose user charges on motor vehicles entering specific portions of its area, development that generates the movement of passengers, parking and parking places.

## **3) Section 29: Minister may Provide Funding for Land Transport**

The national minister of transport can budget monies through parliament for specific projects in some municipalities. These conditional funding will be paid into Municipal Land Transport Funds.

## **4) Section 30: MEC may Provide Funds for Land Transport**

An MEC may make monies available to municipalities to perform their responsibilities in terms of the NLTA, for a particular or specified purpose.

At the present time the John Taolo Gaetsewe District Municipality (JTGDM) is not the responsible authority for many public transport services be it in terms of their funding requirements, their service provision, or their development. However, if the JTGDM does consider the establishment of a Municipal Land Transport Fund, then this could change the status quo funding mechanism.

Initially one notes that any change will not be dramatic (i.e. at the outset the JTGDM's role being more related to managing and/or co-ordinating development rather than having a funding responsibility) but as time passes one can possibly foresee a greater role with greater responsibility being assumed. With the passage of time the funding "pot" of the JTGDM through Municipal Land Transport Fund could therefore well increase commensurate with its increased responsibilities and in this sense there should be the opportunity to rationalise and prioritise funding allocations such that their use is optimised.

The District Municipality, with the assistance of the Provincial Government, could hence make arrangements to set a Land Transport Fund in which funds could be deposited and be used for the Transport Policy and to achieve the Transport Objectives. This will start to assist the District in addressing the identified intervention projects for integrated transport system in the District.

Nevertheless it should not be envisaged that this rationalisation or prioritisation process alone will address all the transport issues identified as it will not suffice to solve the transport funding dilemma. There will still be a need for other sources of funding as identified below.

### **10.2.2. Funding Sources**

Whilst there could be a "pot" in which funds could be deposited into the District in terms of the NLTA, it is necessary to note the sources of funding over and above the arrangements made for transport funding within the District. The total transport budget could be derived from the following sources of funding:

- Municipal Funds
- Intergovernmental Funds
- Additional Funds

### **10.2.2.1 Municipal Funds**

The Local Municipalities within the District could generate their own income from revenue assignment. This relates to the main sources of own income generated from within local government in the form of taxes, in order for local governments to perform their constitutional duties. These sources of funds are unconditional and include:

- a) Property Rates which are an important form of local tax imposed on properties by the Municipalities for the provision of services, according to size and use. The property rates revenue is used for municipal governance and administration as well as for the provision of services.
- b) User Charges which are charges imposed primarily to directly recover the costs of service provision, such as electricity, water, sanitation, and solid waste removal.

Whilst these sources could be used for operations and provision of services, it needs to be appreciated that transport (like electricity) is a commodity or service, for which users should preferably bear the full cost, if not part thereof if welfare considerations are taken into account.

Funds raised in this manner could assist in adding towards capital infrastructure such as public transport facilities and roads.

### **10.2.2.2 Intergovernmental Funds**

According to the white paper on local government (1996), Section 227 of the constitution entitles the provincial and local sphere of government to an equitable share of nationally raised revenue in order to provide basic services and perform the functions allocated to it.

The equitable share is divided as per the Division of Revenue Act (DORA), passed at the beginning of each financial year. The Division of Revenue Act (DORA) provide for the equitable division of revenue anticipated to be raised nationally among the national, provincial and local spheres of government for a specific financial year and the reporting requirements for allocations pursuant to such division; to permit the withholding and the delaying of payments in certain circumstances; to provide for liability for costs incurred in litigation in violation of the principles of co-operative governance and intergovernmental relations; and to provide for matters connected therewith.

The objectives of this Act are:

- To provide for the equitable division of revenue anticipated to be raised nationally among the three spheres of government;
- To promote co-operative governance and the principles of intergovernmental relations on budgetary matters;
- To promote better co-ordination between policy, planning, budget preparation and execution processes;
- To promote predictability and certainty in respect of all allocations to provincial governments and municipalities in order that such governments and municipalities may plan their budgets over a multi-year period;
- To promote transparency and equity in all allocations, including in respect of the criteria for their division;

- To promote accountability for the use of public resources by ensuring that all transfers are reflected on the budgets of benefiting provincial governments and municipalities; and
- To ensure that legal proceedings between organs of state in the three spheres of government are avoided as far as is possible.
- 

These sources of funds are conditional and include:

- Local Government Equitable Shares (LES) which are grants based on a mechanism of achieving the following four key goals:
- Bridging the gap between local government's poor ability to raise revenue, and their mandate to deliver basic needs;
- Achieving the delivery of basic services;
- Achieving allocative efficiency in terms of spending resources on projects in terms of priority, and
- Promoting equity in terms of authorities providing comparable levels of public services at reasonably comparable levels of revenues.

