transport

Department:
Transport
REPUBLIC OF SOUTH AFRICA

National Transport Master Plan

NATMAP 2050

You pay for good transport whether you've got it or not

KWAZULU NATAL PROVINCE

PHASE 4: AGENDA FOR ACTION

Draft Version 1: February 2010

REFERENCE No: KZN/PH4/FEB.10

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ADDENDA

GLOSSARY OF TERMS

AADT	Average Annual Daily Traffic
AADTT	Annual average Daily Truck Traffic
ACSA	Airports Company South Africa
ADT	Average Daily Traffic
AGOA	African Growth and Opportunity
AGISA	Accelerated & Shared Growth Initiative for SA
AIDS	Acquire Immunodeficiency Syndrome
AMPS	Annual All Media Products Survey
ARTS	Refuse Transfer Station at Athlone
ASGISA	Accelerated and Shared Growth Initiative
ATNS	Air Traffic and Navigation Services Company
AVR	Abnormal Vehicle Register System
AVTUR	Aviation/Turbine Fuel
BBBEE	Broad Based Black Economic Empowerment
BEE	Black Economic Empowerment
BMR	Bureau of Market Research
BMS	Bridge Management System
BRT	Complete Lansdowne Corridor
BSP	Background and Strategy Paper
CARNS	Community Access Needs Roads Study
CBD	Central Business District
CBPWP	Community - Based Public Works Programme
CD	Chief Director
CFO	Chief Financial Officer
CIBD	Construction Industry Development Board
CMIP	Consolidated Municipal Infrastructure Programme
COCT	City of Cape Town
COTO	Committee of Transport Officials
CPPK	Cost per passenger kilometre
CPK	Central Processing Facility
CPs	Minor roads
CPTR	Current Public Transport Record
CSIR	Council of Scientific and Industrial Research
CTC	Centralised Train Control
CTIA	Cape Town International Airport
DBSA	Development Bank of South Africa
DBT	Dry Bulk Terminal
DDG	Deputy Director General
DEAT	Department of Environmental Affairs and Tourism
DG	Director General
DLTS	Driving License Testing System
DJP	Durban to Johannesburg Pipeline
DNA	District Management Area
DOT	Department of Transport
DPLG	Department of Provisional and Local Government
DPWRT	Department of Public Works, Roads and Transport
DRs	Divisional roads
DWAF	Department of Water Affairs and Forestry
ECDC	Eastern Cape Development Co-orporation

EEI	Economic Employment & Investment Cluster
ELMET	East London Metropolitan Area
EPWP	Expended Public Works Programme
ESRI	Environmental Systems Research Institute
EU	European Union
FDI	Foreign Direct Investment
FES	Financial and Economic Support
FET	Further Education and Training
FFC	Finance & Fiscal Commission
FIFA	International Federation of Association of Football
FOHOD	Forum of Heads of Department
FTP	File Transfer Protocol
FTPD	Freight Transport Policy Development
FSPG	Free State Provincial Government
gJ	Gigajoules
GDP	Gross Domestic Product
GDPTRW	Gauteng Department of Public Transport, Roads and Works
GEMS	Government Employee Medical Scheme
GIS	Geographic Information System
GM	General Manager
GTL	Gas-to-liquid
GVA	Gross Value Add
HCDS	Human Capital Development Strategy
HDI	Human Development Index
HGVs	Heavy Goods Vehicles
HIV	Human Immunodeficiency Virus
HOD	Head of Department
HR	Human Resources
HVs	Heavy Vehicles
HWM	High Water Mark
IA	Implementing Authority
IASC	International Air Services Council
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
ICT	Information and Commercialization Technologies
IDIP	Infrastructure Delivery Improvement Programme
IDP	Integrated Development Plan
IDP	Integrated Development Planning
IDT	Independent Development Trust
IDZ	Industrial Development Zone
IEA	Infrastructure Enhancement Allocation
ILRP	Integrated Law Reform Project
IMF	International Monetary Fund
IMT	Intermediate Means of Transport
IN	Inland Network
IP&C	Infrastructure Planning and Coordination
ISRDP	Integrated and Sustainable Rural Development Programme
ISRDS	Integrated Sustainable Rural Development Strategy
IS	Information Systems
IT	Information Technology
ITMS	Inter Technology Manage System
ITP	Integrated Transport Plan

ITS	Intelligent Transport Systems
JIA	Johannesburg International Airport
Km	Kilometres
KMIA	Kruger Mpumalanga International Airport
KPI	Key Performance Indicators
KZN	KwaZulu-Natal
LDO	Local Development Objectives
LDV	Light Delivery Vehicle (Bakkie)
LED	Local Economic Development
LEDs	Local Economic Development Strategies
LRTB	Local Road Transportation Board
LTL	Less-than-truck load
LTP	Land Transport Promotion
LTPS	Land Transport Permit System
MEC	Member of Executive Council
MEC	Member of the Executive Committee
MEDS	Microeconomic Development Strategy
MELD	Mdantsane East London Development
MGJ	Million Gigajoules
MINCOM	Ministerial Committee of Provincial Transport Ministers
MINMEC	Ministers and Members of the Executive Council
MIS	Management Information System
MML	Minimum Living Level
MPCC	Multi-Purpose Community Centres
MPT	Multi-purpose Terminal
MRs	Main roads
MSA	Moving South Africa
MTA	Metropolitan Transport Area
MTAs	Metropolitan Transport Areas
MTEF	Medium Term Expenditure Framework
MTT	Marine Tanker Terminal
NAAMSA	National Association of Automobile Manufacturers of South Africa
NAMPO	National Maize Product Organization
Natcor	Natal Corridor
NATIS	National Traffic Information System
NATMAP	National Transport Master Plan
NATMAP	National Roads Masterplan
NATMAP	National Land Us / Transport Master Plan
NDA	National Development Agency
NDoT	National Department of Transport
NEPAD	New Partnership for Africa's Development
NHTS	National Household Travel Survey
NLTSF	National Land Transport Strategic Frameworks
NLTTA	National Land Transport Transition Act
NMT	Non-motorized Transport
NMPP	New Multi-Products Pipeline
NPA	National Ports Authority
NRTDS	National Rural Transport and Development Strategy
NSDP	National Spatial Development Perspective
NSG	National Standards and Guidelines
NTTT	National Taxi Task Team
O-D	Original Destination

OEMs	Original Equipment Manufacturers
OLAS	Operating License Administration System
OLB	Operating Licence Board
OLS	Operating License Strategy
Orex	Operations and Spoornet
ORTIA	Oliver Tambo International Airport
PA	Planning Authority
PE	Port Elizabeth
PEMET	Port Elizabeth Metropolitan Area
PFMA	Public Finance Management Act
PFMA	Provisional Finance Management Act
PGDS	Provincial Growth and Development Strategy
PGWC	Provincial Government Western Cape
PIG	Provincial Infrastructure Grant
PIMSS	Planning and Implementation Management Support System
PLTF	Provincial Land Transport Framework
PMS	Pavement Management System
PMU	Project Management Unit
PPP	Public Private Partnership
PPECB	Perishable Products Export Control Board
PROVTECH	Provincial form with Technical / Official representatives from all local municipalities in the Province
PSDF	Provincial Spatial Development Framework
PTOE	Public Transport Operating Entity
PTP	Public Transport Plan
PTPD	Passenger Transport Policy Development
PTPD	Passenger Transport Policy Development (Monitoring & Evaluation)
RAU	Rand Afrikaans University
RBCT	Richards Bay Coal Terminal
RDA	Rural Development Agency
RIDS	Regional Industrial Development Strategy
RIM	Road Infrastructure Management
RNIS	Road Network Information System
RO	Rail Operations
RSA	Republic of South Africa
RTA	Rural Transport Authority
RTI	Rural Transport Infrastructure
RTO	Ratio Train Order
RTS	Rural Transport Services
SBM	Single Buoy Mooring
SA	South African
SAARF	South African Advertising Research Foundation
SACAA	South African Civil Aviation Authority
SADC	South African Development Community
SAMSA	South African maritime Safety Authority
SANRAL	South African National Roads Agency
SARCC	South African Rail Commuter Corporation
SATAWU	South African Transport and Allied Workers
SC	Steering Committee
SCM	Supply Chain Management
SCS	Social Capital Strategy
SDF	Spatial Union Development Framework

SDIP	Sustainable Development Implementation Plan
SDIs	Spatial Development Initiatives
SFF	Strategic Fuel Fund
SHSS	Sustainable Human Settlements Strategy
SIP	Strategic Infrastructure Plan
SMF	Supervising and Monitoring Firm
SMME	Small Medium Micro Enterprise
SOW	Scope of Work
SP	Safety Promotions
SSATP	Sub-Sahara African Transport Programme
SSS	Scarce Skills Strategy
StatsSA	Statistics South Africa
TA	Transport Authority
TETA	Transport Education Training Authority
TFR	Transnet Freight Rail
TIA	Traffic Impact Assessment
ToR	Terms of Reference
TPR	Transport Planning Requirement
TRs	Trunk roads
UDF	Urban Development Framework
UK	United Kingdom
UMET	Umtata Metropolitan Area
UNISA's	University of South Africa
USA	United States of America
V/C	Volume Capacity
VLCC	Very Large Crude Carriers
WC	Western Cape
WCDTPW	Western Cape Department of Transport and Public Works

EXECUTIVE SUMMARY

Introduction

The South African Department of Transport (DOT) appointed the SSI Consortium in January 2007 to participate in the project *National Transport Master Plan 2050* (NATMAP).

This document serves as the **Draft Phase 4 Version 1 Report** for the Master Plan for **KwaZulu Natal Province**, and presents the results of Phase 4 ("Agenda for Action") of the project.

Project Objectives

The project goal is to develop a dynamic, long term and sustainable land use/multi-modal transportation systems framework for the development of networks infrastructure facilities, interchange termini facilities and service delivery that shall be:

- Demand responsive to national/provincial/district and/or any socio-economic growth strategy, and/or any sectoral integrated spatial development plan;
- A coordinated implementation schedule and/or action agenda for the whole country and/or specific national and provincial spatial development corridors and regions until 2050.

Project Structure

The project consists of four phases, as follows:

- **Phase 1:** Status Quo/Inventory;
- **Phase 2:** Analysis;
- **Phase 3:** Forward Planning and Projections;
- **Phase 4:** Implementation of Action Agenda.

It is envisaged that full project completion will be reached April 2010.

Phase 4 Results

This Draft Version 1 of report of Phase 4 provides an Action Agenda, consists of an implementation plan, in terms of which the identified projects can be implemented. Projects are described and programmed into different time periods, and a Goal Achievement Matrix is applied in order to prioritise projects for implementation. Goals and objectives were formulated by means of which projects were prioritised. Financial, Institutional and Legal requirements for the successful implementation of the National Transport Master Plan is also provided.

To finalise Phase 4, another round of refinement and integration between provinces is required. The Phase 4 results will be presented to various Stakeholders at the last Round Table Conference of NATMAP, after which the final Phase 4 report will be produced.

Following final comments from KZN and national stakeholders, a final version of the reports of all Phases will be produced, which will be the conclusion of the current NATMAP project.

