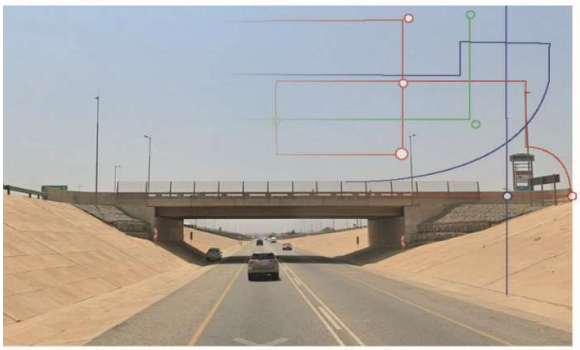
CAPRICORN

DISTRICT MUNICIPALITY



CAPRICORN DISTRICT MUNICIPALITY

INTEGRATED TRANSPORT PLAN FOR CAPRICORN DISTRICT MUNICIPALITY

FINAL
PROJECT REPORT

FEBRUARY 2023

CAPRICORN DISTRICT MUNICIPALITY
P.O. Box 4100
POLOKWANE
0700

Tel : (015) 294 1000
Fax : (015) 295 7288

TABLE OF CONTENTS

Page No.

LIST OF FIGURES

LIST OF TABLES

GLOSSARY OF TERMS

AADT	: Annual Average Daily Traffic
AADTT	: Annual Average Daily Truck Traffic AASHTO
ADT	: Average Daily Traffic
BLM	: Blouberg Local Municipality
BRT	: Bus Rapid Transit
BMS	: Bridge Management System
CDM	: Capricorn District Municipality
CITP	: Comprehensive Integrated Transport Plan
COLTO	: Committee of Land Transport Officials
Constitution	: Constitution of the Republic of South Africa, 1996 (Act 108 of 1996)
CRDP	: Comprehensive Rural Development Programme
DITP	: District Integrated Transport Plan
DORA	: Division of Revenue Act
DOT	: Department of Transport
DPW	: Department of Public Works
ECSA	: Engineering Council of South Africa
GIS	: Geographic Information System
GRMS	: Gravel Road management System
HCM	: Highway Capacity Manual
HCM	: Highway Capacity Manual
IDP	: Integrated Development Plan
IPTN	: Integrated Public Transport Network
IRPTN	: Integrate Rapid Public Transport Network
ITP	: Integrated Transport Plan
LCC	: Life Cycle Cost
LDP	: Limpopo Development Plan
LDPWR&I	: Limpopo Department of Public Works, Roads and Infrastructure
LDVs	: Light Delivery Vehicles
LITP	: Local Integrated Transport Plan
LNLM	: Lepelle-Nkumpi Local Municipality
LOS	: Level of Service
MEC	: Member of the Executive Committee

MFMA	: Local Government Municipal Finance Management Act, 2003 (Act 56 of 2003)
MIG	: Municipal Infrastructure Grant
MLM	: Molemole Local Municipality
MRE	: Municipal Regulatory Entity
MSA	: Municipal Systems Act, 2000 (Act No. 32 of 2000)
NDOT	: National Department of Transport
NDP	: National Development Plan
NFLS	: National Freight Logistic Strategy
NHTS	: National Household Travel Survey
NLTA	: National Land Transport Act, 2009 (Act No 5 of 2009)
NLTSF	: National land Transport Strategic Framework
NMT	: Non-Motorised Transport
NPTR	: National public Transport Regulator
NRP	: National Rail Plan
NRSS	: National Road Safety Strategy
NSP	: National Strategic Plan
NATMAP	: National Transport Masterplan
OLS	: Operating License Strategy
PLM	: Polokwane Local Municipality
PLTF	: Provincial Land Transport Framework
PMS	: Pavement Management System
PRASA	: Passenger Rail Agency of South Africa
PRE	: Provincial Regulatory Entity
PTNG	: Public Transport Network Grant
PTOG	: Public Transport Operations Grant
PTP	: Public Transport Plan
RAL	: Roads Agency Limpopo
RAM	: Road Access Management
RAMS	: Road Asset Management System
RatPlan	: Rationalisation Plan
RMP	: Roads Master Plan
RMS	: Road Management System
RRAMS	: Rural Roads Asset Management System
RSA	: Road Safety Audits

RTS	: Rural Transport Strategy
SALGA	: South African Local Government Association
SANRAL	: South Africa National Road Agency Limited
SARTSM	: South African Road Traffic Signs Manual
SDF	: Spatial Development Framework
TAT	: Transport Appeal Tribunal
TDM	: Travel Demand Management
TIS	: Traffic Information System
TMH	: Technical Methods for Highways
TOR	: Terms of Reference
TRP	: Taxi Recapitalisation Programme
VCI	: Visual Condition Index
VGI	: Visual Gravel Index

DEFINITIONS FOR THE CAPRICORN DISTRICT ITP

"**adapted light delivery vehicle**" – means a vehicle that has been designed or modified by a registered manufacturer to carry persons in accordance with the National Road Traffic Act.

"bus" means a motor vehicle designed or modified to carry more than 35 persons, including the driver.

"charter service" means a public transport service operated by road involving the hire of a vehicle and a driver for a journey at a charge arranged beforehand with the operator, where-

(a) neither the operator nor the driver charges the passengers individual fares;

(b) the person hiring the service has the right to decide the route, date and time of travel; and

(c) the passengers are conveyed to a common destination, and includes vehicles hired with drivers contemplated in section 67

"commercial service contract" means an agreement concluded between a contracting authority and an operator in terms of section 43, and in terms of which the operator-

(a) is to operate a public transport service provided for in an integrated transport plan; and

(b) does not receive any subsidy or other financial support from any organ of state except, where applicable, a subsidy in respect of concessionary fares;

"commuting" means travelling daily between home and work by means of a public transport service, and "commuter" has a corresponding meaning;

"integrated public transport network" means a system in a particular area that integrates public transport services between modes, with through-ticketing and other appropriate mechanisms to provide users of the system with the optimal solutions to be able to travel from their origins to destinations in a seamless manner;

"integrated transport plan" means an integrated transport plan contemplated in section36;

"interprovincial service" means a public transport service operating between two or more provinces;

"long-distance service" means a scheduled or unscheduled public transport service, other than a service for commuting, that is provided beyond the boundary of the area covered by an integrated transport plan, where passengers are charged fares individually, as contemplated in section 65;

"metered taxi service" means a public transport service operated by means of a motor vehicle contemplated in section 66 which-

(a) is available for hire by hailing while roaming, by telephone or otherwise;

(b) may stand for hire at a rank; and

(c) is equipped with a sealed meter, in good working order, for the purpose of determining the fare payable, that is calibrated for such fare or complies with any other requirements applicable to such meters;

"midibus" means a motor vehicle designed or modified solely for or principally for conveying more than 16 but not more than 35 persons, including the driver, and for the purposes of the National Road Traffic Act is a type of sub-category of bus;

"minibus" means a motor vehicle designed or modified solely or principally for conveying more than nine but not more than 16 seated persons, including the driver;

"minibus taxi-type service" means an unscheduled public transport service operated on a specific route or routes, or where applicable, within a particular area, by means of a motor car, minibus or midibus.

"motor car" means a motor vehicle, other than a motor cycle, motor tricycle or motor quadrucycle as defined in the National Road Traffic Act, designed or modified solely or principally for conveying not more than nine persons, including the driver.

"Municipal Land Transport Fund" means a municipal land transport fund established in terms of section 27'

"National Land Transport Strategic Framework" means the National Land Transport Strategic Framework contemplated in section 34;

"National Public Transport Regulator" means the National Public Transport Regulator contemplated in section 20;

"non-contracted service" means a public transport service other than one operated in terms of a commercial service contract, subsidised service contract or negotiated contract;

"Operating licence" means a licence required by section 50 and granted and issued in accordance with this Act or the Transition Act.

"Operator" means a person carrying on the business of operating a public transport service.

"Permit" means a public road carrier permit issued in terms of the Road Transportation Act, 1977 (Act No.74 of 1977), or another law predating the Transition Act and recognized as valid by the Transition Act, and which is in force and has not yet been converted to an operating licence on the date of commencement of this act.

"rail service" means a public transport service operated on a rail track or any rail guiding mechanism, and includes light and heavy rail;

"scheduled service" means a public transport service operated by road on a particular route or routes in accordance with a timetable;

"Subsidised" in relation to services, means a situation where passengers are provided with financial assistance to be able to afford services that they could not otherwise afford or where services are subsidised for other reasons, for example to encourage public transport usage, relieve traffic congestion, or to support land use and transport integration.

"subsidised service contract" means an agreement between a contracting authority and an operator to operate a service provided for in an integrated transport plan and in terms of which the operator receives direct or indirect financial support in terms of a tendered contract;

"timetable" means a published document informing passengers of headways (intervals between departures or the passing of vehicles), or times when and places where public transport services are available, indicating at least origin and destination points and significant intermediate locations along the route;

"tourist transport service" means a scheduled, unscheduled or chartered public transport service by road for the carriage of tourists to or from tourist attractions according to a predetermined itinerary, and includes transfers of tourists, for example from hotels to and from airports;

"Transport Appeal Tribunal" means the Transport Appeal Tribunal established by section 3 of the Transport Appeal Tribunal Act, 1998 (Act No.39 of 1998);

"Transport plan" includes the National Land Transport Strategic Framework, the Provincial Land Transport Framework and an Integrated Transport Plan;

"travel demand management" means a system of actions to maximise the capacity of the transport system for the movement of people and goods rather than vehicles, among others, through increasing vehicle occupancy, developing priority measures for public transport, encouraging travel during off-peak periods, shifting demand between modes, restricting the space available for parking, adjusting the price of parking, and other appropriate measures;

"tuk-tuk" means a three-wheeled motor vehicle designed or modified solely or principally for conveying not more than three seated persons, including the driver;

"unscheduled service" means a public transport service operated by road on a particular route or routes, where applicable, within a particular area, without a timetable.

1. INTRODUCTION

1.1 BACKGROUND

The Capricorn District Municipality (CDM) appointed Leboneng North Investment Holding (Pty) Ltd to overhaul the District Integrated Transport Plan (DITP) as required in terms of Section 36 of the National Land Transport Act (Act No. 5 of 2009) (NLTA) read with Minimum Requirements For The Preparation of Integrated Transport Plans, 2016(Minimum Requirements).There are no requirements made by the MEC as contemplated in section 36(2) of the NLTA and therefore this DITP is made in accordance with the requirements of section 36 and Minimum Requirements.

In terms of Section 5 of the NLTA, ITPs are prepared for a five-year period. Updating of selected aspects must be carried out on an annual basis.

The last review of the DITP in the CDM was undertaken nine years ago, in 2013. Therefore, the previous overhaul of the DITP was done more than 10 years ago.

The CDM has embarked on a process of overhauling the ITP. The plan will endure until 2027 (i.e., 2022 -2027).

The minimum requirements for the overhauling of the DITP must re-examine every aspect of the plan to see if it is still up to date, revise and update where necessary, and relevant new aspects must be added.

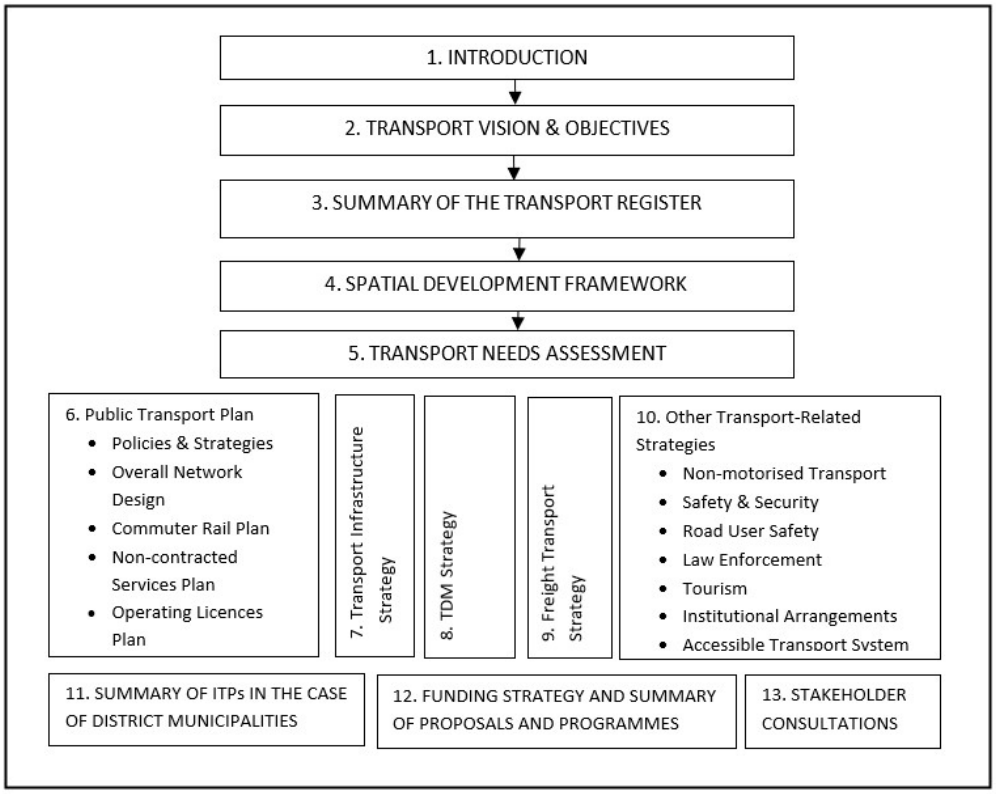
In particular, the following focus areas have been re-examined:

- A new Transport Register has been prepared to inform the new five-year ITP (Chapter 3).
- Revisions to the municipality's Spatial Development Framework is addressed in chapter 4.
- The transport needs assessment has been updated in Chapter 5.
- The Public Transport Plan (PTP) has been revised to plan for any new contracts that will be issued over the next five years and to reflect the sequencing of any proposed restructuring of the network (Chapter 6).
- The new ITP reflects progress made in the previous period with the implementation of the various strategies and programmes. These strategies are either confirmed or updated for application during the ensuing five years (Chapters 7, 8, 9, 10, 12).
- The LITPs were not being developed by the local municipalities at the time of preparing this DITP. As such Chapter 11 provided a summary of transport implementation budgets and programmes over the next five years (where available) as prepared by the constituent local municipalities

- The list of projects, programmes and budgets in Chapter 12 are completely revised for the next five-year period of the new plan, and a detailed budget and programme is prepared for the following year.
- Stakeholder engagement formed part of this ITP process and is presented in Chapter 13.

The NLTA Minimum Requirements for preparation of the DITP are schematically shown in Figure 1.1.

Figure 1-1: Minimum of a Comprehensive ITP



1.2 INTER-RELATIONSHIP BETWEEN TRANSPORT PLANS AND FRAMEWORKS

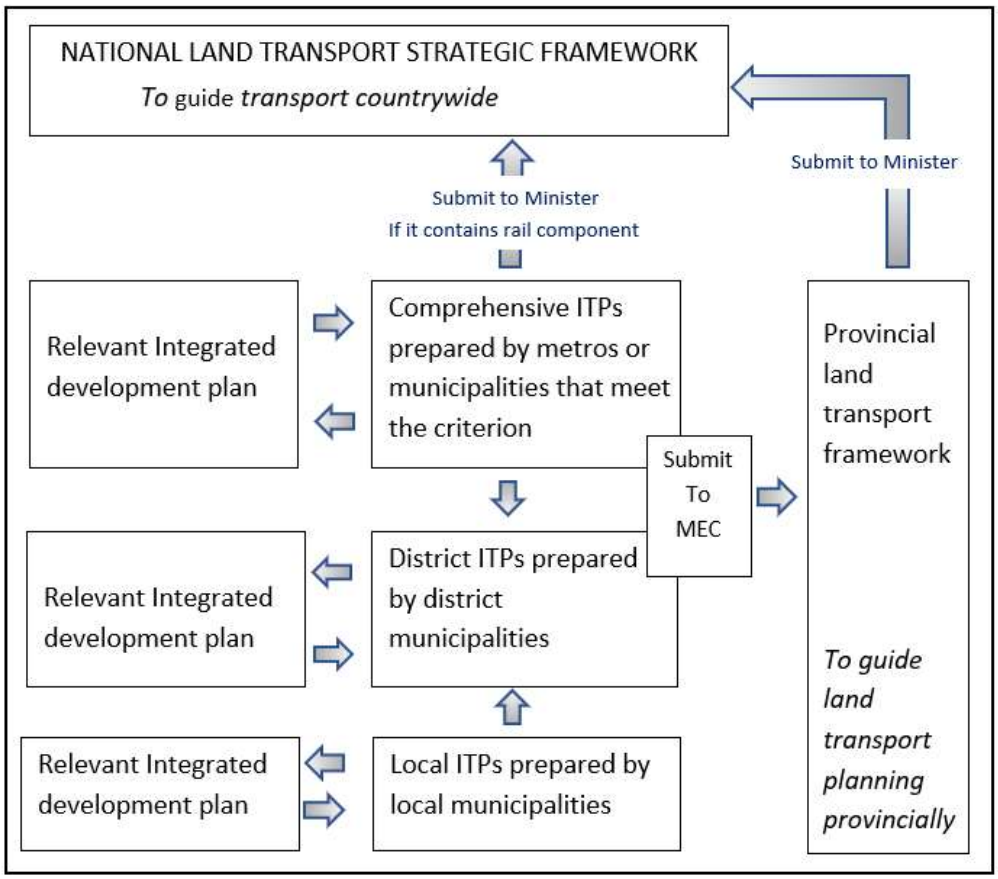
1.2.1 National Land Transport Strategic Framework (NLTSF)

The inter-relationship between the plans and frameworks is shown diagrammatically in **Figure 1.2** overleaf (obtained from Section 4 of the Minimum Requirements).

The National Land Transport Strategic Framework (NLTSF) provides the policy and over-arching transport strategy for the country. Planning initiatives of the Department of Transport (DoT) are taken up and reflected in the NLTSF where appropriate and where these have been approved. These include, but not be limited to:

- The National Public Transport Strategy and Action Plan, 2007
- The National Rail Plan, 2006 and National Strategic Plan, 2012
- The National Freight Logistics Strategy, 2006
- The National Transport Master Plan (NATMAP), 2011

Figure 1-2: Inter-relationship between transport plans and frameworks



1.2.2 Provincial Land Transport Framework (PLTF)

Each Province must prepare a Provincial Land Transport Framework (PLTF) for a five-year period in terms of section 35 of the Act. The primary objectives of the PLTF are:

- To provide a transport framework as an overall guide to transport planning within the province, guided by the NLTSF.
- To summarise all the ITPs in the province.
- To include the planning of intra-provincial and interprovincial long-distance services.

1.2.3 Integrated Transport Plans (ITPs)

Integrated Transport Plans (ITPs) must be prepared by all municipalities.

The CDM as a district develops a District Integrated Development Plan (DITP). The DITP incorporates the Local Integrated Development Plans (LIDPs) prepared by local municipalities. In this case, Polokwane Local Municipality, Lepelle Nkumpi Local Municipality, Blouberg Local Municipality and Molemole Local Municipality.

The three local municipalities, except Polokwane are required to prepare LITPs. Whereas, Polokwane, as a city, prepares a Comprehensive Integrated Transport Plan (CITP). In terms of sub-regulation 3.1 of the Minimum Requirements, in the case where a local municipality has prepared a CITP, the CITP must be incorporated as part of the DITP.

1.2.4 Submission to the MEC

From Figure 2 it should be noted that ITPs must be submitted to the MEC in terms of section 36(1) and (4) of the Act for notification and approval and will also be reflected in the PLTF.
Approval by the MEC relates only to matters listed in section 36(4) of the Act, such as:

- Monitoring and compliance with the PLTF and other applicable legislation;
- Procedures and financial issues that affect the province;
- Seeing that the planning authority followed the correct procedures and otherwise complied with the prescribed requirements;
- Provincial policies and principles regarding transport across the boundaries of planning authorities;
- Modes and aspects of transport under the control of the provincial government or provincial entities;
- Procedures and financial issues that affect the province;
- Issues of coordination between municipalities / other institutions
- Matters provided for in provincial laws, etc.

ITPs must be submitted to the Minister for approval where there is a commuter rail component. All ITPs must be made available to the National Public Transport Regulator (NPTR) and the relevant Provincial Regulatory Entity (PRE) by planning authorities, and they must make recommendations to them relevant to applications for new operating licences.

In the case of LITPs, they must be submitted to the MEC as part of the relevant DITP and not separately. In addition, these transport plans also need to become part of the

integrated development plans (IDPs) of the applicable metropolitan, district and local municipalities as required in terms of section 31 of the Act. The ITPs must form the transport component of the integrated development plan of the municipality.

LITPs must be included in a summarised format by the district municipalities in their transport plans.

1.3 LEGISLATION, POLICY AND STRATEGIES

1.3.1 The National Public Transport Strategy and Action Plan, 2007

The 2007 Public Transport Strategy's (PTS) purpose is to radically accelerate improvement in public transport by focussing on modal upgrading and establishing high quality Integrated Rapid Public Transport Networks (IRPTNs) which would introduce Priority Rail Corridors and Bus Rapid Transit (BRT) in South African cities.

The PTS is supported by Public Transport Action Plan (PTAP) which focuses on implementation in a phased and incremental manner.

The networks comprise an integrated package of Rapid Rail, BRT, minibus taxi and metered taxi priority networks especially in major cities.

The key focus of PTAP is to initiate implementation in a speedy and highly visible manner with maximum impact.

The understanding is that the rapid public transport corridors and networks are to be operated by appropriate modes based on the volumes, playing a meaningful and complementary role on the network. A full complement of all modes inclusive of conventional buses, BRTs, minibuses, metered taxis and tuk-tuks are expected to play a meaningful role. These modes will be supported by pedestrians, cycling, park and ride facilities, as well as other non-motorised transport such as pedi-cabs (pedal -operated three wheelers).

The networks are expected to give priority to public transport and non-motorised transport over private vehicles and will dedicate road space to these priority modes.

The networks must provide full special needs and wheelchair access for all users on the IRPTN. The network will integrate with metered and long-distance public transport.

Provision is made for common electronic fare system on all modes on the network including for park and ride facilities, etc.

1.3.2 National Development Plan, 2030

South Africa's transition from apartheid to a democratic state has been a success. In the past 28 years, the country has transformed the public service and extended basic services. Despite these successes, too many people are still trapped in poverty and South Africa remains a highly unequal society.

The NDP argues that on the present trajectory, South Africa will not achieve the objectives of eliminating poverty and reducing inequality. There is therefore a burning need for faster progress, more action and better implementation.

The NDP is a plan to eliminate poverty and reduce inequality by 2030. It defines a desired destination and identifies the role different sectors of society need to play in reaching that goal. It provides a strategic framework to guide key choices and actions.

The Plan highlights the need to strengthen the ability of local government to fulfil its developmental role. Municipal Integrated Development Plans (IDPs) need to be used more strategically to focus attention on critical priorities in the NDP that relate to the mandate of local government such as spatial planning, infrastructure and basic services.

NDP advocates for policies that reduce travel distances and costs. The 2030 vision on transport is that a larger proportion of the population should live closer to places of work, and the transport they use to commute should be safe, reliable and energy efficient. Furthermore, the NDP advocates for strong measures to prevent development of housing in marginal places.

The NDP advocates for an increased investment in public transport and resolve existing public-transport policy issues. This includes attracting private-sector investment. Both public and private investment should go towards extending bus services, refurbishing commuter trains, linking high-volume corridors and integrating all these into an effective service.

The NDP advocates for devolvement of transport management to local government. This action must be accompanied by strengthening of local government institutions.

Government must take advantage of mounting costs for private car users (tolls and projected higher fuel costs), by improving public transport to lure current motorists to divert to public transport. This will require a public transport system that has the capacity, frequency, coverage and safety performance required to compete with the benefits of having a privately owned car.

1.3.3. White Paper on National Transport Policy, 2021

The Department of Transport has reviewed the White Paper on National Transport Policy of 1996 and replaced it with White Paper on National Transport Policy, 2021 (May 2021).

The White Paper is over-arching and is intended to guide transport planning throughout the country and by all spheres of government.

Government is committing itself to use this policy as a tool to, among other things, address the challenges of poverty, unemployment and inequality. Government would like to use the policy to create jobs, to stimulate rural economies and improve accessibility for ALL the citizens including the people with disabilities.

Government is using this Policy as a tool to strengthen the logistic chains for the seamless movement of goods and services.

The vision for South African transport has been reconfirmed and reformulated as follows.

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

In particular, government will provide for a transport system that will:

- Facilitate the movement of goods and people.
- Enable equitable access to personal economic opportunities and social services.
- Support economic and environmental sustainability and inclusive growth; and
- Advance national, regional and global competitiveness of the country.

To achieve this, there must be adequate supply of transport infrastructure and services in relation to demand. Furthermore, for the users of transport, the supply should be:

- Accessible.
- Cost effective;
- Time efficient and reliable; and
- Safe and secure

1.3.4 National Transport Master Plan 2050

The NATMAP 2050 is, seen as a bold, comprehensive, multimodal, integrated and long-term plan that seeks to improve the efficiency and effectiveness of multimodal transportation systems and to ensure an overall system that is well regulated and well managed.

The primary goal of the NATMAP 2050 is the development of an integrated, dynamic, sustainable framework for transport infrastructure implementation and service provision in South Africa.

The NATMAP 2050 aims to achieve an integrated, smart and efficient transport system supporting a thriving economy that promotes sustainable economic growth, supports a healthier life style, provides safe and accessible mobility options, socially includes all communities and preserves the environment.

The NATMAP 2050, therefore, aims to deliver a dynamic, long-term, and sustainable transportation systems framework. To develop the country in a developmental and transformative way. This means that transport projects must be used as catalysts to unlock development and support transformation in South Africa even though there is not always sufficient demand.

Transportation and related cost-effective infrastructure facilities are seen as prerequisites for the socio-economic development of our country. Transport is the heartbeat of the economy, stimulating socio-economic development and poverty alleviation through wealth creation and providing access to regional and global economies.

Some of the key objectives are:

- **Growing the economy** by
    - enabling economic growth and development by connecting current and new economic or growth nodes and by making better use of and maintaining transportation networks.
    - Providing inexpensive transportation options that make it easier for households to go car-lite or car-free, resulting in more money that can be spent elsewhere in the economy.
- **Protecting the environment** by:
    - Reducing greenhouse gases and other emissions.
    - Minimising transport's impact on the environment.
    - Reducing traffic congestion.

  - Minimising environmental impact through promoting public passenger transport, choosing optimal transport modes, using low-carbon-emitting energy sources and renewable energy resources.
- **Integrating land use and transport planning** by:
  - Supporting compact community development and land use intensification, helping to preserve natural habitat.

- **Improving public transport** by:
  - Introducing a modern, integrated, high-quality, affordable and customer-focused public transport system that will improve people's quality of life.
  - Improving the safety, security, resilience, reliability and efficiency of the public transport network.
- **Enhancing and managing infrastructure** by:
  - Providing infrastructure that encourages modal integration with seamless transfer across provincial boundaries and across international boundaries to neighbouring states.
  - Providing universally accessible transport suitable to all stakeholder groups, including but not limited to persons with disabilities across different regions and provinces.
- **Promoting safety and well-being** by:
  - Working to eliminate traffic-related fatalities and addressing concerns of personal safety and security.
  - Enabling people of all ages and abilities to get to where they need to go, comfortably and safely.
- **Ensuring social inclusion and accessibility** by:
  - Improving accessibility and connectivity to marginalised communities.
- **Supporting rural development** by:
  - Creating linkages between rural nodes or inaccessible areas and main economic centres.
- **Liveable communities and urban migration** by:
  - The spatial divides created by the apartheid legacy prevent inclusive development, and are compounded by poor road accessibility in rural areas and a lack of employment opportunities, which results in urban migration.

1.3.5 Department of Transport Revised Strategic Plan (2020 – 2025)

The planning period (2020–2025), as per the requirement of the Public Finance Management Act (PFMA), Treasury Regulations and Revised Framework for Strategic Plans and Annual Performance Plans, the DoT conducted a comprehensive analysis of its performance and organisational environment to ensure that it responds to the key challenges faced by the sector.

The purpose of the exercise was to assess and ascertain critical areas of the DoT's contribution to the changed agenda of Government, aligned to the three (3) pillars of the National Development Plan (NDP) and the seven (7) Apex Priorities of the 6th Administration of Government, to re-prioritise interventions, and set out defined performance measures that ensure accelerated speed of service delivery.

Some of the key areas of interest that impact on this DITP are highlighted hereunder.

(i) Rural Road Asset Management Systems Grant

District Municipalities are supported through the Rural Road Asset Management Systems Grant to:

- Collect condition data (paved and unpaved) of the municipal road networks of the Municipalities within the boundaries of the District Municipality;
- Collect traffic data on selected intersections of the municipal road network;
- Collect data on the condition of structures (bridges and culverts) as per the Technical Methods for Highways Manual (TMH19)
- Develop a Road Asset Management Plan (RAMP) in line with Technical Methods for Highways Manual (TMH22) to inform maintenance and investment via the Municipal Infrastructure Grant (MIG).

(ii) Accelerating TRANSFORMATION towards Greater Economic Participation

One of the key areas of focus of the DoT concerning its transformation agenda has to do with how the DOT intends to transform the taxi industry in several areas such as:

- Achieving 60% ownership in the Vehicle Operating Company by directly affected minibus taxi operators or operators as determined by their market share in the route/ corridor and in the Taxi Recapitalisation Scrapping entity;
- Rolling out restructured subsidy model that includes participation of minibus-taxi industry;

(iii) ENVIRONMENTAL PROTECTION – Recovering and Maintaining a Healthy Natural Environment

This area will cover the effects of transport activities on climate change and environment as a whole, and engage on approaches to avoid or mitigate those effects. The DoT’s desired outcome will be to ensure that the sector advances environmentally sustainable policies and investments that promote reduction of carbon and other harmful emissions from all sources of transport.

Measuring outcomes for the 2020- 2025 Medium Term Period are summarised below.

