

Development of a Freight Transport Implementation Strategy for Limpopo Province



Limpopo Department of
Roads and Transport
August 2012



Contents

1. Opening Statement
2. Setting the Freight Transport Scene
3. Freight Transport Vision, Mission and Goals
4. Freight Transport Challenges & Solutions
5. The Freight Transport Strategic Network
6. Implementation Plan
7. Funding Options
8. Monitoring Approach



Opening Statement



LIMPOPO

PROVINCIAL GOVERNMENT

REPUBLIC OF SOUTH AFRICA

**DEPARTMENT OF
ROADS & TRANSPORT**

Opening Statement

LIMPOPO PROVINCE IS SITTING ON SOUTH AFRICA'S FUTURE. Limpopo Province needs to unlock this future to realize its position as “The Heartland of Southern Africa”!

Challenges faced by the province from a freight transport perspective:

Economic issues

Institutional issues

Legal and Policy issues

Infrastructure issues

Operational issues



Setting the Freight Transport Scene in Limpopo



LIMPOPO

PROVINCIAL GOVERNMENT

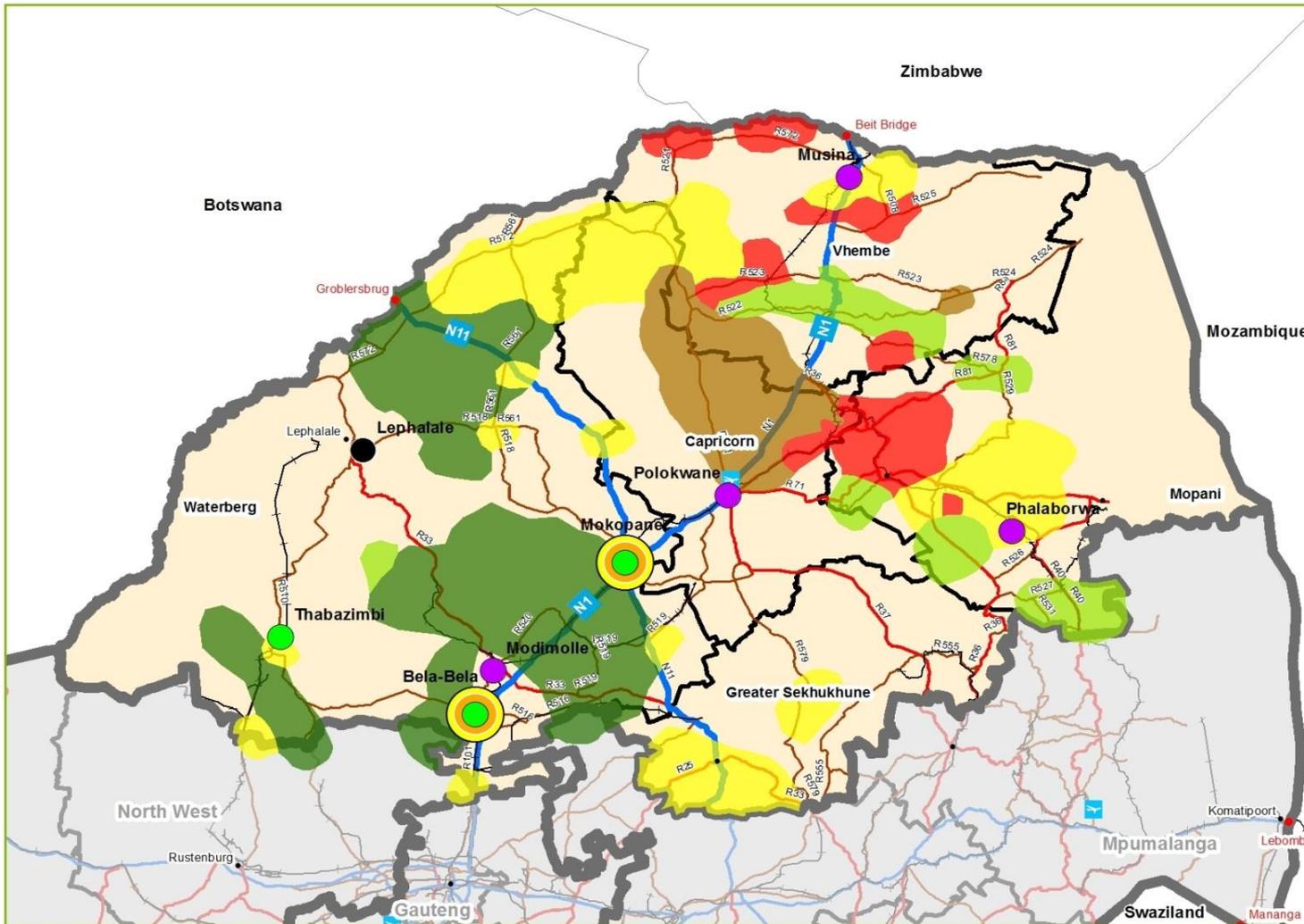
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ROADS & TRANSPORT

Freight Transport Drivers today



Limpopo Province: HORTICULTURE CLUSTERS



SANRAL Road Network

- National (Blue line)
- Main (Red line)
- Secondary (Brown line)

Horticulture Clusters

- Potatoes (Brown)
- Tomatoes (Red)
- Vegetables (Green)
- Citrus (Yellow)
- Subtropical Fruit (Light Green)

Crops

- Tobacco (Black circle)
- Maize (Purple circle)
- Wheat (Green circle)
- Cotton (Orange circle)
- Sunflower (Yellow circle)



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P o Box 905, PRETORIA, South Africa, 0001

Tel +27 12 4272000
 Fax: +27 86 556 0521

aurecon

BASEMAP LEGEND:

- Railway Network (Black line with cross-ticks)
- Airports (Blue square)
- District Municipal Boundary (Black outline)
- Provincial Boundaries (Grey outline)
- Border Posts (Red dot)
- Towns (Black dot)

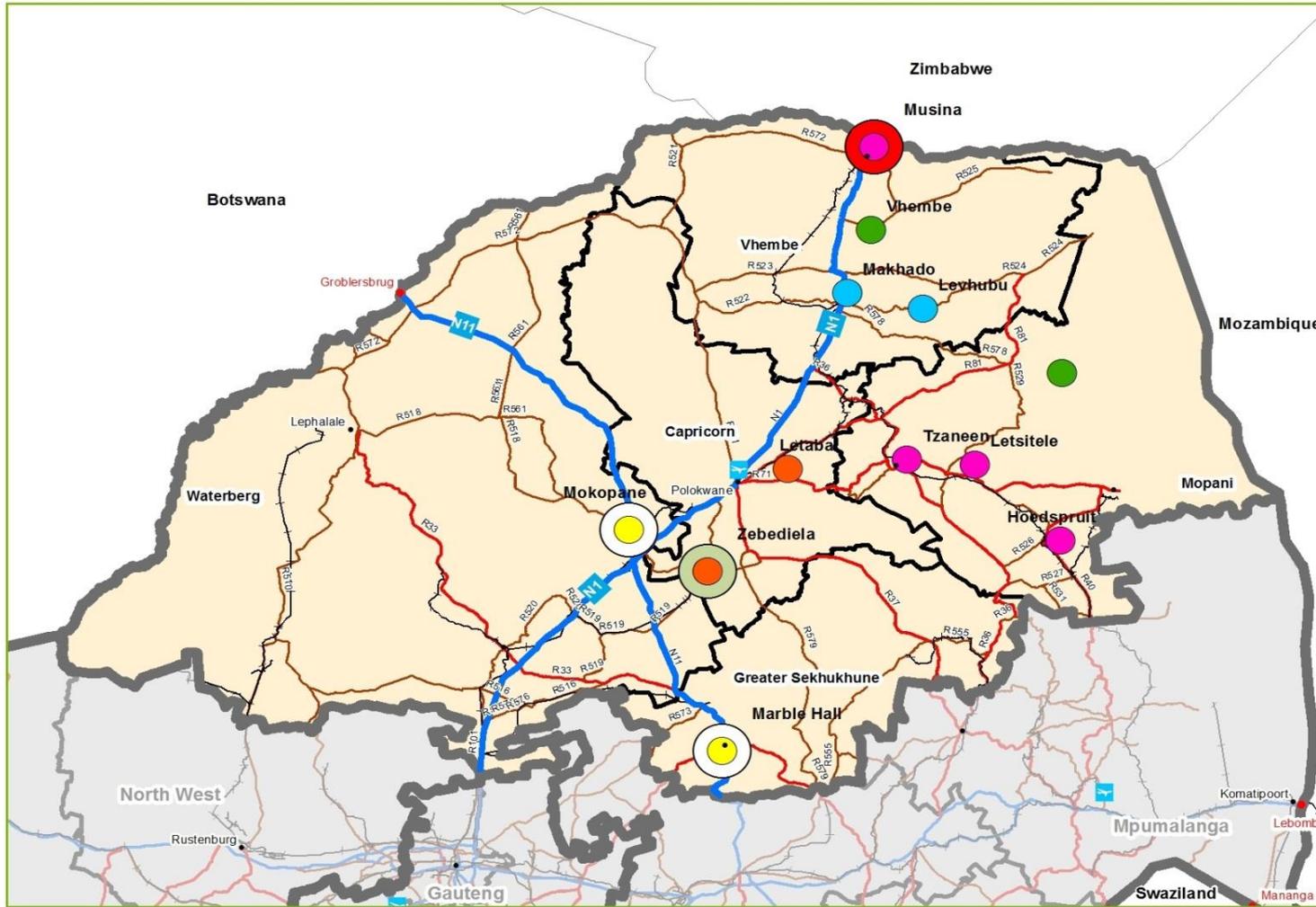


Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of the data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of the project with prior written approval of the CLIENT.

Freight Transport Drivers today



Limpopo Province: AGRO PROCESSING AREAS



SANRAL Road Network

- National
- Main
- Secondary

Agro Processing Areas

- - Avocadoes
- - Citrus
- - Macadamias
- - Maize
- - Mangoes
- - Ground Nuts
- Cotton
- Tomatoes



Aurecon Centre, 1040 Burnett Street, HATFIELD
P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
Fax: +27 86 558 0521

aurecon

BASEMAP LEGEND

- Railway Network
- Border Posts
- Airports
- District Municipal Boundary
- Towns
- Provincial Boundaries

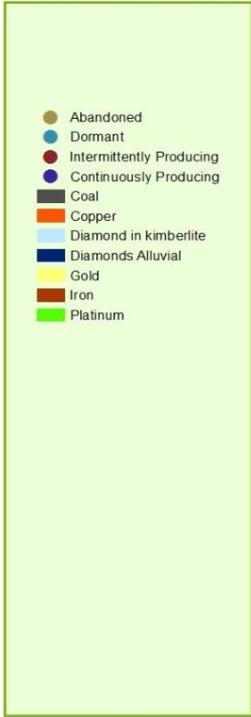
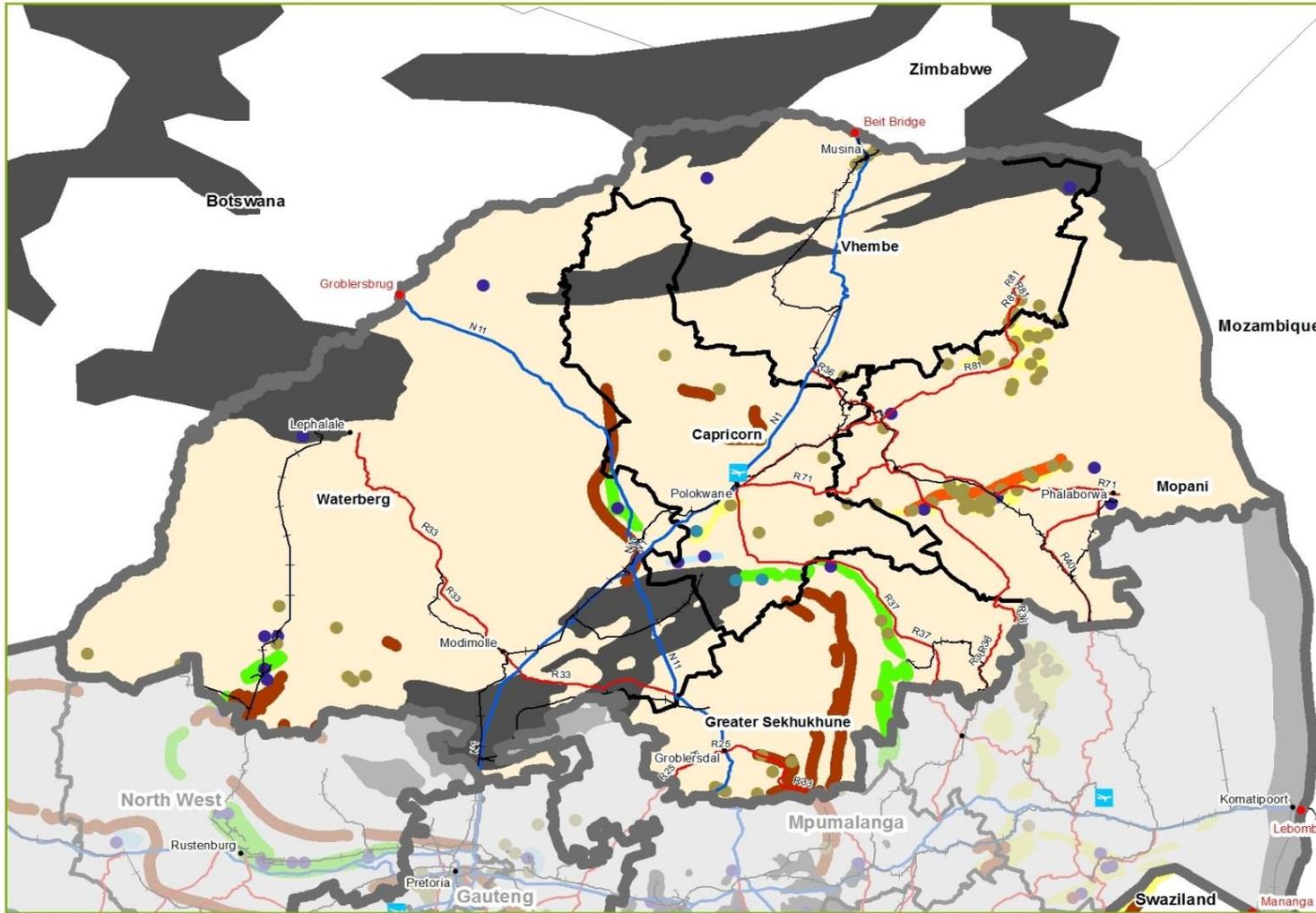
1:3 000 000