It is however crucial that NATMAP is implemented by all the transport authorities in the country. The DoT and public entities, SANRAL, TRANSNET, PRASA and ACSA, will have to play a crucial role to ensure that NATMAP is implemented. This first National Transport Master Plan must be regarded as only the start of a continuous process consisting of annual updates and refinement of the Plan. The proposed NATMAP Implementation Act will be crucial to facilitate coordination between all Stakeholders and effective implementation.

1 INTRODUCTION

1.1 BACKGROUND

The South African Department of Transport (DOT) appointed SSI Consortium in January 2007 to participate in the project *National Transport Master Plan 2050* (NATMAP).

This document serves as the **Draft Phase 4 Version 1 Report** for the Master Plan for **KwaZulu Natal (KZN) Province**, and presents the results of Phase 4 ("Agenda for Action") of the project.

Project Structure

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- **Phase 1:** Status Quo/Inventory;
- **Phase 2:** Analysis;
- **Phase 3:** Forward Planning and Projections;
- **Phase 4:** Implementation of Action Agenda.

It is envisaged that full project completion will be reached April 2010.

Under the same project, Master Plans are also being developed for all eight other provinces in the country, and for the country as a whole.

1.2 PURPOSE OF THE REPORT

The Phase 1 report described the status quo of transport and land use in the KZN province, in terms of specific inventory components, namely the following:

- Information systems;
- Demographic and socio-economic;
- Land use and development corridors;
- Existing transport infrastructure facilities;
- Passenger travel patterns and characteristics;
- Freight travel patterns and characteristics;
- Institutional structure;
- Legal structure;
- Transport funding mechanisms.

Following the status quo determination, the Phase 2 focus was on where the province and the country would like to be in future years, specifically the target year of 2050. Phase 2 therefore aimed to project the future demographic, socio-economic and land use characteristics of the province in order to understand the total demands that will be placed upon provincial and national transport infrastructure, facilities and services, as well as land use. An analysis was made of current infrastructure and operations supply, in order to identify current bottlenecks, constraints and inefficiencies.

Phase 3 translated the future demographic, socio-economic and land use characteristics into transport demand, and considered the requirements on infrastructure and operations to accommodate the projected future demand. A "Do-nothing" scenario was formulated to show the impact on service levels if no remedial measures are taken. Further scenarios were then formulated and investigated, and specific actions were recommended for implementation in order to cater for future demand and ensure adequate service levels.

The purpose of the Phase 4 report, the last report of the Project, is to describe the implementation plan, in terms of which the identified projects can be implemented. Projects are described and programmed, and a goal achievement matrix is applied in order to prioritise projects for implementation. Financial, Institutional and Legal requirements for the successful implementation of the National Transport Master Plan is also provided.

1.3 OBJECTIVES OF THE PROJECT

The project goal is to develop a dynamic, long term and sustainable land use/multi-modal transportation systems framework for the development of networks infrastructure facilities, interchange termini facilities and service delivery that shall be:

- Demand responsive to national/provincial/district and/or any socio-economic growth strategy, and/or any sectoral integrated spatial development plan;
- A coordinated implementation schedule and/or action agenda for the whole country and/or specific national and provincial spatial development corridors and regions until 2050.

The specific items that were investigated in this project are the following:

- Various land use/spatial development models to sustain investment in the state-of-the-art multi-modal urban/rural transportation systems;
- Cost effective models for an integrated public/private sector corridor/regional economic development;
- Vision, goals and objectives for each of the national development corridor and/or economic region;
- Integrated growth and development strategy for each development corridor and/or region of national importance;
- Economic status map of national importance and potential economic development projects;
- Integrated multi-modal infrastructure facilities development plan;
- Cost effective policies promulgation and/or changes to enhance coordination of transportation services;
- Cost effective institutional arrangements model for efficient and effective investment, planning, implementation, operations, maintenance and monitoring;

- Action agenda for the various key stakeholders based on the preferred development strategy and integrated development plan.

1.4 METHODOLOGY

The project consists of four phases, as follows:

- **Phase 1:** Status Quo/Inventory;
- **Phase 2:** Analysis;
- **Phase 3:** Forward Planning and Projections;
- **Phase 4:** Implementation of Action Agenda.

The project methodology is indicated graphically in **Figure 1.4.1.**
The target dates for completion of each phase are as follows:

- Phase 1 : November 2008;
- Phase 2 : March 2009;
- Phase 3 : November 2009;
- Phase 4 : February 2010.

It is envisaged that full project completion will be reached by April 2010 following the finalisation of the reports of all four phases.

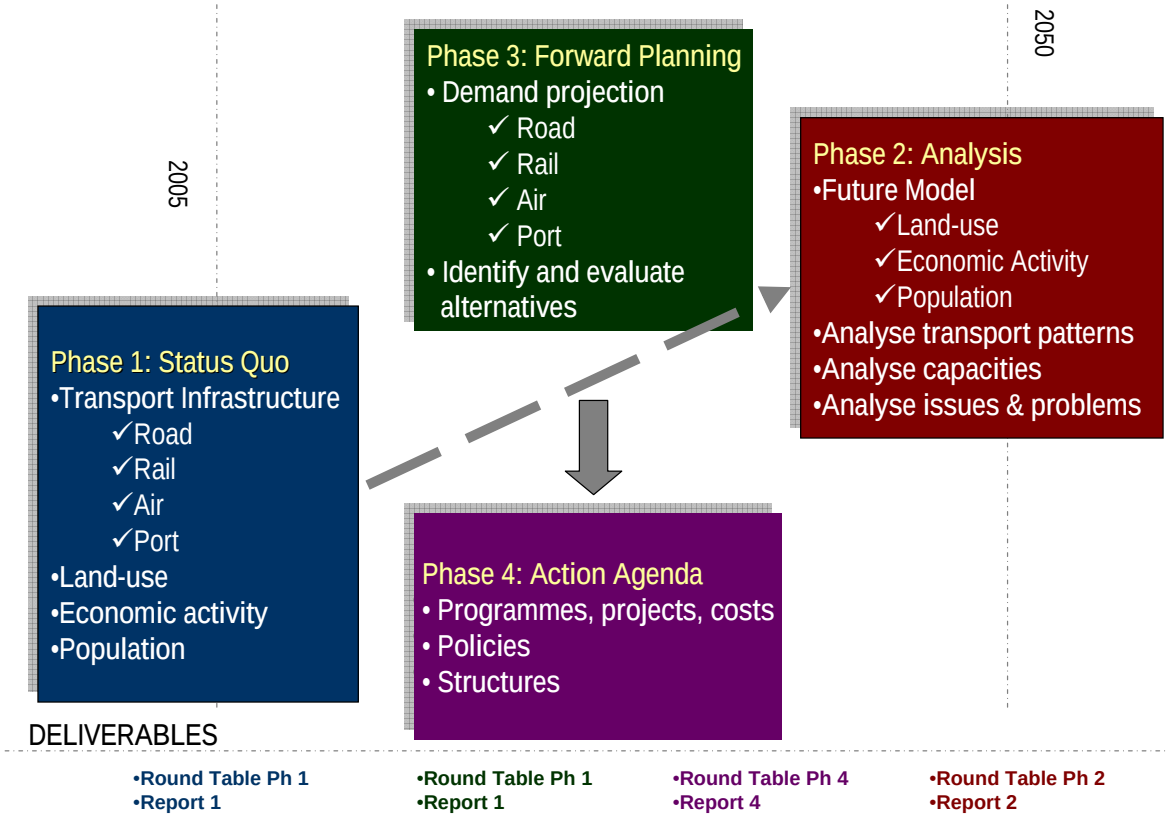

Figure 1.4.1: National Transport Master Plan 2050: Project Methodology

1.5 PROJECT MANAGEMENT AND CONSULTATION

A Provincial Technical and Financial Committee (TFC) have been established in the KZN Province, as well as a National TFC and Steering Committee. The KZN TFC committee is represented by the various Provincial Departments as well as the eTkekwinii Transport Authority ETA). The purpose of the Provincial Technical Committee is:

- To assist with data collection for the province;
- To provide guidance on technical aspects including:
  - Development corridors, development nodes and current land uses;
  - Development planning of different departments and municipalities;
  - Future scenarios for the province;
  - Assessment of proposed action plans for the province.
- To evaluate deliverables from the consultant and provide feedback;
- To communicate progress and pertinent issues of the project to their respective departments or municipalities.

The KZN TFC reports progress to the national TFC and SC on a monthly basis and also provides inputs on the management of the project.

Deliverables:

- Round Table Conference for Phases 1 to 4
- KZN Provincial Reports: Inception Report, Phase 1 to 4 reports

1.6 STRUCTURE OF THIS REPORT

The rest of the report is structured as follows:

Chapter 2 describes the Strategic Development Programme, including the Prioritisation Process, formulation of Goals and Objectives to be achieved by NATMAP, the methodology followed to develop the Goals Achievement Matrix, as well as a description of the Matrix, followed by tables providing the list of proposed projects and programmes for various time periods from 2010 to 2050.

Critical projects are also identified and described.

Chapter 3 provides the Legal, Institutional and Financial requirements in terms of policy and legislative amendments that need to be made, institutional arrangements required to implement the NATMAP Action Agenda, as well as financial requirements and funding arrangements. Finally, measures to ensure the effective and successful implementation of the National Transport Master Plan.

Chapter 4 provides a summary of the main results and conclusions of Phase 4 of the project.

2 STRATEGIC DEVELOPMENT PROGRAMME

2.1 INTRODUCTION

The Strategic Development Programme described in this Chapter includes the formulation of Goals and Objectives in view of current transport policies, development of a Goal Achievement Matrix (GAM) by means of which identified projects can be prioritised, the results of the GAM providing the priority ranking of the projects, and the programming of the projects in to various time periods. Critical projects have also been identified indicating which projects are critical to implement within the next 5 years, or for which planning needs to be done, or some action needs to be taken.

All aspects of the Development Programme and Goal Achievement Matrix have been integrated between the three Consortia in order to achieve consistency and integration between provinces.

2.2 PRIORITISATION PROCESS

2.2.1 Policy, Goals and Objectives

In order to identify, assess and prioritise projects specific policy, goals and objectives are firstly required with the aim of measuring individual projects against. According to the Vision of the National Transport Master Plan 2050, transport is aimed at meeting the needs of freight and passenger customers by 2050. Particularly in terms of promoting freight and passenger transport that is accessible, affordable, safe, of high quality, reliable, consistently being upgraded, innovative, flexible, and that strives to be and is economically and environmentally sustainable.

Freight and passenger transport based on the above principles will therefore support and enable government strategies, particularly those strategies that promote developing growth, redistribution, employment creation and social integration, both in South Africa and its Regions.

Therefore Phase 4, NATMAP, 2050 highlights three levels of action:

- **Focus the scope of the Transport System**. This will be achieved through concentrating and consolidating assets and investment on strategic national, urban and rural transport networks (high volume routes and nodes). Such Strategic Transport Networks will form the backbone of the transport system, underpinned by supporting networks.
- **Deploy Transport Modes**. Especially on strategic and supporting transport networks in order to capture the best economies of scale where possible, to meet customer needs.
- **Create an Empowering and Enabling Environment**. Create an environment where customers are empowered and where transport providers are enabled to improve efficiency, productivity and competitiveness.