(iv) Road Transport Safety

25% reduction in road crash fatalities

(v) Public transport

- Revised Public Transport Subsidy Policy approved and implemented – to incorporate the taxi industry
- Public Transport Funding Model revised and implemented -to subsidise taxi industry operations and capitalising the vehicles (TRP).
- Number of BRT operating hours per day – increase from 16 hours (baseline) to 20 hours

(vi) Rural and scholar transport

- Number of bicycles distributed (Shova Kalula Bicycle Programme) – from a baseline of 90 000 to 120 000 in the medium term.

(vii) Innovation

Single (Integrated) Electronic Ticketing System rolled out in selected government-subsidized public transport operators – Polokwane ready to roll out pilots in 2022.

1.3.6 National Land Transport Strategic Framework (2017 -2022)

The National Land Transport Strategic Framework (NLTSF) is a legal requirement in terms of section 34 of the National Land Transport Act (Act No. 5 of 2009) (NLTA). The NLTA empowers the Minister to prepare a NLTSF at every five-year interval. It embodies the overarching, national five-year land transport strategy, which gives guidance to transport planning and land transport delivery by national government, provinces and municipalities.

The recent development in the transport environment at national, provincial and local level as well as the new strategic objective of the current administration dictated the proposed review and update of the NLTSF. The development of the NLTA, the Public Transport Strategy and the Action Plan, the approved National Development Plan (NDP) by government, the Draft Scholar transport policy, The National Transport Master Plan 2050 (NATMAP 2050) were considered on the development of the NLTSF five-year horizon.

The key strategic objectives for the 2017-2022 period were:

- A much-improved sustainable public transport system with better and safer access, more frequent and betterquality services and facilities to an agreed standard.
- Significant reduction in road fatalities.
- Greater mobility options particularly for those who do not have a car.
- Safer and easier cycling and walking.
- Better infrastructure, links and interchange with other means of transport.
- An improved and better maintained road and rail network.
- Improved journey time reliability on all modes.
- Different travel patterns and transport usage and, where appropriate, reduced need to travel by motor vehicles from having achieved an integrated land use and transport system.
- A transport system that is consistent with the real needs of people living in different parts of South Africa and with differing abilities to afford travel.
- A transport system that charges a traveller a fair reflection of the costs of making a journey.
- A transport system that supports focused funding of transport priorities.
- Developed sufficient institutional human capital to drive the vision of transport, and
- A transport response that supports rural transport development.

2. VISION AND OBJECTIVES

2.1 NATIONAL POLICY

The Department of Transport has reviewed the 1996 White Paper on National Transport Policy. A lot has happened since 1996 – the NATMAP 2050, the NLTA of 2009, the IRPTN, etc. Periodic monitoring and evaluation of the Department's policies and strategies was seen as a necessary exercise to make relevant progressive policy decisions. This led to the review of the 1996 White Paper on National Transport Policy – the draft of which was concluded and published in 2017.

This chapter will, inter alia, evaluate the changes or enhancements that have been made in the 2021 White Paper and these will be highlighted in this ITP to inform the review of the CDM transport's vision, objectives and principles as part of this DITP overhaul process.

2.1.1 Policy Vision

The vision of the new national transport policy is as follows:

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

In particular, government will provide for a transport system that will:

- Facilitate the movement of goods and people.
- Enable equitable access to personal economic opportunities and social services.
- Support economic and environmental sustainability and inclusive growth; and
- Advance national, regional and global competitiveness of the country.

To achieve this, there must be adequate supply of transport infrastructure and services in relation to demand. Furthermore, for the users of transport, the supply should be:

- Accessible.
- Cost effective.
- Time efficient and reliable; and
- Safe and secure.

The Department appeals to all stakeholders to share this vision, and back it up by coordinated and integrated planning, decision making and implementation.

Furthermore, there is an expectation from all stakeholders to translate this policy objectives into specific measurable objectives relating to particular modes of transport.

The few transport policy elements that have been included to the vision of the new policy compared to the 1996 White Paper are summarised below:

- Equitable
- Reliable access for all
- Inclusive growth
- National, provincial and regional competitiveness
- Enable equitable access to personal economic opportunities and social services
- Adequate supply of transport infrastructure and services in relation to demand

In other words, the new policy has placed particular focus on a transport system that addresses the needs of all citizens irrespective of their socio-economic background or orientation.

2.1.2 Policy Objectives

Despite significant progress made in the transportation sector, the policy goals and objectives of 1996 remained the same except for one aspect where the first policy objective was updated by replacing a reference to the reconstruction and development programme with the phrase national development surely in recognition of the National Development Plan (NDP).

The confirmed broad objectives of the Government's transport policy are:

- To support the goals of the prevailing, overarching plan for national development to meet the basic accessibility needs of the residents of South Africa, grow the economy, develop and protect human resources and involve stakeholders in key transport-related decision making.
- To enable customers requiring transport for people or goods to access the transport system in ways that best satisfy their chosen criteria.
- To improve the safety, security, reliability, quality, and speed of transporting goods and people.
- 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.
- To invest in infrastructure or transport systems in ways that satisfy social, economic or strategic investment criteria; and

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

2.2 PROVINCIAL POLICY

2.2.1 Vision

The transportation vision is a safe, affordable, accessible, effective, efficient, and sustainable integrated transport system that meets the needs of stakeholders and customers.

2.2.2 Mission

The transportation mission is to develop, co-ordinate, implement, and manage an integrated, multi-modal transport system by:

- Effectively and optimally utilizing and developing available resources
- Encouraging and providing a safe transport environment for all users
- Planning and facilitating transport infrastructure provisioning and operations
- Being transparent, accountable, and responsible

2.2.3 Strategic Goals

The transportation goals for the Province are:

- To develop, co-ordinate, implement, and manage an integrated, multi-modal transport system
- To support the process of democratisation, and reconstruction and development.
- To act as a catalyst for social upliftment and economic growth
- To ensure that the system is balanced, equitable, and non-discriminatory
- To ensure that the system is reliable, effective, efficient, safe, accessible, affordable, and environmentally friendly

2.2.4 Objectives

The relevant transportation objectives are:

- To monitor the need in the Province, identify issues and set priorities for transport within the framework of social and economic reconstruction and development objectives in the Province.
- To regulate and control the transport system to ensure that its full potential can be achieved.

2.2.5 Principles

- Social needs and Priorities – emphasis should be placed on the social needs of the disadvantaged communities, especially those in rural and other underdeveloped areas.
- Role of Government and the private sector – The limited ownership profile of the transport providers requires restructuring to broaden and democratise the current dispensation. There is a need to ensure wider participation by the disadvantaged communities in the provision and maintenance of the transport system.
- Economic – the transport sector should be aimed at increased employment of the workforce.
- Financial Framework – the extent of subsidization for public transportation and funding for infrastructure, and the priority and funding balance between them.
- Financial Framework – the affordability problem for both the passengers in terms of fare levels and for the Government in terms of the budget requirements.

- Land Transport service provision – Subsidized services or any transport service for which public transport permits are required, should only be within the framework of an approved transport plan.

2.2.6 Strategies Based on Policy

- Provide effective financial and economic support to public transport.
- Promote the most cost-effective mode of transport.
- Gradually phase out subsidies for services longer than a prescribed minimum (possibly 40km) to encourage densification in the urban nodes.
- To introduce subsidy mechanisms that will encourage the business sector to create employment opportunities closer to residential areas.
- Implement measure to promote shorter travelling distances.
- Implement incentives to operators for affordable tariffs.
- Focus on prioritised economic activity nodes and transport nodes in the transport plans
- Identify minimum service levels of the public transport services serving economic activity nodes.
- Identify and award sustainable bus contracts.
- Use financial and economic support measures to promote sustainability in the bus industry.
- Develop a holistic and integrated funding strategy focusing on maximizing the transport budget from the Provincial allocation, and by achieving efficiency gains through better utilization of available funds.
- Explore the possibility of additional funding sources.

2.3 DISTRICT POLICY

2.3.1 Vision

The vision of the Capricorn District Municipality transportation is "To promote efficient transport system as a catalyst for sustainable development for a better life for all".

2.3.2 Mission

The Mission of the Capricorn District Municipality is presented as a Municipality that will, through an inclusive and participatory process:

"Provide quality services, in a cost effective and efficient manner, through competent people, partnerships, information and knowledge management creating sustainability of economic development in the interest of stakeholders".

2.3.3 Strategic Objectives

- To regulate and control the public transport system.
- To provide public transport options for rural communities.
- To upgrade and maintain transport infrastructure (roads and public transport facilities).
- To promote non-motorised transport by crafting an appropriate strategy.
- To improve and ensuring integrated transport planning with other planning initiatives.
- To develop transport as an economic growth tool with safety and convenience as performance targets.
- To operate a modally integrated transport system.
- To find alternative funding sources for economically non-viable routes.
- To ensure a supply of safe and reliable learner transport.
- To ensure a supply of suitable transport for pensioners and physically challenged on pension pay-out days.
- To have emergency transport on call.
- To maintain all district roads to acceptable pavement conditions.
- To improve the district road network to address accident hot spots, to improve traffic flow and to give preference to public transport where appropriate.
- To maintain public transport facilities to high levels of cleanliness and to maintain the condition of infrastructure at acceptable engineering and architectural standards.
- To construct new, or to upgrade existing public transport facilities in relation to the need and demand for additional capacity.

- To upgrade the status of pedestrians in certain areas of a town through the provision of safe crossings and sidewalks.
- To encourage non-motorised transport projects such as the Bicycle Empowerment Network.
- To make the transport system easily accessible for tourists and visitors to the district.
- To promote BEE and SMME development in the planning, maintenance and upgrading of the transport system.

2.3.4 Policy Principles

- Social needs and priorities - emphasis should be placed on the social needs of the disadvantaged communities, especially those in rural and other under-developed areas.
- Role of Government and the private sector - The limited ownership profile of the transport providers requires restructuring to broaden and democratise the current dispensation. There is a need to ensure wider participation by the disadvantaged communities in the provision and maintenance of the transport system.
- Economic - the transport sector should be aimed at increased employment of the workforce.
- Financial Framework - the affordability problem for both the passengers in terms of fare levels and for the Government in terms of the budget requirements.
- Land Transport service provision - Subsidised services or any transport service for which public transport operating licenses are required, should only be within the framework of an approved transport plan.

2.3.5 Strategies Based on Policy

- Provide effective financial and economic support to public transport
- Promote the most cost-effective mode of transport
- Introduce subsidy mechanisms that will encourage the business sector to create employment opportunities closer to residential areas
- Implement incentives to operators for affordable tariffs
- Focus on prioritised economic activity nodes and transport nodes in the transport plans.
- Identify minimum service levels of the public transport services serving economic activity nodes.
- Use financial and economic support measures to promote sustainability in the bus industry

- Develop a holistic and integrated funding strategy focusing on maximising the transport budget from the Provincial allocation, and by achieving efficiency gains through better utilisation of available funds

2.3.5.1 Capacity and Skills Development

- Training of officials in integrated Transport Planning and Land Use Planning
- Recruitment of Transport Planners and Engineers
- Procurement of consulting engineering services for consistent and continuous advice and random projects

2.3.5.2 Address Service Backlog

- Motivate subsidised public transport coverage in the Capricorn District Municipality with the objective of reducing the cost of travel
- Establish public transport infrastructure such as shelters in inter-modal facilities
- Upgrade road infrastructure and streets between residential and business nodes

2.3.5.3 Road Safety

- Develop a Central Communications Centre for Incident Management
- Conduct periodic Road Safety audits
- Identify, monitor and address hazardous locations
- Motivate and assign law enforcement at strategic locations

3. TRANSPORT REGISTER

3.1 DEMOGRAPHIC INFORMATION

3.1.1 Population Size

The population characteristics are based on mid-year population estimates 2021 obtained from STATS SAS.

The 2021 population size of Limpopo is estimated at 5 926 724. This made up 9.9% of the population of the Republic of South Africa. In 2011 the population of Limpopo was 5 404 868 and in 2016 it was 5 799 090.

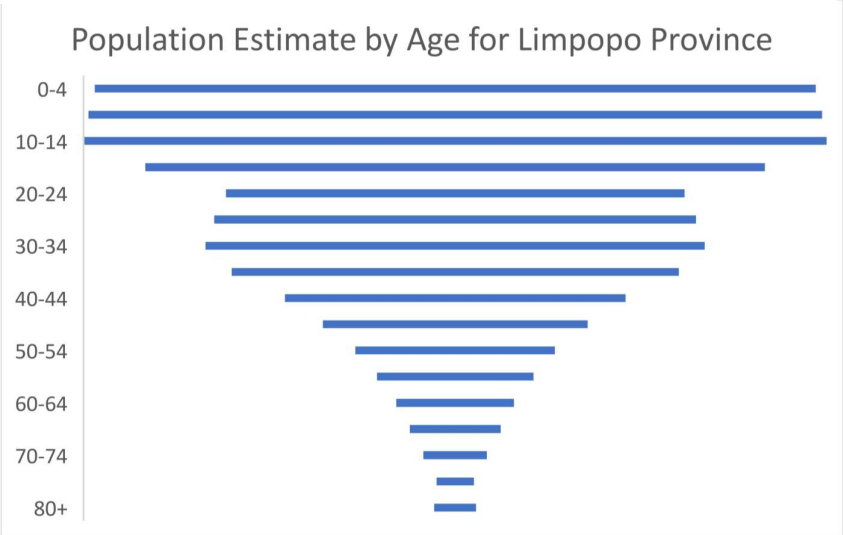
The corresponding population of the Capricorn District was 1 330 436. This made up approximately 23% of the provincial population.

The province is made up of four local municipalities, namely:

- Polokwane - 797 127
- Blouberg - 172 602
- Molemole - 125 327
- Lepelle Nkumpi - 235 380

3.1.2 Population by Age

Figure 3-1: Population Estimate by Age for Limpopo Province



3.2 GENERAL OVERVIEW OF TRANSPORT SYSTEM

South African Household Travel Survey 2020 revealed the following general transport characteristics.

- Work-related travel pattern for 15 years and older people in CDM is 63.7%;
- Business trips are 20.2%;
- Of the business trips, 44% are undertaken by private cars or trucks;
- The most popular destination of the business trips in Limpopo province is the CDM;
- It takes 58.5% of the people of CDM up to 15 minutes to travel for food or groceries and 19.8% of them take between 16 and 30 minutes to travel for food;
- 60% of the households are within 30 minutes from the religious, medical and police institutions;
- Households are within 1 hour from the following facilities:
    - 67% from the libraries
    - 28.7% from the tribal authorities
    - 25.8% from the post office
    - 21.9% from the welfare office
- 86.2% of households are within 15 minutes walking time from the taxi rank or route compared to 25% in Vhembe district. Sekhukhune, Waterberg and Mopani walk longer to the taxi route ranks/routes.
- Complaints towards transport is as follows
    - Poor conditions of roads – 19.9% of households
    - Most complaints are from Vhembe (25.3%), Mopani (25.2%) and Sekhukhune (15.9%)
- Complaints about bus un-availability in the province is 13.6%. The most complaints are from Waterberg (23%), Sekhukhune (16.4%) and Mopani (14.7%)
- Complaints about no-buses at specific times is 13.2%. The most complaints are from Mopani (18.4%), Sekhukhune (12.1%) and Vhembe/Waterberg (9%)
- Complaints about taxi expense is 7.2%. The most complaints are from Sekhukhune (12.7%) and Vhembe (11.1%)
- The reasons given for not using minibus taxi transport are:
    - Service attribute.

  - The most complaints are recorded in Sekhukhune (31.6%). It was 40.1% in 2020.
- The reason for not using buses in 2020:
  - Taxi preference (22%); in 2013 it was 23.1%
  - Non-availability (21.5%); in 2013 it was 15.9%
  - Service quality (35%); in 2013 it was 35.9%

- Dissatisfaction with taxis, buses and trains:
  - Facilities – 55.4%
  - Taxi fare – 41.6%
  - Behaviour of taxi drivers – 33.8%
  - Most complaints relate to:
    - Facilities at bus stops – 71.8%
    - Overcrowding in the bus – 46.1%
    - Frequency of buses during off-peak periods – 39.4%
- Factors affecting the household choice of transport:
  - Travel time – 34.6%. Most at Vhembe (52.2%) and Capricorn (38.1%)
  - Travel cost – 29.1%. Most at Sekhukhune (53.5%); Mopani (32.5%)
  - Flexibility – 7.5%. Most at Capricorn (14.5%) and Waterberg (9.9)
  - Reliability – 9.9%
  - Comfort – 7.5%
- Ownership of bicycles and access to cars:
  - About 2 million households in Limpopo have access to at 1 bicycle.
  - The split is Waterberg (35.5%); Mopani (31.6%); Capricorn (18.1%); Vhembe (5.6%)
  - About 70% of households own a household car/bakkie.
- Usage of non-motorised transport:
  - Reasons why 76.9% of learners walk to learning institutions:
    - Public transport too expensive – 10.3% in urban; 10.6% in rural
    - Own choice – 5.8%
  - Reasons why learners cycle to schools:
    - Public transport too expensive – 46.4%
    - Own choice – 10%
    - It is nearby – 6%

3.3 DESCRIPTION OF THE REGULAR, DAILY PUBLIC TRANSPORT SYSTEM

3.3.1 Supply of Public Transport

(CDM Final IDP, May 2022) A variety of transport facilities are in use in the district. The major public transport services are bus and taxi operations. There are five subsidised bus operations within the district namely:

- Bahwaduba
- Kopano
- Madodi, and
- Great North Transport (GNT).
- Leeto la Polokwane

The bus industry is weakened because of insufficient government funding and internal management capacities. The taxi industry is well established. Below is a list of the modes of transport used in the district and the map indicating the transport network.

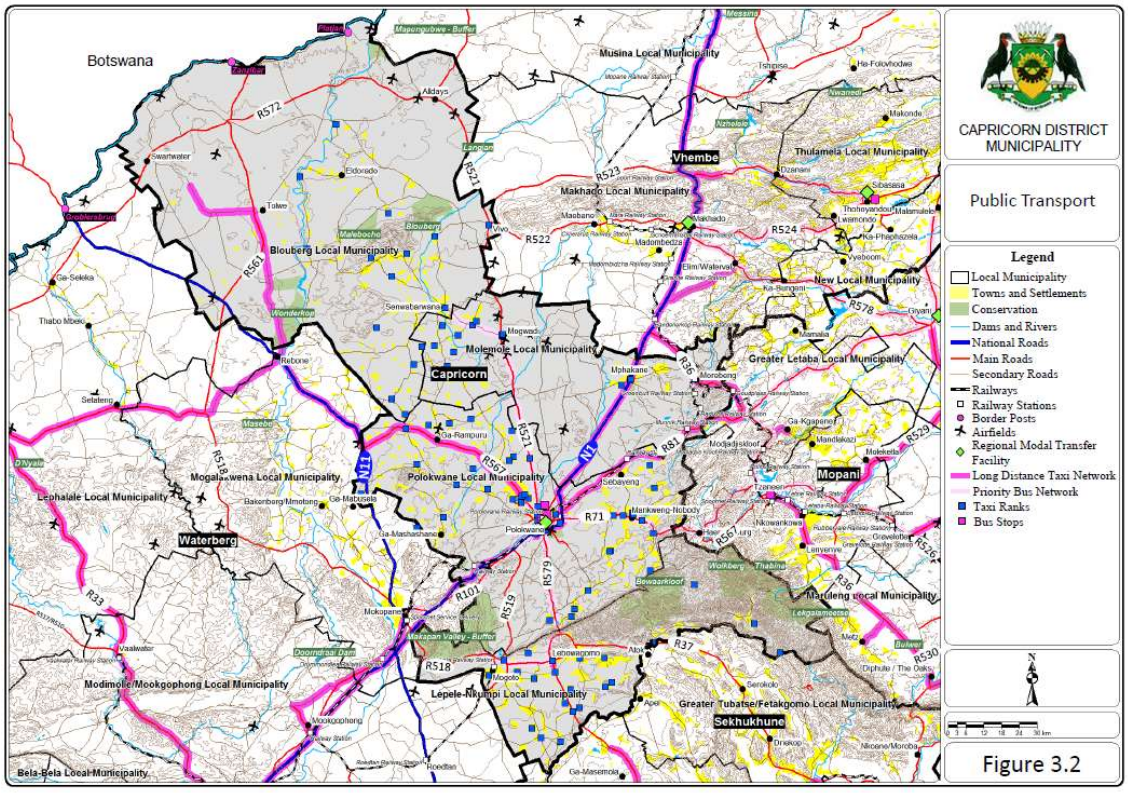
- Rail transportation - Transnet operates the core main rail line and the branch lines that feed the main lines that carry general international and domestic cargo.
- Air transportation – Polokwane International Airport.
- Bus and taxis – majority use public transport services
- Light delivery vehicles (LDV's) – mostly used as public transport in the rural areas of the district. This mode needs to be quantified.
- Non-motorised transport (NMT's) – e.g., donkey carts and bicycles, used in rural areas as an alternative mode of transport.
- Metered taxi rank operations – mainly found in Polokwane Local Municipality, but the numbers seem to be low and the operations are not formally licenced by the Provincial Regulatory Entity (PRE) (Source: Limpopo Department of Transport & Community Safety).

Table 3-1: Current Public Transport Statistics (2022 CDM ITP)

Number of Taxi Facilities (formal/informal)	107
Informal Taxi Facilities	85
Proportion of Taxi Facilities in Polokwane	Approximately 50%
Number of bus routes	180
Number of subsidised buses in operation	196
Number of minibus taxi vehicles	3063

Figure 3.2 overleaf shows the supply of public transport on the major roads.

Figure 3-2: Public Transport



Source: CDM Spatial Development Framework, 2017

3.3.2 Demand for Public Transport

(CDM IDP, 2022:96) The demands for public transport include but are not restricted to the following:

- Few taxis on rural roads and major over-supply of taxis in urban areas.
- Poor road conditions result in reduced vehicle life, high operating costs and poor passenger level of service.
- The transport system is inadequate to meet the basic accessibility needs to work, health care, schools, shops and so forth.
- Transport services are not affordable to the needy travelling public (for example, pensioners, and school learners).
- Transport system is not flexible to respond to customer demands and requirements.
- Infrastructure is not developed to optimally satisfy the needs of both operators' and transport users.

3.3.3 Road-based Public Transport Information

3.3.3.1 Bus Rapid Transit, Bus and Minibus infrastructure and route information

3.3.3.1.1 *Taxis facilities inspection*

The taxi ranks/facilities are summarised below**:**

- 8% are on-street ranks.
- 86% are informal ranks.
- 80% provides commuter Service only.
- More than 50% of the taxis ranks are in Polokwane Local Municipality
- More than 50% of the formal ranks have offices for the taxi leadership.
- 5 formal ranks are currently not used for the loading passengers.

Figure 3-3: An Illustration of Taxis Holding at a Facility

Approximately 1200 taxis are parked overnight in and around the Pick'Pay taxi rank in Polokwane.

Taxi rank utilisation survey

There are three (3) major public transport corridors in the CDM district:

- Polokwane CBD to Mankweng
- Polokwane CBD to Lebowakgomo
- Polokwane CBD to Bochum

The major mini-bus taxi ranks operate between 6am until 6pm.

3.3.3.1.2 Bus

There are 2 formal bus facilities within the Capricorn District Municipality. Both facilities are located within the Polokwane area.

According to the data provided by the Provincial Regulatory Entity (PRE), there are 180 routes and 192 subsidised buses in operation.

3.3.3.1.3 Leeto la Polokwane

Leeto la Polokwane is the Bus Rapid Transport with trunk, complementary and feeder routes.

Figure 3-4: BRT Route Network and Facilities

Source: CDM IPTN, 2022

3.3.3.2 Service capacity and capacity utilisation of road-based modes in the peak period

The survey for the minibus taxis was undertaken in April and May 2022. Bus related data was obtained from the Polokwane Comprehensive Integrated Transport Plan (CITP) and Capricorn Integrated Public Transport Network.

3.3.3.3 AM and PM Peak Passenger Volumes per Route

Table 3-2: AM Peak Passenger Volumes pe Route

Route	Type	TC No	Minibus	Midibus	Bus	Total
AM Peak Hour						
R71	Corridor Link	10	2332	380	1528	4240
R521	Corridor Link	13	720	88	700	1508
R81	Feeder Link	11	408	83	1008	1499
D2629	BRT Trunk	12	388	83	1008	1479
R521 (R521/D1200)	Corridor Intersection	5c	700	198	293	1191
N1	Corridor Link	19	432	139	537	1108
R37	Corridor Link	3	532	121	432	1085
D1200 (R521/D1200)	Corridor Intersection	5d	648	168	211	1027
R518	Feeder Link	1	440	253	261	954
D1200 (R521/D1200)	Corridor Intersection	5b	528	118	228	874
R579/R37	Feeder T-Junction	2c	232	133	245	610
D1200	*Feeder Link*	6	356	40	131	527
R579/R37	Feeder T-Junction	2d	140	139	245	524
R579/R37	Feeder T-Junction	2b	260	128	82	470
R567	Feeder Link	4	244	44	147	435
D1200 (D1200/D3277)	Feeder T-Junction	18c	272	39	49	360
D1200 (D1200/D3277)	Feeder T-Junction	18a	280	0	0	280
R519	Feeder Link	9	92	127	0	219
R36	Feeder Link	14	104	23	65	192
D3277 (D1200/D3277)	Feeder T-Junction	18b	136	39	0	175
R521	Feeder Link	7	16	6	146	168
N11	Feeder Link	15	36	0	114	150
R572	Feeder Link	8	28	39	48	115
D3332	Feeder Link	20	48	22	0	70
R572 (R572/D15556)	Feeder Intersection	17b	12	0	33	45
D15556 (R572/D15556)	Feeder Intersection	17c	8	0	33	41
R521 (R521/D1200)	Corridor Intersection	5a	12	0	16	28
R561 (R561/R572)	Feeder T-Junction	16a	20	0	0	20
R572 (R561/R572)	Feeder T-Junction	16d	16	0	0	16
R572 (R561/R572)	Feeder T-Junction	16b	4	0	0	4
D15556 (R572/D15556)	Feeder Intersection	17a	0	0	0	0
R572 (R572/D15556)	Feeder Intersection	17d	0	0	0	0

(*Source: CDM IPTN Report, Feb 2022)*

Table 3-3: PM Peak Passenger Volumes pe Route

Route	Type	TC No	Minibus	Midibus	Bus	Total
		PM Peak Hour				
R71	Corridor Link	10	2796	589	1154	4539
R521	Corridor Link	13	1368	254	455	2077
R81	Corridor Intersection	5d	344	1207	147	1698
D2629	Feeder Link	11	542	193	780	1515
R521 (R521/D1200)	BRT Trunk	12	452	193	780	1425
N1	Corridor Link	19	364	165	796	1325
R37	Corridor Link	3	664	244	359	1267
D1200 (R521/D1200)	Feeder Link	1	436	110	457	1003
R518	Feeder T-Junction	2c	488	138	294	920
D1200 (R521/D1200)	Feeder T-Junction	2b	504	138	82	724
R579/R37	Feeder T-Junction	2d	352	133	212	697
D1200	*Corridor Intersection*	5b	368	171	97	636
R579/R37	Feeder Link	6	444	91	98	633
R579/R37	Corridor Intersection	5c	412	88	114	614
R567	Feeder Link	4	312	77	164	553
D1200 (D1200/D3277)	Feeder T-Junction	18c	224	28	65	317
D1200 (D1200/D3277)	Feeder Link	9	176	127	0	303
R519	Feeder T-Junction	18a	220	22	0	242
R36	Feeder Link	8	52	44	130	226
D3277 (D1200/D3277)	Feeder Link	7	36	46	130	212
R521	Feeder T-Junction	18b	100	33	65	198
N11	Feeder Link	14	132	17	33	182
R572	Feeder Link	15	40	11	65	116
D3332	Feeder Link	20	84	22	0	106
R572 (R572/D15556)	Corridor Intersection	5a	48	0	16	64
D15556 (R572/D15556)	Feeder T-Junction	16d	12	17	0	29
R521 (R521/D1200)	Feeder T-Junction	16b	8	17	0	25
R561 (R561/R572)	Feeder Intersection	17b	16	0	0	16
R572 (R561/R572)	Feeder T-Junction	16a	12	0	0	12
R572 (R561/R572)	Feeder Intersection	17a	0	0	0	0
D15556 (R572/D15556)	Feeder Intersection	17c	0	0	0	0
R572 (R572/D15556)	Feeder Intersection	17d	0	0	0	0

(*Source: CDM IPTN Report, Feb 2022)*

3.4 ROADS AND TRAFFIC

3.6.1 Roads and Traffic

(Capricorn SDF, May 2017:29) The location of the CDM is strategic in that it is centrally located in the Limpopo Province, with several major provincial routes traversing the municipal area. It also borders onto Botswana to the north-west.

Major routes traversing the CDM are depicted on Figure 3.3 and include the following:

- N1/R101 - Linking Polokwane to Gauteng (specifically Tshwane and Johannesburg) and to Beit Bridge (Zimbabwe).
- N11 - To Botswana, via the Groblersbrug Border Post.
- R521 - To Vhembe District and several border posts with Botswana and Zimbabwe.
- R37 - To Mpumalanga Province: Mashishing via Burgersfort and Lebowakgomo (the Dilokong Corridor).
- R71 - To Tzaneen and Phalaborwa to the east.
- R81 - To Giyani and Malamulele to the north-east.

The following have been identified as prominent regional corridors in the Provincial SDF (2016):

- N1/R101 Trans-Limpopo Corridor = Primary Transportation Corridor and Freight Corridor, serving the entire province from north to south, and nationally linking Musina to Cape Town.
- N11 = Primary Transportation Corridor (national corridor) linking Botswana to South Africa.
- R518 = East-West Corridor linking Polokwane to Lephalale.
- R37 = Dilokong Corridor linking Polokwane to Tubatse (Platinum Corridor).
- R36/R40 = Phalaborwa Corridor linking the N1 freeway to the N4 freeway from Soekmekaar, past Phalaborwa, through Bushbuckridge and up to Mbombela (and completing the triangle between N4, N1, and R36/R40).
- R521/R37: Secondary Transportation Corridor and Freight Corridor (provincial corridor).
- R71: Secondary Transportation Corridor (provincial corridor).