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

Freight Transport Drivers today



South Africa: MINING ACTIVITY AND RESERVES



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P o Box 905, PRETORIA, South Africa, 0001

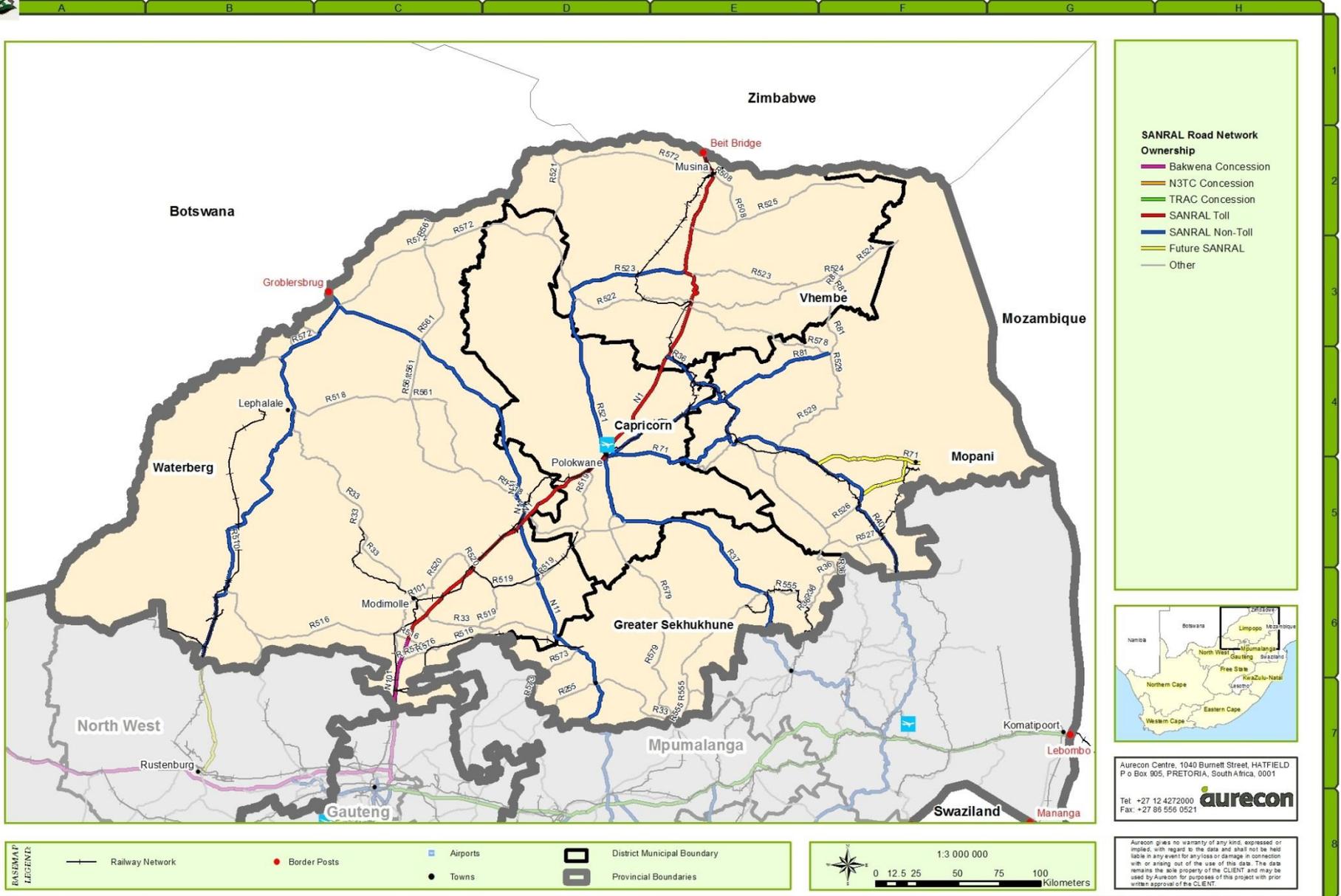
Tel: +27 12 4272000
 Fax: +27 86 556 0521

aurecon



Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for its purposes if this project with prior written approval of the CLIENT.

Road Network today



SANRAL Road Network Ownership

- Bakwena Concession
- N3TC Concession
- TRAC Concession
- SANRAL Toll
- SANRAL Non-Toll
- Future SANRAL
- Other



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P o Box 905, PRETORIA, South Africa, 0001

Tel +27 12 4272000
 Fax: +27 86 556 0521

aurecon

BASISMAP LEGEND

- Railway Network
- Border Posts
- Airports
- District Municipal Boundary
- Provincial Boundaries
- Towns

1:3 000 000

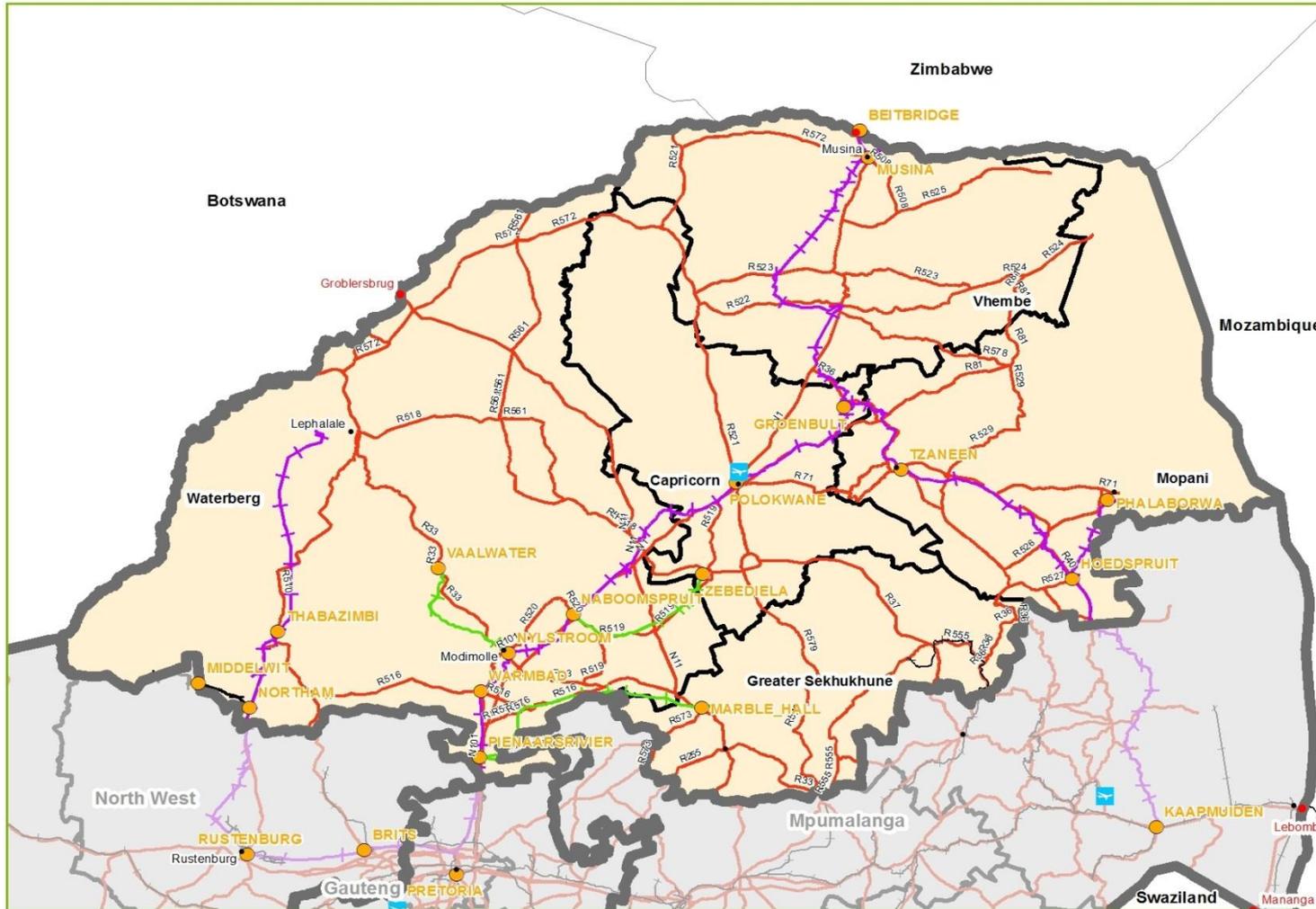
0 12.5 25 50 75 100 Kilometers

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of the project with prior written approval of the CLIENT.

Rail Network today



Limpopo Province: RAIL NETWORK



● Railway Stations

Railway Network

- Main line
- Branch line
- Disused line
- Railway



Aurecon Centre, 1040 Burnett Street, HATFIELD
P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
Fax: +27 86 556 0521

BASEMAP LEGEND

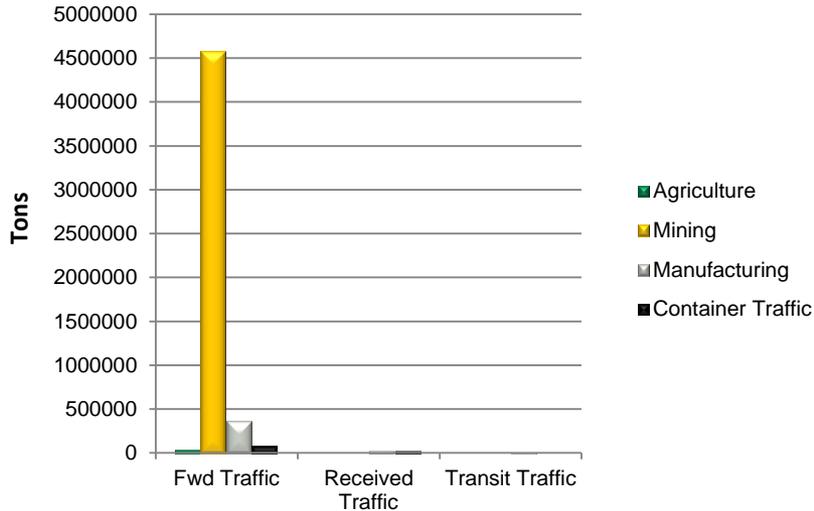
- SANRAL Road Network
- Railway Network
- Border Posts
- Airports
- District Municipal Boundary
- Provincial Boundaries
- Towns



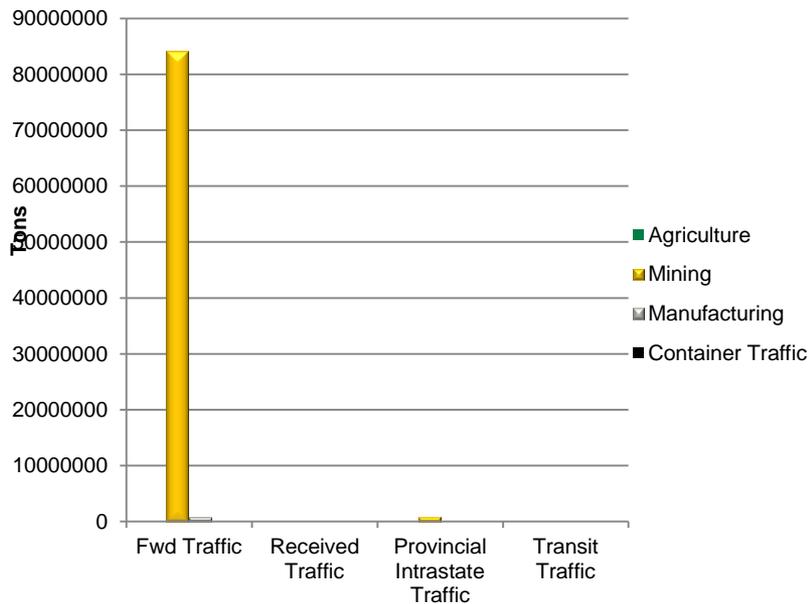
Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

Current Freight Transport Trends

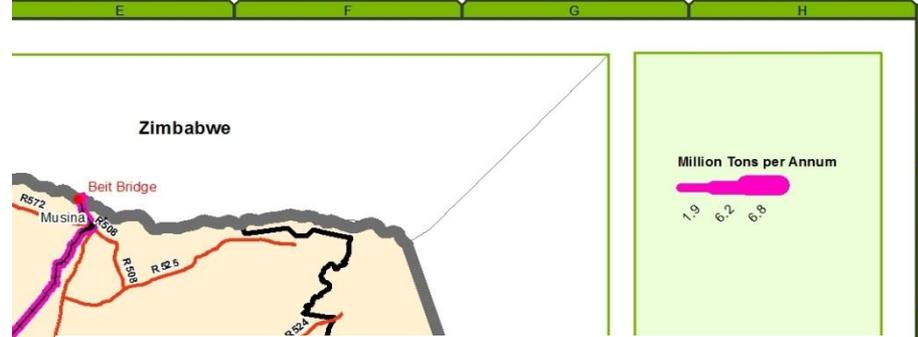
Groenbult - Tzaneen - Phalaborwa - Kaapmuiden



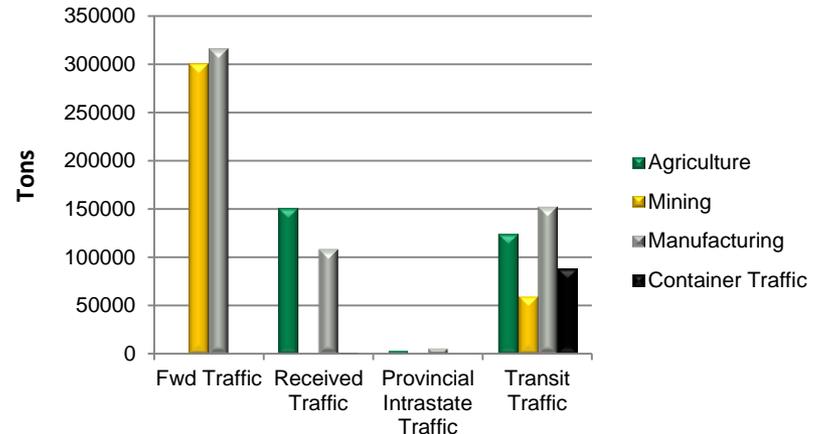
Pyramid - Rustenburg - Lephalale



OLUMES



Pyramid - Pretoria - Polokwane - Beit Bridge



Aurecon Centre, 1040 Burnett Street, HATFIELD
P o Box 905, PRETORIA, South Africa, 0001
Tel: +27 12 4272000
Fax: +27 86 556 0521

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage, in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.