As a result, the following Goals and Objectives were derived from the NATMAP, 2050 Terms of Reference to be utilised as performance measurement for identifying, analysing and prioritising projects for Phase 4:

- To provide integrated land use and transport solutions
  - Meet NSDF objectives
  - Support priority corridors
- To promote economic development
  - Minimize cost of procuring raw material and distribution of finished goods.
  - Facilitate development by increasing GDP and creating wealth
  - Meet demand ahead of supply
- To promote rural development giving priority to presidential nodes
  - Linkages between rural nodes and main economic centres
- To maximize the utilization of existing infrastructure facilities
  - Adequate funding for maintenance
  - Efficient management and operations
- To maximize the economic return on investment in transport
  - Minimise transport costs and time
  - Remove bottlenecks
  - Meet user demand
- To promote integration of transport infrastructure and services
  - Across modes (seamless transport)
  - Across provinces
  - Across borders with neighboring countries
- To minimize the impact on the environment and reduce the carbon-footprint of transport
  - Promote pass PT
  - Optimal role of rail
  - Use of low-carbon energy sources
- To provide energy-efficient transport, using energy sources that are sustainable in the long term
  - Promote pass PT
  - Optimal role of rail
  - Use of renewable energy sources
- To provide affordable transport to end users, operators and government
  - User charges / fares vs. financial resources

  - Minimise subsidies to government
  - Affordable to government in terms of financial resources
  - Efficient funding mechanisms
- To provide transport that is equitable to all stakeholders
  - Different Income groups
  - Physically challenged
  - Different regions / provinces
  - Different operators
  - Users vs. non-users
- To develop transport infrastructure that are meeting international standards and are technological sustainable
  - Use of modern rolling stock, infrastructure and systems (std gauge rail)
  - Sustainability of supply of rolling stock, technology
  - HR expertise

The above Goals and Objectives are therefore important because, for example, a project that meets all the above goals and objectives would be given a high priority. However, due to the extent and number of the above goals and objectives, measuring each project against each one would become overcomplicated. Therefore a simplified, but not simplistic, evaluation framework was developed based on the above goals and objectives and categorised into the following six (6) categories to be used as the basis from which to identify, analyse and prioritise projects (these categories will be discussed in later sections):

- **First Order Screening**
- **Readiness**
- **Accessibility**
- **Economic Development**
- **Affordability/Financing**
- **Impact**

It is important to note that the above categories inadvertently assist with providing the basis for identifying the selection criteria in identifying potential projects as well as the basis for measuring the performance of a project and its timeframe of implementation (in terms of short-, medium-, and long-term).

2.2.2 Approach Selection

The previous section identified the Goals and Objectives that will form the basis of selecting criteria and performance measures that will ultimately ensure that a project can be identified, analysed and prioritised.

In order to prioritise projects / strategies with a mix of both competing and aligned project objectives of transport and communications into one unified list of projects, a project evaluation methodology was sought that could take into account a number of qualitative and quantitative aspects simultaneously, and which can accommodate changes in planning emphasis and project life-cycle implications over time (Refer to Figure 2.2.1

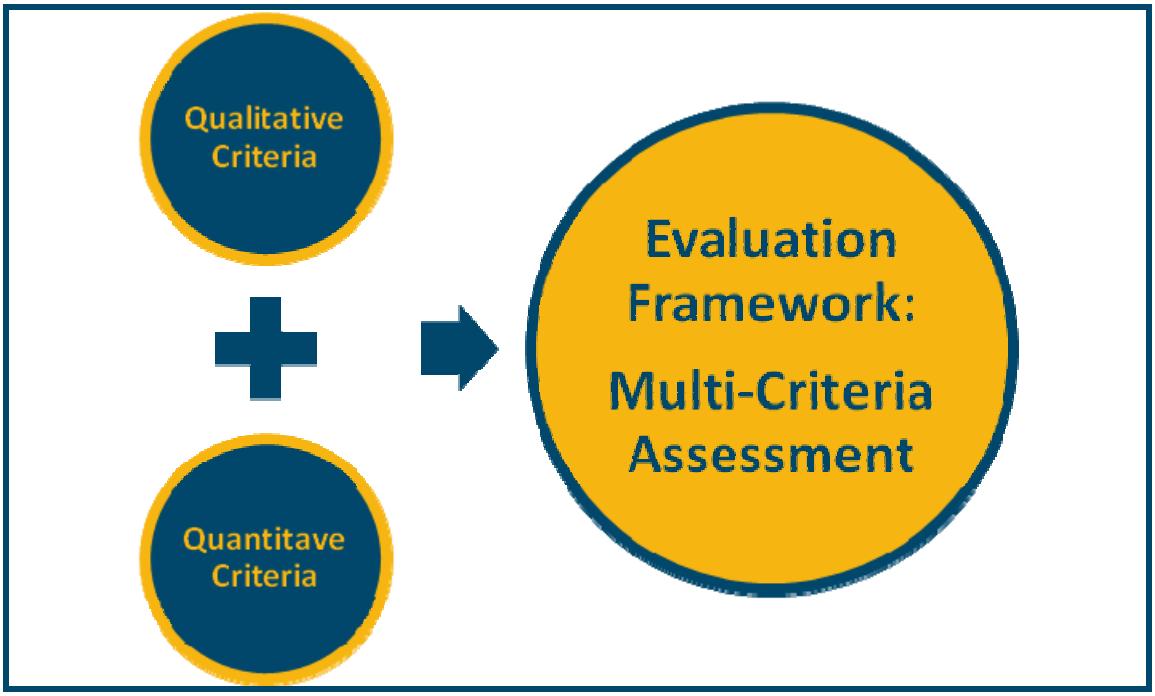

Figure 2.2.1: Evaluation Framework Requirements

To fully take into account all factors relevant in deciding which projects to favour, a method was followed that takes all the relevant system constraints into account. The following model methodologies were considered:

- Categorical Judgement Model (P Barlow, Nov 1978, NITRR-CSIR);
- Summated Ratings Model (P Barlow, Nov 1978, NITRR);
- Analytic Hierarchy Process Model (TL Saaty, August 1983 IEEE);
- Utility Analysis Model (JV Baxa, January 1981, CSIR);

After considering these alternative models against the basic requirements and environment as stated before, the generalised utility analysis model methodology was deemed to be the most suitable approach. The selection of the utility analysis (Multi-Criteria Analysis) was based on the following associated benefits:

- A utility analysis provides a structured input for the decision-maker.
- A utility analysis provides an indication of the overall effectiveness with which alternatives will satisfy the complex target system.

- A utility analysis is a transparent approach which allows the decision-makers to gauge the sensitivity of the various analysis parameters as part of the evaluation process.

2.2.2.1 Multi-Criteria Analysis

Multi-Criteria Analysis (MCA) can be defined as follows:

> *"Utility analysis (Multi- Criteria Analysis - MCA) is in effect a semi-quantitative means of 'trading off' the effects of implementing any given scheme, that is, the relative desirability of achieving a given set of goals and objectives and the degree to which this target system is fulfilled, are combined to give a measure of how far each scheme will go in meeting all or any of the goals and objectives, and so provides the answer to the question of effectiveness of the scheme. The distinguishing feature of utility analysis is that it can handle financial, quantitative and qualitative effects simultaneously. Consequently, all of the impacts or effects of a project which can be envisaged can be included in the analysis."*

– Evaluation of Transportation Projects – Utility Analysis; JV Baxa; January 1981; CSIR.

MCA can therefore serve as a tool to measure the performance of a range of multi-criteria projects against goals and objectives and in effect analyses each goal and objective 'horizontally'. However, the goals and objectives (consolidated under the above mentioned six criteria) does have different levels of importance when compared to one another (in other words when looked at 'vertically') depending on the country's action agenda (for example Economic Development could be more important than say Accessibility, and so on).

Therefore in order to compare the six goals and objectives successfully (and 'vertically') a model called "Pairwise Comparison" is used and outlined below.

2.2.2.2 Pairwise Comparison

As stated above, MCA looks at measuring the performance of a project in terms of a goal and/or objective horizontally. Therefore it becomes essential to also compare the importance of these individual goals and objectives vertically. Subsequently a Pairwise Comparison model will be used. A Pairwise Comparison matrix is used when there are more than just two options/alternatives that need to be ranked according to preference. These matrices consist out of Pairwise Comparisons which compare the preference of every option to the preference of all the other options.

When faced with a problem, several different solutions to the problem exist. Each of these solutions has its own unique pros and cons. In order to find the best solution the importance of the pros and cons of the different alternatives need to be compared to one another. Once this is done the different solutions can be given relative weights of importance and ranked accordingly. The task of accurately

weighing and ranking different alternatives can be difficult. A Pairwise Comparison matrix is a method that can be used to solve this challenge.

2.2.3 Project Prioritisation Process

Having identified specific Goals and Objectives through which to identify projects; and two models (MCA and Pairwise Comparison) that enable projects to be measured in terms of their performance against these Goals and Objectives both horizontally and vertically, this section will review the process as a whole, and is structured as follows:

- **Project Identification**
- **Project Evaluation**
- **Project Prioritization**

Figure **2.2.2: Project Prioritisation Process**

below is a simplified schematic representation of the proposed process.