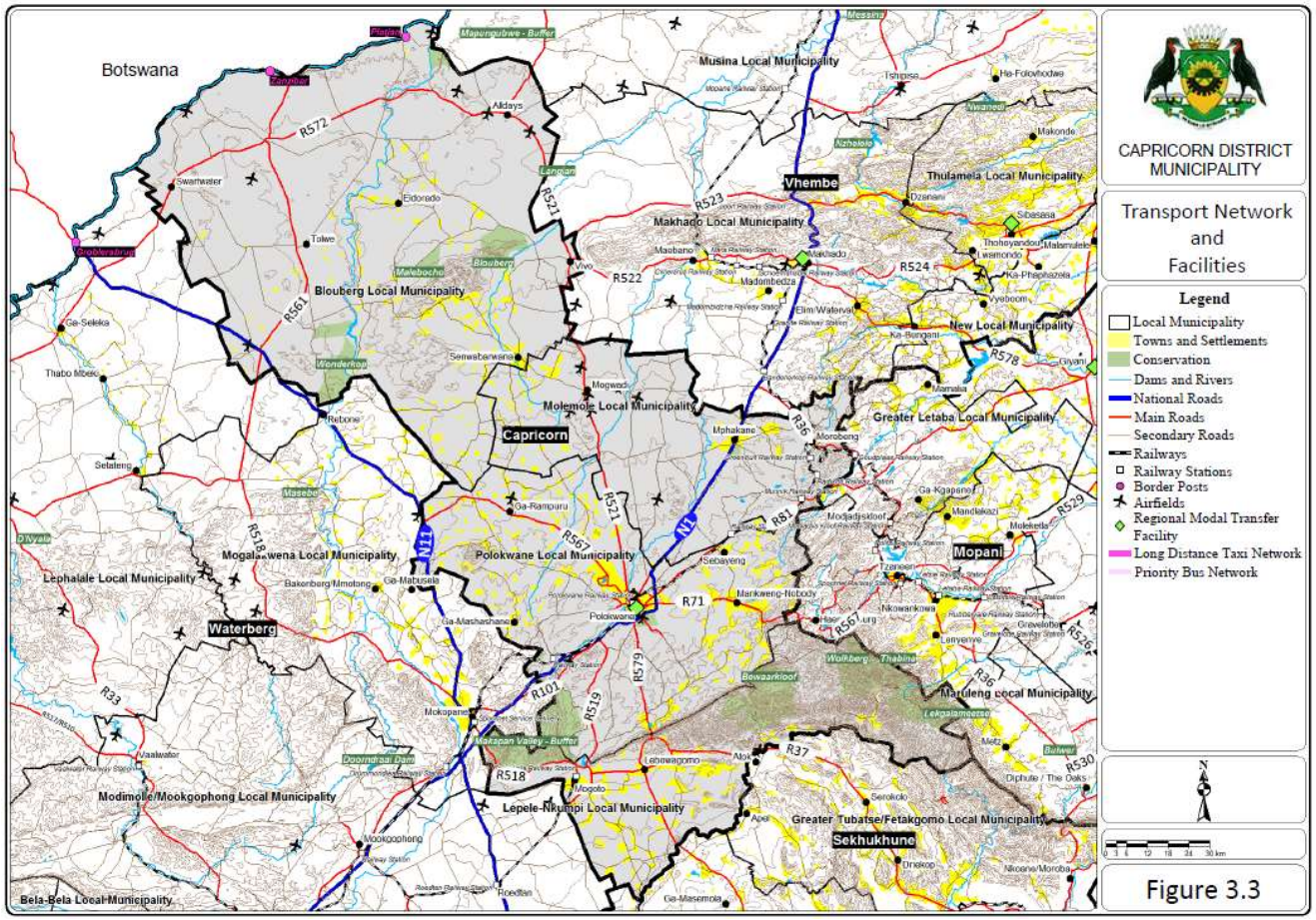
These corridors converge at Polokwane City; hence the city has been assigned the status of provincial Freight and Logistics Hub in the Limpopo SDF. It also represents a major modal transfer point to all modes of public transport in the province.

Table 3-4: Daily Traffic Volumes on Major Routes

Route	TC No	Total
Total Daily Traffic Volumes		
R71	10	25268
R521	13	10949
R81	11	9689
D2629	12	8145
R521 (R521/D1200)	5c	4954
N1	19	9232
R37	3	11444
D1200 (R521/D1200)	5d	4264
R518	1	5615
D1200 (R521/D1200)	5b	3885
R579/R37	2c	4795
D1200	6	4590
R579/R37	2d	3786
R579/R37	2b	4639
R567	4	3302
D1200 (D1200/D3277)	18c	2071
D1200 (D1200/D3277)	18a	1622
R519	9	1341
R36	14	1149
D3277 (D1200/D3277)	18b	990
R521	7	586
N11	15	471
R572	8	631
D3332	20	352
R572 (R572/D15556)	17b	44
D15556 (R572/D15556)	17c	41
R521 (R521/D1200)	5a	301
R561 (R561/R572)	16a	32
R572 (R561/R572)	16d	53
R572 (R561/R572)	16b	29
D15556 (R572/D15556)	17a	0
R572 (R572/D15556)	17d	77
		124347

(*Source: CDM IPTN Report, Feb 2022)*

Figure 3-5: Transport Network and Facilities



Source: CDM Spatial Development Framework, 2017

3.6.2 Ownership of Roads

Table 3-5: Road Network Classification in CDM per Local Municipality

ROAD NETWORK CLASSIFICATION IN CDM PER LOCAL MUNICIPALITY						
RIFSA Road Classes	**Road Network Owner**	**Length (km)**				**Total**
		Blouberg	Lepelle-Nkumpi	Molemole	Polokwane	
Class 1	SANRAL	0	0	49.6	122.5	**172.1**
Class 2	RAL (LDPW)/SANRAL	367.6	363.3	389.7	526.1	**1651.7**
Class 3	RAL (LDPW)	557	411.8	464	779.9	**2213.6**
Class 4	RAL (LDPW)/ Local Municipalities	210.6	377.8	113.9	1 079.9	**1782.5**
Class 5	Local Municipalities	1548	1984.1	829.4	6 937.1	**11298.6**
Total		**2683.2**	**2683.2**	**2683.2**	**2683.2**	**2370.5**

Note: LDPW – Limpopo Department of Public Works; SANRAL – South African National Roads Agency Limited; RAL – Roads Agency Limpopo

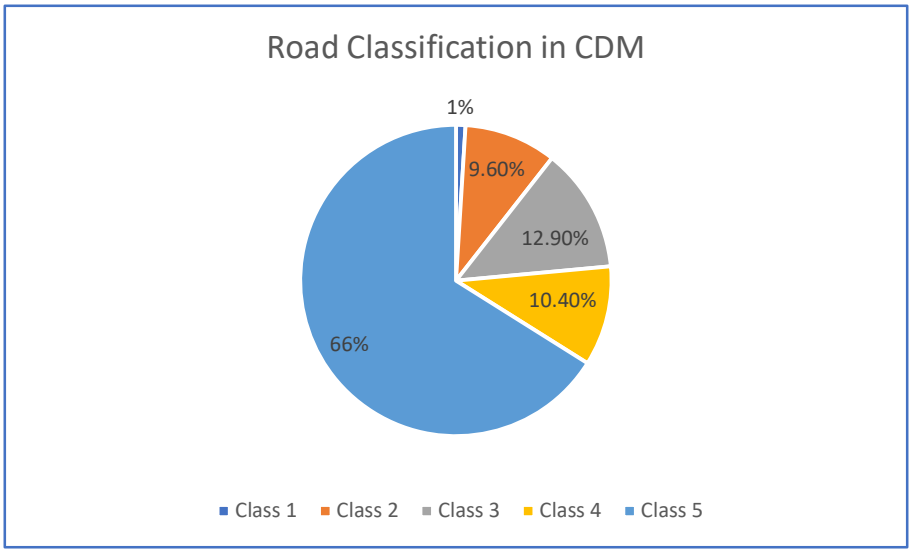
Local municipalities, in addition to access roads, are responsible for the following list of roads which were declared as under the ownership of municipalities to the extent and jurisdiction indicated below.

Table 3-6: Municipalities Roads

ROAD NAMES	CO-ORDINATES	
POLOKWANE		
N1/26X South	S23°56'27.3"	E29°24148.7"
R101 (P1/6)	S23°55°55.8"	E29 °25'24.8"
D2551	S23°56'26.7"	E29°24'48.3"
R37 (P33/1)	S23°56'27.4"	E29°26'56.3"
D3338	S23°57'53.91"	E29°29'45.9"
R71 (P17/1)	S23°53'56.3"	E29°30'28.1"
R81 (P43/1)	S23°52'01.3"	E29°31'21.3"
D22	S23°52'10.9"	E29°28'57.5"
P1/7 (N1/28X)	S23°49'34.7"	E29°29'33.7"
P1/7	S23°51'16.8"	E29°28'30.6"
R521 (P94/1)	S23°51'48.5"	E29°25'54.9"
D19	S23°54'00.6"	E29°25'01.0"
D544	S23°53'59.2"	E29°25'41.1"
SESHEGO		
D3990	S23°50'00.4"	E29°22"46.1"
MANKWENG		
D617	S23°52/49.1"	E29°44'22.4"
D844	S23°52'16.1"	E29°44'22.4"
D4032	S23°53'31.6"	E29°41'54.4"
LEBOWAKGOMO		
R518 (D3612)	S24°18'59.6"	E29°27'41.3"
R579 (D4045)	S24°17'48.0"	E29°27'58.3"
R579 (D4045)	S24°19'51.7"	E29°28'54.1"
DENDRON		
D1200	S23°21'58.0"	E29°19'49.0"
ALLDAYS		
P94/2	S22°40'53.0"	E29°06'33.0"
P94/2	S22°40'44.0"	E29°06'29.0"
D887	S22°40'40.0"	E29°06'09.0"
SENWABARWANA		
P1468	S23°16'51.0"	E29°08'18.0"
D1200	S23°16'51.0"	E29°08'13.0"
D1200	S23°17'37.0"	E29°09'06.0"
D3332	S23°17'05.0"	E29°06'53.0"

Figure 3.3 below provides the percentage distribution of the different road classes in CDM. Collectively these represent approximately 17 118 km of road.

Figure 3-6: Road Classification Distribution in CDM



The paved road network in the CDM covers about 713 km of road of which 8% is deemed to be in a very good condition, 35% good and 31% fair. About 10% of tarred roads in the CDM are deemed to be in a very poor condition (refer to Diagram 7).

Figure 3-7: Surfaced Roads Conditions – Class 4 & 5 (713 km)

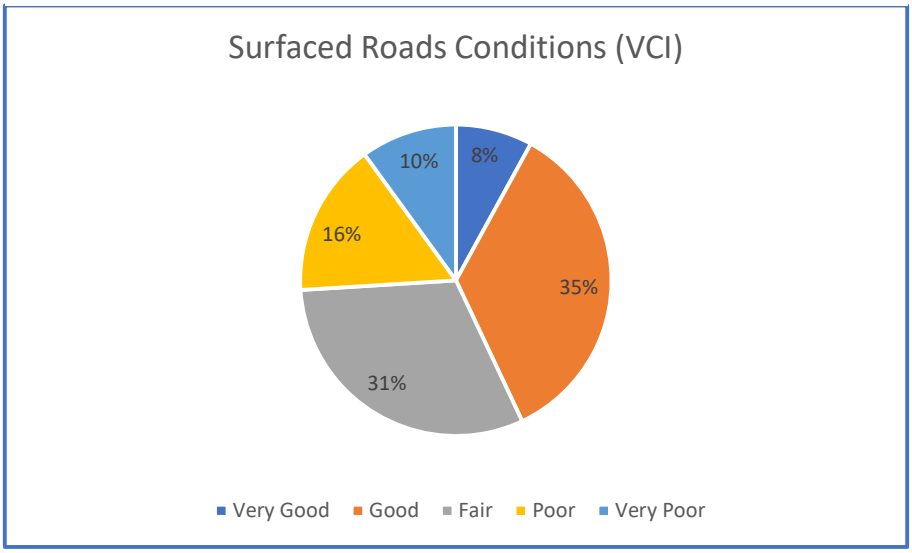
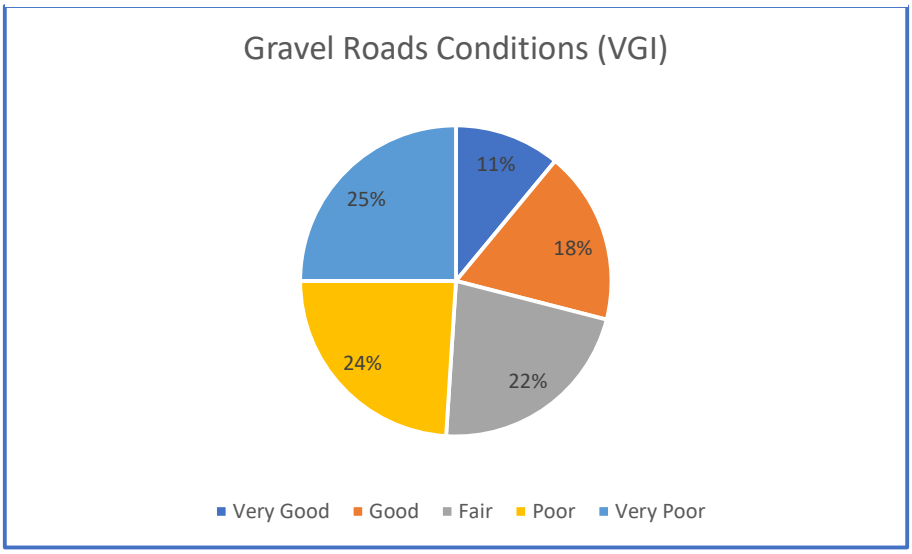


Figure 3-8: Visual Gravel Index (VGI) Results – Class 4 & 5 (12 367 km)



From Figure 3.4 above it is evident that 25% of the total gravel network is in a very poor condition, 24% is in a poor condition, and 22% of the network is in a fair condition. Only 18% and 11% are in a good and very good condition respectively. The high percentage of roads is in a poor condition, and it signifies considerable backlog. Furthermore, high percentage of the roads is in a fair condition, signifying extensive problems on the gravel road network.

4. SPATIAL DEVELOPMENT FRAMEWORK

4.1 INTRODUCTION

The Minimum Requirements specify that:

The SDF must be aligned with the ITP for the area, and in turn the SDF must be taken up in the ITP, clearly showing:

- Existing and intended transport corridors and nodes, and areas earmarked for mixed land use and densification in support of public transport.
- The municipal land use strategies that will be used to discourage urban sprawl and the dispersal of activities making them dependent on travel by car.
- The DITP should indicate the specific measures proposed in the SDF to support public transport and to ensure that transport services may be carried out in a sustainable and cost-effective manner.

As regards rail the SDF must−

- Indicate the railway stations that have been identified in the SDF as being located in higher order nodes;
- Indicate how transit-oriented development (TOD) will be used to promote integrated transport and land use planning;
- Indicate how TOD will be promoted as a strategy to ensure preference of public transport over private vehicles, and
- Indicate TOD typologies that are context-specific based on the SDF proposals.

4.2 SPATIAL VISION

The Vision *for the future development of the Capricorn District is that it should ultimately be spatially connected, attractive, sustainable and well-managed. It furthermore addresses several key focus areas i.e. integration, physical infrastructure, economic development, environmental management, social development and governance; and it deals with all the spatial issues identified in the District.*

4.3 REGIONAL AND LOCAL CONTEXT

Figures 4.1 and 4.2 overleaf show the regional and local municipality contexts – extracted from the CDM Spatial Development Framework.

Figure 4-1: Regional Context

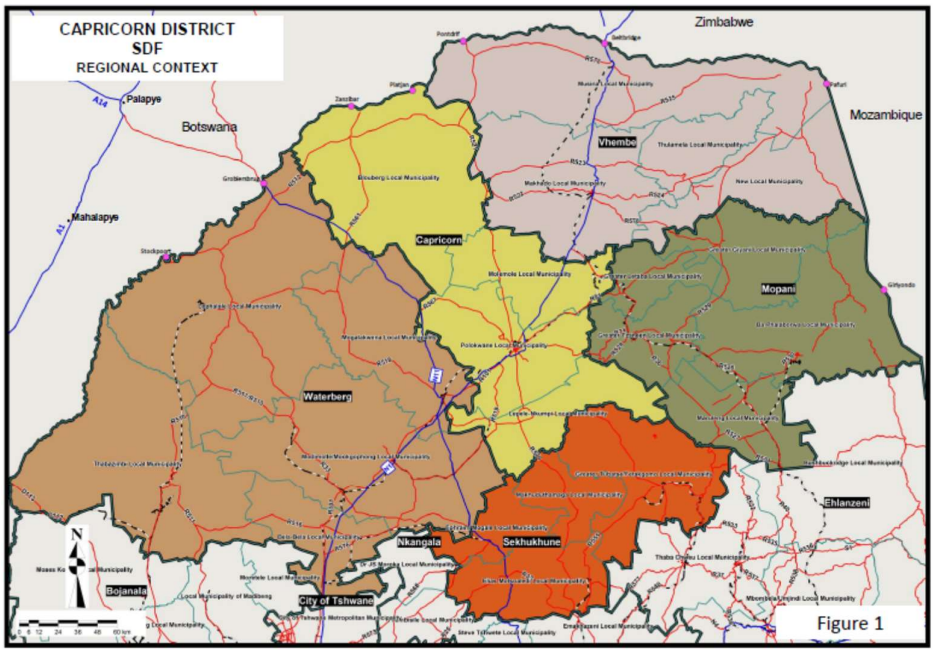
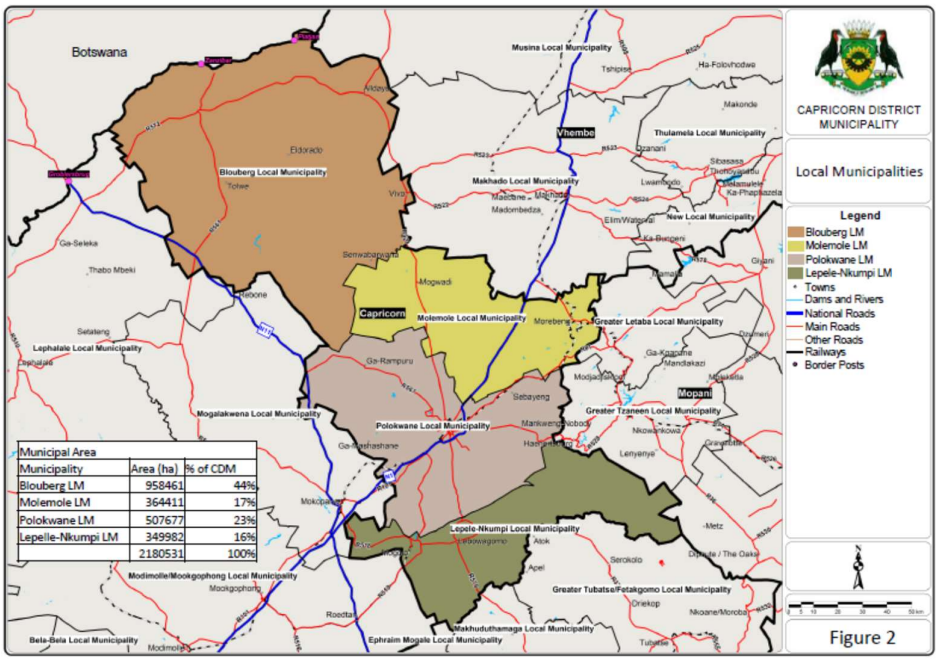


Figure 4-2: Local Municipal Context



4.4 TRANSPORT CORRIDORS AND NODES

Figure 4.3 shows the transport network, Figure 4.4 shows the consolidated spatial framework, Figure 4.5 shows the nodal hierarchy and Figure 4.6 shows public transport and the relevant facilities.

Major routes traversing the CDM are depicted on Figure 3 and include the following:

- N1 / R101 – Linking Polokwane to Gauteng and to Beit Bridge (Zimbabwe);
- N11 – To Botswana, via the Groblersbrug Border Post;
- R521 – To Vhembe District and a number of border posts with Botswana and Zimbabwe;
- R37 – To Mpumalanga Province: Mashishing via Burgersfort and Lebowakgomo (the Dilokong Corridor);
- R71 – To Tzaneen and Phalaborwa to the east;
- R81 – To Giyani and Malamulele to the north-east.

The following have been identified as prominent regional corridors in the Provincial SDF (2016):

- N1/ R101 Trans-Limpopo Corridor = Primary Transportation Corridor and Freight Corridor, serving the entire province from north to south, and nationally linking Musina to Cape Town.
- N11 = Primary Transportation Corridor (national corridor) linking Botswana to South Africa.
- R518 = East-West Corridor linking Polokwane to Lephalale.
- R37 = Dilokong Corridor linking Polokwane to Tubatse (Platinum Corridor).
- R36/ R40 = Phalaborwa Corridor linking the N1 freeway to the N4 freeway from Soekmekaar, past Phalaborwa, through Bushbuckridge and up to Mbombela (and completing the triangle between N4, N1, and R36/R40).
- R521 / R37 = Secondary Transportation Corridor and Freight Corridor (provincial corridor).
- R71 = Secondary Transportation Corridor (provincial corridor)

Figure 4-3: Transport Network

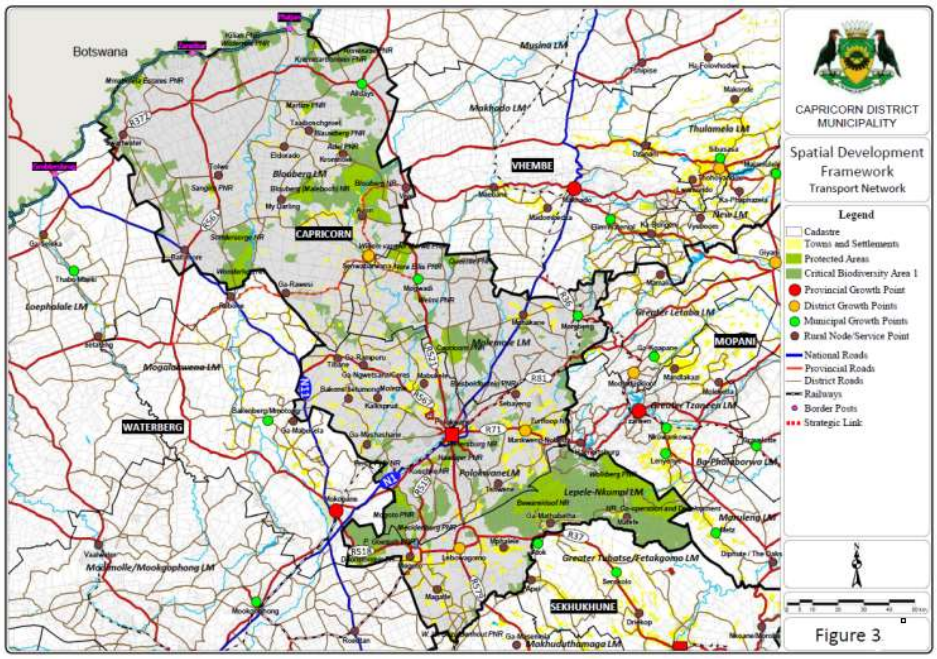


Figure 4-4: Consolidated Spatial Framework

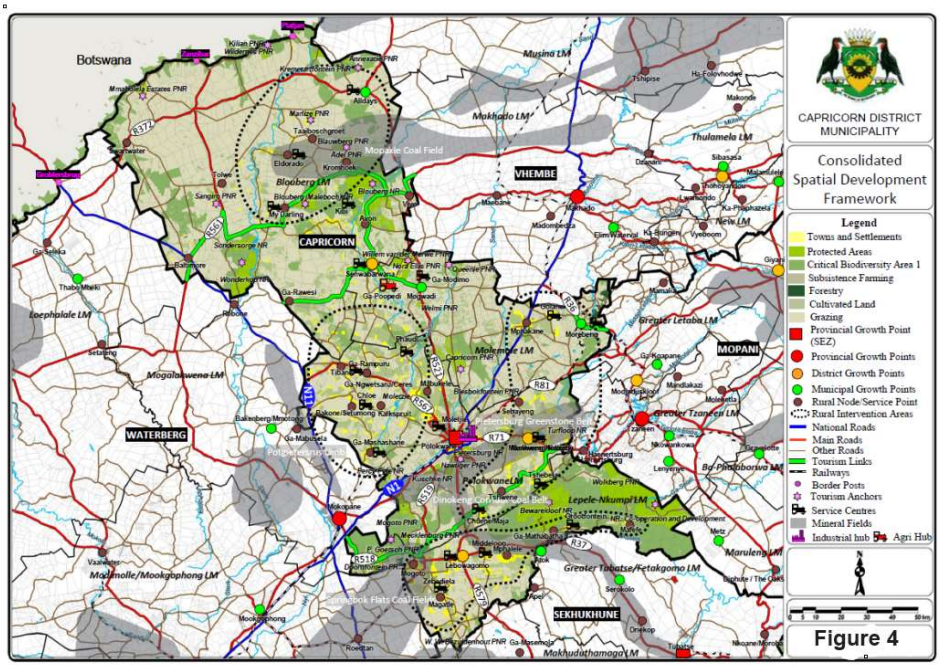


Figure 4-5: Spatial Development Framework Nodal Hierarchy

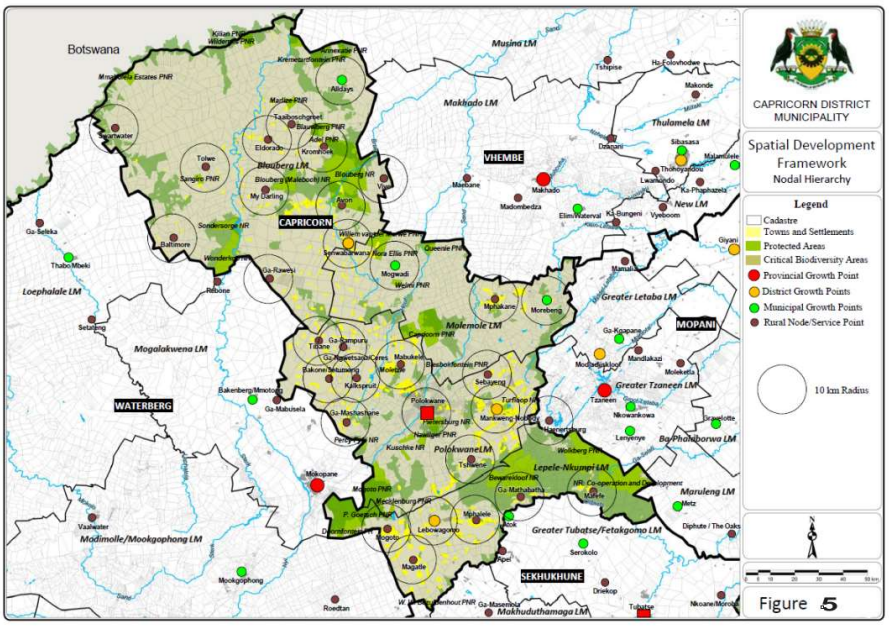
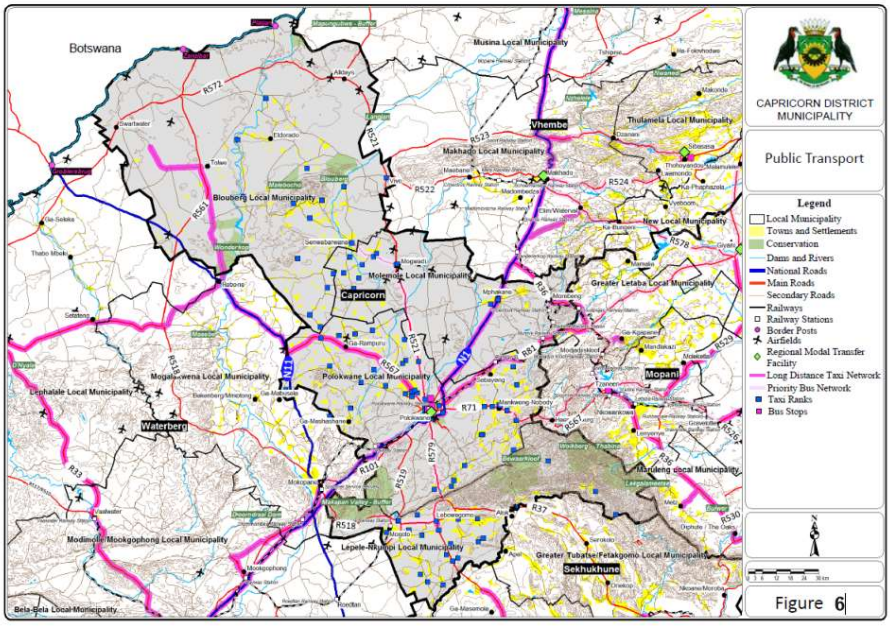


Figure 4-6: Public Transport in Relation to Spatial Framework



4.5 MUNICIPAL LAND USE STRATEGIES

The CDM has done a great job in terms of devising strategies to encourage integrated land use and transport planning as well as discouraging urban sprawl. Figure 4 above shows the consolidated framework.

Furthermore, Figure 3 above shows long distance public transport routes. Figures 3 and 4 clearly demonstrates the integrated nature of the land use and transport elements of the spatial development framework.