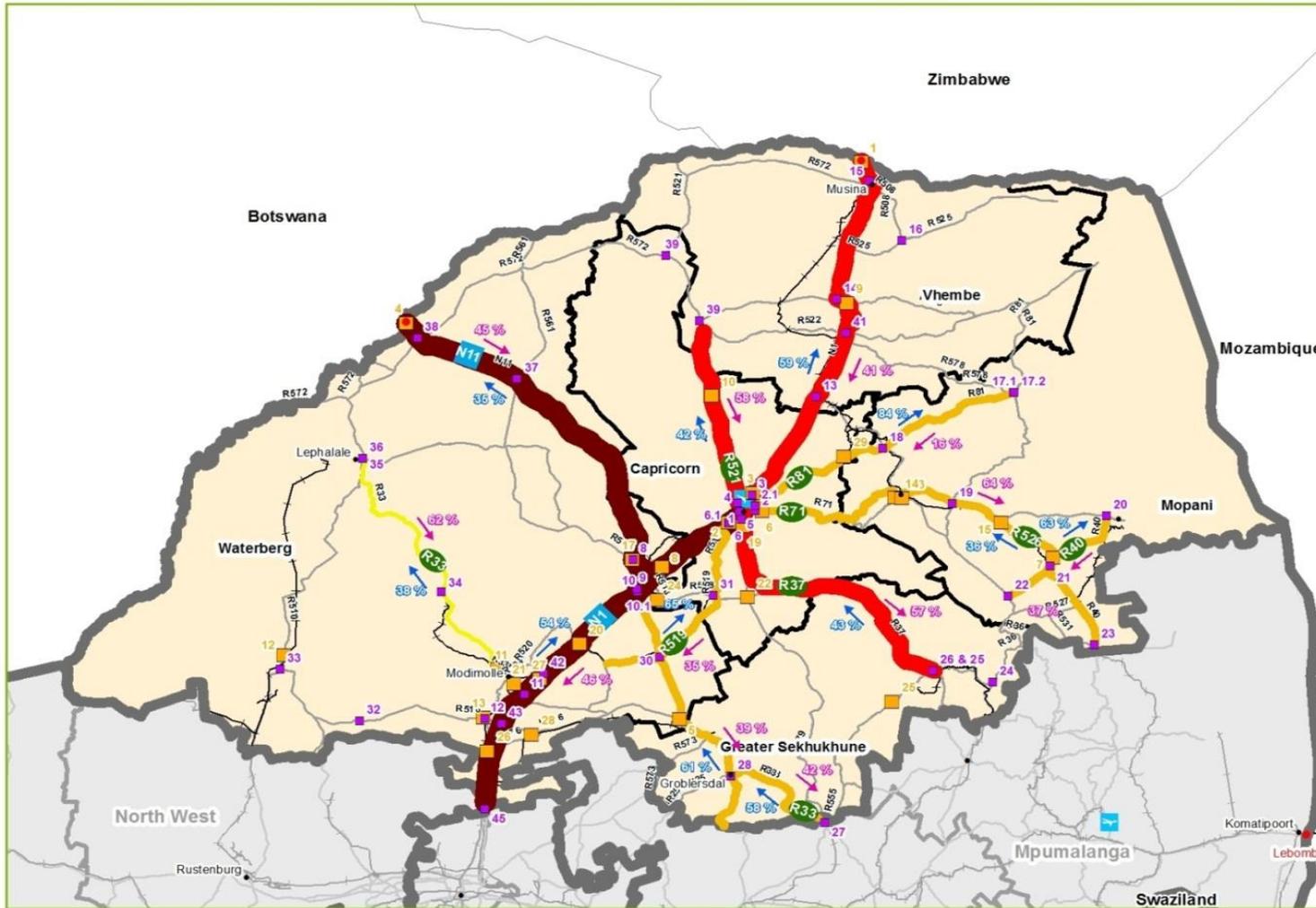
Current Freight Transport Trends

LINE	MAIN COMMODITIES HANDLED	DIRECTION OF FREIGHT	ORIGIN	DESTINATION
Pretoria Musina	Petroleum Liquid	Inbound	Various Provinces	Polokwane, Musina, Mokopane, Louis Trichardt
	Maize	Inbound	Various Provinces	Polokwane, Musina, Mokopane, Louis Trichardt
	Coal	Outbound	Musina	Bijlkor
	Lime products	Outbound	Bela Bela	Pyramid Suid
Groenbult-Komatipoort	Petroleum Liquid	Inbound	Various Provinces	Tzaneen
	Citrus Fruits	Outbound	Lesitele, Orangene	Durban, Maputo, WC
Lephalale- North West	Coal	Outbound	Lephalale	Various Provinces
	Iron Ore	Outbound	Thabazimbi	Vereeniging
	Gypsum	Inbound	Gauteng, Northern Cape	Middelwit



Current Freight Transport Trends

Limpopo Province: 2011 AVERAGE FLOW IN BOTH DIRECTIONS



■ New Survey Points
■ Survey Points
2011 Freight Data Bank Volumes
 Average Flow - Million Tons per Annum
■ 0.25 - 1.00
■ 1.01 - 1.75
■ 1.76 - 2.50
■ 2.51 - 3.25
■ 3.26 - 4.25



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P o Box 905, PRETORIA, South Africa, 0001
aurecon
 Tel +27 12 4272000
 Fax +27 85 556 0521

RASMAP LEGEND

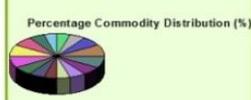
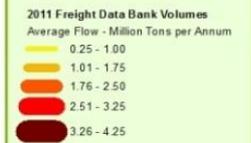
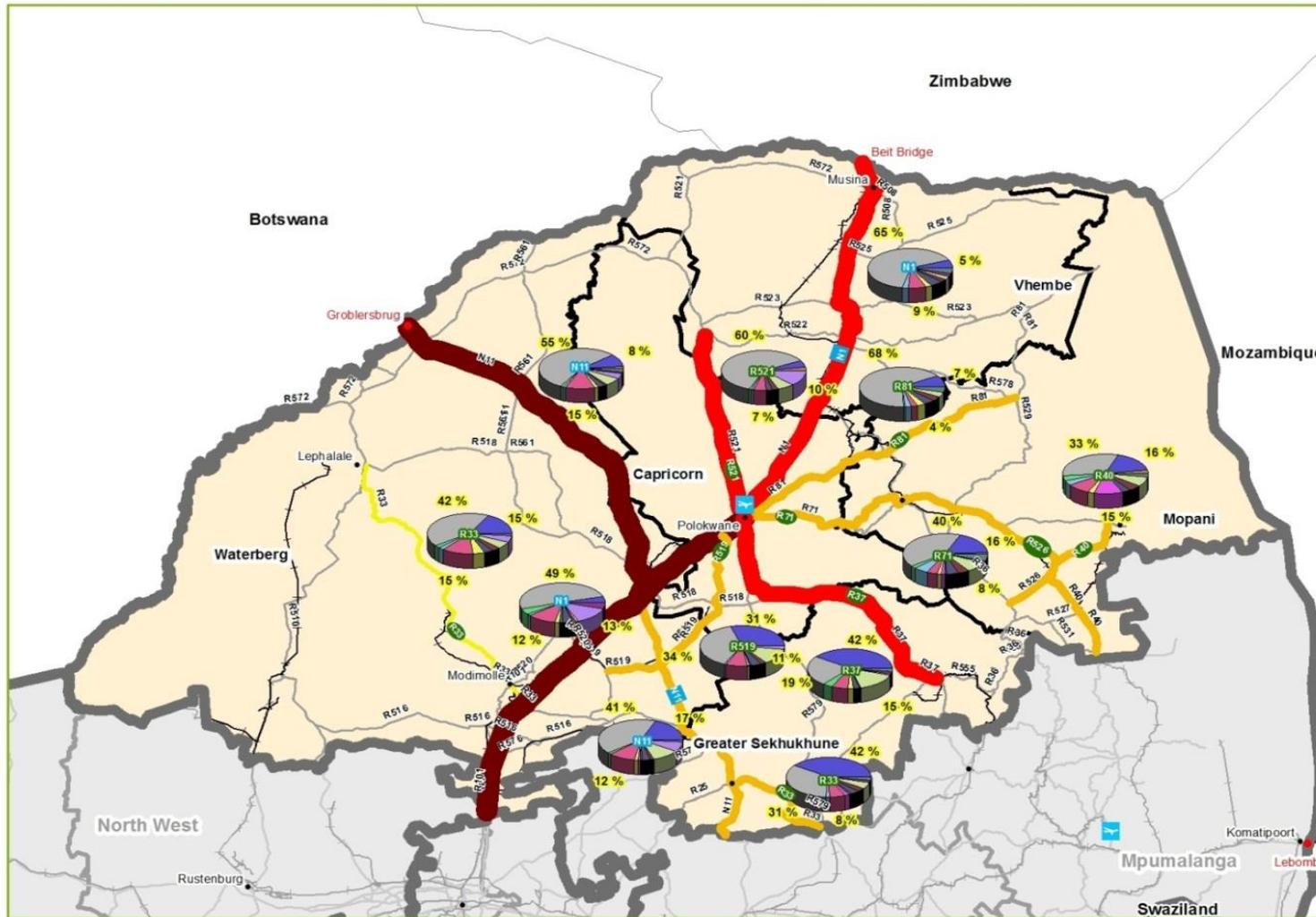
SANRAL Road Network	Border Posts	Airports	District Municipal Boundary
Railway Network	Towns	Provincial Boundaries	

1:3 000 000
 0 12.5 25 50 75 100 Kilometers

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

Current Freight Transport Trends

Limpopo Province: 2011 FREIGHT DATA BANK AVERAGE COMMODITY DISTRIBUTION



- Agricultural Products
- Bags / Sacks
- Break Bulk
- Cement / Coal
- Drinks / Beverages
- Empty
- Fuels
- Iron / Steel
- Chemicals
- Livestock
- Machinery / Vehicles
- Perishables
- Rock / Stone / Ores
- Sail / Tarpaulin
- Container
- Wood / Timber / Lumber

Note, only the top three commodity percentages are highlighted on the map



Aurecon Centre, 1040 Burnett Street, HATFIELD
P o Box 905, PRETORIA, South Africa, 0001

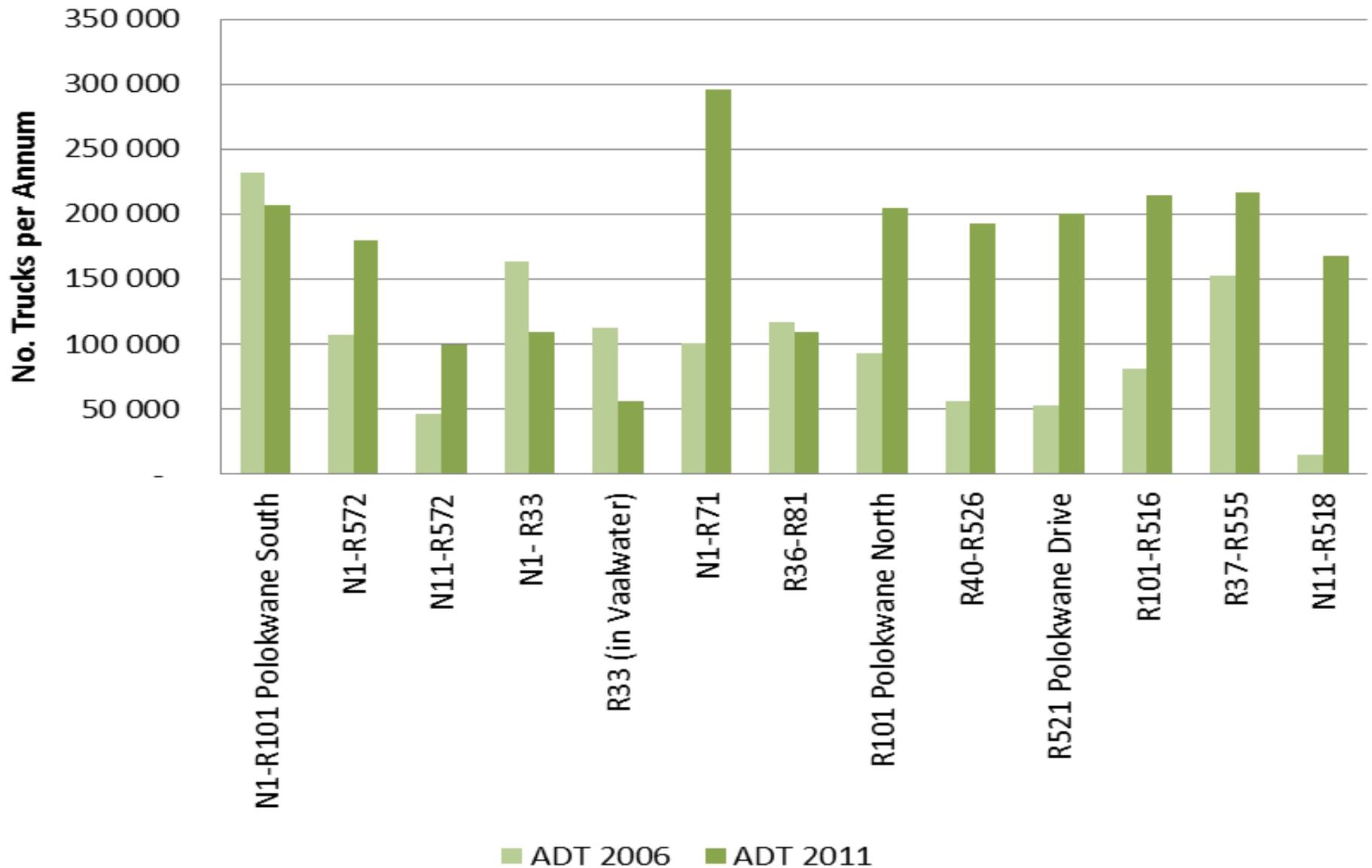
Tel: +27 12 4272000
Fax: +27 86 556 0521

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

- BASEMAP LEGEND**
- SANRAL Road Network
 - Railway Network
 - Border Posts
 - Airports
 - Towns
 - District Municipal Boundary
 - Provincial Boundaries