The LES is the basis upon which intergovernmental transfers are done and even though the method has shortcomings, it is dynamic and adjusted from time to time to address these shortcomings.

- Conditional Grants which are grants provided by National Government to both Provinces and Municipalities in order to achieve specific objectives and is also referred to as specific purpose grants or categorical grants.

With appropriate motivation, the District could assist municipalities to apply for this funding on projects of Provincial and National significance and which will have a positive impact on public transport services and operations.

- Neighbourhood Development Partnership Grants (NDPG) which are grants in place to provide Municipalities with capital subsidies for property developments in townships and new residential developments, including the construction or upgrading of community facilities, and where appropriate, attract private sector funding and input.

The projects generally have Local Economic Development (LED) objectives and in most cases public transport infrastructure and services are essential for viable local economy.

- Municipal Infrastructure Grant (MIG) which is grants used to supplement municipal capital projects in an effort to eradicate backlogs in basic municipal infrastructure provision.

The Municipal Infrastructure Grant (MIG) is one of the key funding mechanisms that significantly contribute to the development of transport infrastructure through appropriate fund applications.



The funding could be complemented by Provincial Infrastructure Grant (PIG) in significantly adding to infrastructure development which is aimed at addressing backlogs experienced in transport aspects.

- Expanded Public Works Programme Incentive Grants (EPWPIG) for Municipalities which is specifically intended to fund labour intensive employment through projects that maximise job creation and skills development in line with the Expanded Public Works programme (EPWP) guidelines.

It is critical that the District encourages the Municipalities to implement most of their projects using the EPWP principles so that this incentive grant could be motivated and be used in developing additional infrastructure including bus termini and stops.

- Public Transport Infrastructure and System Grants (PTISG) which are grants aimed at providing funding for municipalities to accelerate the planning, establishment, construction and improvement of new and existing public transport and non-motorised transport infrastructure and systems.

Although the grant is leaned towards to supporting the Public Transport Strategies and Action Plans in promoting the provision of accessible, reliable and affordable Integrated Rapid Public Transport Network (IRPTN) services in the major cities of South Africa in line with the National Land Transport Act (NLTA), it could be considered for improved public transport network services that are formal, scheduled and well managed and which are accessible to an increasing percentage of the population of major towns and also to provide for accelerated planning, construction and improvement of public and non-motorised transport networks.

- Rural Transport Services and Infrastructure Grant (RTSIG) which are grants designed to assist rural District Municipalities to set up rural road asset management systems, and collect road and traffic data in line with the Road Infrastructure Strategic Framework for South Africa (RISFSA).

The objective of RTSIG is to ensure efficient and effective investment in rural roads through development of Road Asset Management Systems (RAMS) so as to improve data on rural roads to guide infrastructure investments and to reduce vehicle operating costs and extend the lifespan of rural roads.

This fund can effectively be used for the development of road master plans and pavement management systems in rural Municipalities.

- Municipal System Improvement Grant (MSIG) which is grants designed to assist municipalities in building in-house capacities to perform their functions and stabilise institutional and governance systems.

This grant is typically allocated for skills development and training and not for transport projects. However it is possible to spend funds on the design and implement of systems such as transport models that would provide increased capacity to the municipalities in performing their constitutional duties.

#### **10.2.2.3 Additional Sources**

Whilst Municipal and Intergovernmental funding may appear adequate through various allocations, funding requirements to maintain and improve the effectiveness and efficiency of the road transport network and public transport systems is substantial. The direct budgetary capital funding allocation for transport infrastructure projects is inadequate, even with the addition of funding from existing indirect sources. This would mean that additional funding mechanisms would be required to address financial shortfalls.