4.6 POINTS OF DEPARTURE

The proposed spatial development framework was motivated by the following planning elements:

Spatial Sustainability

- *Create a more consolidated settlement structure in the CDM, so as to allow for the cost-effective and sustainable provision of engineering and community services and infrastructure;*
- *Ensure the sustainable use of land and other resources in the District.*

Spatial Justice

- *Mitigate existing and future conflicts between urban development and mining, industry, agriculture, and tourism which are the main economic sectors in the District;*
- *Achieve spatial justice by way of inclusion of urban and rural communities that were previously excluded from services and facilities through processes of urban and rural restructuring and consolidation;*
- *Provide all communities access to resources to improve their living conditions.*

Spatial Efficiency

- *Ensure the channelling of resources to areas in the CDM displaying both economic potential and development need;*
- *Functionally linking the main service nodes / areas of greatest economic activity in the District to one another and to the regional economy of Limpopo Province;*
- *Enhance the development potential of existing small towns and settlements in rural parts of the District.*

Good Administration

- *Ensure alignment between different sectoral plans and initiatives from various spheres of government, surrounding districts and local municipalities, and the local municipalities within the CDM.*

4.7 DEVELOPMENT PRINCIPLES

Minimum Requirements provide that the SDF so included in the DITP will give explicit effect to section 38 of the NLTA, which empowers the planning authority to manage any change or intensification of land use which deviates from that specified in the SDF.

Section 38(2) of the NLTA provides :

All persons, including the State and parastatal institutions, agencies and utilities, are bound by the provisions of integrated transport plans published under subsection (1) and –

(a) No substantial change or intensification of land use on any property may be undertaken without the written consent of the relevant planning authority;

(b) Developments on the property within the area of the planning authorityare subject to traffic impact assessments and public transport assessments as prescribed by the Minister;

(c) Where new or upgraded transport infrastructure or services are suggested in such assessments, the costs thereof must be paid by the planning authority, unless it has agreed with a developer or other person to pay those costs; and

(d) No action may be taken that would have the result of substantially decreasing the quantity or availability of land transport infrastructure or services, unless the owner of the land on which the infrastructure is situated, or holderof the relevant operating licence, as the case may be,has notified the relevant planning authority in writing not less than 30 days before the action is taken.

The District established the following principles as building blocks for the Spatial Development Framework:

Principle 1: Consolidate and protect environmentally sensitive areas to ensure long term environmental sustainability

Principle 2: Enhance spatial efficiency by defining a range of urban and rural nodes in the district around which to consolidate economic development and infrastructure investment

Principle 3: Establish a comprehensive movement network to link all activity nodes within the district and beyond, and to promote corridor development through land use-transportation integration

Principles 4: Consolidate community facilities at urban and nodal points to enhance "one-stop" access to such facilities for the community, and to contribute towards creating "critical mass" required to stimulate local economic development

Principle 5: Direct infrastructure investment towards the activity nodes in the district, strategic development areas earmarked for residential development, and communities with excessive service backlogs

Principle 6: Consolidate the tourism character of the district around the Blouberg and Wolkberg clusters which would provide linkages to the Vhembe, Waterberg and Kruger to Canyons Biospheres

Principle 7: Optimise agricultural production and processing in all parts of the District

Principle 8: Optimally utilise the mining potential in the District in such a way that a sustainable balance is maintained between mining, agriculture and the natural environment

Principle 9: Concentrate industrial activities around the Polokwane/ Seshego cluster and agro-processing at the Rural Nodes and Rural Service Centres, optimising the available industrial infrastructure

Principle 10: Enhance and consolidate commercial and business activities at each of the identified nodal points and strengthen Polokwane City's identity as provincial and regional capital

Principle 11: Achieve urban restructuring and spatial justice by way of mixed income residential development around the identified nodal points, and within identified Strategic Development Areas

Principle 12: Compile Community Based Rural Development Plans for identified Rural Intervention Area.

5. TRANSPORT NEEDS ASSESSMENT

Based on the forgoing analysis of legislation, policies, strategies, literature review as well as the transport register, the following transport needs were identified.

Lack of Access to Opportunities

Most HH in the CDM do not enjoy equitable and reliable access to economic opportunities due to limited access. Long walking distances to access basic services such as food, medical care, education facilities, police stations, limited availability of public transport during off-peak hours, and in particular, total unavailability of public transport between 6 pm and 6 am, works against the vision of the White Paper in National Transport Policy to provide safe, reliable, effective, efficient, environmentally benign and fully integrated transport operations and infrastructure that will best meet the needs of freight and passenger customers, improving levels of service and cost in a fashion that supports government strategies for economic and social development whilst being environmentally and economically sustainable.

Road Infrastructure

Most areas in the CDM, especially the rural areas, suffer from lack of quality road infrastructure. This is exacerbated by poor maintenance of the gravel roads which lead to poor accessibility of the areas. As a result, HH walk excessively long distances to access public transport. The provision of transport infrastructure and facilities in an economically and environmentally sustainable manner is at the core of the objectives of the White Paper.

Access to Public Transport

There's general complaints about the accessibility, cost and operating hours of public transport in the district. In particular, HH complain about very limited public transport to the health facilities during off-peak periods.

In order to increase access to public transport, CDM must also consider enabling the tuk-tuk services in the areas where people are forced to travel long distances to facilities or public transport. Section 70 of the NLTA provides that tuk-tuks may be used for public transport services where relevant transport plans allow for this.

Non-Motorised Transport

Availability of non-motorised modes of transport such as pedicabs is non-existent and yet it would positively complement the motorised modes of public transport which tend

to be relatively unaffordable, hostile to the environment and have limited availability to most HH in the province. The roll out of bicycles through programmes such as Shova Kalula programme need to be ramped up, especially for school children who complain about long walking distances to the learning facilities. One of the objectives of the White Paper is to meet basic accessibility needs of the residents of South Africa.

Modal choice in public transport is provided for in the White Paper. This policy objective makes a strong case for customers to access the transport system in ways that best satisfy their chosen criteria. However, this choice is limited in the District, especially in the rural areas such as Blouberg and Molemole due to their extensively rural character.

Personal Safety

The issues of personal safety are real in the province, and the country. This greatly restricts the use of transport such as bicycles as people often get robbed of their personal belongings and bicycles, and often get injured or even killed during the encounter. This discourages the HH from using bicycles in particular.

Road Traffic Safety

Road traffic safety has been identified as an issue that requires attention in the district. It must be noted that a disproportionately high number of fatalities on the roads affect pedestrians. About 50% of the fatalities affected. Jay walking on the part of pedestrians and excessive speeds and driving under the influence of liquor on the part of motorists, contribute to the unacceptably high fatality rates of pedestrians on our roads.

Public Transport User Safety

Public transport user safety is another area of concern. Passengers are unfairly exposed to violence in the taxi industry. The perpetrators of the violent acts do not make a distinction between their “enemies” and their customers. The taxi industry is probably one of the few where some owners of the businesses do not seem to care about the well-being of their customers. Most of these customers do not have other alternative form of transport except the taxis due to their better accessibility and flexibility than buses. There are no rail commuter services in the province.

In addition, passengers suffer at the hands of questionable customer service experience from the minibus taxi drivers. This behaviour is unfair as it denies the passengers an opportunity to have a good public transport.

Passengers also experience one of the highest forms of bad experience concerning road safety accidents in public transport. Excessive driving speeds, reckless driving, fatigue, vehicle fitness, are but some of the reasons for high numbers of fatalities on the roads affecting passengers.

In some instances, light delivery vehicles (LDVs) are used for the most remote of the rural areas to provide public passenger road transport. Whilst it is generally illegal to do so, section 71 of the NLTA provides that adapted LDVs may be used for public transport services in a particular areas in prescribed circumstances whether there is no other appropriate or acceptable public transport, and subject to prescribed conditions. CDM needs to consider the safety and appropriate provisioning of the people currently being conveyed through the LDVs to ensure that the LDVs are adapted in line with the requirements of the NLTA so that they may also be issued with appropriate operating licences.

Public Transport Facilities

The poor or lack of attractive public transport facilities such as public transport stops, shelters, formal ranks, multi-modal facilities, etc., do not give the passengers a good public transport experience. One of the strategies of provincial transport policy is to maintain public transport facilities to high levels of cleanliness and to maintain the condition of infrastructure at acceptable engineering and architectural standards, as well as to construct new, or to upgrade existing public transport facilities in relation to the need and demand for additional capacity.

Illegal Taxi Operators

The issue of identifying and addressing the issue of illegal operations is important for sustainability of the public transport system and for safety reasons. One of the principles of Provincial Policy on land transport service provision is to provide public transport service that falls within the framework of an approved transport plan and with the requisite permit or operating licence. This provincial policy requirement is aligned to the NLTA requirement. Strict transport planning processes are a pre-requisite for ensuring that only legal operators are allowed to provide public transport services within the District and beyond. This approach would go a long way in assisting to identify and root out illegal operators.

However, the District and its constituent municipalities have not been consistent in complying with the requirement of consistently and reliably preparing their district and local municipality ITPs. As it stands, the previous DITP was done in 2013. Lepelle-Nkumpi Local Municipality has recently prepared its LITP. The action of updating the LITP does not seem to be happening. As far as the Molemole and Blouberg Local Municipalities are concerned, no record of approved LITPs has been found to exist.

One of the provincial strategies of public transport is to provide effective financial and economic support to public transport. A good starting point for demonstrating this financial commitment is by assisting the districts with funding for the preparing the requisite transport plans – transport plans are the basis for proving all transport-related activities in the district.

Distance Threshold for Public Transport Subsidies

As far as the phasing out of subsidies for services longer than about 40 km in the Province, the dispersed spatial form of the district presents a real challenge to the district as most existing settlements do not possess the right kind of densities. However, the SDFs of the respective municipalities do, thankfully, promote nodal and corridor development principles. The SDFs goes to a point of preparing several precinct plans. One of the provincial strategies based on provincial transport policy is for the transport plans to focus on prioritised economic activity nodes and transport nodes.

6. PUBLIC TRANSPORT PLAN

6.1 INTRODUCTION

The focus of the Capricorn District Municipality (CDM) Public Transport Plan (PTP) is to integrate the PT network, services and modes within the Capricorn District Municipality and its Functional Area. The PTP is meant to be informed by the CITP of Polokwane Municipality and LITPs of the other local municipalities.

This integration of PT is at the core of this DITP:

- The delivery of integrated, intermodal and interoperable transport in CDM. This should be based on the CDM's IPTN Package of Plans (Network Plan, Operations Plan, Business Plan)
- The use of Transit Oriented Development (TOD) to bring about the spatial transformation of CDM itself as well as building of sustainable communities.

The PTP uses the CDM IPTN 2022 as its foundation supported by available LITPS and Polokwane Municipality CITP as well as other relevant data including the TR, Subsidy Information System, the Operating Licence Administrative System (OLAS), business plans submitted to DoT in support of applications for PTIS grant funding and other funding, as well as existing contract documents.

The plan needs to provide the basis for rationalising and restructuring of the public transport system, designing of contracts for contracted services and awarding of operating licences to non-contracted services.

The plan will encompass and incorporate plans referred to in the 2007 Public Transport Strategy and Action Plan as "Integrated Rapid Public Transport Network Plans" (IRPTNs) or as "Integrated Public Transport Network Plans" (IPTNs). The IRPTNs or IPTNs are required to be contained in the PTP of their ITPs, and not be prepared as separate plans. In the case of CDM there is an IPTN for Polokwane Municipality as well as the CDM specific IPTN that will be incorporated.

6.2 STRUCTURE OF THE PTP

The PTP, which has been developed as part of the process through which the CDM is formulating this DITP, comprises six parts:

- Policies and Strategies
- Overall Network Design
- Commuter Rail Plan
- Contracted Services Plan

- Non-contracted Services Plan
- Operating Licences Plan (OLP)

A summary of these parts is set out below.

6.3 POLICIES AND STRATEGIES

6.3.1 Introduction

The CDM's PT policies and strategies are designed to support the achievement of the DITP's key elements referred to above: integrated transport and TOD. In relation to the integrated transport element in particular, they are directed at designing a network of contracted and non-contracted services that:

- progressively reduce the cost of the Access Priorities for all user groups in CDM. These Access Priorities are the priorities of different user groups as broken down into direct costs (such as price of a ticket) or indirect costs (such as flexibility, safety, reliability, crime or congestion);
- are performance driven and investment orientated in line with the underlying philosophy of CDM;
- cater for the needs of all potential users, including targeted categories of passengers such as learners, and that are universally accessible;
- maximise access to services by pedestrians;
- minimise duplication between services;
- reduce under-or-over-utilisation of available capacity are cost-effective and fiscally and financially sustainable ;
- employ the appropriate mode for the requirements of the route or corridor in question;
- are convenient to passengers;
- integrate PT services in and between modes by developing a network, schedules and service frequencies in such a fashion that passengers can move optimally from origin to destination with the minimum number of transfers, waiting times and fare paying transactions. It also requires integrating transport infrastructure and passenger information across services and modes;
- incrementally use interoperable electronic fare systems, and charge affordable fares;
- avoid destructive competition between different services on the same route or corridor;
- put any financial support (subsidy) to optimum use, by taking into consideration the cost-performance ratio of modal alternatives before any new contract is designed and awarded;
- are given priority over private transport;

6.3.2 The future development of the PT system

The CDM's approach to integrated transport is multi-modal. The key modes are BRT, quality bus services, minibus-taxis and tuk-tuk services. These modes will together form part of an integrated transport solution. These modes will also be complemented by improved provisions for NMT, as referred to in Chapter 9 (NMT).

All modes will be supported by the metered taxis and e-hailing services more particularly in the urban areas where they can operate sustainably.

While the most significant impacts are likely to be witnessed in the services provided by smaller vehicles, which can respond more flexibly to demand, substantial efficiencies are also possible in the combination of these services with BRT and quality bus services.

New generation technologies also offer scope for designing integrated solutions for universal accessibility, transporting passengers with disabilities.

An integrated, multi-modal solution requires a strong governance system. In CDM, this will be established. It will set the standards and provide monitoring and oversight responsibilities as empowered by the provisions of the NLTA.

As stated above, the CDM is focused on reducing the costs of access priorities for user groups. It is clear, however, that this cannot be done by enhancing mobility per mode alone. Instead, to do this, the CDM's methodology is to address the interrelationships between modes, the system that manage the modes (e.g., integrated ticketing), the relationship between the urban and rural transport as well as the transport system which enables access, and the changing patterns of demand. In particular, the CDM has begun to action its TOD and its TDM Strategy (referred to in Chapter 8 TDM) as the basis for the spatial transformation of CDM and the building of sustainable communities.

The CDM's approach to the interrelationships between transport modes and relationship of modes to land use density is as follows:

- BRT is the trunk routes serving higher densities;
- quality bus services will complement the BRT network by providing a combination of feeder and direct services (and trunk services pending the construction of dedicated BRT infrastructure)
- an improved minibus taxi-type service system will play a significant role in the overall PT solution in providing responsive services, both as feeders to the trunk services as well as direct services from origins to final destinations where appropriate, and within their own economic ecosystems. To this end, consideration of addressing light delivery vehicles currently being used in most

rural environments as part of minibus taxi-type service to comply with the requirements of NLTA (section 71) is also important for safe and efficient transportation within CDM.

The CDM's policies and strategies for each mode are set out in the PTP. The Plan also sets out the CDM's policies and strategies for contracted and non-contracted services as well as contract management and PT regulation.

6.3.3 PT Fleet Policy

The PTP sets out the CDM's PT fleet policy for reducing carbon emissions and air pollution, and also for providing universal access.

6.3.3.1 Reducing carbon emissions and air pollution

Over the next five years, the CDM intends to implement variety of initiatives to reduce carbon emissions and air pollution in relation to PT fleet operating within CDM. Some of these initiatives apply directly to the fleet while others are designed to have an indirect effect. The initiatives are:

- use of electric buses and other alternative energy;
- growing the market share of cycling;
- promoting use of tuk-tuks.

6.3.3.2 Providing universal access

The CDM's long-term policy objectives for the PT fleet operating within its jurisdiction is to achieve universal accessibility by preferably accommodating users with disabilities. In particular:

- the BRT trunk services and quality bus service will be designed for universal accessibility (this is also in line with the vehicles requirements of Model Tender and Contracting Documents, June 2013);
- for quality feeders, the CDM will ensure that buses and minibuses/midibuses are scheduled that have wheelchair facilities using demand analysis to identify where such facilities are needed;

In the light of this as well as the affordability constraints of providing universally accessible quality bus feeder services, the CDM's approach will be to combine a set of universally accessible on-demand feeder services with the universally accessible trunk services.

Under the intended model, smartphone technological innovations will also be introduced to these on-demand services for wheelchair users, which should significantly improve the process of requesting such services.

6.4 OVERALL NETWORK DESIGN

6.4.1 Introduction

The CDM's Overall Network Design described in the PTP sets out the high-level view of the CDM's future system for road-based services, contracted and non-contracted. The Overall Network Design for CDM is described below.

6.4.2 Preferred modes for particular routes or corridors

The Integrated Public Transport Network Plan 2022 identifies the routes and corridors for BRT including expansive feeder services, and existing minibus taxi-type services, as well as new passenger routes in CDM. This includes:

- transport into or from the areas of other planning authorities

The CDM has developed its proposed Overall Network Design based on its assessment of the status quo (see chapter 3) and the policies for the rationalisation and restructuring of the existing contracted services, the development of new contracted services, and the restructuring of the non-contracted services.

Following the approval of the IPTN 2022 network, the CDM has adopted the IPTN business plan to ensure financial and fiscal sustainability and to exploit the opportunities being presented by new technologies.

The IPTN 2022 proposes a set of BRT trunk routes that would be supported by feeders of minibuses and midi-buses.

In addition, the CDM seeks to utilise the strengths and potential comparative advantages of the minibus-taxi sector as a significant element of the integrated transport system. This would be on the basis that the shortcomings of the minibus-taxi industry can be addressed. While BRT systems are generally considered more efficient than minibus taxi-type service at providing services along high volume trunk routes, some minibus taxi-type service should continue to operate along trunk routes. The flexible nature of minibus taxi-type services means that they can in some instances provide services on non-trunk routes more cost effectively than the BRT.

6.4.3 Planned sequencing of network implementation

The PTP describes the planned sequencing of the network implementation.

The IPTN 2022 Implementation Plan provides roll-out plan for the implementation of the IPTN system.

The roll-out plan prioritises corridors for implementation to maximise the impact on passenger convenience and affordability and to minimise operational and capital costs throughout the roll-out period. This is subject to available funding from national government grants, projected system revenues and the CDM's own contribution being available, as well as other funding sources. The plan envisages a corridor-by-corridor timeline for implementation beyond Phase 1, considering the phased approach that will start by using the current fleet of minibuses and midi-buses used by the taxi industry. The timelines and implementation approach may still need to be refined to ensure duplication and competition with the *Leeto La Polokwane* services is avoided whilst resources are harnessed for faster implementation.

An incremental approach seeks to ensure a balance between the roll-out of corridor BRT services and the continuous improvement of public transport facilities and operations which support the IPTN throughout the CDM.

6.5 COMMUTER RAIL PLAN

There is currently no commuter rail service existing or operational within CDM .

6.6 CONTRACTED SERVICES PLAN

6.6.1 Introduction

This part of the PTP sets out the CDM's plans for dealing with both existing and new contracts for road-based PT services in its functional area. It describes the process for rationalising existing contracts and sets out the requirements for each new contract in terms of the proposed routes, frequencies and fleet requirements.

6.6.2 Existing contracts

There are four subsidised bus operations within the CDM, and they are:

- Bahwaduba;
- Madodi;

- Great North Transport (including Kopano as sub-contractor); and
- Leeto la Polokwane is in the process of being deployed.

The first three operators have 196 buses in operation for 180 routes.

6.6.3 Proposed plan for new contracts

In the next five years, CDM intends to enter into new contracts in alignment with the Implementation Plan of the IPTN 2022 with primary focus on the following three major corridors:

- Polokwane-Bochum
- Polokwane Mankweng
- Polokwane-Lebowakgomo

6.6.4 Process for rationalising existing contracts

Upon transfer of the contracted services by the province, subject to readiness of CDM to take over the function, there will be a detailed rationalisation in terms of the principles of the IPTN 2022 read with the NLTA.

6.6.5 Requirements for each new contract

The requirements for each new contract in terms of the proposed routes, the frequencies and fleet requirements per route, and the contract duration are currently under investigation. They will be assessed in the relevant business plans, and reported on in the 2023 review of this document. The CSIR is attending to this work.

6.7 NON-CONTRACTED SERVICES PLANS

This part of the PTP sets out the CDM's five-year plan for dealing with the non-contracted services that are provided on routes where operating licences are granted. These include minibus taxi-type services, scholar transport and tuk-tuk services. The Non-Contracted Services Plan describes the required supply of vehicles of a particular mode on particular routes based on:

- The CDM's modal policy;
- An analysis of data collected for the Transport Register;
- Needs identified through public and stakeholder involvement forums;
- Records of current legitimate services as reflected in the Operating Licence Administration System (OLAS);

6.8 OPERATING LICENCES PLAN

6.8.1 Introduction

The PTP contains an OLP which guides the award of operating licences by the CDM. It has been determined by the Contracted Services Plan and Non-Contracted Services Plan referred to above.

The purpose of this OLP is to provide guidance to the CDM as to which operating licence applications should be recommended or rejected by it.

The OLP describes:

- the operating licences required for all proposed new contracts
- the non-contracted regular, daily services in CDM
- the defined PT routes on which non-contracted services may operate and related facilities
- the number of vehicles of each capacity type that CDM will authorise
- enforcement strategies and institutional arrangements

6.8.2 Purpose of OLP

The purpose of this OLP is to provide clear guidance to the CDM as to which operating licence applications should be recommended or rejected by it.

6.8.3 Proposed new contracts

The process of issuing of operating licences (OLs) is largely informed by existing operating licences already in the OLAS.

The issuing of OLs is currently a Provincial Regulatory Entity and National Public Transport Regulator function although NLTA makes provision for municipalities to apply for the assignment of the function for their areas of which CDM has not yet applied. The current role of the planning authority is to determine the appropriate issuance of OLs by optimising the balance between supply and demand, and the impending roll-out of any contracted services. Part of the assessment process before applications for OLs can be recommended to the PRE or NPTR based on the OLs concerned , include the CDM optimising the balance between the current supply and demand for PT services.

The impact of the OLP extends to the CDM functional area to include adjacent municipalities, the province and other regulatory entities to ensure an effective running of the local PT network and cross-border services.

In keeping with the intention of the Public Transport Plan, the OLP seeks to positively impact the PT user through the award of new OLs.

With respect to future contracts, the number of service providers and the affected routes for the new Phase 2 of the IPTN are yet to be determined.

6.8.4 Non-contracted regular, daily services

6.8.4.1 Defined PT routes or specified groups of routes

The condition of granting of OLs includes a route-by-route description of the application from the point of origin to the destination point except for tuk-tuks services that may be provided on radius basis per section 70 of the NLTA. Non-contracted services for the minibus taxi-type services are considered and awarded in terms of a network of routes in order to improve the interoperability and self-regulation within an association. 34 taxi associations are currently recognised with members offering services in CDM with approximately 357 in possession of various route descriptions forming a typical network of routes per association.

6.8.4.3 Number of OLs granted

The number of OLs issued for non-contracted PT is provided in the PRE data submitted as part of this report. The minibus type services operate on 355 legal route descriptions.

On the issue of undersupply, the CDM responds by supporting the supply of more OLs where evidence indicates a positive trend. It does not control the demand for non-contracted services, presently.

With respect to oversupply, the CDM does not support applications for OLs which will result in the overtrading of routes.

6.8.5 Non-regular modes of transport

Metered taxis

Metered taxis are not a well-developed mode of public transport in the CDM.

The province has confirmed that the metered taxis are very few and they are not formally regulated with operating licences.

Long distance PT

Long distance Public Transport consists of the following modes:

- long-distance buses
- long-distance minibus taxi-type service.

Tuk-Tuks

Tuk-Tuks refer to a three-wheeled motor vehicle designed for transporting not more than two passengers and are intended for those wanting to travel short-distances- usually no more than 3 km. In terms of section 70(2) of the NLTA these services may be operated on a road network or area as shown in the ITP.

6.8.6 PRE Conditions

The consideration of various PT transactions with respect to non-contracted services, is provided for in section 55(2) of the NLTA.

Key to the regulatory entity (PRE or NPTR) decision to grant PT OLs to applicants impacting CDM is the principle of not granting OLs when the CDM, through its evaluation processes, does not support an application for OLs.

6.8.7 The Operating Licence Administration System (OLAS)

The function of OLAS is to maintain an active record of all OL data, related records of decisions and all PT route information.

The key objective of OLAS is to have a database that accurately and reliably reflects the details of all active OLs pertaining to the area at the time any new application is being considered.

On promulgation in the Government Gazette, an agency agreement between the CDM and the LPG will come into effect allowing the PRE to continue receiving and adjudicating OL applications until the staff transfer to the CDM has been concluded to enable establishment of MRE. This will be for a maximum of one year and to coincide with the commencement of the CDM's financial year.

This platform will also accommodate the migration of all PT services operators' details, PT routes and OLs in the system as an accurate basis for PT decision-making with respect to recommending or rejecting applications for OLs.

Once this platform is live, all operators will be registered and profiled on the MRE IT platform.

The CDM will also avail links of this MRE IT platform to the relevant authorities to forge effective concurrency in the provisions of PT services, once this system is fully operational. The IT system must be consistent with and be interoperable with the information systems contemplated in section 6 of the NLTA.

6.8.8 Enforcement strategies

The CDM's law enforcement strategies for maintaining the OLAS, including institutional arrangements, the interrelationship with traffic law enforcement and the setting of targets and measuring performance are set out below.

6.8.9 Institutional arrangements

The NLTA allows for the establishment of regulatory entities at all three spheres of government:

- a National Public Transport Regulator (NPTR)
- a Provincial Regulatory Entity (PRE)
- a Municipal Regulatory Entity (MRE) (in the case of a municipality to which the operating licence function has been assigned under section 11(2) of the NLTA

The current enforcement agencies comprise the following institutions, namely:

- The South African Police Services (SAPS)
- Provincial Traffic
- Provincial Inspectorate
- Municipal Law Enforcement

6.8.10 Interrelationship between law enforcement

The law enforcement agencies primarily involved in enforcing the requirements of both the NLTA and NRTA, are the Traffic & Public Transport Inspectorates of both the municipalities and Province, and assisted where appropriate, by the SAPS.

6.8.11 Targets and measuring performance

Based on resource priorities, the setting of targets and measuring performance in relation to OL enforcement involves:

- Clamping down on illegal PT operations;
- Addressing route disputes and encroachment;
- resolving the issue of destructive competition between services on the same route or corridor.

6.9 LEETO LA POLOKWANE

The current *Leeto la Polokwane* network is shown in Figure 6.1. *Leeto la Polokwane* consists of the following elements:

Trunk Routes

These are the dedicated lanes that will only be used by the *Leeto la Polokwane* buses. The lanes are painted red to indicate that it is a bus only lane. Persons in private vehicles are not allowed to drive on the trunk routes.

Complementary routes/Trunk Extension routes.

These are routes that provide a direct service between two nodes/major areas. These routes will operate like other bus services, where the bus uses normal lanes and operates in mix traffic. Passengers will be picked up and dropped off at the branded pavement stops.

Bus Stops/Kerb Side Stops

These are the stops that are situated on the kerbs (pavement) and are easily identified by the Leeto la Polokwane's branded poles.

Median Stations

These are the bus stations that are specially built for the Leeto la Polokwane service and are situated in the middle of the road.

Non-Motorised Transport

Leeto la Polokwane will provide paved walkways next to the road for safe walking, running, and cycling. These walkways will also be placed along the *Leeto la Polokwane* route to ensure safe travelling to and from the station

Figure 6-1: Leeto La Polokwane Public Transport Routes

6.10 IPTN OPERATIONAL PLAN

In February 2022 the Department of Transport (DoT) developed an Integrated Public Transport Network (IPTN) Plan for the Capricorn District Municipality. The desired outcome of the IPTN was to ensure coordination and integration of all public transport services to provide a single and consolidated system to optimise the utilisation of the existing transport infrastructure and public transport services.

An IPTN was developed to improve on the current fragmented public transport system.

6.10.1 Nodes

The major and minor nodes are shown in Table 6.1 and Table 6.2 respectively.

Table 6-1: Major Nodes in CDM

Major Node	Municipal Area
Polokwane	Polokwane
Bochum	Blouberg
Mphakane	Molemole
Lebowakgomo Zone F	Lepelle-Nkumpi

Table 6-2: Minor Nodes in CDM

Minor Node	Municipal Area
Alldays	Blouberg
Eldorado	Blouberg
Kromhoek	Blouberg
Dendron	Molemole
Tibane	Polokwane
Ipopeng	Polokwane
Morebeng (Soekmekaar)	Molemeole
Moletlane (Zebediela)	Lepelle-Nkumpi
Lebowakgomo A	Lepelle-Nkumpi

6.10.2 Corridors

The proposed IPTN consists of 4 corridor routes and 39 feeder routes. These public transport routes connect the 13 nodal points in the CDM. The four corridors connect Polokwane, Bochum, Lebowakgomo and Mphakane.