Current Freight Transport Trends



Current Freight Transport Trends

2006 FREIGHT DATABANK CORRIDORS		AVERAGE FREIGHT VOLUMES (million tons per annum)	2011 FREIGHT DATABANK CORRIDORS		AVERAGE FREIGHT VOLUMES (million tons per annum)	TREND
1	N1 (North of Polokwane)	2.77	1	N1 (North of Polokwane)	2.62	-5.73%
	N1 (South of Polokwane)	3.18	1	N1 (South of Polokwane)	3.48	8.62%
2	N11 (Northwest of Mokopane)	1.28	2	N11 (Northwest of Mokopane)	4.21	69.60%
	N11 (Southeast of Mokopane)	1.38	2	N11 (Southeast of Mokopane)	1.52	9.21%
3	R33	1.47	3	R33	0.74	-98.65%
4	R71	1.62	4	R71	1.05	-54.29%
5	R37	0.41	5	R37	2.59	84.17%
6	R81	1.18	6	R81	1.23	4.07%
7	R521	0.58	7	R521	2.97	80.47%
Total		13.87	Total		20.41	32.04%
8	R510	0.51	8	R519	1.00	
9	R516	0.49	9	R40	1.00	
10	R555	1.68	10	R33 – south in in Greater Sekhukhune district (R25 linking with R579)	1.69	Not applicable



Freight Transport Vision for Limpopo



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

**DEPARTMENT OF
ROADS & TRANSPORT**

Freight Transport Vision 2030

Freight Transport Vision:

- ***A World Renowned Freight Transport***

Freight Transport Mission

- White Paper on National Transport Policy: ***“To provide safe, reliable, effective, efficient and fully integrated land freight transport operations and infrastructure...”***
- **Optimised Freight Movement That Stimulates Growth**

Key Freight Transport Goals

- ***Maintain and improve the efficiency of the freight transport system ;***
- ***Enhance the sustainability of the freight sector ; and***
- ***Ensure the availability of sufficient capacity in the freight sector.***

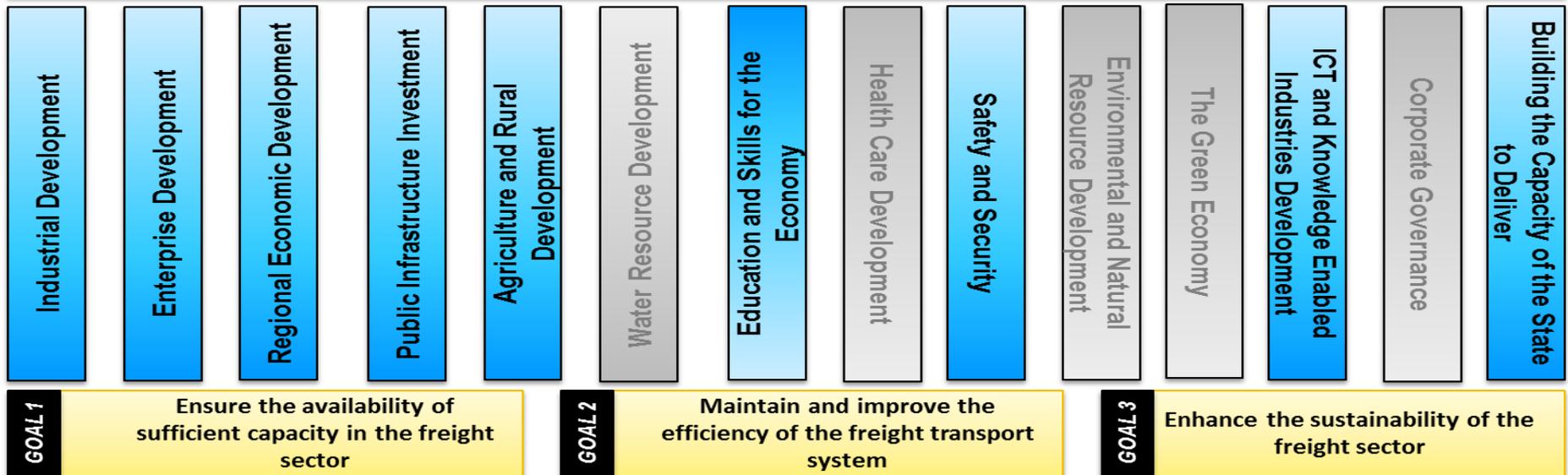


Freight Transport Vision 2030 ← → LEGDP

A WORLD RENOWNED FREIGHT TRANSPORT SYSTEM

>>> *“Optimised Freight Movement That Stimulates Economic Growth”* <<<

Targeted Limpopo Employment Growth and Development Plan (2009 – 2014) Pillars



FOUNDING / KEY PRINCIPLES

- ✓ Creating a Sustainable Land Freight Transport System
- ✓ Creating an Integrated and Responsive Land Freight Transport System
- ✓ Creating a Safe Land Freight Transport System
- ✓ Creating Transport Choices

NOTE: LEGDP Pillars applicable to the Limpopo Freight Strategy highlighted in blue

Freight Transport Challenges and Solutions



LIMPOPO

PROVINCIAL GOVERNMENT

REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ROADS & TRANSPORT

Key Freight Transport Principles

Sustainable land freight transport system

Significant investment in the land freight transport system .

By effectively serving all modes in an integrated manner the land freight transport system can be highly responsive to change and provide access and mobility for goods movement.

Safe land freight transport system

Land freight transport system needs to be safe. Equally, education and promotion are methods that can contribute to significant safety outcomes.

Integrated and responsive land freight transport system

Packaging complementary measures that work towards the Strategy's goals and vision

Integration of activities between transport agencies, between transport modes and policy development and application within and between regulatory agencies.

Creating freight transport choices by balancing roles of freight transport modes

Enable choice that encourages goods to travel in affordable, integrated, safe and environmentally sustainable ways.

Freight movement by road favoured to the detriment of other modes.



LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Slide 21
DEPARTMENT OF
ROADS & TRANSPORT

"Limpopo in Motion"

Air Freight Potential

AIRPORT IN LIMPOPO	FREIGHT POTENTIAL	DESCRIPTION
Burgersfort	low	There is hardly any high-value freight in the area, unless significant beneficiation of platinum takes place like manufacturing of high-value products
Musina	low / insignificant	There is no high-value freight in the area and no future projections thereof
Thohoyandou	low	Very little expectation that high-value freight will be available unless agro-processing takes place in the future
Tzaneen	low	Very little beneficiation / manufacturing taking place to produce high-value freight in the area
Phalaborwa	low	Very little beneficiation / manufacturing taking place to produce high-value freight in the area
Lephalale	Limited	Lephalale's economy is envisaged to grow substantially in the next 20 – 30 years but none of the development is envisaged will bring high value freight
Hoedspruit	Limited	Courier type cargo envisaged
Polokwane	High	It is estimated that Polokwane International could attract about 3 600 tonnes of air freight per annum, which equates to about 45 flights by an 80-tonne freighter aircraft



Air Freight Strategy

DEVELOPMENT OPTION	PATH DESCRIPTION	ENVIRONMENTAL SCAN	KEY FACTORS TO CONSIDER
Small cargo handling facilities on existing site	New development inside airport perimeter	<ul style="list-style-type: none"> • SAA Airlink bumping off cargo; • Mostly for rest of SA bound cargo 	<ul style="list-style-type: none"> • Competitive pricing against road transport; • Bigger and more airlines; • Belly cargo focus; • Airline operators with freight handling and forward capacity; • Better use of unutilised hangar space
Major cargo handling facilities on the airside	New development at the entrance of the airport and outside airport perimeter	<ul style="list-style-type: none"> • Severe competition from road freighting; • Cargo trends follow the direction of economically-downturn means decrease in cargo; • Most agricultural produce very bulky; • Most mining produce bulky and non-perishable – no beneficiation; • Transportation to ports and shipped; • Not economical, air-freighting too expensive; • Virtually no international freighting possible for other airports outside of ORTIA; • Dead legs on return international and African cargo freight flights; • Potential fresh product demand throughout the year 	<ul style="list-style-type: none"> • Competitive pricing with road transport; • Bigger and more airlines at airport to seek competition • Belly cargo and all-cargo freighting focus • International route – market development • Operate belly cargo in Africa to avoid dead legs; • Operate both belly-cargo and all cargo from European routes; • Have to have freight handling and forwarders based at the airport; • Needs to be driven as a provincial priority; • Needs significant provincial initiative implementation; • Needs government subsidisation; and • Long term focus

Rail Freight Strategy

Characteristics:

- 3 freight transport drivers:
 - Agriculture and food processing
 - Industry – cement
 - **Mining – gold, iron ore, copper, platinum, COAL**

Rail Freight Challenges

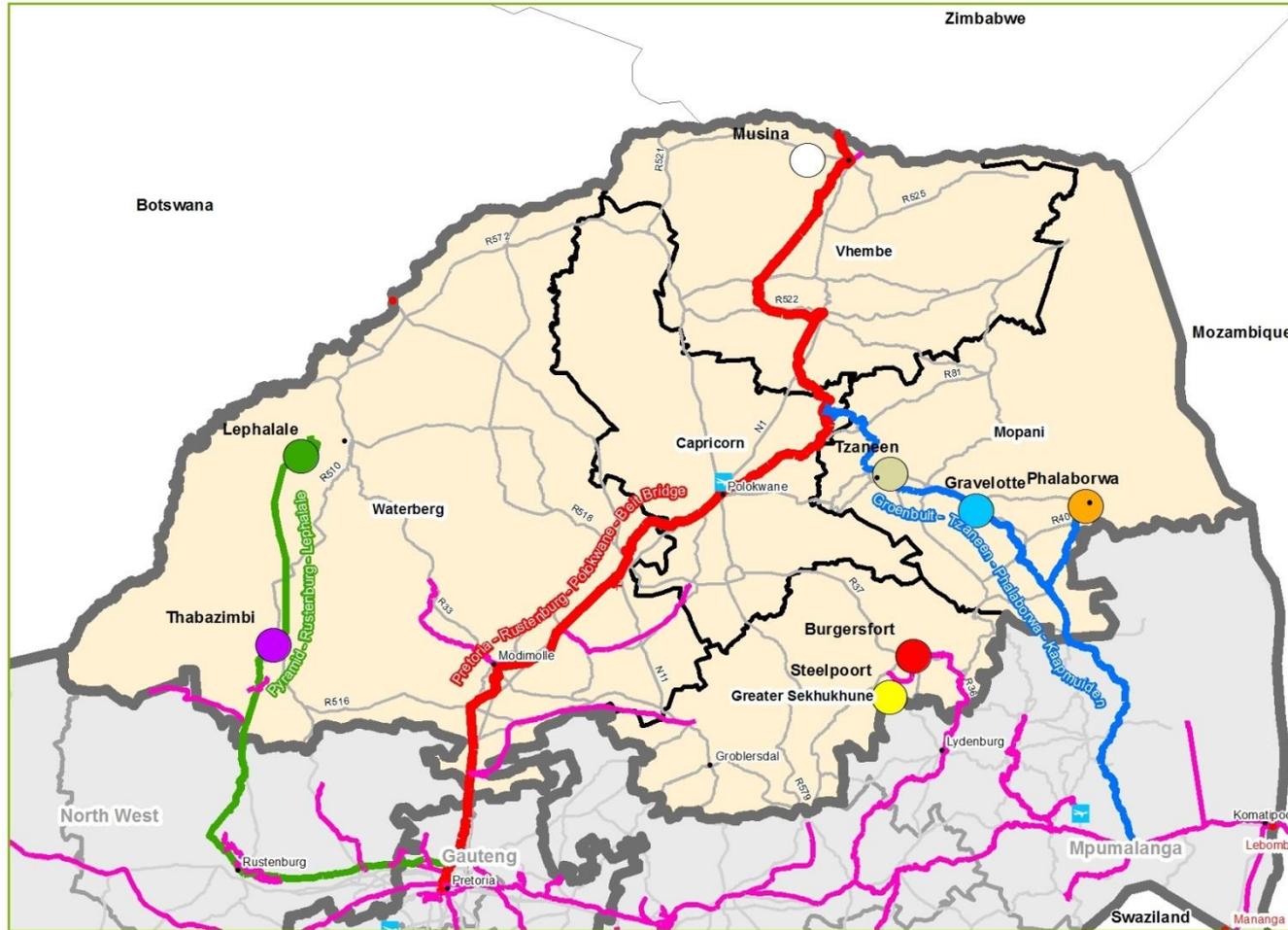
- Loss of market share by rail freight;
- Lack of rail services.
- Underutilisation of rail infrastructure;
- Presently freight transport mainly consists of road and rail, with limited intermodal freight.