The following funding mechanisms could be explored for additional funding:

- **Impact Requirements:** These charges are imposed on developers to compensate for the impact of their projects on the road network. This does not contribute significantly to road network improvement.
- **Planning Gain:** Planning gain, also known as ‘value capture’ or ‘development gain’, is where a developer is granted permission for a development subject only to certain conditions being met. This principle may be applied successfully to the provision of public transport facilities at, for example, large shopping centres.
- **Municipal Bonds:** Municipal bonds are based on the so-called bond insurance fund by the Development Bank of South Africa (DBSA). This allows municipalities to raise capital in order to pay for public projects such as roads and other infrastructure. These bonds must be serviced and it requires dedicated revenue streams. The relevance of these bonds relate to the fact that projects can be financed outside the capital budget of council.
- **Tax Increment Financing:** Tax Increment Financing (TIF) is based upon the premise that public improvements promote developments in areas surrounding them, thereby increasing property tax revenues. Projected increases in property tax revenues are then used to back bonds with which the public improvements are financed, or alternatively annual increments of tax revenue are deposited into a fund dedicated to improvements within the TIF District.
- **Special Benefit Assessment Rates:** This approach is based on the premise that some or all the costs associated with public improvement should be borne by properties within a well-defined area benefiting from the project. This rate is an additional charge over-and-above the normal property rates and taxes.
- **Donor Funding:** Donor funding is provided by the donor community for specific projects or programmes. International agencies or institutions generally provide donor funding.

- **Private Finance Initiatives:** This is also described as public-private partnerships (PPP's) with the emphasis of using private finance to fund municipal activities or projects. A PPP is defined as a formal relationship within which the public and private sector partners look for a win-win solution towards a common goal that would be to ensure the delivery of public/municipal services at an agreed price and length of time with each party benefiting from the transaction in an appropriate manner.
- **Commercial Enterprises:** This approach implies that certain transport services or facilities, or parts of those facilities or services, can be operated on a commercial basis with income potential.
- **Congestion Pricing:** A congestion charge is aimed at discouraging the use of the road by those who are not willing to pay the charge. The objective is to discourage road use at some sites and at specific times. These charges can then be used to provide improved public transport services.
- **Road Taxes:** Road taxes are taxes that are linked to the municipal rates and taxes. This implies it is to be paid on a monthly basis by all property owners. This additional tax is then used to construct road infrastructure.
- **Municipal Urban Tolling:** National government, and recently provincial government, applies tolling as an option to obtain financing for the construction and maintenance of road infrastructure. Enabling legislation for local authorities is not yet in place.
- **Fuel Levies:** The use of fuel levies is not a new issue. Substantial income can be derived should the transport industry receive its share of the fuel levy.
- **Engineering Services Contributions:** For any land development application certain engineering service contributions are payable to local government. Distinction is made between internal and external engineering services, and this only applies to the external services. Whilst in most cases no contributions for public transport are levied, this could be considered in the case of regional and main roads connectivity.

Whilst the above are described in more detail, other funding mechanisms could include the following:

- a) Municipal Infrastructure Advertising
- b) Contract Bus Advertising
- c) Traffic Fines
- d) Weighbridge Fines

All of the above mechanisms (or strategies) offer some insight into tools that could be mixed and matched to help address the District's transportation improvements needs. Advertising,

for example, can help revitalize declining areas, promote economic development, and provide a revenue source for addressing transportation needs in the District.

Some of the above mechanisms have been successfully implemented and others have never been considered due to the difficulty to implement them or because no legal and political support. These will be explored in future as part of the economic research function of the Transport aspects.

### **10 .2.3. Strategy Priorities**

Whilst funding strategies for public transport may need to be investigated, evaluated and developed which will need to include capital, operational, and subsidy funding requirements, especially in the light of additional funding mechanisms; there will be a need to prioritise funding strategy aspects so that available funds could be spent fruitfully.

The following priorities are proposed:

- a) Ensure that the existing funds are spent cost effectively. An attempt should be made to achieve a 10% improvement in the use of existing funds. This will assist in increasing available funds to address backlog on transport infrastructure and services.
- b) Prevent further deterioration of the existing transport system by increasing maintenance spending. The neglected infrastructure will deteriorate to an extent that the cost of refurbishment is equal to the cost of providing new infrastructure. In general, maintenance costs amount to 10% of the capital cost of the infrastructure on an annual basis.
- c) Provide for increased investment in public transport. This will assist in attracting more patronage and hence derive value for money in funds spent on infrastructure and subsidies. In addition, real benefits will be realised by the needy public transport users.
- d) Utilise licence fees specifically for transport. This could possibly replace part of the budget allocation by the Provincial Government.

It is worth mentioning that the challenge of maintaining a safe and efficient transportation system that enhances economic development and local quality of life is no small challenge. It will require a variety of tools and strategies to facilitate public and private partnerships and intergovernmental collaboration. It will also require customers to recognize their responsibility to help pay for transportation needs and services.