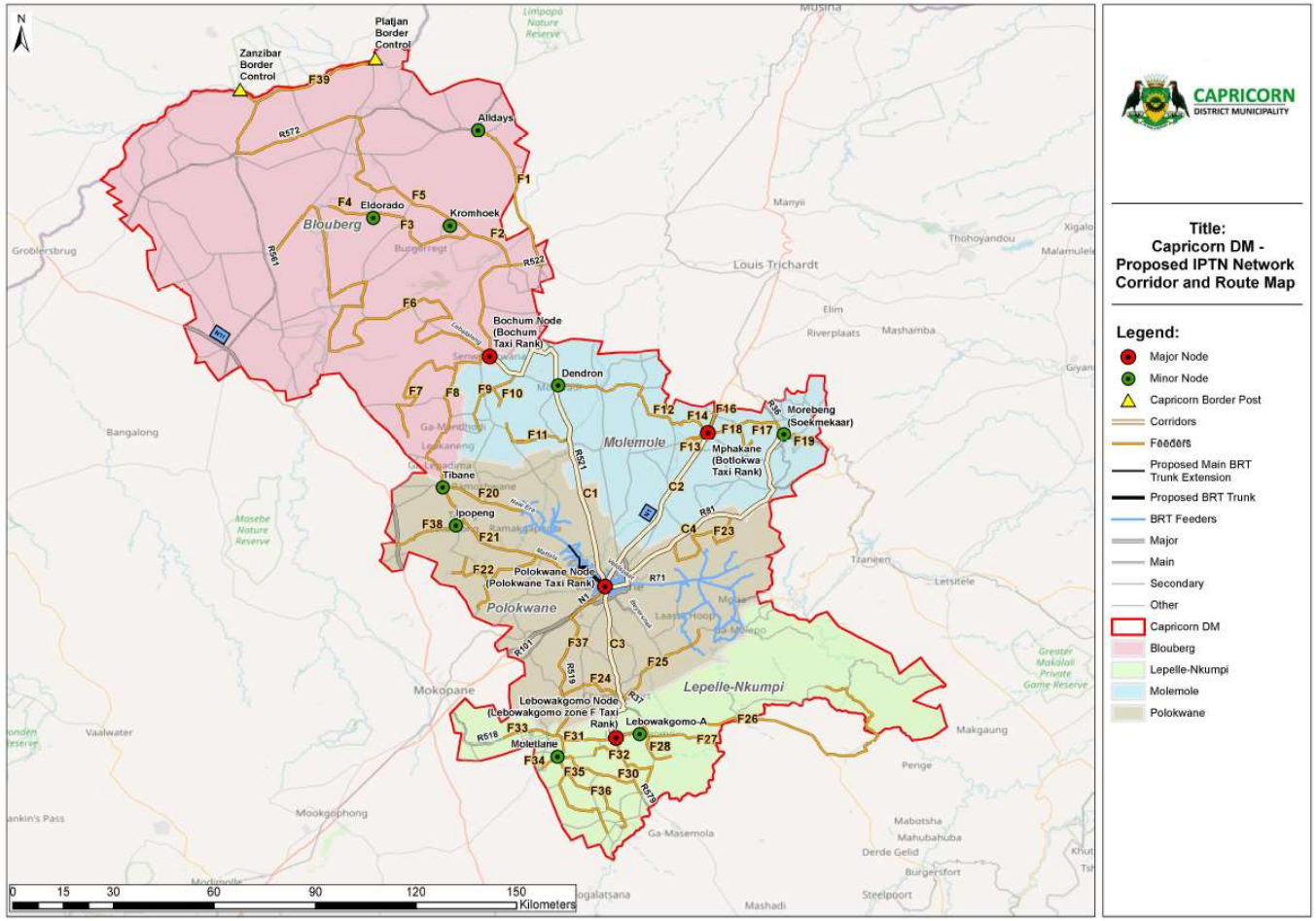
Figure 6.2 overleaf shows the nodes, proposed public transport corridors and feeder services.

6.10.3 Proposed Depot Locations

The following depots are proposed:

- Next to Dendron Taxi Rank, east of Route R521
- A few kilometres north of Botlokwa Taxi Rank, along N1 Freeway
- East of Lebowakgomo Taxi Rank, along Route R518
- East of Sekgosese Taxi Rank, along Route R36

Figure 6-2: Proposed Nodes, IPTN Network, Corridor and Feeder



Source: CDM DITP, 2022

6.10.4 Phasing of the Implementation of the IPTN

The implementation of the IPTN will be implemented in three phases as discussed below.

6.10.4.1 Phase 1

Phase 1 will be implemented as follows:

- Scheduled public transport service using the existing minibus taxi vehicles
- Subsidies for trip payments will be based on kilometres travelled.
- Adherence to schedules will be strictly enforced.
- Phase 1 is proposed to persist for

6.10.4.2 Phase 2

Phase 2 will be implemented as follows:

- Buses to be used on high demand routes
- Minibus taxi vehicles will be used on other routes
- Payment of subsidies will be based on kilometres driven
- Adherence to schedules will be strictly enforced.

The implementation of Phase 1 and 2 is planned over 13 years, with Phase 1 implementing from 1 to 5 years and Phase two implementing from 4 to 13 years.

6.10.4.3 Phase 3

Phase three will be implemented as follows:

- Current subsidised bus contracts will be incorporated to the system
- The status of the current bus contracts will influence the implementation programme of Phase 3.
- The CDM IPTN advices that the implementation of Phase 3 must be considered from year 11.

6.10.5 Fleet Sizes

The CDM IPTN (2022) determined the public transport fleet sizes as follows:

Table 6-3: Public Transport Fleet

Public Transport Fleet Sizes		
	Minibus Taxis	**Buses**
Phase 1	1091	0
Phae 2	619	108

6.10.6 Capital and Operational Expenditure

Table 6-4: Capital and Operational Expenditure

	Capital Expenditure	**Operational Expenditure**
Phase 1	R759 million	R1.66 billion/year
Phae 2	R1.45 billion	R 1.1 billion/year
TOTAL	R 2.21 billion	

6.10.7 Fare Revenue

The CDM IPTN (2022) determined the fare revenue as follows:

Table 6-5: Fare Revenue

Fare Revenue	
Daily	R 1.92 million
Annually	R 701 million
Shortfall	Between R 505 m and R 1.35b (over 15 years projections)

6.10.8 Governance

The CDM IPTN proposes that the District must manage the IPTN public transport system. To play this role, the District needs to do the following:

- Make provision for human and material resources
- Prepare to train staff who will work in this unit
- Possibly appoint an experienced resource to manage the unit
- Monitor the IPTN system continuously
- Set and monitor KPIs for public transport operators

6.10.9 Estimated Passenger Demand per Route

The estimated passenger demand per route for the AM, PM, Off Peak and Weekend was estimated from the traffic counts and ranks surveys that were conducted for the IPTN project. The weekday passenger demand in the AM and PM peak periods ranges from 50 to 750 passengers per hour, while the weekend passenger demand range from 25 to 375 passengers per hour.

6.10.10 Operating Hours

The proposed operating hours for the IPTN service for the weekday will be from 05:00 to 20:00 (15 hours) with AM peak, Off peak and PM peak plans, running throughout the day. During the weekend the proposed operating hours are 08:00 to 14:00 with only the weekend plan running throughout the weekend.

6.10.11 Monitoring and Evaluation

The IPTN system should be evaluated at regular intervals to ensure that the system achieves the passengers' travel needs cost effectively. The following surveys and reviews could be implemented as a minimum initial monitoring and evaluation plan:

- Schedule adherence monitoring;
- Fare Collection Monitoring;
- IPTN Call Centre;
- Customer Satisfaction Surveys; and
- Periodic Performance Reviews.
- Contractual Obligation – Penalty clauses

6.10.12 Proposed Resources for Transport Authority (Capricorn District Municipality)

The following human resources are proposed:

- IPTN Manager.
- IPTN Operational Manager.
- IPTN Infrastructure Manager.
- IPTN Financial Manager; and
- IPTN Marketing Manager

6.10.13 IPTN Proposed Implementation Programme

The implementation programme of the IPTN is shown in **Table 6.6**.

- The implementation of the Phase 1 and Phase 2 of the IPTN is planned over 13 years, with
- Phase 1 implemented from year 1 to year 5 and
- Phase 2 from year 4 to year 13
- The status of the existing subsidised bus company contracts could influence the implementation programme for Phase 3
- The implementation of Phase 3 should be considered after year 11.

Table 6-6: IPTN Implementation Programme

Implementation Programme														
No	**Item**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**	**Year 11**	**Year 12**	**Year 13**
1	Phase 1 - Implementation													
2	Phase 1 - Operations													
3	Phase 2 - Implementation													
4	Phase 2 - Operations													
5	Phase 3 - Implementation													

Source: CDM IPTN, 2022

7. TRANSPORT INFRASTRUCTURE STRATEGY

Table 7-1: PHASE 1 IPTN New Infrastructure Cost

New Infrastructure Cost Phase 1							
No	Item	Unit	Quantity	Rate		Amount	
1	Roadway civil works – Pavement strengthening	m^2	0	R	450	R	-
2	Roadway civil works – Road widening	m^2	0	R	1 500	R	-
3	Roadway civil works – Upgrading of gravel roads to asphalt roads	km	39	R	3 850 000	R	150 150 000
4	Roadway civil works – Taxi / Bus Bay	No	1 026	R	175 000	R	179 550 000
5	Civil works – Sidewalks	m^2	135 360	R	350	R	47 376 000
6	Traffic signal adjustments at Intersection	No of Intersections	0	R	250 000	R	-
7	Top structures for stops	No	1 026	R	20 000	R	20 520 000
8	Taxi rank upgrades major and minor nodes (facilities and capacity)	No	13	R	20 000 000	R	260 000 000
9	Layover / holding area	No	1	R	20 000 000	R	20 000 000
10	Depots	No	0	R	80 000 000	R	-
11	Land and property acquisition	Lump Sum	1	R	10 000 000	R	10 000 000
					Total New Infrastructure Cost Phase 1	R	687 596 000

Source: (Tables 7.1 to 7.17): CDM IPTN, 2022

Table 7-2: PHASE 2 IPTN New Infrastructure Cost

New Infrastructure Cost Phase 2							
No	Item	Unit	Quantity	Rate		Amount	
1	Roadway civil works – Pavement strengthening	m^2	12 000	R	450	R	5 400 000
2	Roadway civil works – Road widening	m^2	12 000	R	1 500	R	18 000 000
3	Roadway civil works – Upgrading of gravel roads to asphalt roads	km	12	R	3 850 000	R	46 200 000
4	Roadway civil works – Taxi / Bus Bay	No	0	R	175 000	R	-
5	Civil works – Sidewalks	m^2	0	R	350	R	-
6	Traffic signal adjustments	No of Intersections	12	R	250 000	R	3 000 000
7	Top structures for stops	No	0	R	20 000	R	-
8	Taxi rank upgrades at major nodes (facilities and capacity)	No	4	R	20 000 000	R	80 000 000
9	Layover / holding area	No	0	R	20 000 000	R	-
10	Depots	No	4	R	80 000 000	R	320 000 000
11	Land and property acquisition	Lump Sum	0	R	10 000 000	R	-
					Total New Infrastructure Cost Phase 2	R	472 600 000

Table 7-3: PHASE 1 IPTN New Equipment Cost

New Equipment Cost - Phase 1						
No	Item	Unit	Quantity	Rate		Amount
1	Fare system equipment	Lump Sum	1	R	30 000 000.00	R 30 000 000.00
2	APTMS / ITS equipment	Lump Sum	1	R	25 000 000.00	R 25 000 000.00
					Total New Equipment Cost Phase 1	**R 55 000 000.00**

Table 7-4: PHASE 2 IPTN New Equipment Cost

New Equipment Cost - Phase 2						
No	Item	Unit	Quantity	Rate		Amount
1	Fare system equipment	Lump Sum	1	R	35 000 000.00	R 35 000 000.00
2	APTMS / ITS equipment	Lump Sum	1	R	35 000 000.00	R 35 000 000.00
					Total New Equipment Cost Phase 2	**R 70 000 000.00**

Table 7-5: PHASE 1 IPTN Operating Costs

Operating Costs - Phase 1					
No	**Item**	**Unit**	**Quantity**	**Rate**	**Amount**
1	**Fixed Vehicle Costs**				
1.1	Taxi insurance per annum	No	1 091	R 33 750.00	R 36 821 250.00
1.2	Taxi licence fee per annum	No	1 091	R 1 000.00	R 1 091 000.00
1.3	Fixed taxi maintenance per annum	No	1 091	R 50 000.00	R 54 550 000.00
1.4	Taxi driver salaries per annum	No	2 027	R 104 000.00	R 210 808 000.00
1.5	Taxi loan payment for vehicle	No	1 091	R 180 000.00	R 196 380 000.00
2	**Variable Vehicle Costs**				
2.1	Taxi tyres	km	164 817 328	R 1.70	R 280 189 457.60
2.2	Taxi fuel	km	164 817 328	R 2.50	R 412 043 320.00
2.3	Taxi lubricants as percentage of fuel	%	R 412 043 320	2.5%	R 10 301 083.00
2.4	Taxi AbBlues as percentage of fuel	%	R 412 043 320	5.0%	R 20 602 166.00
2.5	Taxi parts and replacement	km	164 817 328	R 2.42	R 398 857 933.76
				Total Direct Operational Cost Phase 1	**R 1 621 644 210.36**

Table 7-6: PHASE 2 IPTN Operating Costs

Operating Costs - Phase 2					
No	**Item**	**Unit**	**Quantity**	**Rate**	**Amount**
1	**Fixed Vehicle Costs**				
1.1	Taxi insurance per annum	No	619	R 33 750.00	R 20 891 250.00
1.2	Bus insurance per annum	No	108	R 202 500.00	R 21 870 000.00
1.3	Taxi licence fee per annum	No	619	R 1 000.00	R 619 000.00
1.4	Bus licence fee per annum	No	108	R 2 500.00	R 270 000.00
1.5	Fixed taxi maintenance per annum	No	619	R 50 000.00	R 30 950 000.00
1.6	Fixed bus maintenance per annum	No	108	R 95 000.00	R 10 260 000.00
1.7	Taxi driver salaries per annum	No	1 149	R 104 000.00	R 119 496 000.00
1.8	Bus driver salaries per annum	No	192	R 104 000.00	R 19 968 000.00
1.9	Taxi loan payment for vehicle	No	619	R 180 000.00	R 111 420 000.00
1.10	Bus loan payment for vehicle	No	108	R 900 000.00	R 97 200 000.00
2	**Variable Vehicle Costs**				
2.1	Taxi tyres	km	72 347 080	R 1.70	R 122 990 036.00
2.2	Bus tyres	km	9 170 512	R 1.46	R 13 388 947.52
2.3	Taxi fuel	km	72 347 080	R 2.50	R 180 867 700.00
2.4	Bus fuel	km	9 170 512	R 3.33	R 30 568 373.33
2.5	Taxi lubricants as percentage of fuel	%	R 180 867 700	2.5%	R 4 521 692.50
2.6	Bus lubricants as percentage of fuel	%	R 30 568 373	2.5%	R 764 209.33
2.7	Taxi AbBlues as percentage of fuel	%	R 180 867 700	5.0%	R 9 043 385.00
2.8	Bus AbBlues as percentage of fuel	%	R 30 568 373	5.0%	R 1 528 418.67
2.9	Taxi part and replacement	km	72 347 080	R 2.42	R 175 079 933.60
2.10	Bus part and replacement	km	9 170 512	R 1.83	R 16 782 036.96
				Total Direct Operational Cost Phase 2	**R 988 478 982.91**

Table 7-7: PHASE 1 IPTN Indirect Operating Costs

Indirect Operating Costs - Phase 1					
No	Item	Unit	Quantity	Rate	Amount
1	Fare system operations and maintenance	Lump Sum	1	R 25 000 000.00	R 25 000 000.00
2	IPTN node services	Lump Sum	1	R 1 500 000.00	R 1 500 000.00
3	APTMS operations and maintenance	Lump Sum	1	R 5 000 000.00	R 5 000 000.00
4	Infrastructure maintenance	Lump Sum	1	R 5 000 000.00	R 5 000 000.00
5	Infrastructure insurance	Lump Sum	1	R 250 000.00	R 250 000.00
6	Depot and holding areas maintenance and security	Lump Sum	1	R 5 000 000.00	R 5 000 000.00
7	Office Rental	Lump Sum	1	R 200 000.00	R 200 000.00
				Total Indirect Operational Cost Phase 1	**R 41 950 000.00**

Table 7-8: PHASE 2 IPTN Indirect Operating Costs

Indirect Operating Costs - Phase 2					
No	Item	Unit	Quantity	Rate	Amount
1	Fare system operations and maintenance	Lump Sum	1	R 40 000 000.00	R 40 000 000.00
2	IPTN node services	Lump Sum	1	R 1 500 000.00	R 1 500 000.00
3	APTMS operations and maintenance	Lump Sum	1	R 20 000 000.00	R 20 000 000.00
4	Infrastructure maintenance	Lump Sum	1	R 5 000 000.00	R 5 000 000.00
5	Infrastructure insurance	Lump Sum	1	R 250 000.00	R 250 000.00
6	Depot and holding areas maintenance and security	Lump Sum	1	R 10 000 000.00	R 10 000 000.00
7	VOC Cost (excluding direct operating cost)	Lump Sum	1	R 25 404 474.49	R 25 404 474.49
8	Oversight Entity Cost	Lump Sum	1	R 12 702 237.24	R 12 702 237.24
9	Office Rental	Lump Sum	1	R 200 000.00	R 200 000.00
				Total Indirect Operational Cost Phase 2	**R 115 056 711.73**

Table 7-9: PHASE 1 IPTN New Vehicle Costs

New Vehicle Cost - Phase 1					
No	Item	Unit	Quantity	Rate	Amount
1	New Universal Access Taxis	No	13	R 1 250 000.00	R 16 250 000.00
				Total New Vehicle Cost Phase 1	**R 16 250 000.00**

Table 7-10: PHASE 2 IPTN New Vehicle Costs

New Vehicle Cost - Phase 2					
No	Item	Unit	Quantity	Rate	Amount
1	New 12m Buses	No	108	R 4 500 000.00	R 486 000 000.00
				Total New Vehicle Cost Phase 2	**R 486 000 000.00**

Table 7-11: PHASE 2 IPTN Industry Transition Costs

Industry Transition Cost Phase 2					
No	Item	Unit	Quantity	Rate	Amount
1	Industry Transition Cost	No	472	R 900 000.00	R 424 800 000.00
				Total Transition Cost Phase 2	**R 424 800 000.00**

Table 7-12: IPTN Capital Expenditure

Capital Expenditure			
No	Item	Amount	
		Phase 1	Phase 2
1	New Infrastructure Cost	R 687 596 000.00	R 472 600 000.00
2	New Equipment Cost	R 55 000 000.00	R 70 000 000.00
3	New Vehicle Cost	R 16 250 000.00	R 486 000 000.00
4	Industry Transition Costs	R -	R 424 800 000.00
Total Capital Expenditure per Phase		**R 758 846 000.00**	**R 1 453 400 000.00**
Total Capital Expenditure		**R2 212 246 000.00**	

Table 7-13: IPTN Operational Expenditure per Year

Operational Expenditure per Year			
No	Item	Amount	
		Phase 1	Phase 2
1	Direct Operational Cost	R 1 621 644 210.36	R 988 478 982.91
2	Indirect Operational Cost	R 41 950 000.00	R 115 056 711.73
Total Operational Expenditure per Phase per Year		**R 1 663 594 210.36**	**R 1 103 535 694.65**

Table 7-14: IPTN Operational Deficit per Year

Operational Deficit per Year			
No	Item	Amount	
		Phase 1	Phase 2
1	Fare Revenue	R 701 367 314.29	R 701 367 314.29
2	Operational Expenditure	-R 1 663 594 210.36	-R 1 103 535 694.65
Operational Deficit per Phase per Year		**-R 962 226 896.07**	**-R 402 168 380.36**

Table 7-15: Fare Revenue/Direct Operational Cost Ratio

Fare Revenue / Direct Operations Cost Ratio			
No	Item	Amount	
		Phase 1	Phase 2
1	Fare Revenue	R 701 367 314.29	R 701 367 314.29
2	Direct Operational Cost	R 1 621 644 210.36	R 988 478 982.91
Fare Revenue / Direct Operations Cost Ratio		**43%**	**71%**

Table 7-16: Proposed IPTN Capital Expenditure

No	Item	Year 1	Year 2	Year 3	Year 4	Year 5
1	**Phase 1 - Capital Expenditure**					
1.1	New Infrastructure Cost	R 343 798 000	R 343 798 000			
1.2	New Equipment Cost	R 27 500 000	R 27 500 000			
1.3	New Vehicle Cost	R 8 125 000	R 8 125 000			
1.4	Transition Costs	R -	R -			
2	**Phase 2 - Capital Expenditure**					
2.1	New Infrastructure Cost				R 236 300 000	R 236 300 000
2.2	New Equipment Cost				R 35 000 000	R 35 000 000
2.3	Transition Costs				R 212 400 000	R 212 400 000
2.4	New Vehicle Cost				R -	R -
Total Capital Expences (PTNG Grant)		**R 379 423 000**	**R 379 423 000**	**R -**	**R 483 700 000**	**R 483 700 000**

Table 7-17: Operational Expenditure and Revenue Projected Cash Flow

No	Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15
1	**Phase 1 - Operational Expenditure**															
1.1	Taxis Service Cost			R 2 027 974 411	R 2 149 652 876	R 2 278 632 048										
1.2	Indirect Operational Cost			R 49 963 121	R 52 960 908	R 56 138 563										
2	**Phase 2 - Operational Expenditure**															
2.1	Taxis service Cost						R 1 191 269 260	R 1 191 269 260	R 1 191 269 260	R 1 262 745 416	R 1 338 510 140	R 1 418 820 749	R 1 503 949 994	R 1 594 186 993	R 1 689 838 213	R 1 791 228 506
2.2	VOC service Cost						R 355 794 682	R 355 794 682	R 355 794 682	R 377 142 363	R 399 770 905	R 423 757 159	R 449 182 588	R 476 133 544	R 504 701 556	R 534 983 650
2.3	Indirect Operational Cost						R 183 382 918	R 183 382 918	R 183 382 918	R 194 385 894	R 206 049 047	R 218 411 990	R 231 516 709	R 245 407 712	R 260 132 175	R 275 740 105
	Total Operational Expences	**R -**	**R -**	**R 2 077 937 532**	**R 2 202 613 784**	**R 2 334 770 611**	**R 1 730 446 860**	**R 1 730 446 860**	**R 1 730 446 860**	**R 1 834 273 672**	**R 1 944 330 092**	**R 2 060 989 898**	**R 2 184 649 292**	**R 2 315 728 249**	**R 2 454 671 944**	**R 2 601 952 261**
3	**Revenue**															
3.1	Fare Revenue			R 835 339 693	R 885 460 075	R 938 587 679	R 994 902 940	R 1 054 597 116	R 1 117 872 943	R 1 184 945 320	R 1 256 042 039	R 1 331 404 562	R 1 411 288 835	R 1 495 966 165	R 1 585 724 135	R 1 680 867 583
3.2	Advertisement			R 11 910 160	R 12 624 770	R 13 382 256	R 14 185 191	R 15 036 303	R 15 938 481	R 16 894 790	R 17 908 477	R 18 982 986	R 20 121 965	R 21 329 283	R 22 609 040	R 23 965 582
3.3	PTNG for Operating - Indirect Costs			R 34 974 185	R 37 072 636	R 28 069 281	R 91 691 459	R 91 691 459	R 91 691 459	R 97 192 947	R 103 024 524	R 109 205 995	R 115 758 355	R 122 703 856	R 130 066 087	R 137 870 053
	Total Revenue	**R -**	**R -**	**R 882 224 038**	**R 935 157 480**	**R 980 039 217**	**R 1 100 779 590**	**R 1 161 324 878**	**R 1 225 502 883**	**R 1 299 033 056**	**R 1 376 975 040**	**R 1 459 593 542**	**R 1 547 169 155**	**R 1 639 999 304**	**R 1 738 399 262**	**R 1 842 703 218**
	Surplus	**R -**	**R -**	**-R 1 195 713 494**	**-R 1 267 456 304**	**-R 1 354 731 395**	**-R 629 667 270**	**-R 569 121 982**	**-R 504 943 977**	**-R 535 240 616**	**-R 567 355 052**	**-R 601 396 356**	**-R 637 480 137**	**-R 675 728 945**	**-R 716 272 682**	**-R 759 249 043**

8. TRAVEL DEMAND MANAGEMENT STRATEGY

8.1 INTRODUCTION

Minimum requirements specify the following requirements to be dealt with in this travel demand management strategy chapter.

The objective of travel demand management (TDM) is to manage congestion by reducing the demand for car use in peak periods, especially single-occupancy car use. TDM also aims to bring about environmental improvements through reduced car use. TDM measures are primarily aimed at changing the behaviour of the users of the transport system.

The TDM strategy must set out appropriate measures aimed at managing travel demand. These include measures such as

- *high-occupancy vehicle lanes,*
- *park and ride facilities,*
- *and employer-based car trip reduction programmes,*
    - *such as telecommuting,*
    - *teleconferencing,*
    - *lift-clubs (ridesharing),*
    - *financial incentives for public transport use in lieu of free parking for employees, etc.*
- *Other measures discouraging car use such as tolls, levies and parking charges or limitations on parking availability may be considered.*
- *To be effective, TDM needs to be supported by significant improvements to the public transport system.*
- *The TDM Strategy must accordingly describe how the proposed measures are to be phased in over the 5-year life of the ITP to coincide with public transport and non-motorised transport improvements.*
- *Proceeds from tolls, levies or parking charges should be applied to further improvements in public transport and non-motorised transport in the municipality.*
- *The TDM strategy should also give due regard to transit-oriented development (TOD),*

- *to promote mixed use residential and commercial development designed to maximise access to public transport and designed to incorporate features to encourage transit ridership.*
- *Where possible high density residential development should be situated near to transport nodes such as stations or multimodal transit facilities.*

8.2 PROVINCIAL POLICY

The Province has the following strategies on provincial transport policy:

- To introduce subsidy mechanisms that will encourage the business sector to create employment opportunities closer to residential areas
- Implement measure to promote shorter travelling distances • Implement incentives to operators for affordable tariffs
- Focus on prioritised economic activity nodes and transport nodes in the transport plans
- Identify minimum service levels of the public transport services serving economic activity nodes
- To improve the district road network to address accident hot spots, to improve traffic flow and to give preference to public transport where appropriate;

8.3 CDM – TRAVEL DEMAND MANAGEMENT STUDY, SEPTEMBER 2010

The Capricorn District undertook a travel demand management study in 2010.

The above -mentioned TDM study was an intervention to influence travel so that more desirable transport, social, economic and environmental objectives can be achieved.

It is mainly concerned with managing traffic congestion. However, due to the predominantly rural nature of Limpopo Province, the focus of the study was widened to cover harmonisation of travel in the smaller towns and rural villages.

The study highlighted that TDM has the following benefits:

- *Reduce highway congestion and traveller delay;*
- *Improve air quality; and*
- *Improve access to jobs, schools and other opportunities;*
- *Reduce fatalities;*
- *Reduce the demand for single occupancy vehicle trips.*

The study made the following findings:

- *There is a need for improvement of the road network management including maintenance of roads and repair of potholes throughout the district.*
- *There is insufficient public transport in the rural villages.*
- *There is a serious shortage of Non- Motorized Transport infrastructure and facilities.*
- *The need for parking management in the city of Polokwane.*
- *There is traffic congestion mainly in Polokwane during peak hours mainly along Nelson Mandela drive which is used by trucks as western bypass of NI.*
- *Need for the organisation of public transport routes within the City of Polokwane.*
- *Serious traffic congestion on Church Street at Pick & Pay and Taxi Rank between Rissik and Jorrison Streets in Polokwane.*
- *Lack of fences on roads throughout the district, leading to stray animals causing accidents.*

The study also made the following recommendations:

- *A road management system for future years (i.e 5 year period) should be introduced and maintained.*
- *A Non- Motorised Transport Study covering all towns and villages in the district need to be undertaken to cater for NMT facilities and services.*
- *There is a need for a Public Transport Demand study to be conducted to determine public transport requirements, route network, facilities and the effectiveness and efficiency of the current system.*
- *A detailed Travel Demand Management study need to be conducted for Capricorn and/or Polokwane on a street by street basis.*
- *Polokwane municipality to conduct a parking study, repair parking meters and employ people to facilitate parking control. The existing parking guards can be formalised and used.*
- *Implement HOV lane for Nelson Mandela Street between Polokwane and Seshego.Limit Church Street between Rissik and Jorrison to pedestrians and taxis only.*
- *Fencing of roads in the district to prevent stray animals.*
- *Improve quality of work on the repair of potholes throughout the district.*
- *Implement traffic calming at T- Junction on road between Boyne and Chuenespoort.*

In addition, the study highlighted the following strategies that can be implemented to reduce demand for travel:

- *Promoting Non-motorized Transport (NMT);*
- *Upgrading public transport;*
- *Promoting the use of Public Transport;*
- *Making public transport affordable;*
- *Making private transport expensive;*
- *Active trip reduction programs;*
- *Car parking controls on availability and pricing;*
- *Providing "real time" traffic and parking information;*
- *Traffic signal co-ordination;*
- *Public education;*
- *Stagger working hours to reduce peak travel trips;*
- *Implementing Road Access Management;*
- *Introducing exclusive Bus or High Occupancy Vehicle (HOV) lanes;*
- *Re-routing freight and delivery vehicles to avoid congested areas;*
- *Improving road signage (to SA Road Traffic Signs Manual standard);*
- *Accommodating "special needs" road users;*
- *Controlling development.*

8.4 PROPOSED ACTIONS

The Minimum Requirements for implementing travel demand management measures are restricted to the cities as they exhibit more traffic congestion than the rural areas. In the case the local municipality that can derive benefits from travel demand management measures in Polokwane. The rest of the municipalities can use general traffic management measures to improve traffic flow and road safety on their roads.

Based on the information presented under sections 8.1 and 8.2 above, the following proposed actions can be made:

- Promoting non-motorised transport

This is dealt with in chapter 9 of this report

- Upgrading Public Transport

  This proposal is already receiving attention from government. In particular Polokwane is in the process of planning for the implementation of the IPTN.

- On-street parking management

  This action is already being implemented in Polokwane. The action must be rolled out to all precincts where there is traffic congestion.

- Traffic Signal Coordination

  Traffic signal coordination and synchronisation can lead to improved traffic flow and level of service (LOS). This has benefits of reduced travel times, etc.

- Implement Road Access Management

  This action can be implemented immediately as part of development control.

- Re-routing freight and delivery vehicles to avoid congested areas

  This action is critical and is addressed in chapter 10 of this DITP.

- Improving Road Signage

  This action has benefits in terms of reducing traffic congestion and reduce delays which may lead to frustrations on the part of the motorists

- Development Control

  The CDM Spatial Development Framework is giving this action detailed attention. This is dealt with in Chapter 4 of this DITP.