Rail Freight Strategy



Limpopo Province: MINES



Major Rail Network

- Red line
- Blue line
- Pink line

Minor Rail Network

- Pink line

Mines

- Orange circle - Copper and Phosphates
- Light brown circle - Titanium
- Red circle - Platinum
- Green circle - Coal
- Purple circle - Iron Ore
- White circle - Diamonds
- Yellow circle - Chromite
- Blue circle - Antimony



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P O Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
 Fax: +27 86 556 0521

aurecon

BASEMAP LEGEND:

- SANRAL Road Network
- Border Posts
- Airports
- Towns
- District Municipal Boundary
- Provincial Boundaries

Scale: 1:3 000 000

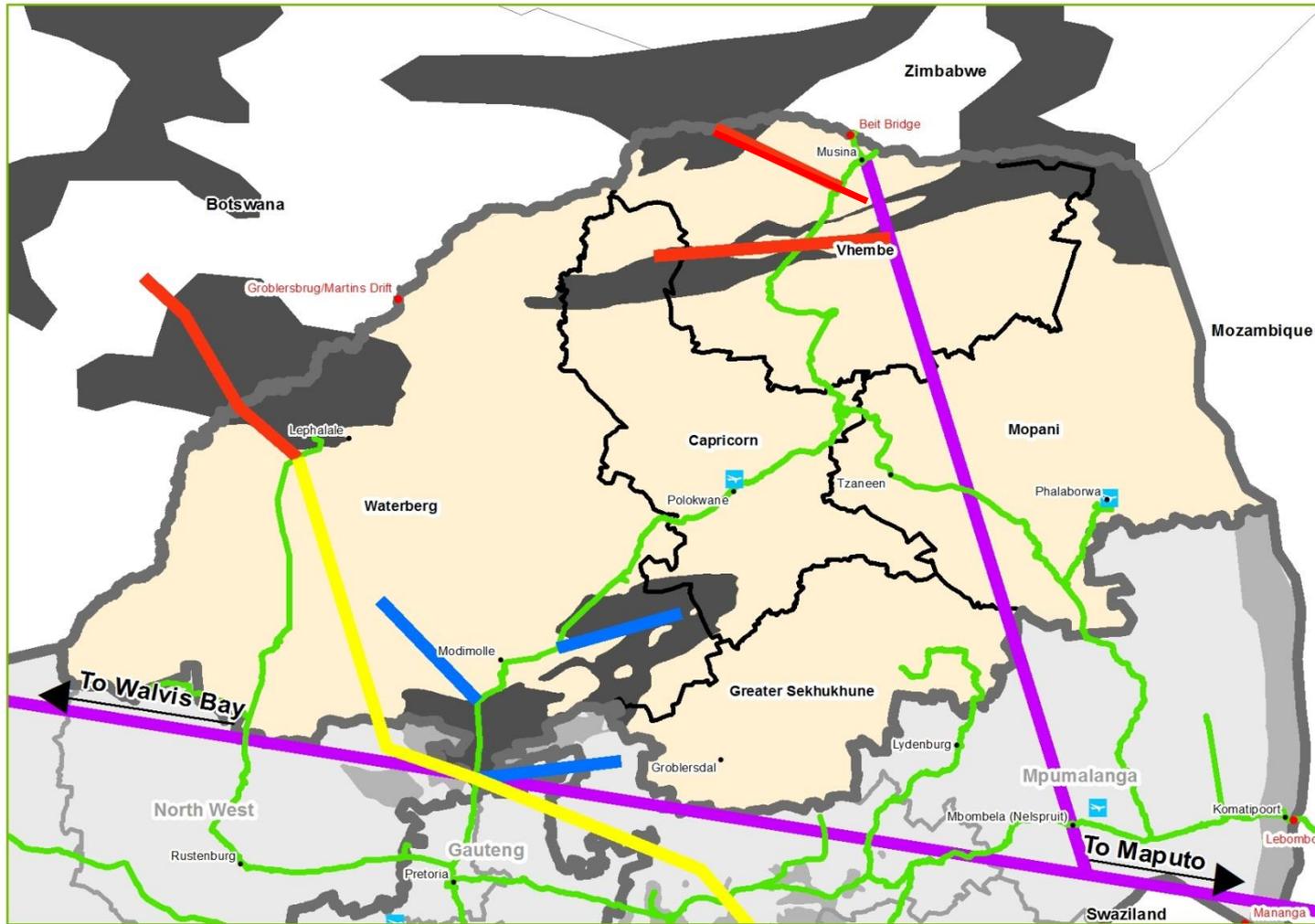
0 12.5 25 50 75 100 Kilometers

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

Rail Freight Requirements



Limpopo Province: RAIL REQUIREMENTS TO SERVICE COAL MINES



Legend

- █ Corridors
- █ Disused Branch Lines
- █ Coal Feeder Lines
- █ New Coal Line
- █ Railway Network
- █ Core lines
- Mining Area
- Coal

Note:

The exact route of the new coal line will have to be determined bearing in mind a range of factors.

But it has to be identical to the Ermelo to Richards Bay section in terms of gradients and traction modes and axle loads and train lengths.



Aurecon Centre, 1040 Burnet Street, HATFIELD
P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
Fax: +27 86 556 0521

aurecon

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

LEGENDA

- Border Posts
- Airports
- District Municipal Boundary
- Towns
- Provincial Boundaries



Road Freight Strategy

Road Freight Challenges

- Less than 35% of road network in the province is paved;
- General lack of maintenance;
- No dedicated fund for road maintenance on other transport corridors;
- Lack of calibrated weighing equipment, knowledge and skills, enforcement and supervision to address the issue of overloading;
- Lack of proper facilities such as truck stops; and
- Excessive overloading.

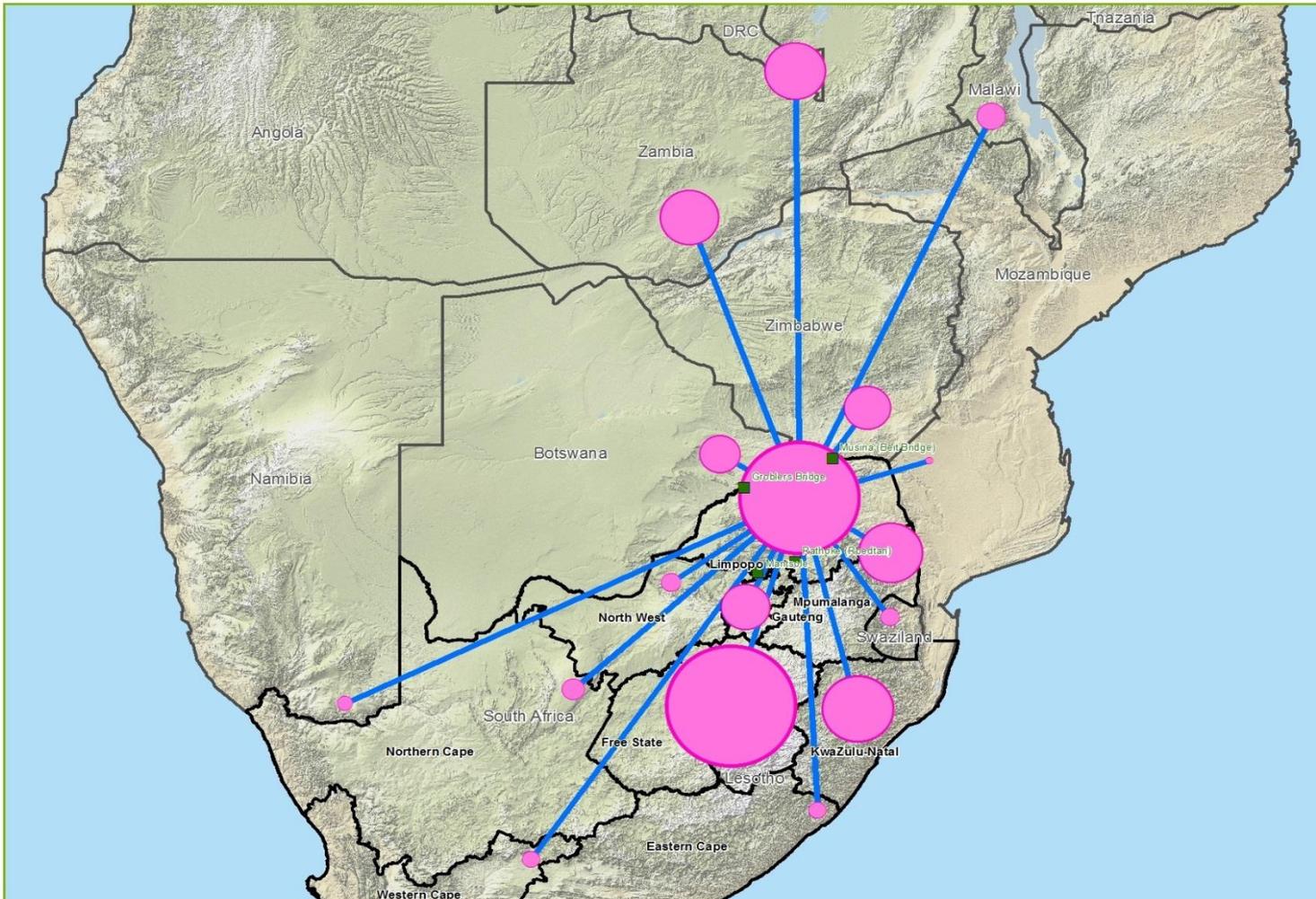
Road Freight Challenges

- Overloading control contributing to deterioration of road infrastructure;
- Border crossing processing requiring reviewing;
- Lack of law enforcement;
- Transport of hazardous materials challenges such as the lack of incident management system (IMS).



Where is traffic coming from?

Africa: 2011 SUMMARISED TCC ORIGIN SURVEY RESULTS



■ Weighbridges

Origin Survey Results (%)

10
0.1

Note:
These results are a summary of the average responses from the O-D Surveys conducted at four traffic control centres (TCC's - Beit Bridge, Gobler's Bridge, Rathoke and Mantsole) and are indicative of the origin of freight moving through the Limpopo Province.



Aurecon Centre, 1040 Burnett Street, HATFIELD
P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
Fax: +27 86 556 0521

aurecon

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of the data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of the project with prior written approval of the CLIENT.

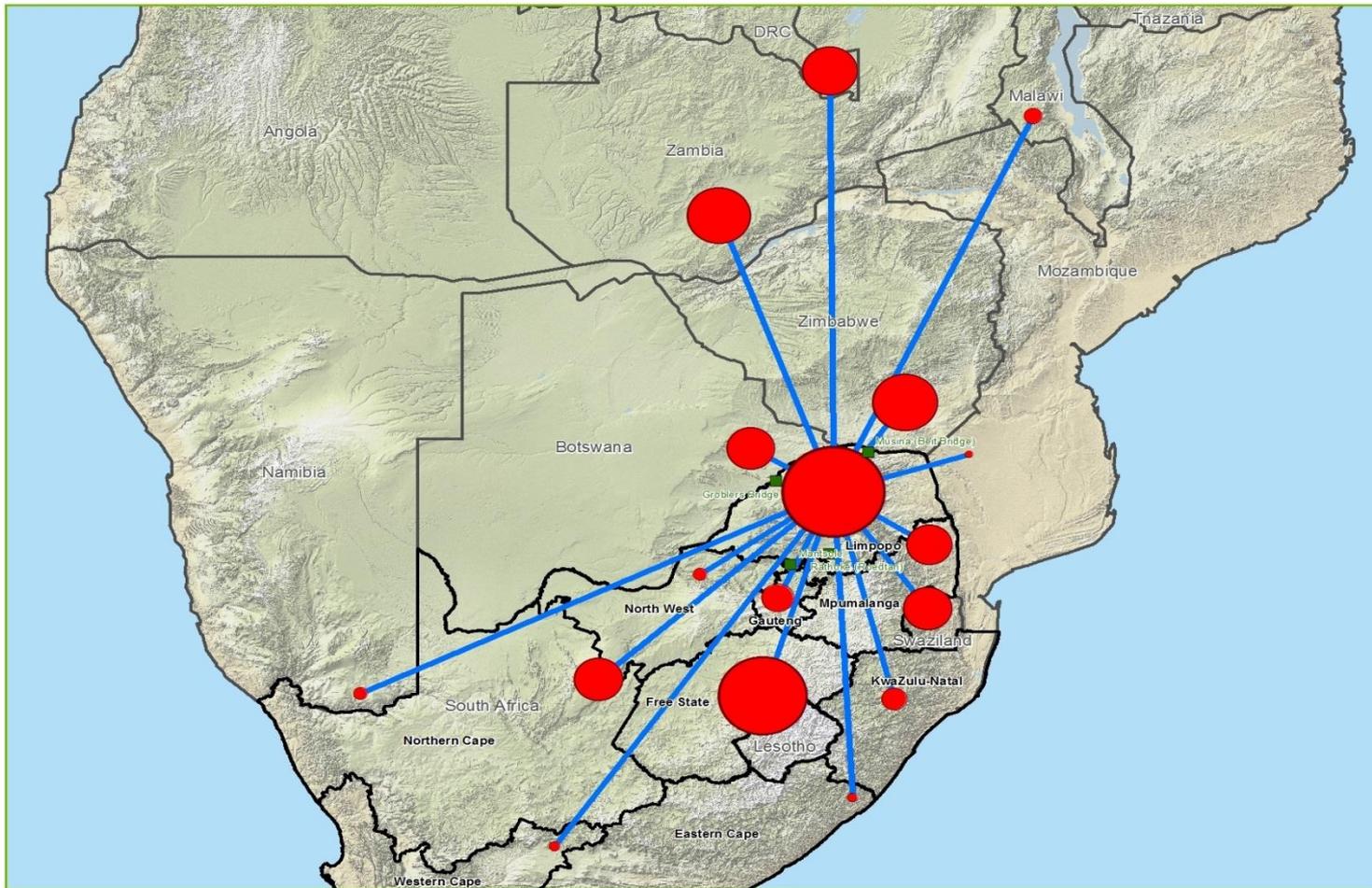
Legend:
 Africa Borders
 Provincial Boundaries



BASTMAN / DUNSTON

Where is traffic going to?

Africa: 2011 SUMMARISED TCC DESTINATION SURVEY RESULTS



Note:
These results are a summary of the average responses from the O-D Surveys conducted at four traffic control centres (TCC's - Beit Bridge, Groblers Bridge, Rathoke and Mantsole) and are indicative of the destination of freight moving through the Limpopo Province.