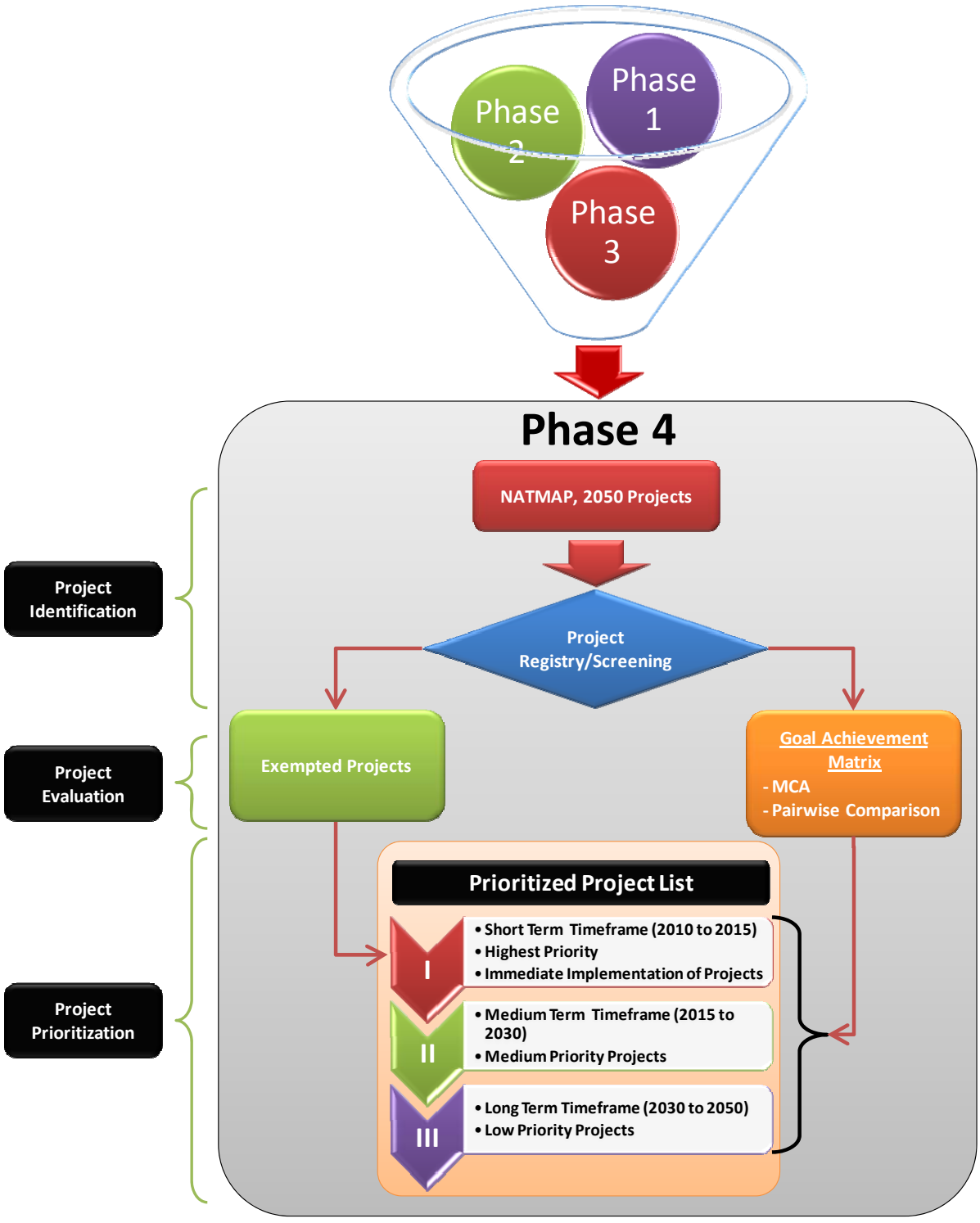

Figure 2.2.2: Project Prioritisation Process

2.2.3.1 Project Identification

Projects have been identified as part of the NATMAP, 2050 process, especially during Phase 3. These projects will therefore be scrutinized in terms of the stated Goals and Objectives through an initial project identification questionnaire registry data base which will also from the basis from which to run the MCA and Pairwise Comparison Matrix (together to be known as the Goal Achievement Matrix).

Therefore the Projects that have been identified through the NATMAP Phases thus far will be used as a starting point from which to further identify projects that qualify as NATMAP projects.

The project identification questionnaire registry data base will also serve as a project screening tool with the main purpose being to identify projects that qualify for exemption (in other words projects that do not need to go through the project evaluation process and can be registered as **Priority Category I** projects – to be explained in the next section)

Projects without committed funding are evaluated within the Goal Achievement Matrix (MCA and Pairwise Comparison).

2.2.3.2 Project Evaluation

The Project Evaluation phase of the process will evaluate projects based on the identified NATMAP, 2050, Goals and Objectives and in a sense will sort the projects into two groups, namely:

- **Exempted Projects**
- **Projects to be Evaluated**

Exempted Projects as stated earlier are projects that do not require further evaluation due to the fact that these projects are committed with for example signed contracts, secured funding etc. in place. It is very important however to verify or validate the respective projects indicated as “exempted projects” in the evaluation process.

The conditions which automatically exempt a project from undergoing prioritisation include the following:

- Contractually Bound Projects

  If the project is the object of a contractual agreement, and thus has to be implemented in order to fulfil an obligation.

- Committed Funds Projects

  If the project already has funds committed to it in terms of aid or development initiatives.

- Co-funded Projects (committed funds)

  If a pre determined percentage of the project cost is co-funded and committed, it will be valuable to prioritise the project for implementation in order to receive the advantages of the project without having to spend the entire project cost to realise it.

Projects to be Evaluated is projects that do not qualify as Exempted Projects and therefore needs to be evaluated by the Goal Achievement Matrix (MCA and Pairwise Comparison).

2.2.3.3 Goal Achievement Matrix – Pairwise Comparison and MCA

The Goal Achievement Matrix will be the main evaluation tool that will assess the Projects through the use of the **Pairwise Comparison** for vertical preference of Goals and Objectives and through **Multi-Criteria Analysis** for horizontal assessment and weighting of projects in terms of the Goals and Objectives (as was defined earlier in this Chapter).

2.2.3.3.1 Pairwise Comparison Methodology

The methodology behind the Pairwise Comparison process can be explained by the following simplified steps (note that Goals and Objectives are displayed as A through to E):

2.2.3.3.2 Step 1: Arrange the Goals and Objectives in a Matrix

Step 1 can be represented in the following table:

Goals and Objectives	A	B	C	D	E
A					
B					
C					
D					
E					

2.2.3.3.3 Step 2: Discount half of the Matrix

Only half of the matrix needs to be filled-in since half the rows and columns contain the same characteristics. **A** will not be compared to **A** therefore the diagonal can also be omitted.

Step 2 can be represented in the following table:

Goals and Objectives	A	B	C	D	E
A					
B					
C					
D					
E					

2.2.3.3.4 Step 3: Compare Different Alternatives in terms of Preference

When comparing **A** with **B**, if **A** is considered more important than **B** then **A** is inserted in the cell where columns **A** and **B** intersect. If **A** and **C** are determined to be equally important then **AC** is inserted, and so on.

Step 3 can be represented in the following table:

Goals and Objectives	A	B	C	D	E
A		**A**	**AC**	**A**	**A**
B			**C**	**B**	**E**
C				**C**	**C**
D					**E**
E					

2.2.3.3.5 Step 4: Count the Scores

The Scores of each Goal and Objective alternative is now counted as follows (and also follows on the above table in Step 3):

Goals and Objectives		Score
A	=	4
B	=	1
C	=	4
D	=	0
E	=	2

2.2.3.3.6 Step 5: Assign Weights to each Goal and Objective alternative based on the Matrix Scores

Weights are assigned to each Goal and Objective alternative based on the following two principles:

- The weights of all the alternatives must add up to 100.
- The weights must be allocated based on the results of the matrix.

The following equation is therefore used:

100 = **A** score multiplied by a constant X + **B** score multiplied by a constant X + **C**... etc.

Therefore **100** **= 4*X + 1*X + 4*X + 0*X + 2*X** (refer to Step 4 Scores)

The above equation yields **X** **= 8.33**

Therefore resulting in the following table:

Goals and Objectives	Equation (where X=9.09)	Equals	Percentage
A	(A Score)*(X)	(4)*(8.33)	33.32%
B	(B Score)*(X)	(1)*(8.33)	8.33%
C	(C Score)*(X)	(4)*(8.33)	33.32%
D	(D Score)*(X)	(0)*(8.33)	0% =1% (no option is given a zero weighting)
E	(E Score)*(X)	(2)*(8.33)	16.66%

2.2.3.3.7 Step 6: Rank in order of Preference

Finally, as a result of Step 5, each Goal and Objective can be ranked in terms of preference scores achieved in above table as follows:

Goals and Objectives	Percentage Rank
A & C	**33.32%**
E	**16.66**
B	**8.33%**
D	**1%**

2.2.3.3.8 Multi-Criteria Analysis

The approach to developing a MCA is shown schematically in

Figure 2.2.3 below.

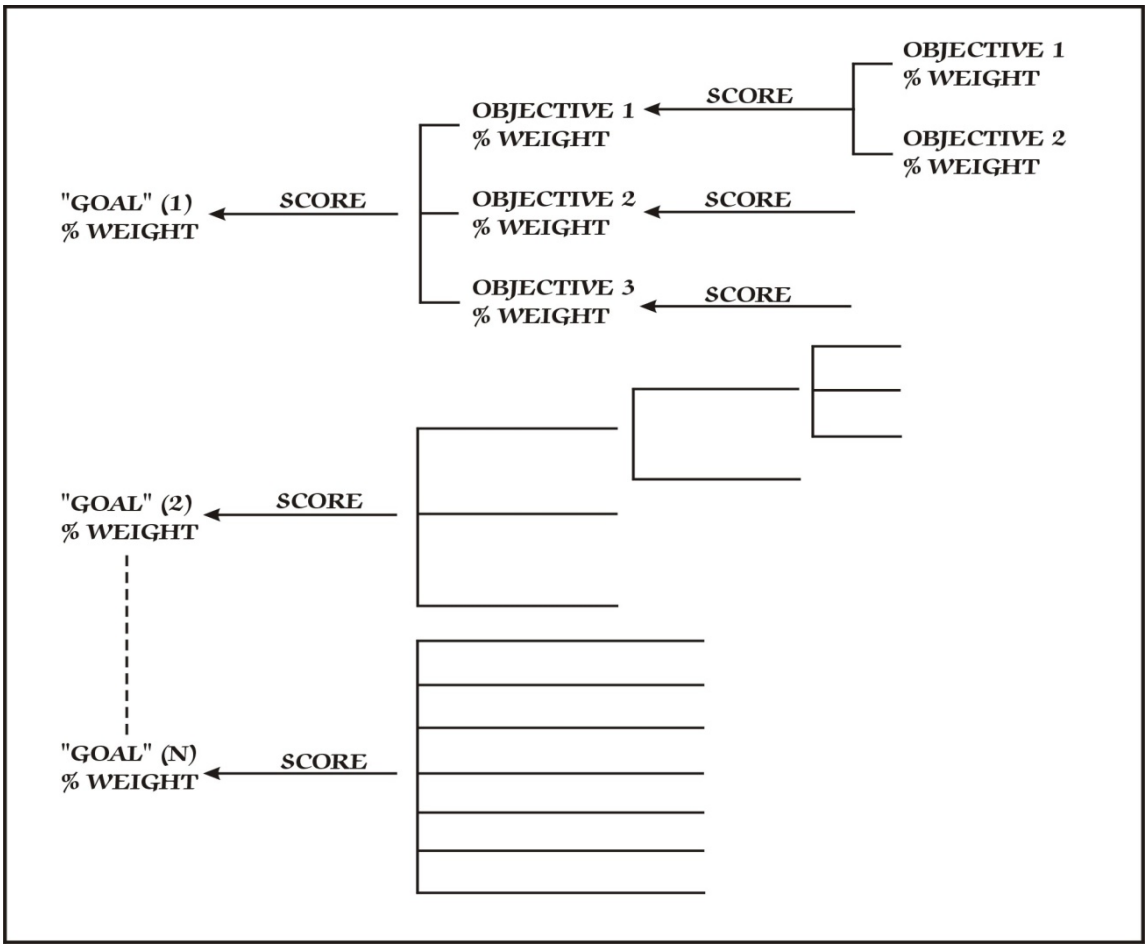

Figure 2.2.3: Multi-Criteria Analysis Model Development Approach

The process of establishing a utility or MCA model can be simplified as follows:

- The overarching goals and objectives of NATMAP to be met by each project/strategy are represented in a structured way in the form of a “decision-tree”.
- Goals and objectives may include quantitative and qualitative factors i.e. financial factors, technical considerations, project maturity or readiness criteria, economic criteria, social obligations, legal obligations etc.
- Overarching goals must be established for which relevant objectives have to be established. Each objective requires a specific input (such as an answer to a “qualitative” question or an input value such as a “quantitative” cost parameter for example)
- The relationship between the goals, objectives and their related qualitative and quantitative inputs is then modelled based on a predetermined method or value function, to provide an output.