- Accessible, Affordable, Quality, Punctual and Adequate Public Transport Services

  This action is the most effective strategy for reducing car travel and therefore resulting in less traffic congestion and improved road safety on our roads.

- HOV Lanes in conjunction with ridesharing

  As an incentive, ridesharing vehicles can be allowed ride on HOV lanes and therefore experience less traffic congestion.

- Teleconferencing and Telecommuting (Virtual meetings and work from home)

  The COVID-19 pandemic has taught the world how to work from home and still be productive. The past two years has seen the great majority of workers, especially office staff, doing their work from the comfort of their homes. In addition, many conferences, official work meetings and training sessions being conducted on virtual platforms such as *Zoom* and *Microsoft Teams*.

This practice must be encouraged. If anything, it must be enhanced. It can generally lead to improved quality of life if manged well.

9. FREIGHT TRANSPORT STRATEGY

In terms of the Minimum Requirements, the planning authority is required to develop a freight transport strategy covering the transporting of goods to, from and through the area by road or rail.

The strategy must identify routes for moving goods to promote their seamless movement and, in the case of road freight transport, to avoid conflict with other road traffic.

The freight transport strategy is expected to include a plan for the movement of hazardous substances by road along designated routes in accordance with the strategy or plan in the provincial transport framework.

In preparing this strategy CDM has taken the National Freight Logistics Strategy of 2005 into account.

9.1 TRANSPORT ROUTES

9.1.1 Limpopo Road Network

Figure 9-1: Limpopo Province: Road Network

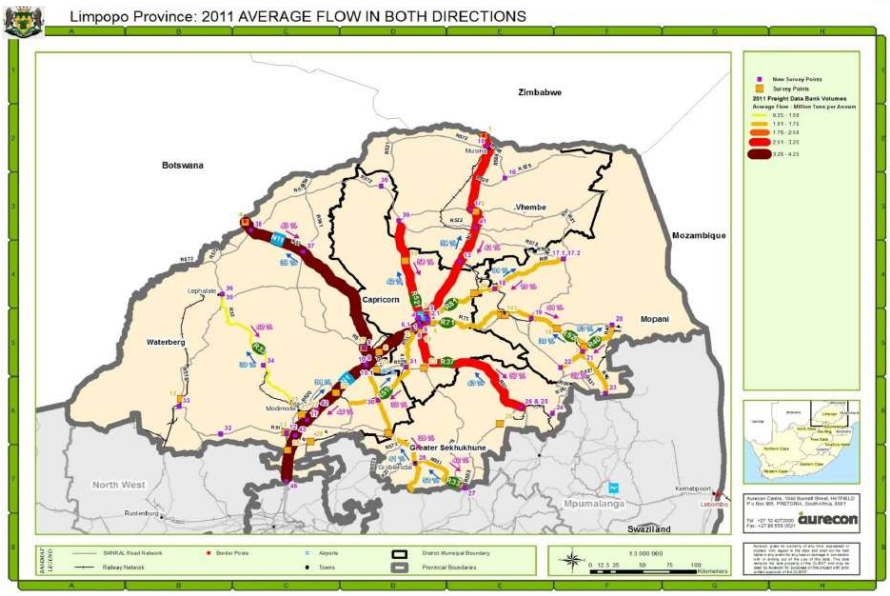
9.1.2 Limpopo Rail Network

Figure 9-2: Limpopo Province: Rail Network

9.2 COMMODITIES

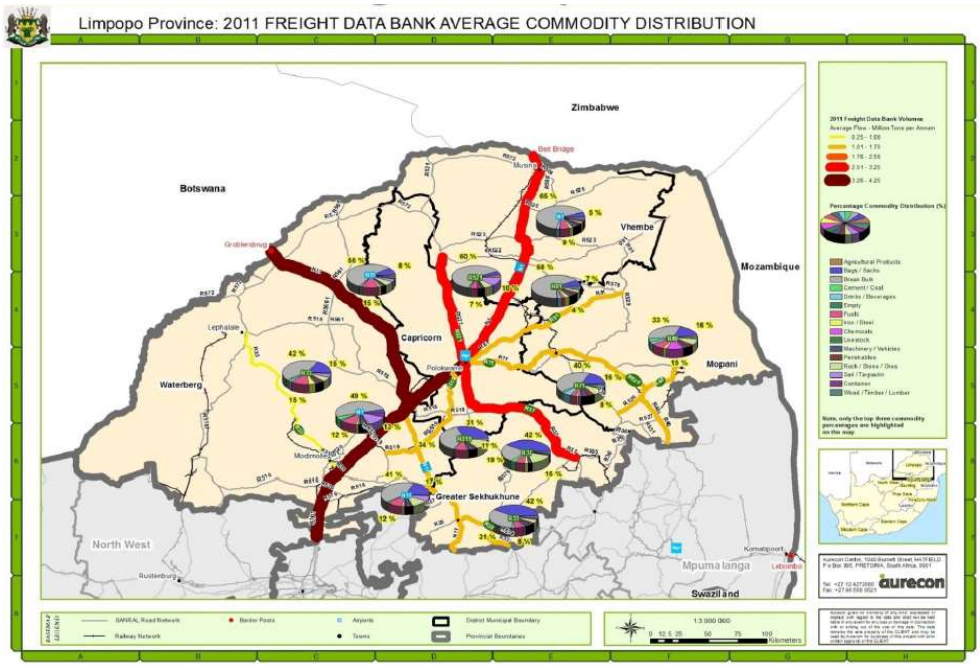
9.2.1 Average Commodity Flows

Figure 9-3: Limpopo Province: 2011 Average Flow in both Direction



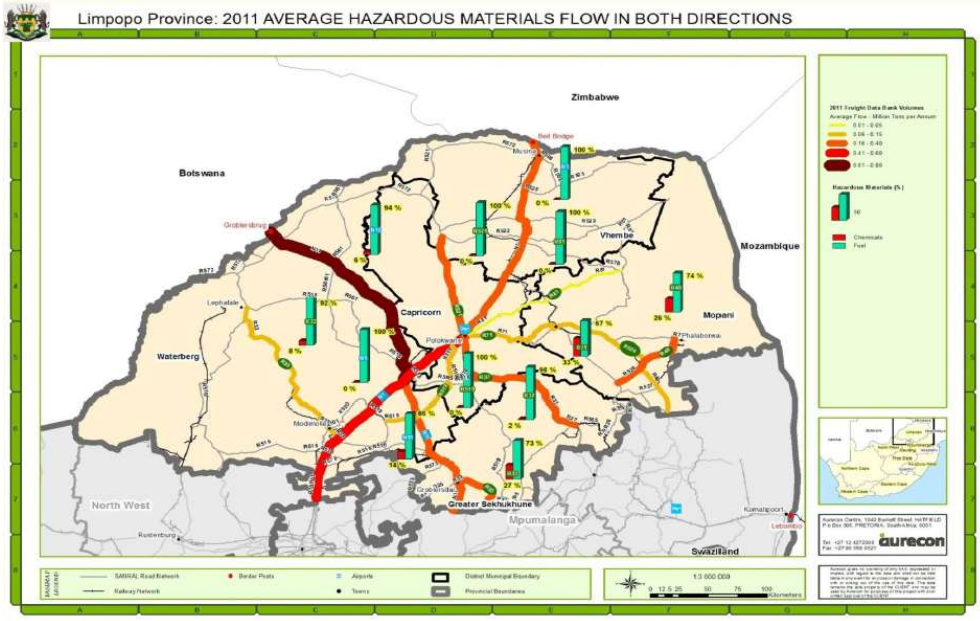
9.2.2 2011 Freight Data Bank Ave Commodity Distribution

Figure 9-4: 2011 Freight Data Bank Ave Commodity Distribution



9.3 HAZARDOUS MATERIALS

Figure 9-5: Limpopo Province: 2011 Average Hazardous Materials in Both Directions



9.4 STRATEGIC FREIGHT TRANSPORT NETWORK

Figure 9-6: Strategic Freight Transport Network

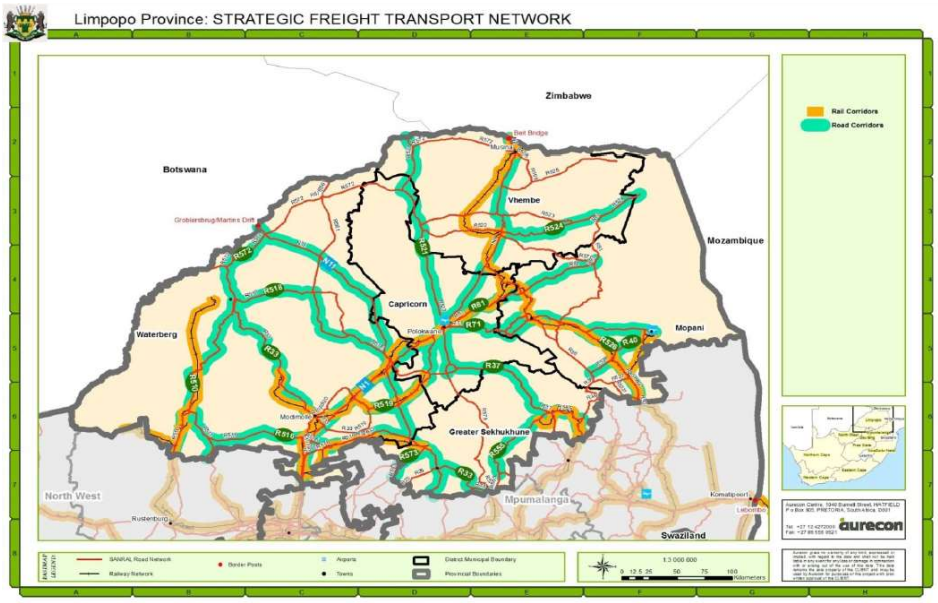
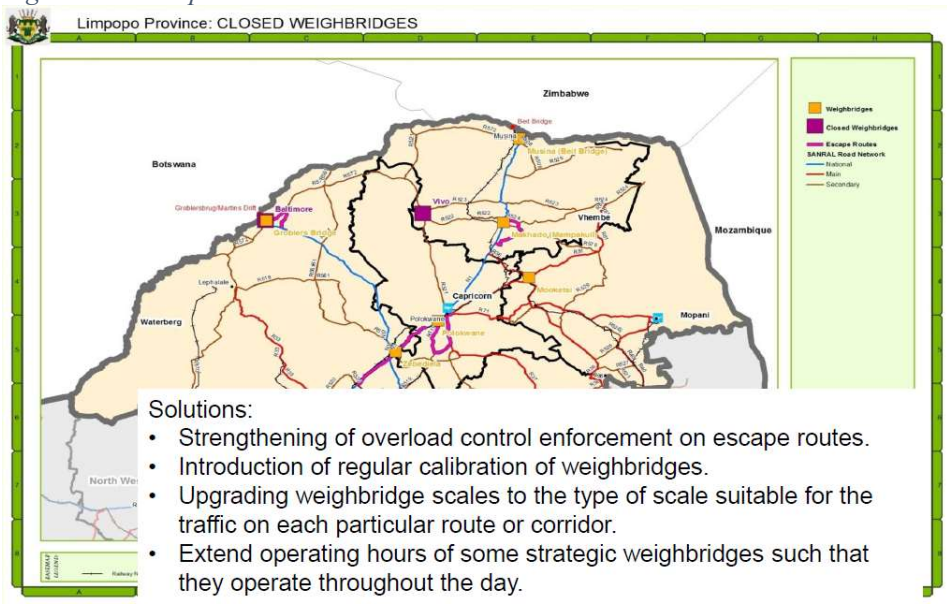


Figure 9-7: Escape Routes



10. OTHER TRANSPORT RELATED STRATEGIES

The minimum requirements requires that the district municipalities also start dealing with other strategies such as the *non-motorised strategy*.

Non-Motorised Transport (NMT) includes all means of transport that are human powered such as:

- Walking,
- Animal-Power
- Bicycling,
- Variants such as Small wheeled Transport (skates, skateboards, push scooters and hand carts) and
- Wheelchair travel.

10.1 NON-MOTORISED TRANSPORT

10.1.1 White Paper on National Transport Policy, 2021

The White Paper on National Transport Policy aimed to reduce dependence on the private car and promote other, more sustainable modes of transport such as public transport, animal-drawn transport, walking and cycling. Local authorities are expected to reflect this approach in their annual Integrated Transport Plans.

Non-motorised transport such as walking, is the second most significant mode (after car travel).

The White Paper argues that communities want liveable communities where they can walk, bicycle, recreate, and socialize.

The White Paper observed that the bicycle seems ideal transportation for some parts of the South African landscape because they are flat, trip distances are short and money for private motor vehicles and public transit systems is scarce.

The White Paper noted that most people in rural communities rely on Non-Motorised means of transport and use rugged paths, tracks, and roads, which are typically in poor condition and often passable in dry weather only. The rural transport network in these areas is still underdeveloped and of poor quality. It was reported that on average young children travel twenty kilometres per day to school. These children are tired when reaching schools and tired when returning home from school. This results in poor performance at school, a high school drop-out rate and lack of concentration. Rural households, and particularly women, spend much time and effort on transport activities to fulfil their basic needs.

The *White Paper* observed that *safety* in South Africa constitutes one of the barriers to NMT use. Others are related to geographic conditions, e.g., major streams, steep slopes, climatic conditions, land use developments restricting users movement, high volume roads, freeways and rail lines, particularly those with limited points of safe crossing.

10.1.2 Draft National Non-Motorised Transport Policy in December 2008

The Department of Transport developed a **Draft National Non-Motorised Transport Policy in December 2008** (*The Policy*) to guide the country in terms of how to address the needs of non-motorised transport users, especially in rural areas where the need is the greatest. Provisions of the above Policy are discussed below.

The Policy argues that despite the growth in motorised transport in developing countries such as South Africa, a large portion of the population depends on non-motorised forms of transport, and this will continue for some time. Walking is the cheapest, least space consuming and the most economical means of transport for short distances.

The Policy argues that most of the non-motorised class of transport modes are healthy, non-polluting, versatile and reliable.

The Policy also mentions that a shift away from private car use to non-motorised transport, including improving accessibility for the mobility impaired, has a key role to play in using the existing road network more efficiently and delivering significant potential economic and environmental benefits to society, alongside tangible health and lifestyle benefits for individuals.

The Policy guides that a community designed for walking and cycling must be compact (destinations must be within a convenient distance of each other), connected (with streets that allow direct travel), designed at a human scale, have functional and attractive sidewalks and paths, have effective strategies to control traffic speeds, and feel safe to vulnerable users.

Some of the benefits raised in *the Policy* are improved community cohesion (the quality of neighbourly interactions), security and aesthetics.

Vision of NMT

Non-Motorised Transport will be a sustainable and stimulant mode of transport for social and economic development within an integrated efficient transport system.

Mission

The mobility needs of marginalised communities and NMT users shall be met through the provision of a safe, secure, and reliable transport system.

Strategic Objectives

The objectives of a NMT Policy include, inter alia:

- Integration of NMT into the transport system including transport and spatial planning
- Endorsement and facilitation of the use of NMT modes
- Development of infrastructure and maintenance standards that recognise NMT as an essential mode of transport
- Enhancement of traffic legislation that recognises NMT as an alternative transport mode
- Facilitation of NMT as a feeder system to other modes of transport
- Empowerment of the marginalised group promotion of SMME through NMT
- Allocation of adequate and sustainable funding for promotion and development of NMT
- Promotion of NMT as reliable, healthy, affordable, accessible and safe transport mode
- Reduction of the number of traffic fatalities of vulnerable non-motorised road users; and
- Facilitation of research and new initiatives to improve NMT performance.

Guiding Policy Principles

In striving to meet the NMT policy objectives, the national government will be guided by the following broad principles:

- To integrate non-motorised transportation into the transport system.
- The need to improve the quality of life of marginalised people.
- To adhere to the principle of environmental protection, and energy conservation.
- The integration and connectivity of the first and second economies and the connectivity and integration of the rural and urban areas.
- The need for economic revitalization of the rural areas.
- The promotion of safety as a critical facet of public and freight transport.
- The need to increase accessibility and mobility.

10.1.3 Policy Statement On NMT

Roles and Responsibilities

The Provincial Departments of Transport (PDOT) and municipalities must develop implementation strategies and plans respectively, in consultation with key NMT stakeholders.

ADT Policy Statements

Transport Planning

Transport planning process and spatial planning framework will reflect ADT related needs and constraints.

All Integrated Transport Plans (ITP) should cater for the use of animal transportation even when the municipalities have not legislated on the use of animals of within their boundaries.

The strategies and plans for ADT in a province must be included in the Provincial Land Transport Framework (PLTF) and Strategic Plan, as well as in the Integrated Transport Plans (ITP) of Local Government.

Road Safety Audits

- *The Department of Transport in collaboration with RTMC will ensure that safer road networks are provided and road safety audits are conducted every five years.*

Cycling Policy Statements

Infrastructure

The Department of Transport will ensure that road infrastructure is improved to accommodate the cycling needs and that future road development incorporates cycling needs where necessary.

The Department of Transport will ensure that cycling is integrated into the transport network, and that this mode is included in new transportation policies.

Transport Planning

All Integrated Transport Plans (ITP) should cater for the use of cycling, with appropriate modal split and set concrete goals and methods to achieve this modal split.

Transport planning process and spatial planning framework must take into consideration the cycling related needs and constraints.

Traffic Management: For short distances NMT appears to be the most efficient means of mobility, while for longer distances public transport or cars offer greater efficiency.

Modal Integration

The bicycle can potentially be used at both ends of public transport trips. Public transport operators can significantly increase the catchment areas for their system by providing for bicycles.

The Department of Transport will encourage the use of roads that are under-utilised, to promote the use cycling as part of intermodal transport.

Local Government Capacity

The Provincial Department of Transport will ensure ***that local governments are capacitated*** within five years of implementation of this policy.

Safety Issues

The Department of Transport will promote social safety through provision of facilities such as lighting of cycle paths, guarded parking and police surveillance.

The Department of Transport will develop a safety gear guideline in consultation with key stakeholders.

A helmet is the main safety gear recommended for cyclists. Some individuals wear gloves to protect their hands from scrapes and bruising, and bright-coloured clothing, especially at night is advised to increase cyclists' chances of being seen by motorists.

The Municipalities in collaboration with Provincial Departments of Transport will develop funding models that are suitable to their local needs.

Socio economic

The Provincial Department of Transport will facilitate with municipalities in the establishment of maintenance and repair shops which should be included in the Local Economic Development programs.

Walking Policy Statements

Transport Planning

The Department of Transport will ensure that Transport planning process and spatial planning framework should take into consideration the walking related needs, and constraints.

Safety

The Department of Transport will promote "sustainable road safety" by recognising the vulnerability of pedestrians and their safety needs.

Funding

All sphere of government must prioritise the availability of funding for pedestrian and crossing facilities.

The Municipalities in collaboration with Provincial Departments of Transport will develop funding models that are suitable to their local needs.

Policy Advocacy

Public Participation

The provinces in collaboration with the Municipalities will develop communication plans to promote NMT.

Law Enforcement

The Department Transport will ensure that the enforcement of NMT regulations is enforced and that the recommendation provided in this policy are given the necessary considerations.

10.1.4 NMT Facility Guidelines, 2014

The above document is a revision and update of the existing Pedestrian and Bicycle Facility Guidelines (2003).

The NMT Facility Guidelines aim to provide an easy-to-use guide for practitioners interested in cycling, walking and other NMT uses in urban and rural areas. These guidelines should assist to carry out the planning, design and implementation of facilities as well as maintenance programmes for NMT infrastructure, while encouraging a consist provision of facilities, to the best possible standards.

These Guidelines make recommendations for the Municipalities to include the following relevant issues in their future by-laws:

- Modify the institutional structure to accommodate the body accountable for public transport operations and maintenance should include the operations and maintenance of NMT priority routes.
- Make sure that in the planning and development of transport infrastructure, NMT must be considered and promoted, e.g., by means of dedicated bicycle lanes, removal or limitation of obstructions such as road signs in pedestrian walkways, having secure lock-up facilities for bicycles, among others.

- Provide standards and minimum requirements for NMT in public transport infrastructure.
- Make compulsory the provision of shower facilities for workers who use bicycle, or walk long distances, to work.
- Require the municipality to develop vision, mission and objectives for NMT in the municipal area.
- Make rules for the design of local links and roads as well as the provision of trees, plants, outdoor art, among others, for the beautification of streets.
- Identify streets to be closed for the use of pedestrians and cyclists.
- Provide for rules for the use of pedicabs, bicycle rental systems.
- Make compulsory the inclusion of specified NMT aspects in the municipality's integrated transport plan.
- Encourage by-laws that promote NMT friendly development.

10.1.6 Shova Ka Lula Programme

The Shova Kalula National Bicycle programme was introduced as a pilot programme in 2001as an intervention to improve mobility and access to basic needs as well as social and economic opportunities for people especially in rural, remote and poorly resourced areas including learners. The initial target was 1 million bicycles by 2010.

In support of the programme several bicycle maintenance shops were established in provinces to deal with issues of maintenance and job creation/SMME development.

The primary policy focus is to ensure that NMT programme are promoted and integrated into the mainstream public transport system.

Problem Statement

The following constitute the problem statements the programme is intending to address:

- Endemic inaccessibility, spatial distortion and economic marginalization particularly in the rural areas
- Learners walk long distances to schools. Of the 17, 5 million learners that attended educational institution, more than half walked all the way,
- Inaccessible public transport services
- Affordability for public transport services
- Biasness towards motorised- transport

Objectives Of the Shova Kalula Programme

- To promote cycling as a low-cost mobility solution which would improve rural accessibility/ urban mobility to basic services including access to educational centres
- To improve access to quality education by low cost, affordable and effective NMT services
- To promote small business development and job creation through the establishment of maintenance systems and programme

Beneficiary Targets

Qualification criteria:

- Accessibility in terms of maximum walking distance
- Availability of public transport which the earmarked area
- Affordability of the households

Beneficiaries eligible for free bicycles:

- Prioritization of rural schools
- Learners who walk more than 3 km to schools but not more than 5km
- Youth (secondary and high schools)
- Farm – workers, local development schemes

Roles Of Provinces

- To undertake overall implementation and strategic control of the projects;
- To set their own pricing structure and shall ensure that bicycle remain affordable;
- To provide a monitoring role to ensure performance by shops managers together with municipalities;
- Provinces shall work closely with other departments and organizations to ensure sustainability of the bicycle operations and continuity by crafting a conducive coordinating mechanism for all the stakeholders;
- To ensure that there is a project manager who will provide technical support to shop managers and municipalities as well as undertaking a coordinating role with NDoT and NRA; and
- Exercising the flexibility as to whether second-hand bikes and spares should be supplied to the sites or not.

Provinces shall come up with vigorous communication and marketing strategies to restore the level of demand as this has recently dropped. Provinces and municipalities shall develop public awareness programmes and link up with school campaigns. A plan

that supports and promotes cycling skills at schools should be considered. Engraved plates shall be used on Shova Kalula bikes for promotional and security purposes.

The Roles of Municipalities

- To develop bicycle (master) plans in terms of IDPs which are reflective of ITPs, ISRDPs and Rural transport's objectives and to submit project plans to provinces for approval to secure funding.
- Municipalities' marketing strategy shall incorporate the promotion of Shova Kalula bicycle programme.
- To work closely with participating departments (education, agriculture, sports and recreation, environment affairs, housing, etc) to expand the role of bicycle transport in other fields; and
- Participate in site identification.

10.2 PUBLIC TRANSPORT SAFETY AND SECURITY

10.2.1 Introduction

Transport planning has an impact on the effectiveness of safety and security strategies or measures because a mode of transport is always involved.

Ambulances need to reach scenes of accidents on the road, homes where sick people need to be taken to hospital, scenes of crime, or areas where natural disaster may have occurred, etc. Furthermore, police or security personnel need to reach scenes where their urgent intervention is required.

Whatever the case may be, some mode of transport will always be called upon to convey patients, emergency personnel, doctors, victims of crime, etc., to various places of need.

A common factor with all the above is TIME. It goes without saying that the accessibility of the areas of need is critical. Accessibility in this case can be measured in terms of the design, condition and capacity of the road, as well as the traffic operating condition of the road.

In view of the above, all planning authorities have a duty to ensure that the roads are properly designed and constructed, and that they are in a state of good repair. Unfortunately, the general condition of roads in South Africa has been deteriorating at an alarming rate. Potholes are everywhere. In some instances, roads have disappeared.

Therefore, the biggest contribution that the ITP can make in relation to safety and security is to provide and/or restore the road infrastructure that will enable the emergency personnel to reach their destinations quickly and safely to save lives.

10.2.2 Safety and Security in Public Transport

The safety of passengers, public transport operators and other related stakeholders is important to either attract or discourage people from using public transport. Unfortunately, the majority of South Africans are captive to public transport and therefore always bear the brunt of criminal activities in public transport environments, such as inside the buses, trains and minibus taxis, at taxi ranks, bus stops, etc.

Often, there are no law enforcement officers nearby. As a result, public transport users are at the mercy of criminals who know that they can inflict pain and suffering on the public transport users without fear of being caught in the act of committing the crimes.

Public transport users get mugged, stabbed, short, raped, etc., daily. The economic situation of most of the customers does not allow them to afford alternative forms of transport.

10.3 ROAD USER SAFETY

10.3.1 Policy Perspective

The mission of the Revised White Paper on National Transport Policy of 2021 is *"*provide **safe**, reliable, effective, efficient, environmentally benign and fully integrated transport operations and infrastructure that will best meet the needs of freight and passenger customers, improving levels of service and cost in a fashion that supports government strategies for economic and social development whilst being environmentally and economically sustainable .*"*

One of the strategic objectives for public transport is *"To promote safe and secure, reliable and sustainable public transport that addresses user needs, including those of commuters, learners, targeted categories of passengers (pensioners, the aged, children, pregnant women, persons with disabilities, tourists) and long-distance passengers"*

10.3.2 Strategy Perspective

National Road Safety Strategy (2016-2030) (NRSS)

The NRSS was devised as a direct response to the significant impact of road carnage on the economy and society at large.

As a participant of the United Nations Decade of Action for Road Safety 2011-2020 (UNDA), South Africa has endorsed the global undertaking to save up to 5 million lives and contribute to the prevention of up to 50 million serious injuries by 2020. Needless to say, that this objective was not achieved.

In accordance with this commitment, the NRSS 2016-2030 has been developed, embodying the principles of the Safe Systems approach and giving effect to the five pillars of the United Nations Development Agency (UNDA) a guiding framework for actions to improve road safety. In accordance with the UNDA, these pillars remain consistent in the NRSS as Road Safety Management, Safer Roads and Mobility, Safer Vehicles, Safer Road Users and Post-Crash Response (NRSS 2016-2030).

The NRSS has taken into consideration previous efforts made toward addressing road safety problems in South Africa, by carefully reviewing previous road safety strategies developed. The key findings from these strategies highlight:

- a lack of effective implementation,
- insufficient resourcing,
- misaligned prioritisation, and

- lack of broader stakeholder participation among the key issues previously experienced.

As such this NRSS focuses on the sequencing of proposed interventions in a manner that is realistic and implementable.

The Strategy identified the following key focus areas to improve road safety:

- educating and training of road users,
- encouraging good road user behaviour through enforcement,
- managing accurate and complete data to inform strategy,
- ensuring road infrastructure and environment must be forgiving and secure.

The NRSS emerged with the following strategic themes that need to be addressed:

- Improve coordination and institutional strength
- Improve road safety data systems
- Eliminate fraud and corruption
- Ensure adequate funding and capacity
- Enhance use of technology to protect road users
- Identify and address high risk locations
- Provide a self-explaining and forgiving road environment for all road users
- Enable regular road safety audits on new and existing infrastructure
- Increase vehicle safety standards
- Ensure vehicles on the road network are roadworthy
- Improve road user attitude and behaviour & involve communities in road safety
- Improve enforcement effectiveness
- Increase protection for vulnerable road users
- Increase efficacy of first responses
- Simplify access to post-crash care

The NRSS (2016-2030) adopted the following short-term interventions:

- Effective resourcing
- Improving institutional strength
- Implementing monitoring mechanisms
- Modifying road user behaviour

A focus area of the NRSS is road user behaviour and as such the strategy has highlighted the requirement for improved education initiatives, increased involvement of communities in road safety and improved effectiveness of law enforcement.

The NRSS (2016-2030) adopted the following medium-term interventions:

- Improve vehicle safety standards
- Improve road safety standards to protect all road users

- Addressing hazardous locations
- Improving the effectiveness of post-crash response
- Increasing road safety research relevant to South Africa

The NRSS adopted the following long-term interventions:

- Road user's behaviour
- Developing and refining infrastructure design aimed at protecting vulnerable road users (VRUs)
- Effective governance and leadership
- Data and knowledge management

In particular, the NRSS emphasises the following road user behaviour actions:

- educated and aware of road safety,
- trained to behave appropriately and effectively
- discouraged from transgressing laws through enforcement.
- eliminate corruption,
- reduce incidents of drunk driving, and
- availing of law enforcement at most critical times when crashes occur.

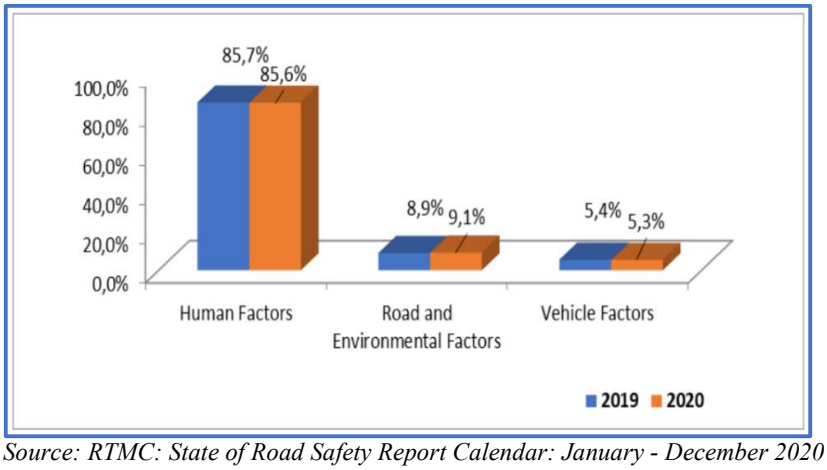
10.3.3 State of Road Safety (RTMC)

The Road Traffic Management Corporation (RTMC), the custodian of road safety and law enforcement in South provided a report on the state of road safety in South Africa between 2019 and 2020.