### **10.3. SUMMARY OF PROPOSAL**

The transport related proposals put forward in the various chapters have been prioritised over a period of 5-years for implementation. The proposals or interventions proposed are shown in Figure 10.1.



Figure 10.1: Summary of DITP Implementation Projects

Strategy Area	Focus Area	Intervention		Category			Intervention			Implementer					Amount (Rands)	Phasing					Authority		
		No	Project	Planning	Capital	Operational	Subsidy	Services	Facility	Road Link	Other	National	Provincial	District		Local	Other	2022/23	2023/24	2024/25		2025/26	2026/27
Institutional	Arrangements and Communication	1	Transport Forum: Establishment and Secretarial Services	✓				✓						✓			2 250 000	450 000	450 000	450 000	450 000	450 000	John Taolo
		2	Training and Capacity Building of Operations and Drivers	✓				✓					✓				3 750 000		1 250 000	1 250 000	1 250 000		Northern Cape
		3	Development of Cooperatives: Bus and Taxi Industry	✓				✓					✓				1 650 000			825 000	825 000		Northern Cape
	SUB TOTAL															7 650 000	450 000	1 700 000	2 525 000	2 525 000	450 000		
Law & Safety		4	BE LEGAL Campaign: Lift Moratorium and Register Taxis	✓				✓					✓				750 000		750 000				Northern Cape
	SUB TOTAL															750 000		750 000					
Financial	Subsidies	5	Public Transport Services Design Updates				✓	✓					✓				525 000		525 000				Northern Cape
		6	Tender Bus Contracts				✓	✓					✓				TBA	TBA	TBA	TBA	TBA		Northern Cape
		7	Tender Bus Contracts Design: Repackaging of Contracts into Smaller Units				✓	✓					✓				750 000				750 000	TBA	Northern Cape
	SUB TOTAL															1 275 000		525 000		750 000			
																2 550 000							
Management	Bus/Taxi	8	Tender Bus Monitoring: Record Operational Aspects			✓	✓						✓				3 000 000		750 000	750 000	750 000	750 000	Northern Cape
		9	Guidelines for the provision of Public Transport Facilities: Taxi & Buses	✓				✓					✓	✓			525 000		525 000				John Taolo
	Freight	10	Prepare a Freight Management Plan	✓				✓							✓		360 000		360 000				Ga-Segonyana
		11	Investigate damage by Trucks on Residential Roads	✓				✓							✓		300 000		300 000				Ga-Segonyana
	NMT	12	Develop NMT Master Plan: Pedestrian and Cycling Facilities	✓				✓							✓		300 000		300 000				Ga-Segonyana
		13	Develop NMT Master Plan: Pedestrian and Cycling Facilities	✓				✓							✓		300 000		300 000				Gamagara
		14	Develop NMT Master Plan Pedestrian, Cycling and Cart Facilities	✓				✓							✓		300 000		300 000				Ga-Segonyana
		15	Develop NMT Master Plan Pedestrian, Cycling and Cart Facilities	✓				✓							✓		300 000		300 000				Joe Morolong
	Traffic	16	Develop a Parking Management Plan for Kuruman	✓				✓							✓		450 000		450 000				Ga-Segonyana
		17	Develop Roads and Stormwater Master Plan	✓				✓							✓		750 000		750 000				Ga-Segonyana
		18	Develop Roads and Stormwater Master Plan	✓				✓							✓		750 000		750 000				Ga-Segonyana