Aurecon Centre, 1040 Burnett Street, HATFIELD
P.O. Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
Fax: +27 86 556 0521

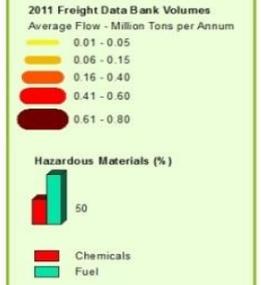
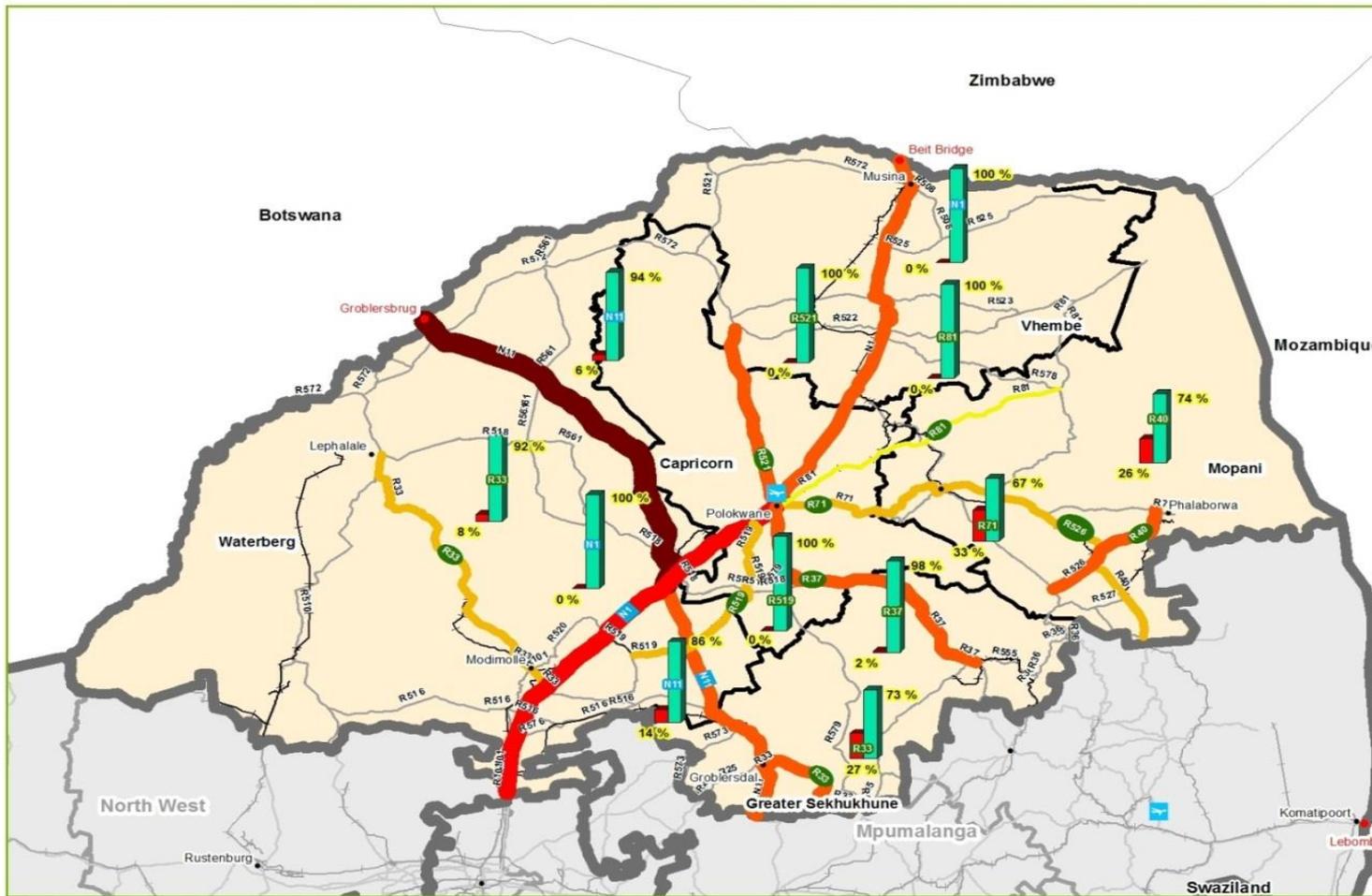
aurecon

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.



Optimization for HAZMAT Movement

Limpopo Province: 2011 AVERAGE HAZARDOUS MATERIALS FLOW IN BOTH DIRECTIONS



Aurecon Centre, 1040 Burnet Street, HATFIELD
P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
Fax: +27 86 556 0521

aurecon

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of the data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of the project with prior written approval of the CLIENT.

EASTMAP LEGEND

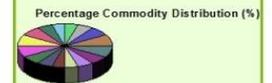
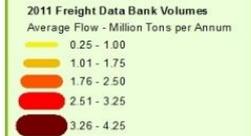
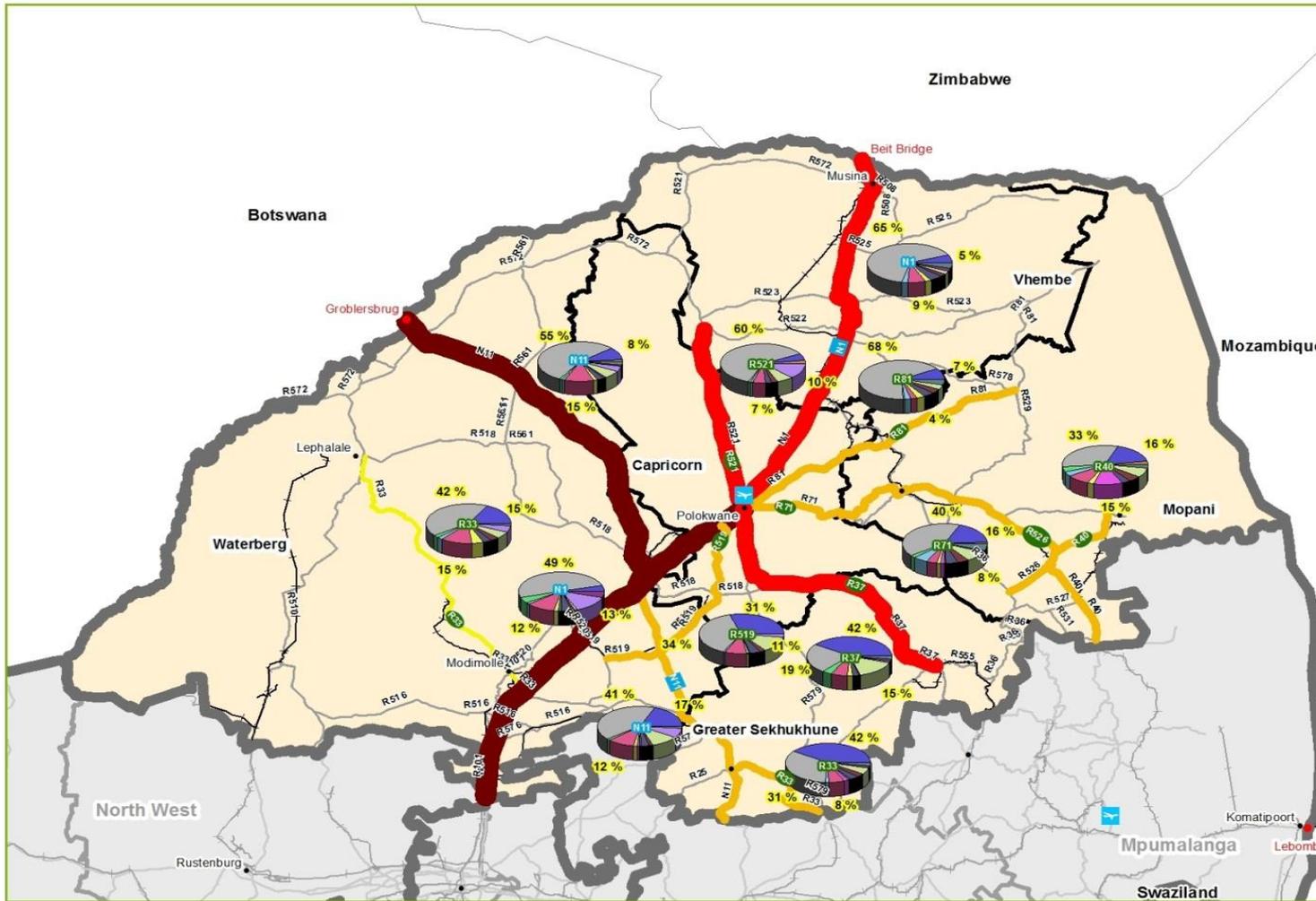
- SANRAL Road Network
- Railway Network
- Border Posts
- Airports
- Towns
- District Municipal Boundary
- Provincial Boundaries

1:3 000 000

0 12.5 25 50 75 100 Kilometers

What should not be on the road network?

Limpopo Province: 2011 FREIGHT DATA BANK AVERAGE COMMODITY DISTRIBUTION



- Agricultural Products
- Bags / Sacks
- Break Bulk
- Cement / Coal
- Drinks / Beverages
- Empty
- Fuels
- Iron / Steel
- Chemicals
- Livestock
- Machinery / Vehicles
- Perishables
- Rock / Stone / Ores
- Sail / Tarpaulin
- Container
- Wood / Timber / Lumber

Note, only the top three commodity percentages are highlighted on the map



Aurecon Centre, 1040 Burnell Street, HATFIELD
P O Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
Fax: +27 86 556 0521

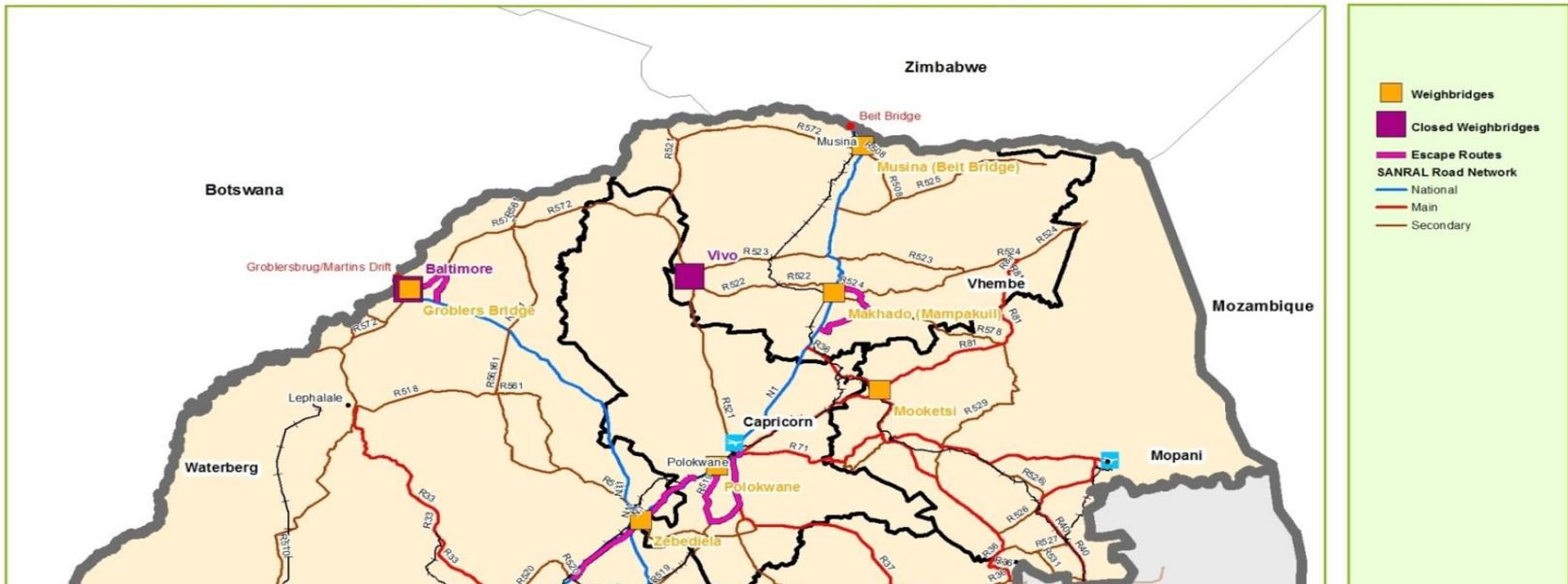
Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

- BASIS MAP LEGEND**
- SANRAL Road Network
 - Railway Network
 - Border Posts
 - Airports
 - Towns
 - District Municipal Boundary
 - Provincial Boundaries



How heavy vehicles are avoiding to be weighed...

Limpopo Province: CLOSED WEIGHBRIDGES



Solutions:

- Strengthening of overload control enforcement on escape routes.
- Introduction of regular calibration of weighbridges.
- Upgrading weighbridge scales to the type of scale suitable for the traffic on each particular route or corridor.
- Extend operating hours of some strategic weighbridges such that they operate throughout the day.

Solutions for Border Post Operations

BORDER POST	PROCESSING TIMES IN MINUTES						
	CUSTOMS	IMMIGRATION	POLICE & SECURITY	*VET	**SPS/HEALTH	STANDARDS	TOTAL TIME
Malaba Ke	96	16	20	20	22	24	198
Malaba Ug	123	44	36	42	21	64	290-330
Busia Ke							
Busia Ug							1291
Katuna Ug	53	21	32	10	4	32	50-152
Gatuna Rw	54	20	18	3	0	14	109-120
Kanyaru Bu	56	23	5	0	0	7	91
Akanyaru Rw	97	49	54	0	0	0	200
Mutukula Tz	56	12	18	12	22	4	124
Mutukula Ug	41	27	15	0	12	21	107-115
Rusumo Rw	3	5	20	0	0	0	90-125
Rusumo Tz			20				50-60
Kobero Bu							58
Kabanga Tz							1502
Namanga Tz	66	19	16	16	18	16	4884
Namanga Ke	71	9	5	4	10	12	111
Average Time Taken	65	22	22	10	10	18	146



Legal and Policy Analysis

The following key policy challenges have been identified:

- There is *lack of policy guidelines regarding road infrastructure improvements* to provide more definite collaboration between Government Spheres;
- There is *lack of co-ordination between National, Provincial and Municipal spheres* regarding road transport planning, maintenance and operations in the Province;
- *Lack of capacity to perform legislative functions Lack of legislation limiting Freight Transport to Designated National Routes Lack of Legislation with the Provision of Incentives for Mode Shift from Road to Rail Lack of legislation compelling the provision for dedicated lanes for trucks on freight transport routes. Lack of legislation regulating the gathering and dissemination of transport data by the National Department of Transport, provinces, operators etc. Lack of legislation providing for the implementation of the planning, institutional and regulatory recommendations made in the “NATMAP” report.*



Legal and Policy Solutions

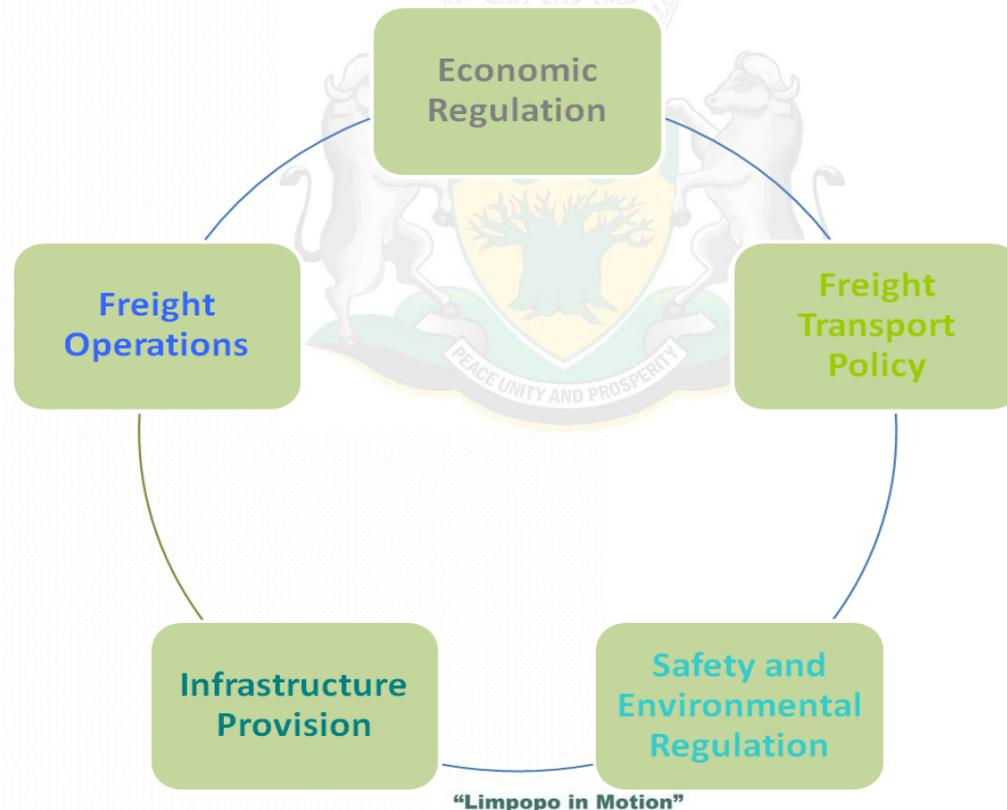
- Over the years many policy frameworks, strategic frameworks, institutional amendments, legislative amendments have been produced with apparently no **significant improvement in the regulation of overloading, the protection of the road infrastructure and road safety problems.**
- NDoT identified the need for legislative review.
- Biggest challenge is still that policies and legislation are not implemented; pointing out that proper implementation could have a great effect.