The report showed the most critical type of accident involved the *pedestrians* with the rate of 34% and 31% between 2019 and 2020. The second critical type involved single vehicle overturned at rates of 20% and 21% in 2019 and 2020, respectively.

The report categorised the accidents according to three factors as shown in Figure 10.1.

Figure 10-1: Factors contributing to road traffic accidents

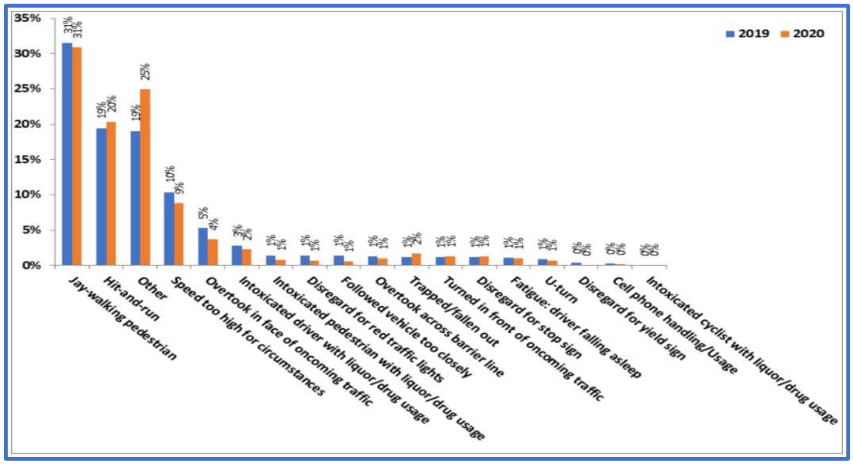


Source: RTMC: State of Road Safety Report Calendar: January - December 2020

Figure 10.1 shows that by far the factor that contributes to most accidents is *human factors* at about 85%, followed by the road and environmental factors at about 9%. Vehicle factors contributes to 5%.

Figure 10.2 shows the type of accidents that occurred between 2019 and 2020.

Figure 10-2: Causes of Accidents in 2019 and 2020

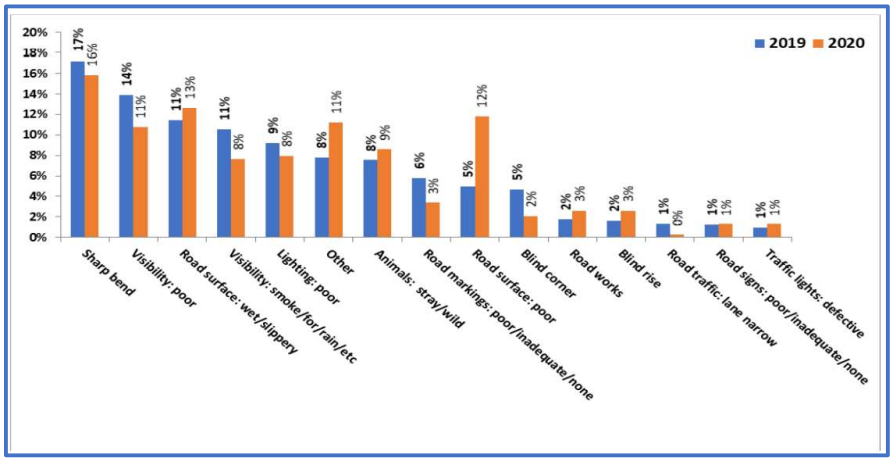


Source: RTMC: State of Road Safety Report Calendar: January - December 2020

The RTMC report (RTMC, 2020) identified *jay-walking pedestrians* and *hit-and-run* as the most causes of accidents in 2019 and 2020 at rate of about 31% and 20% respectively. Speeding was contributed to about 10% of the accidents.

Figure 10.3 shows the road condition at the time the accidents.

Figure 10-3: Road Condition at Time of Accidents in 2019 and 2020

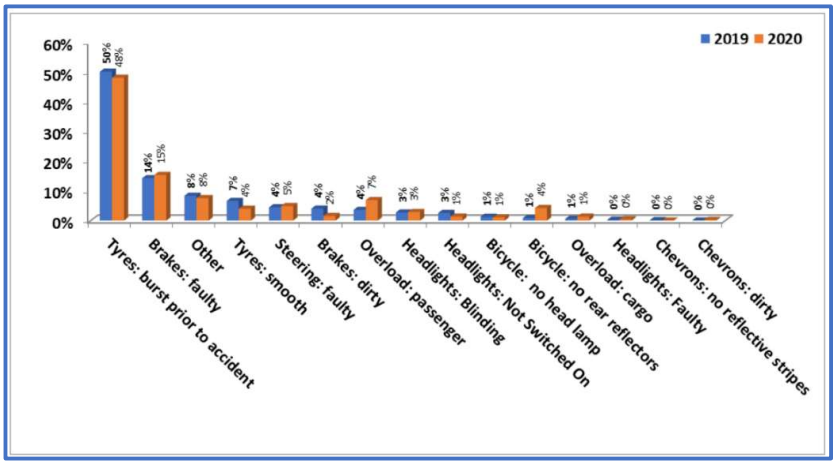


Source: RTMC: State of Road Safety Report Calendar: January - December 2020

The condition of the road environment at the time of the accidents as shown on Figure 3 were reported to be *sharp bend* (17%), *visibility* (14%), *slippery surface* (13%) and *poor surface* (12%). *Stray animals* (9%) are also a cause for concern. It can be assumed that in all these, speed played a role as the vehicles could not either manoeuvre the vehicle safely or stop in time to avoid a crash.

Figure 10.4 shows the vehicle factor at the time of the accident.

Figure 10-4: Vehicle Condition at Time of Accident

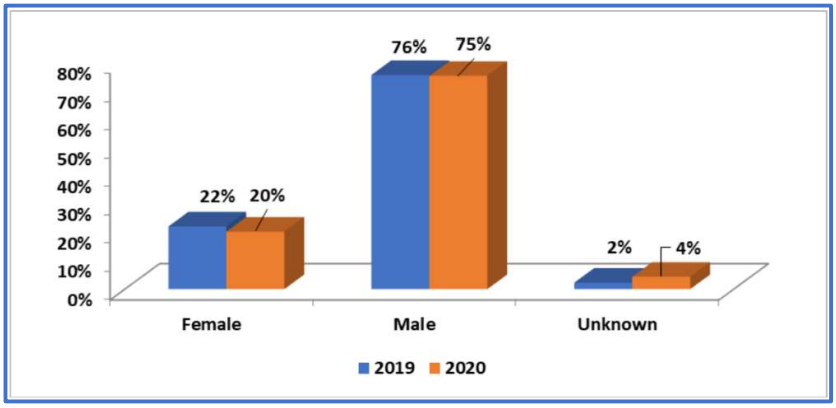


Source: RTMC: State of Road Safety Report Calendar: January - December 2020

Figure 4 shows that tyres contributed to about 60% of the vehicle condition prior to accident accruing.

Figure 10.5 shows categorises the accidents according to gender.

Figure 10-5: Accidents According to Gender

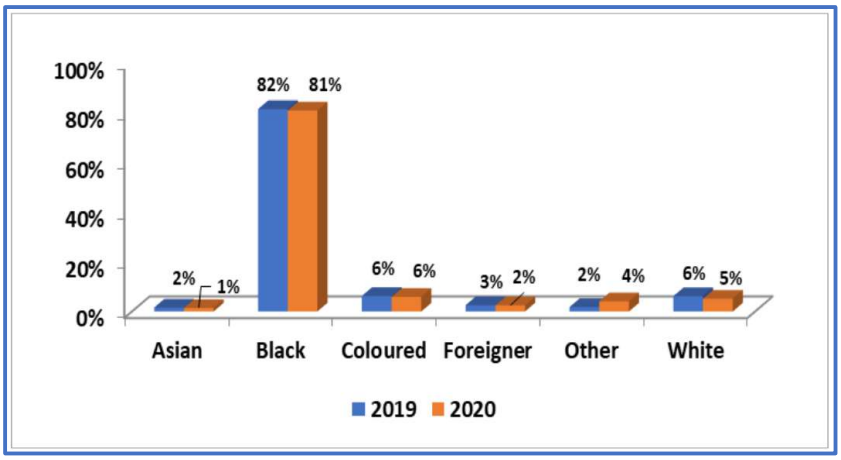


Source: RTMC: State of Road Safety Report Calendar: January - December 2020

Figure 10.5 shows that male drivers (76%) are more likely to be involved in an accident than female drivers (22%). Male drivers seem to be more risk takers than female drivers.

Figure 10.6 categorises accidents by race.

Figure 10-6: Accidents According to Race

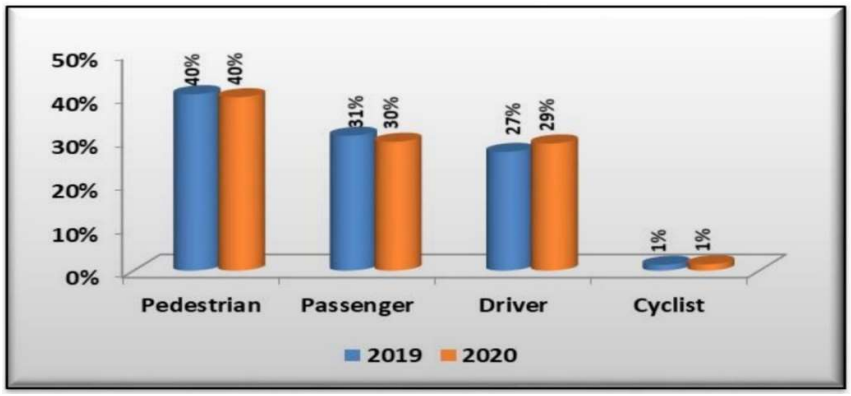


Source: RTMC: State of Road Safety Report Calendar: January - December 2020

Figure 10.6 shows that by far most accidents involve Black people (82%), followed by Coloureds and Whites at only 6%, respectively.

Figure 10.7 categorises the accidents by the affected user.

Figure 10-7: Accident Statistic by the Affected User

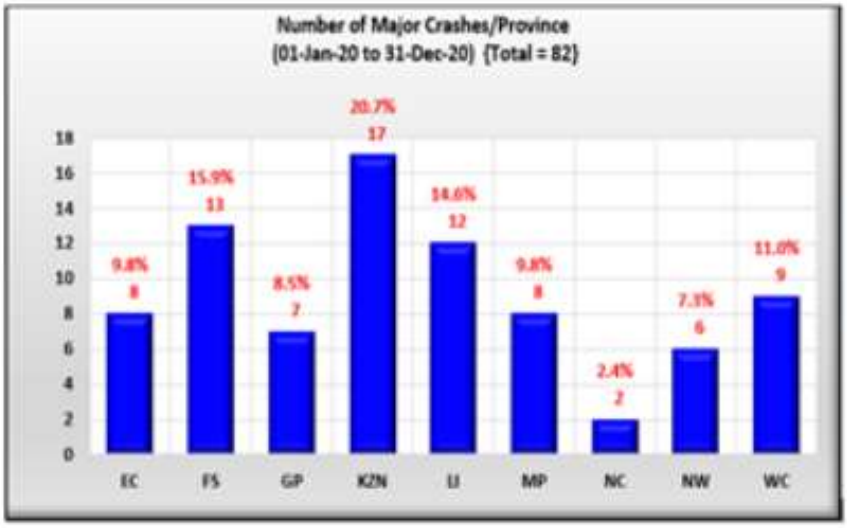


Source: RTMC: State of Road Safety Report Calendar: January - December 2020

Figure 10.7 shows the accident statistic by pedestrian, passenger, driver or cycling. Figure 10.7 shows that pedestrians are the most affected at 40%, followed by passengers and drivers at about 30% respectively. Cyclists constitute a small number (1%).

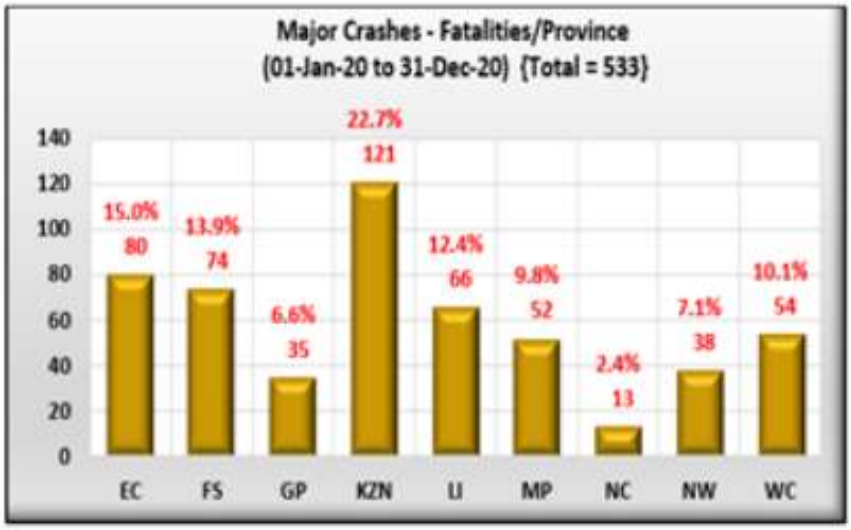
Figures 10.8 and 10.9 shows statistics in terms of major crashes

Figure 10-8: Number of Major Crashes by Province



Source: RTMC: State of Road Safety Report Calendar: January - December 2020

Figure 10-9: Major Crashes by Provinces - Fatalities



Source: RTMC: State of Road Safety Report Calendar: January - December 2020

Figures 10.8 and 10.9 show that Limpopo ranks as one of the top four of provinces that are affected by the number of major crashes and fatalities associated with the major crashes.

In terms of the number of major *crashes* (Figure 10.8) the top four affected provinces are KwaZulu Natal (20.7%), Free State (15.9%), Limpopo (12%) and Western Cape (11%).

In terms of the number of *fatalities* on major crashes (Figure 10.9), the top four provinces are KwaZulu Natal (22.7%), Eastern Cape (15%), Free State (13.9) and Limpopo (12.4%).

10.4 LAW ENFORCEMENT

10.4.1 Background

One of the strategic objectives of the National White Paper on Transport is to optimise road transport law enforcement and promote and implement efficient, integrated, and coordinated road traffic management systems in the country, involving the role-players in all functional areas of road traffic management.

After a critical review of the situation and the way road traffic safety is currently managed, the White Paper concluded that a stronger approach will be needed to affect a more drastic improvement in road user discipline and reduce collisions.

Section 85 of the National Land Transport Act (act 5 of 2009) makes provision for municipalities to take active steps to develop systems to improve land transport law enforcement in their respective jurisdictions. Section 85(2) provides for a municipality, referred to as enforcement authority to, may enter into an agreement in which land transport law enforcement functions are undertaken by one enforcement authority in the area of jurisdiction of another; secondment of authorised officers or land transport law enforcement functions are undertaken jointly, or by a public or private sector agency on behalf of the authority.

10.4.2 The Impact of Norms and Values In Law Enforcement

In '*The limits of laws: Traffic law enforcement in South Africa'*, South African Journal of Economic and Management Sciences 23(1), a3430. https://doi.org/10.4102/ sajems.v23i1.3430, 2020, Du Plessis, S., Jansen, A. & Siebrits, K explore the impact of norms and values in traffic law enforcement.

The authors explain that *the aim of many public policies is to change behaviour. To achieve this aim, governments mostly rely on regulations, taxes and subsidies. Non-compliance with many regulations carries costly sanctions*.

Law enforcement, as an economic incentive, is driven through legislation to change behaviour.

Polanía-Reyes (2012:369) argues that explicit economic incentives sometimes have surprisingly limited effects and may even be counterproductive.

Institutional economists distinguish between two types of constraints that influence human behaviour, namely formal institutions (e.g., policy rules, constitutions and other laws) and informal institutions (e.g., norms of behaviour, conventions and self-imposed codes of conduct) (North 1994:360). Regulations, taxes and subsidies are examples of formal institutions.

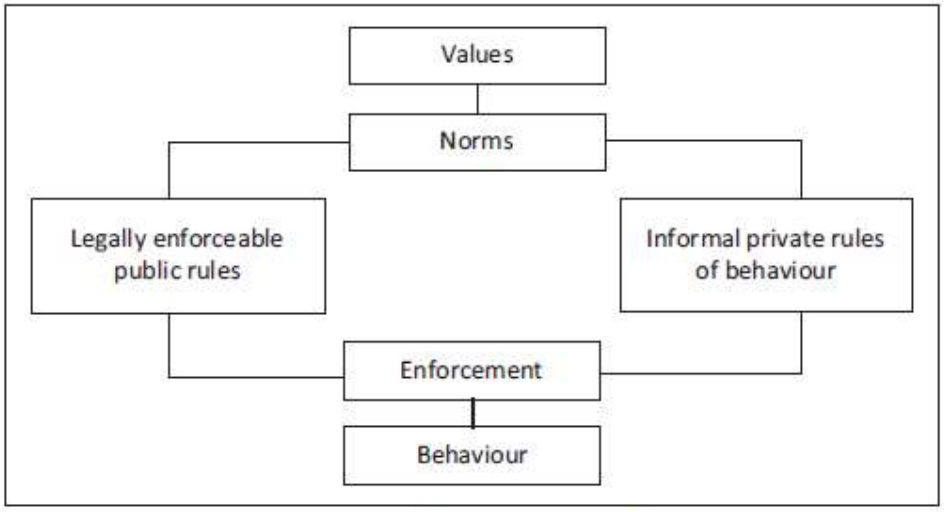
North (2005) summarises this insight as follows:

The policies at our disposal are very blunt instruments. They consist of alterations in the formal rules only, when in fact … performance … is an admixture of the formal rules, the informal norms, and their enforcement characteristics. Changing only the formal rules will produce the desired results only when the informal norms that are complementary to that rule change and enforcement is either perfect or atleast consistent with the expectations of those altering the rules. (pp. 27–28).

Informal institutions influence the efficacy of incentives (cf. Festré 2010; Gneezy, Meier & Rey-Biel 2011).

Figure 10.10 below depicts the relationship between the institutions (formal and informal), law enforcement and behaviour.

Figure 10-10: Institutions, law enforcement and behaviour



Source: Adapted from Groenewegen, J., Spithoven, A. & Van den Berg, A., 2010, *Institutional economics: An introduction*, p. 33, Palgrave MacMillan, London.

Values and norms are the bases of legally enforceable public rules (formal institutions, such as traffic laws) and informal private rules of behaviour (road safety-related practices that are not encapsulated in law yet widely applied). As was pointed out earlier, public and private rules and their enforcement jointly shape the behaviour of individuals (Du Plessis, S., Jansen, A. & Siebrits, K,2020:2).

In most real-world situations, however, some persons choose informal private rules based on values and norms that give rise to inappropriate behaviour. This reality explains why governments create and enforce laws and other formal institutions to change behaviour (Du Plessis, S., Jansen, A. & Siebrits, K,2020:2).

(Du Plessis, S., Jansen, A. & Siebrits, K) argue that the above could explain why the incidence of road accidents in South Africa is high and costly in spite of the country's relatively strong road safety laws.

The above authors argue further that road users in South Africa frequently violate road safety laws and that such behaviour partly reflects values and norms (i.e. informal institutions) that undermine obedience to such laws.

Furthermore, the authors argue that the structures for enforcing sanctions for law violations in South Africa function extremely poorly. The main objective of Adjudication and Administration Road Traffic Offences (AARTO) is to rectify this weakness. Unfortunately, the implementation of AARTO has been experiencing numerous legal challenges and delays. These delays are exacerbating the traffic law enforcement challenges.

Against this backdrop, the article concludes that a combination of law enforcement reforms and changes to informal institutions (norms and values) is necessary to improve the road safety situation in South Africa.

On the other hand, the World Health Organisation (WHO) (2015:65) links road traffic deaths and injuries to *speeding*, *driving under the influence*, *failure to use seatbelts*, *motorcycle helmets* and *child restraints*, *drunk driving*, and *using mobile phones* while driving. See Table 10.11 overleaf.

Table 10.11: Road safety risk factors, legislative best practices and South African legislation

Risk factor	Laws and best practices	South Africa
Speeding	National speed law in place	Yes
	Speed limits on urban roads ≤ 50 km/h	No
	Local authorities may modify national speed limits	Yes
Driving under the influence	National driving under the influence law in place	Yes
	Law enforcement based on BAC	Yes
	BAC limit for general population ≤ 0.05 g/dl	Yes
	BAC limit for young or novice drivers ≤ 0.02 g/dl	No
Motorcycle helmets	National motorcycle helmet law in place	Yes
	Applies to motorcycle drivers and adult passengers	Yes
	Applies to all road types	Yes
	Applies to all engine types	Yes
	Requires helmets to be properly fastened	Yes
	Requires helmets to meet a national or international standard	No
Seat belts	National seat belt law in place	Yes
	Applies to drivers and front-seat passengers	Yes
	Applies to rear-seat passengers	Yes
Child restraints	National child restraint law in place	Yes
	Based on age-weight-height (or **combination**)	Yes
	Restricts children under a certain age from sitting in the front seat	No
Drug driving	National drug-driving law in place	Yes
Mobile phones	National law on mobile phone while driving in place	Yes

Source: World Health Organisation, 2018, *Global status report on road safety 2018*, p. 235, World Health Organisation, Geneva.

BAC, blood alcohol content.

According to the WHO, a strong legislative framework to reduce road traffic deaths and injuries should contain laws to regulate these risk factors.

Table 10.11 lists these risk factors and the associated best practices recommended by the WHO. It also shows the extent to which South African road safety legislation conforms to these international best practices.

South Africa's seat belt laws are fully aligned with international best practice, while those *on speeding*, *driving under the influence* and *motorcycle helmets* each lacks only one element of such practices.

Table 10.11 shows that South Africa has a strong suite of road safety laws. However, the country must comprehensively deal with all the seven risk factors.

The authors argue strongly that the disjunction between South Africa's relatively strong road safety laws and the high and costly incidence of road accidents may well reflect inappropriate values and norms about prudent behaviour among road users, poor enforcement of road safety laws, or a combination of these two sets of factors (Du Plessis, S., Jansen, A. & Siebrits, K,2020:3). In other words, South Africa's poor road safety outcomes partly reflect risky behaviour probably influenced by informal institutions.

The factors (Du Plessis, S., Jansen, A. & Siebrits, K,2020:6) highlights the following shortcomings in the formal institutions:

- A strong culture of non-payment of traffic fines
- some courts resolved to hear only a limited number of cases linked to infringements of traffic laws because of heavy caseloads
- magistrates often reduced traffic fines substantially, and
- bribing of traffic officials
- delays in implementing the AARTO Regulations that aims to streamline the fine system and a demerit points system (which provides for the suspension and cancellation of driving licences or permits of repeat offenders)

In particular, the strong culture of non-payment of traffic fines severely diminishes the deterrence effect of the fine system. This is an administrative issue that, in principle, should be much easier to resolve than the detection problem.

It is important to align law enforcement to the leading causes of serious injuries and death. (Du Plessis, S., Jansen, A. & Siebrits, K,2020:7) points out that according to City of Cape Town's 2014 unpublished data on offences from July 2014 to July 2016, more than 60% of offences that result in serious injury and death can be attributed to pedestrians, failure to control a vehicle as well as hit-and-run. In terms of the data, over 90% of the offences can be attributed to driver error. The road environment and vehicle defects constitute the other 10%.

This data reflects that effective law enforcement can make a serious dent on the horrendous road safety record experienced in South Africa. But as reiterated previously, a holistic approach to tackling the law enforcement issue must be pursued. The strategy must incorporate appropriate values and norms (that is, informal institutions) to complement law enforcement to achieve the goal of drastically reducing the number and severity of road crushes.

A challenge relates to offences that cannot be easily enforced, such as, jaywalking and dangerous turning, overtaking and changing of traffic lanes. Occurrence of these type of offences is widespread and ad-hoc. It will require considerably more financial resources to deploy law enforcement personnel and technology to enforce such traffic violations. In view of this, the most viable approach would be to focus on focussing on influencing behaviour by targeting the norms and value systems of the public.

The Road Traffic Infringement Agency (2015) (RTIA) supports the approach of complementing the law enforcement actions by influencing the behaviour of road users.

The RTIA (2015) confirms that:

> *World-wide best practices have proven that for law enforcement to be effective, it must be supported by an equally effective public awareness, communication and education programme, as well as a highly efficient, transparent and expeditious adjudication process to bring traffic offenders to task. (p. 26)*

10.5 TOURISM STRATEGY

10.5.1 Background

Tourism is one of the transport-related strategies that must be looked at as part of this ITP development process.

Tourism industry is an important sector in South Africa and provides thousands of jobs.

Key attractions in Limpopo Province are listed below (Source: SA Government website):

- The Marakele National Park is home to some rare yellowwood and cedar trees and the world's largest colony of Cape vultures. It is also a leader in the conservation of the black rhino.
- Polokwane is considered the premier game-hunting destination in South Africa.
- The Mapungubwe Archaeological Site, about 80 km west of Musina, lies within the boundaries of the Mapungubwe National Park. It is one of the richest of its kind in Africa and a world heritage site. Excavations in the 1930s uncovered a royal graveyard, which included a number of golden artefacts, including the famous gold foil rhinoceros.
- The Kruger National Park (northern section) is one of South Africa's major tourist attractions. The park is home to a large number and wide variety of amphibians, reptiles and birds, as well as 147 mammal species, including the Big Five (African lion, African elephant, Cape buffalo, African leopard and black rhinoceros).

10.5.2 Legislative Context

Section 80 of the NLTA (Act No. 5 of 2009) deals with the regulation of Tourist transport services.

The accreditation and licencing of Tourist transport is through the National Public Transport Regulator (NPTR). A recommendation from the recognised tourism body must accompany the application for accreditation of an operator. The accreditation is for a maximum period of 5 years.

10.5.3 Responsibility of the Municipalities

The municipalities need to provide quality municipal services to the areas providing the service.

Tourists will be reluctant to visit tourist attraction areas if they are not satisfied with the safety and quality of water. They will also be reluctant to visit areas where sewer is flowing freely on the streets. The state of repair of the roads leading to the tourist sites is very important. Tourists will prefer to travel on tarred roads to feel safe and comfortable. If the roads are not tarred, they must nevertheless receive attention in terms of regular maintenance. Supply of electricity must also receive attention. Tourists will be reluctant to visit sites where electricity supply is unreliable.

Furthermore, the issue of safety and security is important. It is well known that South Africa for its doubtful safety record. Tourists often get targeted that thugs who do not care about the lives of those tourists

In addition, South Africa's horrendous record of road traffic safety is a course for concern.

Road signage is also important. Tourist would prefer to drive in areas where it is effortless to find their way to their Tourist destinations. This convenience will give the Tourists a sense of safety.

As a result, the Municipalities and other government institutions must ensure that the above issues are well managed to encourage domestic and especially, international Tourists to always look forward to their next visit to the Tourist sites.

10.6 NEW INSTITUTIONAL ARRANGEMENTS

10.6.1 Background

The Minimum requirements requires the ITP to briefly deal with the issue of *institutional arrangements strategy*.

(NLTSF, 2017:164) divides institutional management into three key aspects as follows:

- Capacity to deliver
- Intergovernmental relations
- Transportation information systems

The vision in the NLTSF is stated as *a professional organisation with qualified transport professionals equipped and empowered to develop and manage an integrated transport system.*

The NLTSF raises a concern about the lack of adequate institutional capacity that is seen as a barrier to the effective and efficient implementation of transport management and improvement. It is argued that addressing the public transport sector's capacity constraints will assist in accelerating funding and implementation of public transport programmes.

To address the issue of capacity constraints, the NLTSF (2017:165) is highlighting the potential of the sharing of professional expertise on road asset management systems (RAMS) and transport models instead of each municipality pursuing its individual Operational Systems and professional expertise.

Furthermore, the NLTSF is considering the possibility of linking funding approvals at Treasury and Department of Transport level to the availability of professional expertise. Either full time employees or contracted staff.

NLTSF identifies intergovernmental relations as a mechanism to promote holistic multi-modal approach towards integrated land use and transport planning and implementation through collaboration and consultation. This approach can be used at municipal and district level as well to optimise capacity, expertise and funding. As an example, the Capricorn District is assisting its local municipalities to develop their Local Integrated Transport Plans (LITPs).

The NLTSF emphasises the critical need for greater effort in coordination and collaboration within and between government structures. Although the NLTSF acknowledges that the three spheres of government and its agencies are autonomous, it argues that they are nevertheless required to work together on decision-making and coordination of budgets, policies, activities, information sharing, and granting approvals, authorisation, exemption, licence, or permission for the implementation of projects.

This coordination and collaboration can be implemented by using the Intergovernmental Relation Framework Act (Act 13 of 2005) and the principles of cooperative governance as contemplated in Chapter 3 of the Constitution. The Act makes provision for intergovernmental forums on National, Provincial and Municipal level.

The NLTSF advises that the Intergovernmental relations also refer to the fiscal and administrative processes by which spheres of government share revenues and other resources. The NLTSF strongly argues that the ultimate objective is to achieve efficiency and expediency in the functioning of the Intergovernmental Relations Forums and Project Committees.

10.6.2 Status Quo in the District

During the consultation process in the district, it became evident that expertise and capacity in the district lacks.

In some instances, for example, in Molemole Local Municipality, there is no dedicated unit or human resource(s) dedicated to the function of transport planning. The officials who were interviewed cited this weakness as a reason why the LITPs are not receiving the attention they deserve. Furthermore, the local municipalities do not allocate budgets in their IDP to effectively deal with transport planning functions. As a result, the transport planning functions are neglected.