Strategy Area	Focus Area	Intervention		Category			Intervention			Implementer					Amount (Rands)	Phasing					Authority		
		No	Project	Planning	Capital	Operational	Subsidy	Services	Facility	Road Link	Other	National	Provincial	District		Local	Other	2022/23	2023/24	2024/25		2025/26	2026/27
		19	Develop Roads and Stormwater Master Plan	✓				✓							✓		750 000		750 000				Gamagara
		20	Investigate the Quality of Roads Signs in Kuruman	✓				✓							✓		525 000		525 000				Joe Morolong
		SUB TOTAL															8 610 000		6 360 000	750 000	750 000	750 000	
Operational	SNP	21	Investigate and develop specifications for LDV taxis and scholar transport	✓				✓					✓	✓		✓	375 000		375 000				Northern Cape
	Traffic	22	Investigate capacity optimasation of intersections	✓				✓							✓		300 000		300 000				Ga-Segonyana
		23	Investigate the need for roads signs in Kuruman	✓				✓							✓		300 000		300 000				Ga-Segonyana
	SUB TOTAL																975 000		975 000				
																	1 950 000						
Infrastructure	Bus	24	Bus Terminus Upgrade: Kuruman Holding and Loading		✓				✓						✓		11 880 000		2 970 000	2 970 000	2 970 000	2 970 000	Ga-Segonyana
		25	Bus Terminus: Mothibistad Loading		✓				✓						✓		2 550 000				2 550 000		Ga-Segonyana
		26	Bus Terminus: Batlharos Loading		✓				✓						✓		2 550 000			2 550 000			Ga-Segonyana
		27	Bus Terminus Upgrade: Kathu Holding and Loading		✓				✓						✓		5 280 000		2 640 000	2 640 000			Gamagara
		28	Bus Major Lay-Bye: Hotazel Holding and Loading		✓				✓						✓		3 960 000		3 960 000				Joe Morolong
	Taxi	29	Upgrade Taxi Rank: Kuruman Taxi Rank		✓				✓						✓		10 560 000		10 560 000				Ga-Segonyana
		30	Upgrade Taxi Rank: Kathu Taxi Rank		✓				✓						✓		4 725 000		4 725 000				Gamagara
		31	New Taxi Rank: Batlharos		✓				✓						✓		6 750 000			6 750 000			Ga-Segonyana
		32	New Taxi Rank: Magojaneng		✓				✓						✓		6 750 000					6 750 000	Ga-Segonyana
		33	New Taxi Rank: Mothibistad		✓				✓						✓		6 750 000				6 750 000		Ga-Segonyana
		34	New Taxi Rank: Bankhara		✓				✓						✓		6 750 000					6 750 000	Ga-Segonyana
		35	New Taxi Rank: Dibeng		✓				✓						✓		6 750 000					6 750 000	Gamagara
		36	Taxi Major Lay bys - 07 Kagung		✓				✓						✓		2 362 500			2 362 500			Ga-Segonyana
		37	Taxi Major Lay bys - 07 Kathu Village Mall		✓				✓						✓		2 362 500				2 362 500		Gamagara
		38	Taxi Major Lay bse - 11 Sesheng Slovo Park		✓				✓						✓		3 712 500					3 712 500	Gamagara
		39	Taxi Major Lay bys - 07 Sesheng Slovo Park		✓				✓						✓		2 362 500			2 362 500			Gamagara
		40	Taxi Major Lay bys - 02 Olifantshoek		✓				✓						✓		675 000		675 000				Gamagara
		41	Taxi Major Lay bys - 09 Seven Mile		✓				✓						✓		3 037 500			1 518 750	1 518 750		Ga-Segonyana
		42	Taxi Major Lay bys - 08 Seoding		✓				✓						✓		2 700 000				1 350 000	1 350 000	Ga-Segonyana
		43	Taxi Major Lay bys - 03 Mapoteng		✓				✓						✓		1 012 500			506 250	506 250		Ga-Segonyana
		44	Taxi Major Lay bys - 16 Seven Mile		✓				✓						✓		5 400 000		1 800 000	1 800 000	1 800 000		Gamagara
		45	Taxi Major Lay bys - 07 Kuruman ABSA		✓				✓						✓		2 362 500			787 500	787 500	787 500	Ga-Segonyana
	NMT	46	Provide Pedestrain and Cycle Pathways		✓				✓						✓		7 500 000		1 875 000	1 875 000	1 875 000	1 875 000	Ga-Segonyana
		47	Provide Pedestrain and Cycle Pathways		✓				✓						✓		8 100 000		2 025 000	2 025 000	2 025 000	2 025 000	Gamagara
		48	Provide Pedestrain and Cycle Pathways		✓				✓						✓		8 100 000		2 025 000	2 025 000	2 025 000	2 025 000	Ga-Segonyana