- The value function or model relies on relative preferences associated with each goal, objective or criterion i.e. the branches of the decision tree. Determining relative preferences can be simplified as follows (Refer to **Figure 2.2.4**):
  - Define the relative preferences for each goal that was set out;
  - Define relative preferences for each objective that was set out;
  - Weight each criterion that was set up to reflect their relative importance.

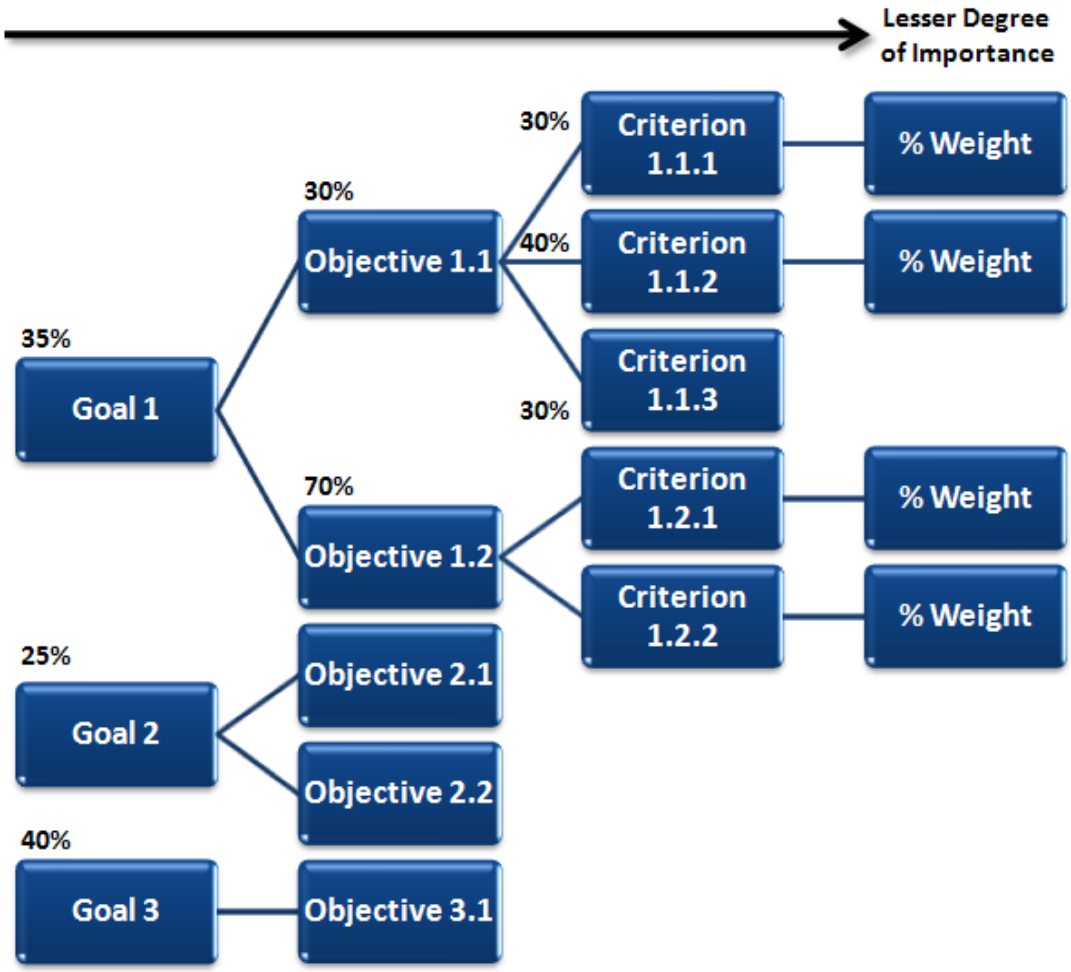

Figure 2.2.4: Determining MCA Preferences / Weights

By following these steps, each alternative can be 'scored' to attain a measurement of performance that can be translated into a number of points. The points system with which each criterion is weighted, as indicated on the matrix of utilities, is a number between 0 and 100.

As mentioned previously, the mathematics of the model is best represented by a statistical tree where multiplication of weights and percentages takes place from right to left in the so-called tree "branches" (Refer to Figure 2.2.4).

The implication of this multiplication is that the further a parameter is located towards the left of the model-tree, the greater is its influence on the ultimate score of the project. It is, however, further complicated by the restraint placed on each branch of the tree through the respective selected weights of each branch. Two separate criteria on two different branches of the model tree may be on the same vertical level but will have different effects on the ultimate score as a result of the "parent weight" of each branch.

After the initial model has been developed the goals, objectives, criteria, weights and scores are calibrated through a series of workshops with the project stakeholders in order to obtain early buy-in into the process and to ensure that the model preferences reflects that of the stakeholder organizations concerned.

The MCA relies heavily on the weightings assigned to the criteria, if the output of the MCA is not desirable it typically indicates that the weightings of the criteria are not done effectively to promote certain development directives above others. For this reason the MCA is specifically calibrated by means of a workshop with the relevant stakeholders in order to determine appropriate weighting for the various criteria.

In terms of MCA each of the criteria is rated in terms of the specific project being assessed, each criterion is scored between 0 and 100 points with zero indicating that the specific project will be least beneficial in terms of the specific criterion while 100 indicates it is most beneficial.

The MCA takes the form, as shown previously, of multiple criteria feeding into each objective, multiple objectives feeding into each goal and finally multiple goals feeding into the total project score. Each criterion is assigned a weighting, the various criteria weightings, which make up an objective, adds up to 100. Each objective is also assigned a weighting, the various objectives that make up a goal, adds up to 100 as well. Each goal is given a weighting, the weighting of all goals adds up to a 100 and this score out of 100 is the total project score and the basis upon which it is ranked.

The following equation shows how the project score is determined:

$$P_{1-q} = \sum_{1}^{k} (G_k * \sum_{1}^{m} (O_m * \sum_{1}^{n} C_{Wn} * C_{Sn}))$$

Where P_{1-q} represents the total projects score for project 1 to q (q being the total number of projects), and

G_k represents the goal score, where k is the total number of goals, and

O_m represents the objective score, where m is the total number of objectives, and where

C_{Wn} gives the weighting of the criteria and C_{Sn} refers to the score (1 – 100) given to the criterion for the specific project, where n is the total number of criteria.

2.2.3.4 Project Prioritization

Once the Goal Achievement Matrix (Pairview Comparison and MCA) has been completed, all projects will be populated with a priority value. The prioritised project list includes as a high priority the exempted projects, followed by the NATMAP candidate projects ranked according to priority (assigned by the MCA). It is proposed that prioritisation categories are used as follows:

- **Priority Category I**: Short term implementation (2010 – 2015) – Project MCA scores between 75 – 100. This Category also caters for the Exempted Projects.
- **Priority Category II**: Medium term implementation (2015 – 2030) – Project MCA scores between 50 - 75
- **Priority Category III**: Long term implementation 2030 – 2050) – Projects that achieve MCA scores lower than 50

2.2.4 Goal Achievement Matrix

In summary, the Goal Achievement Matrix described above consists of a list of criteria by means of which projects have been rated, the list of projects that have been identified, the rating of each project on each criterion, the overall rating of each project across all criteria.

From the Phase 3 Forward Plans, various projects have been identified for the different types of infrastructure or transport operations. The following types of transport projects have been identified:

- Road
- Rail
- Ports
- Airports
- Passenger Transport Operations
- Freight Transport Operations

In terms of the spatial extend of projects; the following categories have been distinguished:

- Provincial projects
- Inter-provincial projects
- Regional SADC projects

The inter-provincial projects and Regional projects were coordinated between the three Consortia in terms of their scope, costs and prioritisation.

2.2.5 Project Descriptions

Addendum A provides project descriptions of Provincial and National Projects, as well as for Legal, Institutional and Financial and Funding Projects.

For each project the following information is provided:

- Description of project
- Project Categorisation
- Location
- Rating from Goal Achievement Matrix
- First order costs (infrastructure)
- Programming / timeframe
- Proposed funding mechanism(s)
- Proposed institutional authority responsible

Goal Achievement Ratings

Addendum B provides the ratings of Provincial and National Projects produced for the Goal Achievements Matrix.

2.3 PROJECTS AND PROGRAMMES

Projects have been programmed into the following three time periods, according to the time period when certain upgrading or new infrastructure would be needed, based on the projected demand:

- Short term : 2010 to 2015
- Medium term : 2015 to 2030
- Long term : 2030 to 2050

Addendum C provides the **Expenditure Programmes** for each project for the three time periods. The expenditure in the first 5 years is divided into annual intervals.

2.4 CRITICAL PROJECTS

2.4.1 Identification of Provincial Critical Projects

From the land use strategies formulated in the Phase 3 Forward Plans, the main existing and new emerging corridors have been identified. **Figure 2.4.1** illustrates the main existing corridors and new emerging corridors that need to be given priority by government. Most of these are inter-provincial or SADC regional corridors. The map distinguishes between international (SADC), national and provincial corridors, as well as the type of infrastructure that needs to be developed, i.e. Freight Rail, Passenger Rail, Road and Tourism Routes. The main land use nodes that are connected by the corridors are also given. These corridors were used as a guiding framework for the identification of critical projects.