Institutional Analysis

The following are key challenges hampering proper functioning of freight transport institutions in the Province:

- Lack of Integrated Planning
- Lack of Freight Transport Expertise and Limited Local Capacity
- Lack of Freight Transport Information



Institutional Solutions

- The **planning** function should embrace the overall and detail planning aspects of freight transportation and should include infrastructure planning, operational planning, the creation of appropriate institutional arrangements, inter-modality, human resources and specific provision for districts within the provincial jurisdiction.
- The **development** function gives effect to the results or outcomes of the planning phase involving the implementation of freight-related projects. This may involve the physical construction of infrastructure, commissioning or putting into operation any freight transportation sub-system, a project, or research programs.
- Although **regulation** is a statutory requirement of the national department, this function within the provincial department should be as wide as possible with ‘to be controlled by rule’ at one end and ‘*an authoritative direction*’ at the other side of the spectrum.



Institutional Solutions

- **Facilitation** of freight transport needs to ensure a smooth and seamless operation of the systems as well as in the delivery of freight transport services.
- One aspect that needs to be reconsidered by the Department is its role in the promotion of freight transport services in the province. **Promoting** is a basic function which normally sets the scene in any enabling instrument such as a policy, a white paper or an act of parliament. The function of promotion can be described as to further or encourage to progress or existence or to support an activity.

Planning &
Development

Operations
and
Maintenance

Logistics and
Facilitation

Regulation

Promotion of
Transport



Freight Transport Strategic Network



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ROADS & TRANSPORT

Limpopo Freight Transport Strategic Nodes

- Strategic freight nodes: Actual areas generating freight trips

Mining

- group mining cluster on the Dilokong Corridor;
- Coal mining and liquefaction cluster at Lephalale;
- Horticulture Cluster in Mopani and Vhembe districts, Phalaborwa and Trans-Limpopo Corridors;
- Red and White meat Cluster in all corridors and districts; and
- Forestry Cluster in Mopani and Vhembe districts.

Warehousing

- Double pack logistics and distributors in Polokwane;
- Manica Africa (Pty) (Ltd)-Groblersburg border post, Tolwe;
- Sarens South Africa (Pty) Ltd – Polokwane;
- Supplemental Inv (Pty) Ltd – Polokwane;
- Blue Sky furniture movers- Polokwane;
- Messina warehousing- Musina;
- Ntji Warehousing – Themba;
- Associated Freight Services –Musina;
- Valtran Trucking – Polokwane; and
- Mactransco (Pty) (Ltd) – Polokwane.

Agro-processing

- Agro-processing areas in Modjadjiskloof (avocado oil), Politsi (avocado purée and fruit juice) and Hoedspruit (dried mango);
- Rhodes Vegetable Products Limpopo is a major canner of tomatoes and sweet corn;
- Enterprise Foods' emulsions and canning plant in Polokwane makes more than a million Vienna sausages;
- Sasko (a large wheat mill in Polokwane) and six bakeries within the province; and
- Mopani worm processing plant –Giyani.

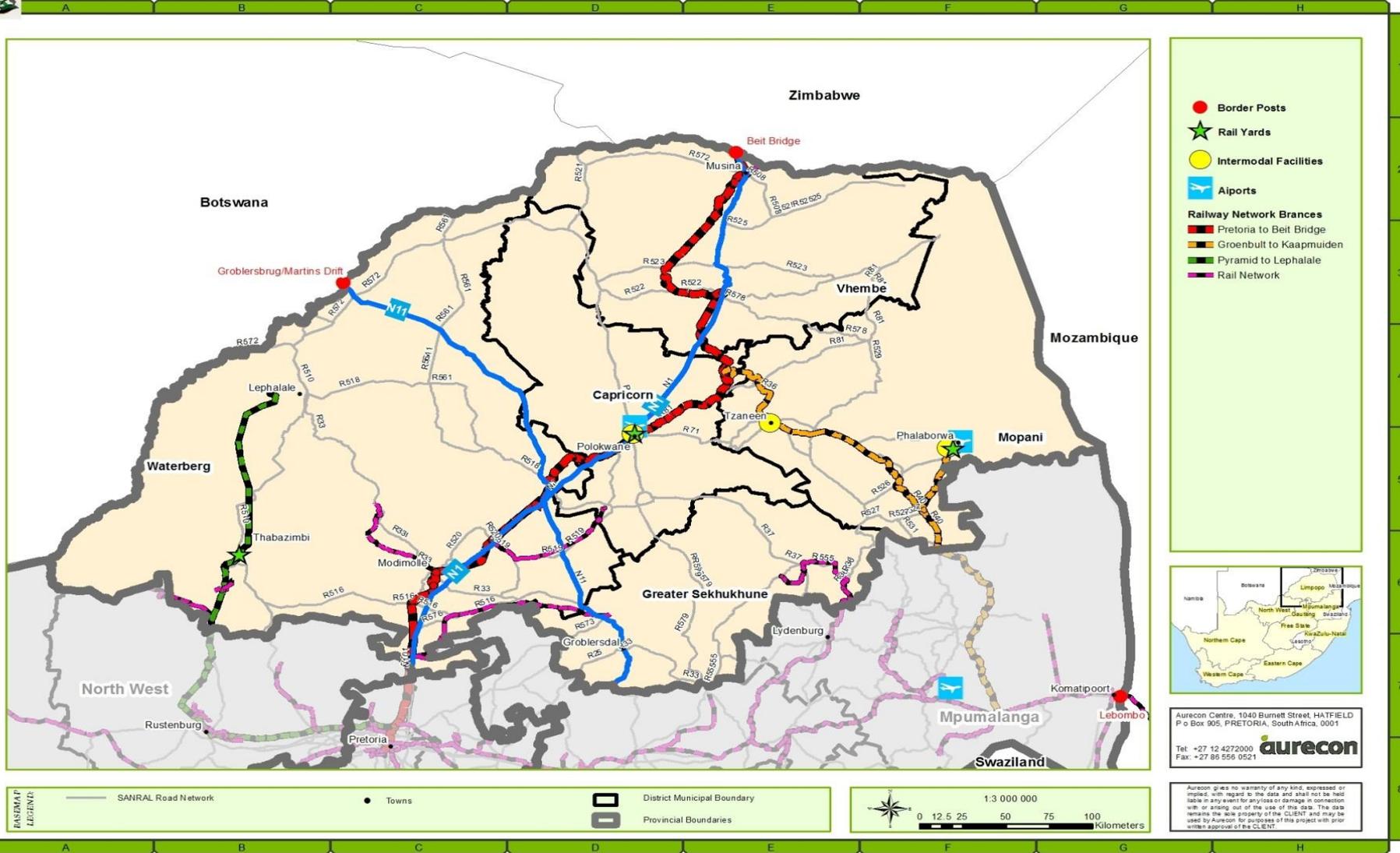
Manufacturing

- Granor Passi- Fruit juice manufacturing situated in Polokwane and Letsitele;
- Bonanza furniture making in Polokwane and Lephalale;
- Kanhym meat processing in Marble Hall;
- Cement plant in Dwalboom;
- Samncor smelting of chrome ore in Steelpoort;
- Wegraakbosch Farm & Dairy organic cheese processing in Magoebaskloof;

Limpopo Freight Transport Strategic Nodes



Limpopo Province: STRATEGIC FREIGHT NODES



- Border Posts
- ★ Rail Yards
- Intermodal Facilities
- ✈ Airports

Railway Network Branches

- Pretoria to Beit Bridge
- Groenbult to Kaapmuiden
- Pyramid to Lephalale
- Rail Network



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
 Fax: +27 86 556 0521

aurecon

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of the project with prior written approval of the CLIENT.

BASEMAP LEGEND

- SANRAL Road Network
- Towns
- District Municipal Boundary
- Provincial Boundaries

0 12.5 25 50 75 100 Kilometers

1:3 000 000

Limpopo Freight Transport Network



Corridors

- Provincial
- National



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
 Fax: +27 86 556 0521

aurecon

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of this project with prior written approval of the CLIENT.

BASEMAP LEGEND:

- SANRAL Road Network
- Border Posts
- Airports
- District Municipal Boundary
- Railway Network
- Towns
- ▭ Provincial Boundaries

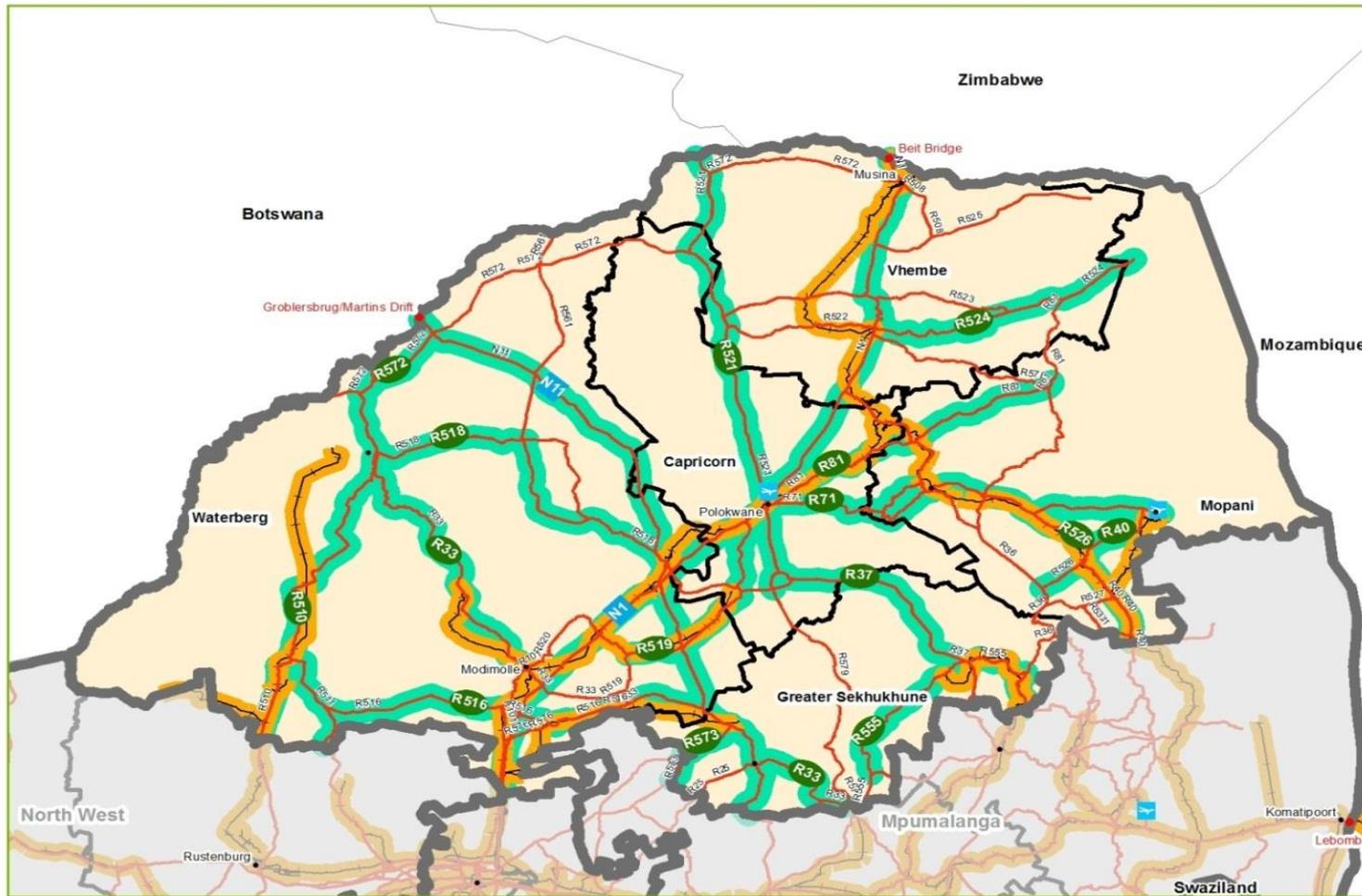
Scale: 1:3 000 000

0 12.5 25 50 75 100 Kilometers

Strategic Freight Transport Network



Limpopo Province: STRATEGIC FREIGHT TRANSPORT NETWORK



Rail Corridors
 Rail Corridors

Road Corridors
 Road Corridors



Aurecon Centre, 1040 Burnett Street, HATFIELD
 P o Box 905, PRETORIA, South Africa, 0001

Tel: +27 12 4272000
 Fax: +27 86 556 0521

aurecon

BASEMAP LEGEND

- SANRAL Road Network
- Border Posts
- Airports
- District Municipal Boundary
- Railway Network
- Towns
- Provincial Boundaries

1:3 000 000

0 12.5 25 50 75 100 Kilometers

Aurecon gives no warranty of any kind, expressed or implied, with regard to the data and shall not be held liable in any event for any loss or damage in connection with or arising out of the use of this data. The data remains the sole property of the CLIENT and may be used by Aurecon for purposes of the project with prior written approval of the CLIENT.