The District Transport Forum does not meet regularly to discuss issues pertaining to transport. This Forum was a key stakeholder to the development of this ITP.

10.7 ACCESSIBLE TRANSPORT SYSTEM

The Minimum requirements requires the ITP to briefly deal with the issue of *accessible transport strategy*.

10.7.1 Policy Perspective

The overall policy vison of the Draft White Paper of on National Transport Policy of 2017 is to provide:

> *A transport system that provides equitable and reliable access for all in an economically and environmentally sustainable manner to advance inclusive growth and competitiveness of the country.*"

One of the policy objectives of the White Paper of on National Transport Policy of 2021 is:

> *To enable customers requiring transport for people or goods to access the transport system in ways that best satisfy their chosen criteria.*

The access to transport must include Key customer groups will include the poor and targeted categories of passengers, which includes persons with disabilities.

The transport system will aim to, among others, minimise the constraints to the mobility of passengers, 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.

The transport system must be flexible and transport planning process must respond to customer requirements. Infrastructure must be tailored to the needs of the transport operators and
end customers.

In terms of the National Land Transport Act (Act No. 5 of 2009) (NLTA), the following public transport services can be used to convey passengers:

- Rail
- Bus
- Taxi
- Metered taxi
- Charter
- Staff
- Lift clubs

- Tuk-tuks
- Adapted light delivery vehicles (in prescribed circumstances and subject to prescribed conditions)
- Scholar transport

The National land Transport Strategic Framework (2017-2022) mentions that universal access to Public Transport is very poor across the range of modes.

(NLTSF, 2017:123) explains that the concept of Universal Access is for the design of facilities and environments to be such that they are useable, safe and comfortable for use by all people with the widest range of physical and cognitive abilities and to the greatest extent possible, without the need for adaptation or specialised features.

NLTSF argues that public transport in South Africa generally has low accessibility and poor level of universal access.

10.7.2 Provincial Policy Perspective

To ensure a supply of suitable transport for pensioners and physically challenged on pension pay-out days;

To have emergency transport on call. To improve the district road network to address accident hot spots, to improve traffic flow and to give preference to public transport where appropriate;

11. SUMMARY OF LITPs

As a district municipality this Chapter presents a summary of the transport implementation budgets and programmes (including construction and maintenance of their transport infrastructure) over a five-year period, as prepared by the constituent local planning authorities (local municipalities). This chapter does not apply to CITPs prepared by metropolitan municipalities.

The local municipalities in the Capricorn district have not yet prepared their LITPs.

The budgets and IDPs of the local municipalities were scrutinised to identify the relevant budget items for construction and maintenance of the transport-related work. These are summarised below.

11.1 STATUS OF LITPS

11.1.1 Molemole Local Municipality

The Molemole currently does not have an LITP.

The CDM as part of this DITP process, will use the latest IDP of the local municipality to prepare an abridged LITP with a view to assist the local municipality to give attention to transport planning needs in the area.

11.1.2 Blouberg Local Municipality

The Blouberg municipality does not have a current LITP.

The CDM as part of this DITP will use the latest IDP of the local municipality to prepare an abridged LITP with a view to assist the local municipality to give attention to transport planning in the area.

11.1.3 Lepelle-Nkumpi Local Municipality

Lepelle-Nkumpi Local Municipality has an existing LITP. As a way of determining progress made with the implementation of the current LITP, the IDP document was used to determine the current transport planning and roads budgets for 2022 to 2026 in Lepelle Nkumpi Local Municipality

11.2 LEPELLE-NKUMPI LOCAL MUNICIPALITY BUDGETS

IDP and own funding

Table 11-1 Lepelle-Nkumpi Transport Projects

Projects	2022/23	2023/24	2024/25	2025/26	2026/27
Roads	117 118 138	92 255 500	67 636 861	0	0
Road Safety Awareness (CDM)	50 000	50 000	50 00		

Spatial Development Implementation:

Table 11.2 Roads Infrastructure Development Catalytic Projects Underpinning Spatial Integration and Economic Growth

Projects	2022/23	2023/24	2024/25	TOTAL
Catalytic	203 595 428	22 734 500	45 000 000	271 329 928

Department of Public Works, Roads and Transport:

Table 11-3 Roads Infrastructure Development Catalytic Projects Underpinning Spatial Integration and Economic Growth

Projects	2019 - 2025
Provincial Roads Maintenance Grant	329 959 237

11.3 MOLEMOLE LOCAL MUNICIPALITY BUDGETS

Table 11-4: Molemole Transport Projects

Projects	2022/23	2023/24	2024/25	2025/26	2026/27
Roads	37 788 019	24 728 119	0	0	0

Table 11-5: Department of Roadas: 2022/2023

Programme Name	2022/23 Appropriation
3year Household Routine Roads Maintenance	10 000 000
Maintenance of P54 Munnik	2 332 200
RAL/T1004 Ramokgopa	8 750 000

11.4 BLOUBERG LOCAL MUNICIPALITY BUDGETS

Table 11-6: Blouberg Transport Projects

Projects	2022/23	2023/24	2024/25	2025/26	2026/27
Roads	48 504 558	45 120 001	56 399 000	49 658 782	15 200 000
Public Safety Campaigns	103 000	100 000	100 000	100 000	100 000

Table 11-7: Department of Public Works, Roads and Infrastructure Projects

Project	*2022/ 2023*
Routine Roads Maintenance	39 9000 000

Table 11-8: Department of Transport and Community Safety Projects

Project	2022/23	2023/24	2024/25
Transport Planning	8 000 000	4 500 000	
Subsidised Bus Service	213 000 000	224 000 000	235 000 000

Table 11-9: Other Departments Budgets

DEPARTMENT OF TRANSPORT AND COMMUNITY SAFETY PROJECTS

PROJECT NAME	PROJECT DESCRIPTION	2022/2023	2022/2023	2023/2024
SAPS supervised patrols	Identification of youth to participate in Supervised patrols	R1,920 000.00	R640 000.00	R640 000.00
Contact crime	Cleaning and clearing of contact crime	R400 000.00	R400 000.00	R400 000.00
Community safety program	To conduct community safety programs	R600 000.00	R600 000.00	R600 000.00
Transport Planning	To undertake transport plans	R8 000 000.00	R4,500.000	
Subsidized bus service	To implement the subsidized bus service	R213 000 000.00	R224 000 000.00	R235 000 000.00
Traffic Facilities	Maintenance of traffic facilities	R4 874 000.00	R6 382 000.00	R6 688 000.00

11.5 POLOKWANE CITP JUNE 2021

During the five-year term of the IDP, the annual budgets over the first three-year period are reviewed in the Medium Term Revenue and Expenditure Framework (MTREF) as shown below in Table 11.5

Table 11-10: MTREF Summary Related to Transport Sector

Financial Year	Transport Services			TOTAL
	Corporate Services	Roads & Stormwater	IRPTS	
2022/23	3 869 511	230 666 830	120 000 000	**350 666 830**
2023/24	572 295	247 585 937	125 118 298	**372 704 235**
2024/25	560 265	247 286 791	129 896 740	**377 183 531**
	5 002 071	**725 539 558**	**375 681 038**	**1 100 554 596**

Source: PLM 2022/2023 IDP

Table 11-11: Roads and Stormwater Budget Per Funding Source

Funding Source	2022/23	2023/24	2024/25	Total	Percentage
IUDG	165 987 107	177 475 656	197 373 312	540 836 075	75%
NDPG	34 782 609	34 782 610	39 130 436	108 695 655	15%
CRR	29 666 838	35 327 679	10 765 047	75 989 848	10%

A portion of the roads and stormwater budget is for implementing non-motorised transport infrastructure (R2 608 696, R941 106 and R863 158 for 2022/23, 2023/24 and 2024/25, respectively).

Funding sources for roads and stormwater are CRR, NDPG and IUDG.

IRPTS Projects Funding source is PTNG

IRPTS Projects totalling R375 681.038 for the MTREF period shown on Table 11-11 above are:

- Public transport facility upgrade
- Upgrade & construction of Trunk route WP1
- Widening of Sandriver bridge (trunk)
- Refurbishment of daytime layover facility
- Construction of Bus station upper structure (general Joubert str)
- Upgrade of transit mall
- Ditlou intersection
- Construction of bus depot Civil works WP3

- Environmental Management in Seshego & SDA1
- Environmental Management in Polokwane City Cluster
- Construction & provision of Bus Depot Upper structure in Seshego
- Occupational Health & Safety (OHS) Management

11.5.1 Additional Projects Identified in the PLM ITP, 2021

Additional projects identified in the Polokwane ITP of 2021 for inclusion in the annual IDP document.

Table 11-12: Additional Projects for inclusion in IDP

TABLE 11.7: ADDITIONAL PROJECTS IDENTIFIED PROJECTS AS PART OF CITP TO BE PART OF FUTURE IDP'S		
Project Number	Project Description	Funding Source
1.	Annual updating of PLM CITP.	PTNG OPEX
2.	Annual updating of PLM Roads Master Plan.	PTNG OPEX
3.	Annual updating of PLM Non-Motorised Plan.	PTNG OPEX
4.	Annual review of the PIRPTS Strategy that includes update of budget requirements.	PTNG OPEX
5.	Develop and Maintain PLM Road Network Management System for proactive maintenance of roads.	PTNG OPEX
6.	Plan, design and construct of and interchange link from Landdros Marè Street (south-western direction) to the N1 - By-Pass (south-eastern direction), on the northern side of Polokwane.	PTNG CAPEX
7.	Plan, design and construct of an additional interchange on the N1-Bypass, north of interchange with Road R81, to link heavy vehicle traffic with industrial areas on northern side of PLM (north of railway crossing in Veldspaat Street.	PTNG CAPEX
8.	Plan, design and construct of a section of Road R71 as part of the interchange with the N1-Bypass. (between Dalmada and N1-Bypass Interchange)	PTNG CAPEX
9.	Implementation of Projects related the Operating License Plan for Polokwane such as Ring Fencing of OL's and TA's members: a) Determine and implement process to comment on OLs applications received from LPRE. b) Dedicate a person or persons full time to administration related to the processes and activities between PLM, the Operators and LPRE or NPTR. c) Ring Fencing of OL's and TA's members. d) Token system for Public Transport Facilities and the implementation that includes by-laws. e) Metered Taxi Strategy. f) Guidelines for recommendations pertaining to long distance public transport service OLs.	PTNG OPEX

Table 11-13: Additional Projects for inclusion in IDP

TABLE 11.7: ADDITIONAL PROJECTS IDENTIFIED PROJECTS AS PART OF CITP TO BE PART OF FUTURE IDP'S		
Project Number	**Project Description**	**Funding Source**
	g) PLM should explore the possibility of Tuk-Tuks services and define the areas where the service will be sustainable and collaboration with Taxi Industry as part of the development of the MTS. h) Real Time Operational Strategy for OLAS for the Limpopo Province. (14 days buffer in order to allow for administrative processes) i) Public Transport Facility Operational Agreements between Operators and PLM if Facility belongs to PLM. The Property Owner should be included if facility does not belong to PLM.	
10.	Plan, design and construct of a Truck Inn Facility for PLM.	PTNG CAPEX
11.	Plan, design and construct of Non-Motorised Transport projects (schools and identified routes) as per NMT Master Plan.	PTNG CAPEX
12.	Planning, design and construct of a bridge in Veldspaat Street to cross railway line.	PTNG CAPEX
13.	PLM Household / Travel Demand Survey	PTNG OPEX
14.	Development of Emergence Policy or Public Transport (Covid or other pandemic)	PTNG OPEX
15.	Establish and maintain an Intermodal Planning Committee (Transport Forum) to comply with NLTA (Section 15)	PTNG OPEX
16.	Automated Fare Collection System, pilot project for the incorporation of Non-Leeto La Polokwane Public Transport System vehicles such as private taxis related to effected routes.	PTNG OPEX
17.	Development of Freight Hub/Industrial Zone in Polokwane International Airport.	PTNG CAPEX
18.	Allocate site for the construction of the NMT Park.	PTNG CAPEX
19.	Planning and Design of the Public Transport Ring-route including laybys for safe commuter pickup and drop-off.	PTNG OPEX
20.	Sheltering of existing public transport stops and construction of new ones.	PTNG CAPEX
21.	Investigate the inclusion of Matlala Road as part if PIRTS in medium to long term.	PTNG OPEX
22.	FELLDTA House Paul Kruger Street, relevant property should be expropriated from the existing private owners, since it contributes from time to time to conflict and violence between long distance operators	CAPEX

Source: Polokwane CITP, 2021-2026

12. FUNDING STRATEGY AND SUMMARY OF PROPOSALS AND PROGRAMMES

This Chapter contains the following components:

12.1 SUMMARY OF PROPOSALS

It contains a summary of all the proposals, projects and programmes provided for in the plan, together with the financial implications of each, including subsidies and operational costs.

The proposals and programmes are intended to link with the integrated development plan (IDP) process of the District and its municipalities and form the sectoral transport component of the IDP as required by section 31 of the NLTA Act.

12.2 FUNDING STRATEGY

This part of Chapter 12 deal with sources of income and funding constraints.

12.2.1 Possible funding sources in terms of DORA allocations are explained below.

Public transport network grant (PTNG)

The public transport network grant, administered by the Department of Transport, helps cities create or improve public transport systems in line with the National Land Transport Act (2009) and the Public Transport Strategy. This includes all integrated public transport network infrastructure, such as bus rapid transit systems, conventional bus services, and pedestrian and cycling infrastructure. The grant also subsidises the operation of these services.

Neighbourhood development partnership grant (NDPG)

The neighbourhood development partnership grant supports municipalities in developing and implementing urban network plans. The grant funds the upgrading of identified precincts to stimulate third-party public and private investment.

Rural roads asset management systems grant (RRAMSG)

The Department of Transport administers the rural roads asset management systems grant to improve rural road infrastructure. The grant funds the collection of data on the condition and usage of rural roads in line with the Road Infrastructure Strategic Framework for South Africa (RISFSA). This information guides investments to maintain and improve these roads. *District municipalities* collect data on all the municipal roads in their area, ensuring that infrastructure spending (from the municipal infrastructure grant and elsewhere) can be properly planned to maximise impact. As data becomes available, incentives will be introduced to ensure that municipalities use this information to plan road maintenance appropriately. The municipal infrastructure grant stipulates that municipalities must use data from roads asset management systems to prioritise investment in roads projects.

The public transport operations grant (PTOG)

The public transport operations grant subsidises commuter bus services. It helps ensure that provinces meet their contractual obligations and provide services. Most of the contracts subsidised through this grant continue to operate on long-standing routes that link dormitory towns and suburbs established under apartheid to places of work.

The grant allows provinces to renegotiate contracts and routes, and/or to devolve the function and funding to municipalities. This provides an opportunity for routes to be restructured in line with new settlement patterns and to promote more integrated urban development patterns in future.

Integrated Urban Development Grant (IUDG)

To provide funding for public investment in infrastructure for the poor and to promote increased access to municipal own sources of capital finance in order to increase funding for public investment in economic infrastructure; to ensure that public investments are spatially aligned and to promote the sound management of the assets delivered.

Municipal Infrastructure Grant (MIG)

To provide specific capital finance for eradicating basic municipal infrastructure backlogs for poor households, microenterprises and social institutions servicing poor communities; to provide specific funding for the development of asset management plans for infrastructure servicing the poor.

12.2.2 Municipal Land Transport Fund

Section 27(1) of the NLTA provides , subject to subsection (2) , every municipality that is establishing an integrated public transport network must establish a fund for its area known as a Municipal Land Transport Fund into which shall be paid-

(a) Money appropriated by the Minister for that Fund;
(b) Money appropriated by the MEC for that Fund;
(c) User charges collected in terms of section 28;
(d) Interest on invested cash balances belonging to that Fund; and
(e) Donations and contributions to that fund from any other source, including foreign aid agencies.

As the CDM already has IPTN 2022 , one of the next steps is to start the process of establishing the fund in order to access the funding enabled by its establishment so as to use the funds in support of the DITP implementation as more fully described in section 27 of the NLTA.

12.3 BUDGET PER PROJECT AND PROGRAMME

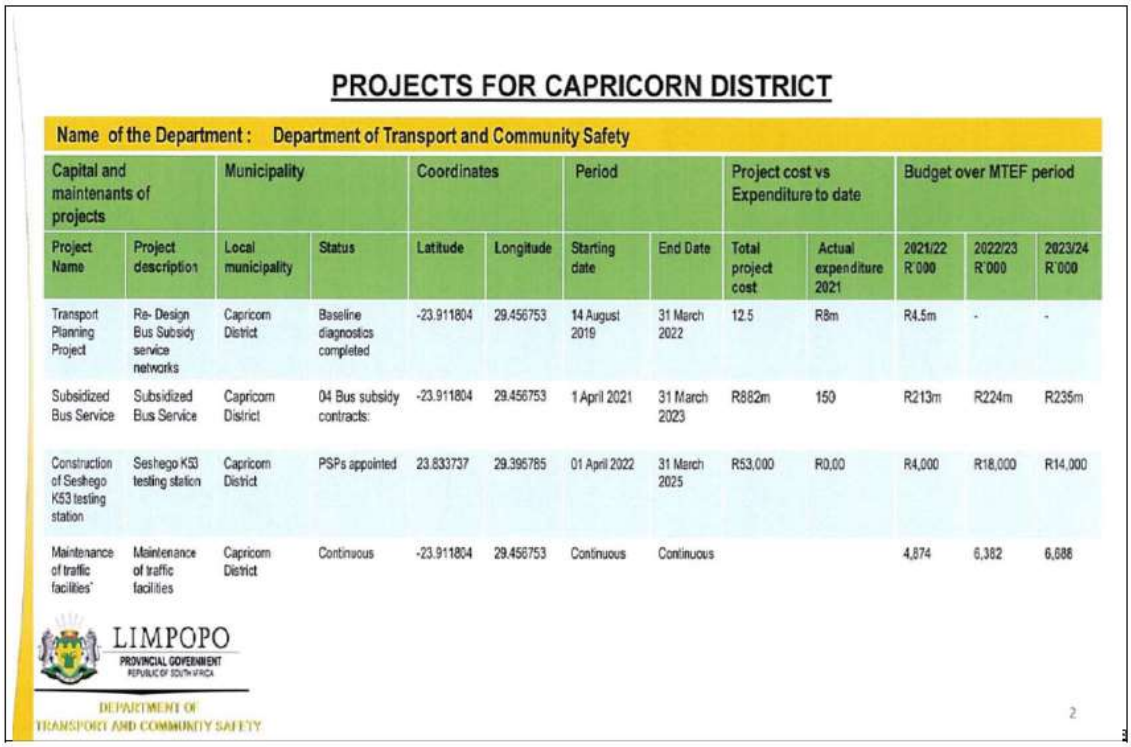
The funding strategy is concluded by the preparing the following prioritised budget and programme for a five-year period as shown on Table 12.1 overleaf.

Table 12-1: Funding Strategy and Summary of Proposals and Programmes

PROJECT NO.	PROPOSAL	FINANCIAL YEAR					TOTAL
		2022/2023	2023/24	2024/2025	2025/2026	2026/27	
1	Recruitment of Transport Planners and Engineers	2 000 000	6 000 000	6 600 000	7 000 000	8 000 000	29 600 000
2	Prepare/Update DITP/LITP		4 000 000	6 000 000	10 000 000	12 000 000	32 000 000
3	Provide Funding FOR IDP developments				10 000 00		10 000 000
4	Prepare Roads Masterplans in CDM		5 000 000			10 000 000	15 000 000
5	Formalise Taxi Ranks		15 000 000		25 000 000		40 000 000
6	Provide PT stops/lay-bys/shelters		20 000 000	30 000 000	40 000 000	50 000 000	140 000 000
7	Upgrade PT routes		15 000 000	20 000 000	25 000 000	30 000 000	90 000 000
8	Undertake Non-Motorised Surveys & Strategy		2 000 000				2 000 000
9	Include Transport Planning in Municipal Structure			1 000 000			1 000 000
10	Initiate and fund traffic counting Programme		3 000 000		5 000 000		8 000 000
11	Collate and Analyse traffic Accident Statistics		2 000 000			3 000 000	5 000 000
12	Incorporate ITP in IDP document	1 000 000					1 000 000
13	Prepare Road Safety Strategy			2 000 000			2 000 000
14	Prepare Law Enforcement Strategy			2 000 000			2 000 000
15	Operating Licences Enforcement Strategy				3 000 000		3 000 000
16	Undertake Road Safety Audits		1 000 000			3 000 000	4 000 000
17	Identify, monitor and address hazardous locations		1 000 000				1 000 000
18	Motivate and assign law enforcement at strategic locations		2 000 000				2 000 000
19	Monitor Implementation of DITP , LITP and CITP	1 000 000		4 000 000		6 000 000	10 000 000
20	Design and construct Trucks stop facilities		40 000 000	60 000 000	60 000 000	40 000 000	200 000 000
21	Upgrade roads supporting tourist locations		20 000 000	30 000 000	20 000 000	30 000 000	100 000 000
22	Upgrade mines/freight routes		10 000 000	10 000 000	10 000 000	20 000 000	50 000 000
23	Plan, design and construction taxi holding facilities		10 000 000	40 000 000	60 000 000	30 000 000	140 000 000
TOTAL		4 000 000	156 000 000	211 000 000	304 600 000	242 000 000	917 600 000

Department of Transport and Community Safety projects for the Capricorn District Municipality. See Table 12-2 below.

Table 12-2: Department of Transport and Community Safety



PROJECTS FOR CAPRICORN DISTRICT

Name of the Department : Department of Transport and Community Safety

Capital and maintenants of projects		Municipality		Coordinates		Period		Project cost vs Expenditure to date		Budget over MTEF period		
Project Name	Project description	Local municipality	Status	Latitude	Longitude	Starting date	End Date	Total project cost	Actual expenditure 2021	2021/22 R'000	2022/23 R'000	2023/24 R'000
Transport Planning Project	Re- Design Bus Subsidy service networks	Capricorn District	Baseline diagnostics completed	-23.911804	29.456753	14 August 2019	31 March 2022	12.5	R8m	R4.5m	-	-
Subsidized Bus Service	Subsidized Bus Service	Capricorn District	04 Bus subsidy contracts:	-23.911804	29.456753	1 April 2021	31 March 2023	R882m	150	R213m	R224m	R235m
Construction of Seshego K53 testing station	Seshego K53 testing station	Capricorn District	PSPs appointed	23.833737	29.396785	01 April 2022	31 March 2025	R53,000	R0,00	R4,000	R18,000	R14,000
Maintenance of traffic facilities'	Maintenance of traffic facilities	Capricorn District	Continuous	-23.911804	29.456753	Continuous	Continuous			4,874	6,382	6,688

LIMPOPO PROVINCIAL GOVERNMENT REPUBLIC OF SOUTH AFRICA
DEPARTMENT OF TRANSPORT AND COMMUNITY SAFETY

2

Source: Polokwane Final IDP, 2022/2023

Department of Public Works, Roads and Infrastructure work for Capricorn District. See Table 12.3 overleaf.

Table 12-3: Household Routine Maintenance for Capricorn District

5. DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE

Name of the Department: Department of Public Works, Roads and Infrastructure: CAPRICORON									
Capital Projects		Municipality		Coordinates		Budget			
Project Name	Project Description	Local Municipality	District Municipality	Latitude	Longitude	Total Project Cost	Actual Expenditure 2019/20- 20/25		
Expenditure to date							2020/21	2021/22	2022/23
Installation of Lifts	Installation of Lifts	Lepelle Nkumpi	Capricorn	24.2585 S	29.6499 E	R10m	R3m	R1m	R1 500 00
Refurbishment of 40 Paul Kruger Building	Refurbishment of 40 Paul Kruger Building	Polokwane	Capricorn	23.8962 S	29.4486 E	R36.080	R5 179 m	R11m	R20m
Refurbishment of Lebowakgomo Government Complex: Chamber	Refurbishment of Lebowakgomo Government Complex: Chamber	Lepelle Nkumpi	Capricorn	24.2585 S	29.6499 E	R10m	-	-	R5m
Renovation of Lebowakgomo Workshop	Renovation of Lebowakgomo Workshop	Lepelle Nkumpi	Capricorn	24.2585 S	29.6499 E	R500	-	-	R500
Renovation of Ladanna Offices	Renovation of Ladanna Offices	Polokwane	Capricorn	23.8962 S	29.4486 E	R4.5m	-	-	R4m
LDPWRI-ROADS 18001	Household Routine Maintenance	Polokwane	Capricorn	23.8962 S	29.4486 E	R39m	-	-	R13m

Source: Polokwane Source: Final IDP, 2022/2023

SANRAL projects within Capricorn District. See Table 12.4

Table 12-4: SANRAL Projects Within Capricorn District

2021-2026 CITP Polokwane Local Municipality| June 2021

TABLE 11.5: SUMMARY OF PLANNED SANRAL PROJECTS WITHIN PLM

Project Number	Description	Project Type	Project Status	Start Date	Planned End Date
R.521-010-2020/1	DNURT: Polokwane to Strydomsloop	Road Development	Planning	01-Apr-2016	31-Mar-2024
R.567-010-2019/1	DNURT: Perskebult to Seshego	Road Development	Planning	01-Apr-2021	31-Mar-2023
X.002-061-2018/1	MSNGT: Limpopo/Mpumalanga Material Source	Road Development	Routine Road Maintenance Project	07-Jan-2019	30-Jun-2023
X.002-040-2015/1	MONRM: Polokwane RRM	Road Development	Routine Road Maintenance Project	01-Apr-2015	31-Mar-2020
X.002-101-2019/1	MONRM: Polokwane 2 R567/R521/N11	Road Development	Routine Road Maintenance Project	01-Nov-2018	31-Jan-2023
X.002-077-2018/1	MONIM: RIMS Project in Limpopo	Road Development	Routine Road Maintenance Project	01-Feb-2018	29-Jan-2021
X.002-087-2019/1	MONRM: Polokwane 1 R37/R71/R81/N1	Road Development	Routine Road Maintenance Project	01-Apr-2019	23-Dec-2022
X.001-260-2018/1	MPRS2: Mokopane to Duvenhageskraal	Road Development	Routine Road Maintenance Project	03-Apr-2017	31-Mar-2022

Source: 2021-2026 CITP Polokwane Municipality June 2021

Table 12-5: RAL Existing Infrastructure Projects in Capricorn District Municipality

2021-2026 CITP Polokwane Local Municipality| June 2021

TABLE 11.6: RAL EXISTING INFRASTRUCTURE PLANNING FOR CAPRICORN DISTRICT MUNICIPALITY

Project Name	Project Description	Brief Scope of Works	Funding Source	Budget	Expenditure to Date	Project Status	Physical Progress	Project Start Date	Project Completion Date
RAL/T634B	Morebeng (Soekmekaar) to Senwamokope (Sekgosese)	Upgrading	EQS	R 400 M	R 298 M	Construction	52%	Jul-17	Aug-21
RAL/T757A	Road D4109 from Mamatonya to Road D4114 in Selwane	Upgrading	EQS	TBC	N/A	Planning and Design	N/A	N/A	N/A
RAL/T945	Limburg towards Matlala	Upgrading	EQS	R 28 M	R 16 M	Construction	80%	Mar-19	Mar-21
RAL/988	Blouberg Hospital to Buffelshoek Clinic	Upgrading	EQS	TBC	N/A	Planning and Design	N/A	N/A	N/A
RAL/T966	Makgatho to Devrede	Maintenance	PRMG Conditional Grant	R 29 M	N/A	Planning and Design	N/A	N/A	N/A
RAL/T1002	Mathabatha to Mafefe D4050	Presidential Employment Initiatives Projects	Presidential Employment Initiatives	R 2 971 861.00	R -	Implementation (Routine Road Maintenance)	TBC	TBC	TBC
RAL/T1007	Mentz to Manthata D4016	Presidential Employment Initiatives Projects	Presidential Employment Initiatives	R 2 971 861.00	R -	Implementation (Routine Road Maintenance)	TBC	TBC	TBC
RAL/T1008	Munnik to Soekmekaar P54/1	Presidential Employment Initiatives Projects	Presidential Employment Initiatives	R 2 971 861.00	R -	Implementation (Routine Road Maintennace)	TBC	TBC	TBC
RAL/T968	Maintenance of Road P18/2 towards Zebediela	Maintenance	PRMG Conditional Grant	TBC	R -	Planning and Design	TBC	TBC	TBC

Source: 2021-2026 CITP Polokwane Municipality June 2021

13. STAKEHOLDER CONSULTATION

The following institutions were consulted and relevant data/information were collated:

Provincial Department of Transport and Community Safety

A formal letter was drafted and submitted to the HoD informing the office that the CDM has started with the development of the CITP. The following reports/information/data was collected from the Department:

- Freight strategy and routes;
- Public transport routes from the Provincial Regulatory Entity (PRE);
- Contracted public transport database

Local Municipalities

- Polokwane Local Municpality
- Molemole Local Municipality
- Bloeberg Local Municipality
- Lepelle-Nkumpi Local Municipality

Raod Agency Limpopo

Public Transport Operators

- Capricorn Regional Taxi Council
- Bus Companies
- Polokwane Airport

Transnet

Workshops

Over and above the engagements with institutions, two workshops were scheduled.

- 1st workshop was scheduled for the 30th of August 2022
- 2nd workshop took place on the 4th of October 2022

The attendance register and the minutes of the workshops are provided.

APPENDIX A: PUBLIC TRANSPORT FACILITITIES

APPENDIX B: ROUTE DESCRIPTION

APPENDIX C: ROUTES AS IDENTIFIED BY FACILITY

APPENDIX D: FARES PER ROUTE

APPENDIX E: FARES PER ROUTES

APPENDIX E: AM PEAK DATA

APPENDIX F: PM PEAK DATA

APPENDIX G: OPERATIONAL DATA

APPENDIX H: TAXI HOLDING DATA

APPENDIX I: LOCATIONS OF PUBLIC TRANSPORT FACILITIES

APPENDIX: BUS DATA