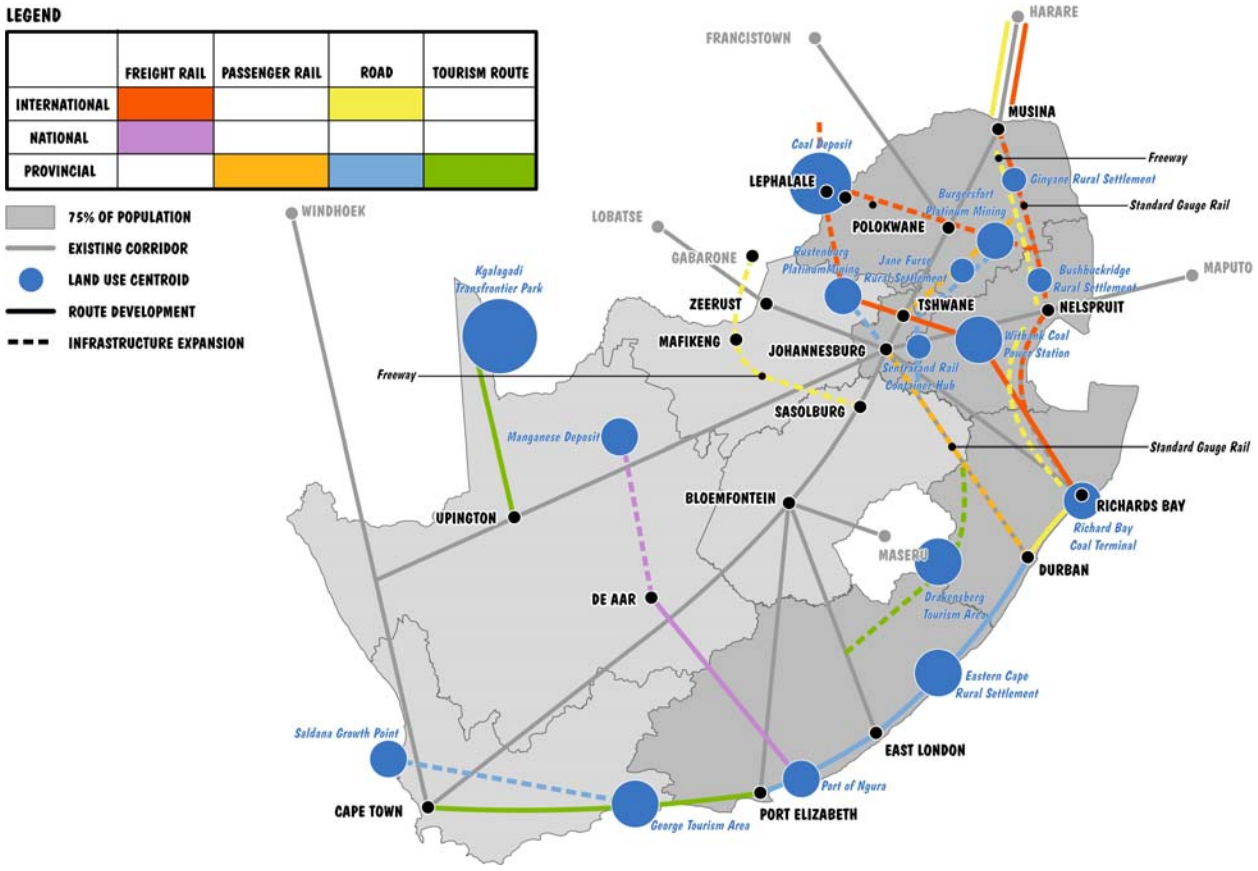

Figure 2.4.1: Main existing corridors and new emerging corridors

The project description in Addendum A and the project expenditure programmes in Addendum C indicate which projects are critical or not.

3 LEGAL, INSTITUTIONAL AND FINANCIAL PROGRAMME

3.1 POLICY AMENDMENTS

In Phases 1 and 2 of the Project, the various applicable policy instruments were collected and analysed, these included, among others:

- The White Paper on National Transport Policy, 1996
- The Moving South Africa Action Agenda, 1999
- The National Land Transport Strategic Framework (latest update 2006)
- The National Rail Plan, 2006
- The National Freight Logistics Strategy, 2005
- The Public Transport Strategy and Action Plan, 2007

It was found that these policies are all applicable and relevant. In the case of the NLTSF, it is in the process of being updated. The NATMAP recommendations themselves will of course provide very important policy directions.

One of the problems identified has been that the planning is strongly sectoral and mode-centred. This could lead to conflicts and a lack of strategic vision. For example proposals to upgrade roads that favour private cars could clash with policies to promote public transport. A need has thus been identified for more centralised, multimodal and strategic policy direction. This could best be provided by an overarching forum such as the proposed Multimodal Policy Forum (see Paragraph 3.2.1 below). Such a Forum would need powers to formulate strategic and overarching plans, and to impose their provisions on relevant entities and stakeholders. It is important to note that such overarching planning should stay at a strategic level and should not interfere with sectoral projects. So, for example, SANRAL should not be hindered in its effective planning and implementation of a particular road section, but should be influenced by the strategic planning in developing strategic corridors, such as the Maputo Corridor development that took place in the late 1990s. Similarly the road versus rail freight debate can then be pursued from a more strategic perspective.

3.2 INSTITUTIONAL ARRANGEMENTS

3.2.1 Introduction

During Phase 2 an analysis of the existing institutions and their supporting mechanisms was performed. The need for changes in institutions was clearly identified and informed by different land-use, infrastructure and operations of the different modes.

Phase 3 proposed alternative strategies in addressing institutional arrangements which included inter alia the following:

- To introduce institutions for modal choice decisions on “mega infrastructure investment projects”.

- To introduce homogenous economic regulation to the different modes.
- To ensure homogenous safety regulation entities for the different modes.
- To take responsibility for the strategic development of different modes by producing Integrated National Master Plans for infrastructure and facilities of each mode.
- Ring-fencing of infrastructure and operational costing in areas (like rail and pipelines) where vertical separation of existing entities is not currently possible.
- To introduce mechanisms to transfer the "real cost of transport" to transport operators in terms of weight distance charging.
- To introduce user representation onto the boards of institutions that provide transport infrastructure.
- To evaluate effectiveness of provincial departments/agencies responsible for spending on transport infrastructure to ensure effective spending of public funding.
- To ensure that existing institutions execute on existing mandates.
- To benefit from the effectiveness and delivery of institutions (i.e. SANRAL, ACSA), by expanding their responsibilities.
- To ensure effective coordination structures between National, Provincial and Local government levels. Also to ensure that coordination with other relevant government departments takes place that ensures alignment, cooperation and coordination of service delivery.

3.2.2 Proposed new institutions

In Phase 3 the following new institutions were proposed:

- Multimodal Policy Forum located at the Department of Transport where modal choice criteria and decisions can be dealt with
- Transport Investment Clearing House for mega-sized infrastructure investment projects
- Transport Economic Regulator (responsible for all modes with specialised units per mode) to allow for regulated competition in all modes
- Road Weight Distance Charging entity supported by a Road Freight Operator Registration System to allow for proper management of private operators.

3.2.3 Proposed changes to existing institutions

Phase 3 also proposed changes to existing institutions to align with the alternative strategies:

- SANRAL – expand board to allow for operator participation; expand their road network responsibility to benefit from capacity to deliver.
- Provincial Roads Departments – maintain equitable share for maintenance of existing road network; evaluate cost effectiveness and efficiency of provincial entities; develop standards for compliance.

- Transnet (Pty) Ltd – ringfence costs and activities of infrastructure and operational divisions; ringfence branchlines; allow for social composite agreements with DOT; promote third party operations on the freight network; etc.; to lay the foundation for possible future vertical separation.
- PRASA – ringfence costs and activities of infrastructure and operational divisions; ensure metros are effectively represented on board; allow for performance agreements with metros to ensure accountability; promote third party operations on commuter network; ensure rail fares cover operational cost and reduce subsidy dependence; to lay the foundation for possible future vertical separation.
- Department of Transport Rail Division: policy and performance management of the rail transport mode; guide Integrated Master Plan for Rail Infrastructure; create structure to handle registration and regulation of rail freight operations etc.
- ACSA – expand number of airports managed; allow for competition between airports.
- Department of Transport Aviation Division: ensure strategic management of airport infrastructure; initiate a National Airport Development Master Plan; etc.
- SAMSA (SA Maritime Safety Authority) – review roles and expand to eliminate overlaps with other institutions; ensure the whole spectrum of marine safety issues is covered.
- National Ports Authority – competition be allowed between ports; structure ports into separate business entities; allow for specialisation and niche markets between ports.
- Ports Regulator – merge into the “to be created” Transport Economic Regulator.
- Department of Transport Maritime Division – create functional area responsible for promotion of inter-coastal shipping; create coordination structures with all relevant entities and institutions.
- Department of Transport – Reorganisation of the DoT to create effective management of regulated competition between operators of all freight modes.

3.2.4 Implications of proposed institutional changes

In order to give effect to the proposals it is recommended that the institutions be created as soon as possible in order to address current shortcomings in the different fields/areas. It is therefore proposed that the entities be created inside the DOT as specialised units and that they are moved out of the DOT where appropriate once the necessary legal framework has been created. In a number of cases some detailed analysis and planning is required to develop appropriate institutions and time and money would be required for this.

Table 3.2.1 summarises the proposed financial and time implications of the proposed institutional changes. The last column indicates expected additional operating costs per annum. (Shading indicates areas where user charges are expected to take care of additional operating costs.)

Table 3.2.1: Summary of the proposed financial and time implications of the proposed institutional changes

NATIONAL														
						Short -Term						Medium -Term	Long- Term	
Category	#	Name of the Project	Status : Committed (Yes or No)	Is the project identified as NATMAP Critical Provincial Project (Yes or No)	Total/Residual Cost (R Million)	2010	2011	2012	2013	2014	2015	2015-2030	2030-2050	Annual operating cost (R Million)
Institutional	I1	Department of Transport - Create Multimodal Policy Forum	N	Y	5.0		2	3						0.0
Institutional	I2	Create Transport Investment Clearing House	N	Y	10.0		2	3	5					10.0
Institutional	I3	Create Transport Economic Regulator with modal units	N	Y	20.0		5	10	5					30.0
Institutional	I4	Create Road Weight Distance Charging entity	N	Y	80.0	2	3	20	30	25				10.0
Institutional	I5	Implement Road Freight Operator Register and licensing system	N	Y	10.0		3	3	4					30.0
Institutional	I6	Changes at SANRAL to expand portfolio and board	N	Y	10.0		2	4	4					0.0
Institutional	I7	Provincial Departments of Roads - Audit & Develop Standards	N	Y	20.0		5	10	5					0.0
Institutional	I8	Transnet Ringfencing & Divisionalisation	N	Y	80.0	2	8	25	25	20				0.0
Institutional	I9	PRASA Ringfencing & Divisionalisation	N	Y	20.0	2	5	5	5	3				0.0
Institutional	I10	Department of Transport - Expand Rail Division to give Strategic Guidance	N	Y	20.0		10	10						10.0
Institutional	I11	ACSA - Expand portfolio and board	N	Y	10.0		2	4	4					0.0
Institutional	I12	Department of Transport - Expand Aviation Division to give Strategic Guidance	N	Y	10.0		5	5						10.0
Institutional	I13	SA Marine Safety Authority - Review responsibilities and align w other	N	Y	10.0		5	5						5.0
Institutional	I14	National Ports Authority - restructure to allow for more competition	N	Y	10.0			5	5					0.0
Institutional	I15	Department of Transport - Maritime Division expand and align responsibilities.	N	Y	10.0			5	5					5.0
Institutional	I16	Reorganise DOT to create structure for management of regulated competition for all modes	N	Y	10.0		5	5						10.0
TOTAL					335.0	6	62	122	97	48	0	0	0	120.0

User pays principle to take care of additional operating cost

3.3 LEGISLATIVE REVISIONS

3.3.1 Approach to Phase 4

During Phase 2 an analysis of the existing institutions and their legal support mechanisms was performed. The need for changes in institutional and legal support was clearly identified and informed by the different land-use, infrastructure and operations of the different modes during Phase 3. The objective of Phase 4 is to provide an implementation strategy and timeframe for the recommended changes to be effective to the existing legal framework to give effect to new policies and Institutional recommendations. In Phase 3 the legislative requirements to establish the proposed entities, and related matters, were outlined. The steps required for implementation are outlined below.