The Implementation Plan



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ROADS & TRANSPORT

Border Post Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
1	Improvement infrastructure facilities and layouts so as to provide adequate capacity through the liaison of Government departments, CBRTA (BB Border)	Increase capacity at the border posts and thereby ease congestion of vehicles crossing at the border	Cross Border Road Transport Agency (CBRTA)	Public Infrastructure Investment	Generate job opportunities for local people	INF (VM)	Short	To be determined in detail study.
2	Increasing number of agents to operate at the border for the full duration of operations	Ease congestion at the border	Cross Border Road Transport Agency (CBRTA)	Enterprise Development	Generate job opportunities for local people	PI (VM)	Short	Operational cost. To be determined in detail study.
3	Operating the border for 24 hours (Groblersbrug Border)	Ease congestion at the border	Cross Border Road Transport Agency (CBRTA)	Enterprise Development	Generate job opportunities for local people	PI (WL)	Short	Operational cost. To be determined in detail study.
4	Deployment of sufficient traffic personnel to deal with heavy traffic volumes (BB & Martins Drift Borders) -	Ease the flow of traffic at the border	DLRT	Enterprise Development	Creation of job opportunities and provision of skills to build a prosperous future	SER (VM, WL)	Short	Operational cost. To be determined in detail study.

Border Post Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
5	Standardization of Customs excise documentation for freight operators across SADC Region (Groblersbrug border)	Standardization of relevant border post documentation to aid movement across SADC	Cross Border Road Transport Agency (CBRTA)	Regional Economic Development	Limit trade barriers and facilitate trade between South Africa and her Neighbouring Countries thereby enhance economic development	SER, (VM)	Medium	Operational cost. To be determined in detail study.
6	Standardization of Customs excise documentation for freight operators across SADC Region (Beit Bridge border)	Standardization of relevant border post documentation to aid movement across SADC	Cross Border Road Transport Agency (CBRTA)	Regional Economic Development	Limit trade barriers and facilitate trade between South Africa and her Neighbouring Countries thereby enhance economic development	SER, (WL)	Short	Operational cost. To be determined in detail study.
7	Development of systems and processes to ensure efficient one-border post operation	Enhance communication and training so as to improve service delivery in transportation of cross-border freight commodities aid implementation of one-border post	LDRT and NDoT	Education and Skills for the Economy Enterprise Development	Promote Economic Development Equipping people with skills as means for building a prosperous future	SER (VM and WL)	Medium / Long term	Operational cost. To be determined in detail study.



Border Post Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
8	Feasibility of a One-stop border Post at Beit Bridge	Improve efficiency and reduce delays	LDRT and NDoT	Regional Economic Development	Sustain economic growth for the province	INR, SER, PI (VM)	Short	R9million
9	Design of a One-stop border Post at Beit Bridge						Short	R25m
10	Construction of a One-stop border Post at Beit Bridge		PPP				Medium	R360m
11	Operate of a One-stop border Post at Beit Bridge		PPP				Medium	Operational cost. To be determined in detail study.
12	Development of One Stop Border Post (Groblersburg Border)	Improve efficiency and reduce delays	Limpopo & DOT	Regional Economic Development	Sustain economic growth for the province	INR, SER, PI (VM)	Long	R615.0

PROSPERITY, UNITY AND PROSPERITY

Traffic Control Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
13	Investigation into the reasons for closure of existing TCC and Approach to their Optimisation (Vivo, Northam, Groblersbrug)	To increase efficiency curb overloading on the escape routes	LDRT (Traffic)	Enterprise Development	Creation of job opportunities and provision of skills to build a prosperous future	SER (V, S, W, M, C)	Short	Operational cost. To be determined in detail study.
14	Monitoring and Enforcement Plan of Escape routes	To increase efficiency curb overloading on the escape routes	LDRT (Traffic)	Enterprise Development	Creation of job opportunities and provision of skills to build a prosperous future	SER (V, S, W, M, C)	Short	Operational cost. To be determined in detail study.
14	Procurement of Weigh in motions scales for Rathoke, Makhado, Grobelsburg and Mooketsi TCCs as well as portable weighing scales for escape routes	Assist in effective overload control and curbing overloading at escape routes	LDRT (Traffic)	Public Infrastructure Investment	Preserve the road infrastructure	SER (W, V, S, C, M)	Short	R50.0
15	Feasibility Study for new TCCs along R33, R37 (Dilokong Corridor) and R37	To monitor freight movement and preservation of emerging freight corridors	LDRT (Traffic)	Public Infrastructure Investment Safety and Security	Preservation of public infrastructure Pull in safety and security impact	INF, SER, PI (W, S, M)	Short	R70.7
16	Development of a maintenance plan for the weighbridges	To increase efficiency at TCCs	LDRT (Traffic)	Public Infrastructure Investment	Preserve the facility for longevity	SER	Medium	R2.0 (per TCC)

Other Road Safety Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
INCIDENT MANAGEMENT SYSTEM								
17	Extent the IMS to other freight corridors	To improve of response on accidents and hazmat spillage on routes with high freight volumes	LDRT (Traffic)	Public Infrastructure Investment Safety and Security	Ensuring safety of local people in case of accidents	INFR / SER (areas)	Short – Medium	Approximately R2.5m for planning. Operational Cost to be determined in tender stage.
HAZMAT PROJECTS								
18	Development, Monitoring and Enforcement of a Hazmat Routes Plan	To limit impact of HAZMAT-related accidents and ensure compliance with the HAZMAT regulations	LDRT (Traffic)	Safety and Security Programme	Ensuring safety of local people in case of accidents	INFR, SER (areas)	Short - Medium	To be determined in detail study in conjunction with local government where detail by-pass routes at towns are

Rail Freight Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
RAIL FREIGHT PROJECTS								
19	Alignment with Transnet's branchline strategy	Ease of transportation of some commodities by road	Transnet	Public Infrastructure Investment	Creation of job opportunities for local people	INF (V, S, W, M, C)	Short	To be determined in detail study.
20	Feasibility Study for Intermodal facilities at Musina and Modimolle	Ease of transportation of some commodities by road	Transnet	Public Infrastructure Investment	Creation of job opportunities for local people	INF (V, W)	Short	To be determined in detail study.
21 - 32	Numerous upgrades		Transnet	Public Infrastructure Investment	Creation of job opportunities for local people	INF (WL)	Short	R410.6
33	Walvis Bay - Lephallale - Mahalapye new freight line (Mamabula Line)	new 25kv freight line to provide shorter routing to coast	Transnet	Public Infrastructure Investment	Creation of job opportunities for local people	INF (WL)	Short	R1, 170.0
34	Feasibility study of a rail link between Makhado-Thoyandou and link between Makhado and Lephallale	Feasibility of introducing new rail links (what are we basing this one on?) between Makhado and Thoyandou and Makhado and Lephallale	Transnet	Public Infrastructure Investment	Creation of job opportunities for local people	INF (WL)	Short	R2.0
35	Johannesburg – Polokwane: High Speed Line	Ease of transportation of commodities by rail	Transnet	Public Infrastructure Investment	Creation of job opportunities for local people	INF (WL)	Long	About R39 billion

Road Freight Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
36	Upgrade the R37 linking Burgersfort via Lydenburg to N4 corridor and Maputo Harbour		RAL	Public Infrastructure Investment	Can create job opportunities for local people	INF (S)	Medium	R829.0
37	Upgrade D113: Link between Sun City to Derspoort via Limpopo		RAL	Public Infrastructure Investment	Can create job opportunities for local people	INF (W)	Medium	R291.0
38	Upgrade D844 road especially near Solomondale	Enhance accessibility to the mineral deposit area around Solomondale.	RAL	Public Infrastructure Investment	Can create job opportunities for local people	INF	Medium	R60.0
39	Upgrade provincial coal haulage roads (paved network)	Implementation of the needs identified by the PMS, as well as the backlog needs on SANRAL and RAL roads in the coal haulage area	SANRAL / RAL	Public Infrastructure Investment	Can create job opportunities for local people	INF (W, S, V)	Medium	R277.0
40	Upgrade of the road network serving the Waterberg biosphere (R510,R516)		RAL	Public Infrastructure Investment	Can create job opportunities for local people	INR (W)	Medium	R697.0
41	Construction of Truck Stops with secured parking, ablution facilities, convenience store, diesel fuel pump, maintenance garage, Banking ATM's, bed & breakfast restaurants, pay phones, health and wellness centre (optional) particularly along R71, R81	To enable Road haulers to rest, get something to eat, refuel, and spend a night to avoid night travel and theft of cargo. Along all strategic routes	RAL	Public Infrastructure Investment	Generate jobs for local people	INF, SER (all areas)	Medium	R7.4

Institutional Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
42	Establishment of Freight Logistic Forums in the province (National → Provincial; Provincial → Local / District)	Help promote integrated planning across level of government and other stakeholders in order to implement projects of mutual interest	LDRT	Building the Capacity of the State to Deliver	Promote freight industry in the province	PI (All areas)	Short	5.0
43	Freight Institutional Reform and Capacitation of the Freight Transport within the province (Provincial / District / Local)	Increase efficiency of the freight industry	LDRT	Building the Capacity of the State to Deliver	Promote freight industry in the province	PI (All areas)	Short	10.0



Legal and Policy Interventions

PROJECT NO.	PROJECT	PURPOSE	PROPOSED IMPLEMENTATION AGENT	LEGDP PILLAR ASSOCIATED WITH PROJECT	IMPACT OF PROJECT PER PILLAR	CLUSTER (GEOGRAPHIC)	TIMELINE	PROJECT COST (R) Million
44	A policy study with regard to the development, implementation and maintenance of a comprehensive provincial land transport information (data) system to address freight data challenges within the Province (incl. force-filing)	To solve the law enforcement problem experienced in the Province	NDoT	Building the Capacity of the State to Deliver	Assist in planning and thus promote freight industry in the province	PI	Short	3.0
45	A policy study with regard to the optimisation of road transport law enforcement data in the Province within the province as well as formulation of very specific law enforcement guidelines, programmes, implementation and monitoring strategies	To improve the quality of freight transport law enforcement data in the Province (swapped?)	NDoT	Building the Capacity of the State to Deliver	Assist law enforcers to execute their duties better and thus promote freight industry in the province	PI	Short	3.0
46	A study to develop policies and guidelines regarding co-operation between the province, the Cross-Border Road Agency, Customs & Excise and private sector with regard sharing of weighbridge facilities and other equipment at the border posts	To improve efficiency and coordination among departments at the Border Posts, regarding the movement of freight traffic.	NDoT	Building the Capacity of the State to Deliver	Assist border post personnel to execute their duties based on available policies and guidelines	PI	Short	3.0

Funding Options



LIMPOPO

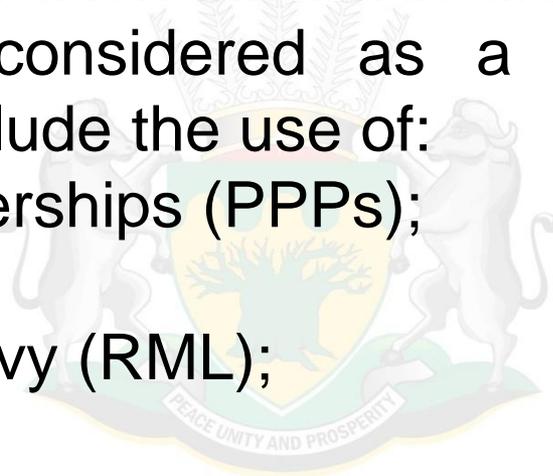
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

DEPARTMENT OF
ROADS & TRANSPORT

Alternative Funding Options

It has been indicated in a number of transportation conferences and forums, that Government (both National and Provincial) have funding challenges to maintain and construct new transportation infrastructure. Various funding options have been considered as a solution for this challenge and they include the use of:

- Public Private Partnerships (PPPs);
- tolling;
- road maintenance levy (RML);
- transit fees;
- vehicle registration - and permit fees;
- abnormal load fees; and
- overloading fees.



Monitoring



LIMPOPO

PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

**DEPARTMENT OF
ROADS & TRANSPORT**

Approach to Monitoring

The indicators utilized for the monitoring and evaluation of the Provincial Freight Strategy should meet a certain criteria.

This includes:

- Indicators should be clearly specified and measurable regularly;
- They should be relevant to the characteristic being examined;
- Indicators should be obtained from a credible and reputable data source;
- They should possess an established measurement baseline one that can be developed; and
- Indicators should have the ability of being comparable with other provinces or at national level.



Freight Transport Monitoring Framework

INDICATOR	DESCRIPTION	OBJECTIVE	TARGETS
Operational Provincial Freight Forum.	Establishment of the Provincial Freight Forum to champion the freight strategy including a detailed communication plan.	<p>Improve awareness of freight in the Province as well as its importance thereof;</p> <p>Improve the quality of information available for decision making.</p>	Provincial Freight Forum.
Provincial Freight Data collection Programme.	Establishment of a freight collection programme, with regular counts at key locations to assist in decision making.	Improve and keep provincial freight data up to date.	Defined Freight Data Collection Programme.
Completion of construction projects on the Strategic Freight Network.	Progress of construction projects on the Strategic Freight Network.	Evaluate progress in construction and ensuring smooth flow of freight traffic within the province.	Construct to planned schedule.
Number of Provincial reported fatal and serious injury crashes and injuries (involving trucks per 1000 population/million kilometres of truck travel/ million gross tonne-kilometres).	Exposure and population related indicators of truck accident involvement as a proxy for safety performance.	Asses how transport safety is performing in terms of freight transport related deaths, injuries, accidents and the social cost of accidents.	Provincial Road Safety Plan with links to the Road accident Fund, Road Traffic Management Corporation.

Freight Transport Monitoring Framework

INDICATOR	DESCRIPTION	OBJECTIVE	TARGETS
Monthly number of overloading offences on the Strategic Freight Network as well as the escape routes	This will measure overload control effectiveness.	Assess if the strategic freight network and escape routes are manned for overloading purposes	Up to date Weighing statistics for all operational Traffic control centres as well as escape routes
The average time spent at border posts (ports of entry).	The average time spent by road hauliers at the ports of entry processing paperwork.	Assess whether efficiency has been improved at the border posts.	Up to date register showing number of heavy vehicles attended to at the border per day.
Extension of incident management systems (IMS) on the freight corridors.	Establishing an IMS for all the major freight routes.	To respond to incidents on the provincial road network. This will serve freight vehicles in accidents as well as hazmat spillages.	Established IMS on more provincial freight road corridors.
Full Yearly Monitoring Report to indicate progress and proposed amendments.	Freight Strategy Monitoring report.	Assess on the overall progress of the provincial strategy.	Yearly produced Freight strategy Monitoring Reports as well as proposed amendments to the monitoring framework and/ or the strategy itself.

RE A LEBOA



aurecon
Leading. Vibrant. Global