Strategy Area	Focus Area	Intervention		Category		Intervention		Implementer		Amount (Rands)	Phasing					Authority							
		No	Project	Planning	Capital	Operational	Subsidy	Services	Facility		Road Link	Other	National	Provincial	District		Local	Other	2022/23	2023/24	2024/25	2025/26	2026/27
		49	Provide Pedestrain and Cycle Pathways		✓				✓					✓		7 800 000		1 950 000	1 950 000	1 950 000	1 950 000	Joe Morolong	
	SUB TOTAL															132 742 500		35 205 000	32 122 500	28 470 000	36 945 000		
Integration	Transp ort Plans	50	Provincial Land Transport Framework (PLTF)	✓				✓				✓				3 500 000	3 500 000					Northern Cape	
		51	Develop Local Integrated Transport Plan	✓				✓					✓	✓		1 500 000		1 500 000				Ga-Segonyana	
		52	Develop Local Integrated Transport Plan	✓				✓					✓	✓		1 500 000		1 500 000				Gamagara	
		53	Develop Local Integrated Transport Plan	✓				✓					✓	✓		1 500 000		1 500 000				Joe Morolong	
	SUB TOTAL															8 000 000	3 500 000	4 500 000					
GRAND TOTAL																	160 002 500	3 950 000	50 015 000	35 397 500	32 495 000	38 145 000	

The summary of the financial implication of the transport planning and related infrastructure is shown in Table 10.1. total budget of R160 002 500 should be allocated for the next five years for planning, capital and operational projects. It needs to be noted that the budget for subsidies and departmental aspects have not been included in the proposed allocation.

**TABLE 10.1: Summary Cost of proposals per Category**

No	Category	Total	Phasing (1'000)				
			2022/23	2023/24	2024/25	2025/26	2026/27
1	Planning	22 985 000	3 950 000	13 535 000	2 525 000	2 525 000	450 000
2	Capital	132 742 500	0	35 205 000	32 122 500	28 470 000	36 945 000
3	Operational	3 000 000	0	750 000	750 000	750 000	750 000
4	Subsidy	1 275 000	525 000		750 000		
<b>TOTAL</b>		<b>160 002 500</b>	<b>4 475 000</b>	<b>49 490 000</b>	<b>36 147 500</b>	<b>31 745 000</b>	<b>38 145 000</b>

In terms of the various Municipalities and Authorities, the following summary of the financial implication of the transport planning and related infrastructure will be as presented in Table 10.2.

**TABLE 10.2: Summary Cost of proposals per Authority**

No	Authority	Total	Phasing				
			2022/23	2023/24	2024/25	2025/26	2026/27
1	Province	14 300 000	3 500 000	3 650 000	2 825 000	3 575 000	750 000
2	District	2 775 000	450 000	975 000	450 000	450 000	450 000
3	Ga-Segonyana	86 925 000	0	22 740 000	21 345 000	20 332 500	22 507 500
4	Gamagara	41 917 500	0	14 415 000	8 827 500	6 187 500	12 487 500
5	Joe Morolong	14 085 000	0	8 235 000	1 950 000	1 950 000	1 950 000
<b>TOTAL</b>		<b>160 002 500</b>	<b>3 950 000</b>	<b>50 015 000</b>	<b>35 397 500</b>	<b>32 495 000</b>	<b>38 145 000</b>

#### 10.4. PROGRAMMES

The transport planning and related infrastructure projects or interventions have been programmed over a period of 5-years for implementation. The implementation programme is basically presented in the form of allocated budget for each year, as reflected in Figure 10.1. This shows the priorities in terms of programmed implementation.

It is important to note logical implementation of each of the interventions so that interventions which should follow others, should then be lined accordingly. For instance, the development of the taxi industry through its interventions should be as follows:

- Establish a Transport Forum
- Initiate a BE LEGAL Campaign
- Train and develop Capacity of the taxi drivers and operators
- Initiate the formulation of Cooperatives, having had invited the bus industry

## **10.5. CONCLUDING STATEMENT**

The plans, projects and programmes outlined in this DITP document for 2021 to 2025 planning period are comprehensive and far-reaching, requiring commitment and vision. The upgrading of all forms of transport and particularly the transformation of the public transport system in John Taolo Gaetsewe District Municipality is the key to delivery in a series of other important areas of the District's development and economy according to the vision of the District's Integrated Development Plan.

These include reintegrating communities divided on racial lines into the centres of economic activity; providing dependable form of public transport for everyone, including workers, learners and the elderly; stimulating investment and job creation; and boosting the vital and growing tourism sector.

The DITP expresses vision for a better transportation system for the District in the future, and provides a transitional plan to achieve the desired objectives by that dates as provided for in the programme. With the help of a partnership between the three spheres of government, the private sector and civil society, this vision and programme for a safe, well-regulated, accessible and affordable integrated transport system that serves the needs of both users and operators can become a reality in John Taolo Gaetsewe District Municipality.