3.3.2 Legal issues: new institutions

In phase 3 the establishment of certain new Institutions were proposed as follows:

3.3.2.1 Department of Transport: Multimodal Policy Forum

As stated in the Phase 3 Report, the purpose of the Multimodal Policy Forum (MPF) will be to introduce a forum where multimodal policy can be formulated. The aim is to limit duplication of government service delivery and infrastructure provision and to reduce "turf-wars" between modes by providing clear policy guidance.

As regards options to establish it, using the existing MINMEC forum, which has been established as a national intergovernmental forum contemplated in section 9(2) of the Intergovernmental Relations Framework Act 13 of 2005, or establishing a MINMEC subcommittee, was not seen as desired option because MINMEC does not involve the private sector. The options are:

- The Minister could set up an informal structure as an advisory entity. This is not the preferred option because it will then lack "teeth" to implement and enforce the policy, and there will be no statutory imperative to establish and maintain it.
- To establish it by statute. This is the preferred option.

If it is decided to establish the MPF by statute, this should be done by way of a comprehensive National Planning and Implementation Act. Such an Act will "pull together" the strategic and overarching functions of planning and implementing transport projects in the longer term, i.e. for the year 2050. This Act should strive to achieve the following, among others:

- To evaluate and "pull together" existing strategic planning instruments, including the the National Transport Masterplan (NATPLAN), the National Land Transport Strategic Framework (NLTSF), the National Rail Plan, 2006, the National Freight Logistics Strategy, 2005, the National Public Transport Strategy and Action Plan, 2007, and others.
- To undertake well advised and considered strategic transport planning for the medium to longer term, with a focus on the 2050 horizon.
- To understand and predict future developments, such as reduction or eventual elimination of carbon emissions, advances in technology, changes in travel patterns if people make a large-scale move towards working from home and no longer commuting as much as before, etc.
- To impose planning requirements on sectoral road, rail, air and maritime planners for strategic reasons.
- To influence land use and settlement patterns.

The National Planning and Implementation Act (NPIA) should clearly set out the above, and other strategic goals, that must be achieved by all role players in both the public and private sectors.

The NPIA should also include at least the following:

- Establishment of the Multimodal Planning Forum and providing for its membership. This should include government officials in the three spheres, officials of parastatals such as PRASA, Transnet, ACSA, etc., private sector representatives and technical experts.
- The functions, powers and duties of the MPF. It should have powers to set multimodal and overarching policy that is binding on relevant stakeholders.
- "Housekeeping" matters such as holding of meetings, procedures, quorums etc. and provisions on funding.
- The power to invite or subpoena persons to attend its meetings to provide advice and technical and professional input.
- A budget for research and liaising with internal and international organisations.

Drafting process:

If the Forum will fall within the definition of "public entity" in the Public Finance Management Act, 1999 (PFMA), the Forum will have to be listed as such in compliance with Part 9 of the Treasury Regulations. The Department will have to engage with the National Treasury Prior to its establishment and compile a business case for submission to the National Treasury for approval to motivate the establishment of the Forum. The business case should deal with the following issues, among others, which will be incorporated into the National Planning and Implementation Bill:

a) A motivation of the need for the Forum, its proposed purpose and functions and why the functions cannot be undertaken by the DoT in terms of its constitutional mandate.
b) Other possible institutional options – such as a more informal national intergovernmental forum established in terms of section 9 of the Intergovernmental Relations Framework Act 13 of 2005.
c) The corporate structure and an explanation of how it will comply with the National Guidelines for Public Entities and the King/King III recommendations, whichever are applicable.
d) The governance structure, i.e. its proposed composition and proposed committees of the Forum.
e) Accountability – to the Minister and to Parliament, and requirements for strategic plans, business plans, performance agreements, auditing and reporting.
f) Provision for the DoT to provide staffing for the Forum.
g) Funding of the Forum and financial controls.

Once Treasury and other necessary approvals have been obtained, a draft Bill can be prepared.

The Bill must follow the following procedures:

- Internal discussion and finalisation of the draft
- Publishing the Bill for comment in the Government Gazette

- Evaluating comments and making changes where appropriate
- Submission of the Bill to the Minister and Cabinet
- Certification by the State Law Adviser
- Introduction to Parliament.

Legislation in each province will have to be examined to see if it needs adjustment to accommodate the objectives of the Forum. Provincial legislation can only be repealed or amended by the relevant provincial legislature, but national legislation can override provincial legislation if it falls within the categories listed in section 146(2) of the Constitution.

The drafting of the new Act and seeing it through the legislative process is expected to take approximately 12 months. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2011.

3.3.2.2 Transport Investment Clearing House (TICH)

In order to establish its powers, functions and duties clearly, the TICH should be set up by statute, i.e. by a national act of Parliament. In terms of section 48 of the PFMA it would be classified as a national public entity i.e. an entity which is not a national business enterprise (it will not carry on a business activity) that is:

- Established in terms of national legislation
- Fully or substantially funded from the National Revenue Fund or from a tax, levy or other money imposed by national legislation, and
- Accountable to Parliament.

The entity will have to be listed in Schedule 3, Part A of the PFMA. Prior to its establishment, a business case should be compiled and submitted to the National Treasury for approval to motivate the establishment of the Clearing House. The steps outlined above must be followed.

Care should be taken to ensure that the TICH functions are in line with section 11 of the NLTA. Legislation in each province will have to be examined to see if it needs adjustment to accommodate the objectives of the Forum. Provincial legislation can only be repealed or amended by the relevant provincial legislature, but national legislation can override provincial legislation if it falls within the categories listed in section 146(2) of the Constitution.

Drafting process:

The process for compiling a business case, drafting the necessary bill and seeing it through the legislative process will be as outlined above.

The drafting of the new Act and seeing it through the legislative process is expected to take approximately 2 years. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2012.

3.3.2.3 Transport Economic Regulator (TER)

In order to set out its powers, functions and duties clearly and to provide for the necessary powers and funding arrangements, the TER should be set up by statute, i.e. by a national act of Parliament. In terms of section 48 of the PFMA it would be classified as a national public entity, as with the TICH.

The entity will have to be listed in Schedule 3 Part A of the PFMA. Prior to its establishment, a business case should be compiled and submitted to the National Treasury for approval to motivate the establishment of the Regulator. The business case should deal with the following issues, among others, which will be incorporated into the Bill establishing the TER:

a) A motivation of the need for the Regulator, its proposed purpose and functions and why the functions cannot be undertaken by the DoT in terms of its constitutional mandate.
b) Other possible institutional options – such as a more informal national intergovernmental forum established in terms of section 9 of the Intergovernmental Relations Framework Act 13 of 2005.
c) The corporate structure and an explanation of how it will comply with the National Guidelines for Public Entities and the King II/King III recommendations.
d) The governance structure, i.e. the board or other structure that will govern the TER and its proposed composition and proposed committees of the Board.
e) Accountability – to the Minister and to Parliament, and requirements for strategic plans, business plans, performance agreements, auditing and reporting.
f) Chief Executive Officer (CEO) and staffing, i.e. the organisational and human resource implications.
g) Funding of the entity and financial controls.

Once Treasury and other necessary approvals have been obtained, a draft Bill must be prepared to establish the Regulator.

Certain provincial legislative amendments may have to be effected as a result of the introduction of such an institution. Provincial legislation will have to be amended to reflect the additional roles and responsibilities granted to the TER.

Drafting process:

The process for compiling a business case, drafting the necessary bill and seeing it through the legislative process will be as outlined above.

The drafting of the new Act and seeing it through the legislative process is expected to take approximately 2 years. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2012.

3.3.2.4 Road Weight Distance Charging Entity

It may not be necessary to establish a new agency: SANRAL is currently allocated the function of planning and funding national roads, and for recommending tolls to the Minister in terms of the South African National Roads Agency Limited and National Roads Act 7 of 1998 (SANRAL Act). This Act could be amended to give SANRAL the power to raise weight distance charges. One limitation is that SANRAL is only responsible for national roads, while the RWDCA could be given powers to raise money for provincial roads as well, although it should be noted that "provincial roads" is an exclusive provincial function in terms of Schedule 5 of the Constitution.

If the decision is taken to establish the RWDCA, and it is to be established as a national public entity, the provisions of the PFMA and other legislation mentioned above apply (business case, Treasury approval, issues to be included in the establishing legislation etc.).

The RWDCA will need powers to raise taxes and levies. These provisions must be contained in a separate Bill, called a "money bill" which must be introduced to Parliament by the Minister of Finance under section 77 of the Constitution. However, this will not apply if the charges are seen as user charges. This is why the provisions of section 77 were not applied to the SANRAL Act in 1998: tolls are seen as user charges, and not as a tax or levy. Treasury will have to be asked to take a decision on this issue. If the charges are seen as a tax or levy, there will have to be two pieces of legislation:

- One establishing the RWDCA and providing for its governance, powers, duties, staffing etc. and
- One providing powers for it to raise levies or impose weight distance charges.

It is obvious that prior approval from the National Treasury will be necessary for this legislation.

If the RWDCA is to become responsible for tolling of national roads, the SANRAL Act will have to be amended accordingly. Currently SANRAL is allocated the function of recommending tolls to the Minister and for the funding of national roads. The SANRAL Act will have to be amended substantially if this function is to be transferred to the RWDCA.

Depending on the policy decision taken by the Department with regard to the manner in which RWDCA is to be implemented it might be necessary to review and amend relevant Provincial Legislation to ensure that the provisions thereof are in line with National Legislation.

Drafting process:

If the RWDCA is established as a new entity, the process for compiling a business case, drafting the necessary bill and seeing it through the legislative process will be as outlined above. However, this option is not recommended: the first option of

amending the SANRAL Act to empower SANRAL to raise these charges is recommended.

The drafting of an amendment bill and seeing it through the legislative process is expected to take approximately 2 years. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2012.

3.3.2.5 South African National Roads Agency (SANRAL)

As found in Phase 3 the following changes are required in this Institution:

- Include freight and passenger operator representation onto the board.
- Expand the road network so that SANRAL is responsible for roads of national importance on the primary and secondary networks and continuously add to those networks.

If the proposed institutional issues are implemented, then section 12 of the SANRAL Act must be amended to include freight and passenger operators to be represented on the board.

With regard to the second institutional issue, SANRAL has the ability to declare provincial and/or municipal roads as national roads and as toll roads, if the need arises and therefore it already has the legislative power to enlarge their portfolio. No amendments for this act will thus be required relating to this issue.

No legislative amendments at the provincial sphere are foreseen at this stage.

Drafting process:

The process for compiling an amendment bill and seeing it through the legislative process will be as outlined above. The drafting of the new Act and seeing it through the legislative process is expected to take approximately 2 years. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2012.

3.3.2.6 Provincial roads departments or agencies

The following is recommended for the Provincial Departments of Roads (or Agencies) under Institutional arrangements hereunder:

- Maintain equitable share contributions to provinces to ensure that “social” and “rural” roads are maintained in the interest of the country.
- Commission a national study to evaluate or audit the cost, effectiveness and efficiency of the provincial departments.

- After completion of the evaluation or audit study, to commission the development of standards that would allow for more effective and efficient operations on the provincial level, if applied.

After the proposed study has been completed it will become clear if any institutional changes to any Provincial Department need to be effected or not. The recommendations of the study could also result in certain legislative amendments.

Depending on the exact content of the Act establishing the TICH, it is possible that certain provincial acts will need to be amended to be in line with the TICH Act.

Drafting process:

The process of undertaking the above studies is expected to take approximately 3 years. If necessary, depending on the outcome of the studies, new legislation can be drafted if necessary.

3.3.2.7 Passenger Rail Agency of South Africa (PRASA)

If the proposed institutional issues are implemented, amendments should be made to the composition of the Board to include metros to be effectively represented on the Board.

If any of the proposed institutions, especially the proposed TER is established it is quite possible that legislation will have to be amended in order to correlate with the powers and functions of the TER.

The arrival of the planned TER on the rail transport scene will provide the rail industry with an added feature. However such expected arrival is not within the framework of current legislation and therefore legislation must be either drafted or it needs to be amended.

Drafting process:

To implement the recommendations, the Legal Succession to the South African Transport Services Act, 1989 will have to be amended. The process for compiling an amendment bill and seeing it through the legislative process will be as outlined above. The drafting of the new Act and seeing it through the legislative process is expected to take approximately 2 years. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2012.

3.3.2.8 Department of Transport: Rail

If the proposal relating to the substitution of the Rail National Safety Regulator by the TER is accepted, the National Railway Safety Regulator Act will have to be repealed and provision will have to be made in the TER Act for the execution of the first mentioned bodies by the TER.

The implementation of a Clearing House would also have an enormous impact on the acts and regulations that regulate PRASA and TRANSNET and a study will have to be done to determine what amendments should be affected to the legislation mentioned.

Drafting process:

The process for compiling the necessary bills and seeing them through the legislative process will be as outlined above and is expected to take approximately 2 years. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2012.

3.3.2.9 The Airports Company of South Africa (ACSA) and the ATNS Company of South Africa

If the TICH and the TER are established, it will have an impact on the Airports Company of South Africa as well as the ATNS Company because fees and tariffs will be regulated by the TER whereas the development of aviation infrastructure will be affected by the provisions of the proposed TICH Act. The existing legislation will therefore have to be amended to bring it in line with the new institutional dispensation.

Drafting process:

The process for compiling an amendment bill and seeing it through the legislative process will be as outlined above. The drafting of the new Act and seeing it through the legislative process is expected to take approximately 2 years. Allowing for delays during the 2010 World Cup it could be promulgated in the second half of 2012.

3.3.2.10 SA Maritime Safety Authority (SAMSA)

With reference to the proposal that functions must be rationalised it would be necessary to review all legislation regulating to shipping and marine related issues to identify legislative amendments that will have to be effected.

Drafting process:

The process of undertaking the above studies is expected to take approximately two years. Depending on the outcome of the studies, new legislation can be drafted if necessary.

3.3.2.11 National Ports Authority (NPA)

If the proposed institutional recommendations are accepted, then the National Ports Act, 2005 will have to be amended.

Drafting process:

The process of undertaking a study in connection with the recommendations is expected to take approximately two years. Depending on the outcome of the studies, new legislation can be drafted if necessary.

3.3.2.12 Ports Regulator

If the proposed institutional recommendations are implemented, then the National Ports Act, 2005 must be amended or the functions in the Act mentioned in Phase 3 must be repealed and must be taken-up in the proposed TER Act.

Drafting process:

The process of undertaking a study in connection with the recommendations is expected to take approximately two years. Depending on the outcome of the studies, new legislation can be drafted if necessary.

3.3.3 Implications of proposed legislative changes

In order to give effect to legislative amendments to be effected the establishment new statutory institutions it will be necessary to undertake detailed studies and analysis to develop the Institutional and Legislative framework as soon as possible.

Table 3.3.1 summarises the proposed financial and time implications of the recommended legislative changes.

Table 3.3.1: Proposed financial and time implications of the recommended legislative changes

NATIONAL														
						Short -Term						Medium -Term	Long- Term	
Category	#	Name of the Project	Status : Committed (Yes or No)	Is the project identified as NATMAP Critical Provincial Project (Yes or No)	Total/Residual Cost (R Million)	2010	2011	2012	2013	2014	2015	2015-2030	2030-2050
Legal	L1	Department of Transport - Multimodal Policy Forum - Legislative Revision	N	Y	2.0		2						
Legal	L2	Transport Investment Clearing House - Legislative Revisions	N	Y	3.0		1	2					
Legal	L3	Transport Economic Regulator - Legislative Revisions	N	Y	3.0		1	2					
Legal	L4	Road Weight Distance Charging entity - Legislative Revisions	N	Y	2.0		1	1					
Legal	L5	SANRAL - Legislative Revisions	N	Y	2.0		1	1					
Legal	L6	Provincial Departments of Roads - Legislative Revisions	N	Y	4.0		2	1	1				
Legal	L7	Passenger Rail Agency of South Africa (PRASA) - Legislative Revisions	N	Y	2.0		1	1					
Legal	L8	Department of Transport - Rail Legislative Revisions	N	Y	3.0		2	1					
Legal	L9	The Airports Company of SA (ACSA) and ATNS - Legislative Revisions	N	Y	2.0		1	1					
Legal	L10	SA Maritime Safety Authority (SAMSA) - Legislative Revisions	N	Y	4.0		2	2					
Legal	L11	National Ports Authority - Legislative Revisions	N	Y	2.0		1	1					
Legal	L12	Ports Regulator - Legislative Revisions	N	Y	2.0		1	1					
TOTAL					31.0	0	16	14	1	0	0	0	0

3.4 FINANCE AND FUNDING ARRANGEMENTS

3.4.1 NATMAP 2050 Financing Framework

International experience in market economies indicates some common practices, i.e., that public funding of transportation infrastructure is much more common than for transport operations. Further, that private ownership of transportation services is broadly common for freight than for passenger transport; predominant in road haulage, freight forwarding and air travel, but exceptional for railway services. Except for road passenger services, South Africa mirrors these international tendencies.

Government provision of transport services faces a number of constraints which distort optimal funding options adopted, and are exacerbated in a developmental state, viz.;

- Competition for resources from core government functions, and the inherent contradictions in trying to be policy maker or/and regulator of the subject operations;
- Managerial tensions of seeking commercial viability concurrently with social goals. This is further pronounced where subsidies underpin operational sustainability or/and where public service norms and procedures rather than operational needs drive/influence management practices;

- Technical efficiency losses/compromises where the activity creates surpluses which are then used to cross-subsidize other – often at the expense of capital formation and re-investment in the profitable activity, etc.

Fundamental to above issues is the reality that governments pursue many policy objectives in transportation – sometimes even parallel objectives that embody dynamic tensions, if not contradictions.

With regard to transport infrastructure, NATMAP 2050 recognises that much of it has attributes of natural monopolies, and, that the costs of provision more often than not are difficult to recover from users and hence engender distributive outcomes. As such, the funding options adopted for infrastructure provision impact more significantly on the achievability of NATMAP 2050 Funding Postulates prescriptions than is commonly the case for operational investments.

Notwithstanding the above, public ownership and operation of transport infrastructure is a legitimate and common policy choice. However, if chosen, the state-owned infrastructure provider must be subject to tests of efficiency and sustainability that NATMAP Funding Postulates prescribe. It is in this light that contributions calling vertical separation must be evaluated. Indeed, there is a *prima facie* case for vertical separation where the infrastructure is seen as a natural monopoly, but the service provision thereupon may be rendered competitively or, at least, periodically contestable. International evidence supports such a stance, for example, in port and airport infrastructure. However, in the case of rail, and mass transit (metros and tram systems), the evidence is more complex. The technological and economic interface between the infrastructure and the rolling stock that uses it is complex. When separated, the management of this interface can be difficult and/or costly. Also, international practice does not provide incontrovertible best practice of long-term sustainable on-track competition - especially for passenger rail. Of course, this does not preclude the introduction of periodic contestability of concessions or franchises.

Sectoral Funding Principles

Deriving from the notion of basic level of service under section 2.2 and the efficiency criterion in 2.3 as well as from the NATMAP 2050 Funding Postulates under section 3:

Road Mode

Road infrastructure (construction, rehabilitation and maintenance) is expected to continue to be funded by the public sector - including state agencies, during the planning period to 2050.

Road haulage should continue to be provided by the private sector in a competitive environment. However, user charges should increasingly reflect the cost of access to the publicly funded infrastructure. In line with international best practice outlined under section 5 above, user charges should also increasingly incorporate and reflect social marginal costs.

Passenger users should also be levied user charges; however, care should be taken not to engender access and affordability constraints which would violate the equity Funding Postulate. This will entail taking cognizance of the country's 3-sphere institutional and governance structure in devising user charges that follow the 4-level user charge evolution contemplated under section 5.2 above, viz., ownership fees (network access fee) accruing at local level, facility use fee accruing at local and provincial levels, weight-distance tax accruing at provincial and national levels, and environmental degradation charges accruing at national level.

Consequently, charges should reflect benefits that accrue to freight users relative to non-commercial passenger users.

Rail Mode

Rail infrastructure includes tracks, marshalling yards, power supply and catenaries, telecommunications and control systems, bridges and tunnels. International experience with vertical separation is not compelling, to a great extent due to the operational complexity that ensued where it was attempted.

For both passenger and freight operations on existing infrastructure, the integrated formula is best left in tact. However, access financial arrangements between SARCC and Freight Rail must be regulated, with access charge regime biased in favour of passenger transport, and freight gradually migrating towards an economic rates regime to better reflect the cost of infrastructure provision.
As a matter of policy and deference to rail efficiency for mass goods/passenger transportation, the charge regime should be consciously favoured against road.

The Gautrain and Moloto Corridor high speed rail on standard gauge lead the rail rejuvenation in SA. The momentum must be sustained. Future green-field rail projects such as high speed lines, new freight lines, major station developments and re-developments must consider incorporating PPPs and/or concession parties other than incumbents to instil a measure of competition in the provision of service – as well as infrastructure, where financially feasible.

In the meantime, branch line infrastructure needs to be housed in a dedicated rail infrastructure agency and alternative operation sought.

Maritime Mode

NATMAP 2050 favours the landlord model. In this model, the infrastructure provision is for a corporatized and commercially run ports landlord to provide navigation infrastructure, channel maintenance, wharves, utilities and common areas – such as the internal roads. However, the incumbent should look to enhance efficiency through outsourcing non-core/support activities tug services and maintenance. Shipping/barge and stevedoring services would be leased and/or competitively concessioned.

Pipeline Mode

The Pipeline mode infrastructure and operation should remain vertically integrated, but new capacity must be competitively concessioned.

Air Mode

Current ACSA – airport infrastructure and operation, and ATNS – air navigation infrastructure and operation should be retained under the regulated regime. As already the case, airport services – baggage handling, catering, aircraft refuelling, etc should be competitively concessioned. Car parks should be also tendered out. In essence, save for the ATNS function at airports, the preferred airport infrastructure provision model would simulate that of the maritime ports.

3.4.2 Expenditure Requirement of NATMAP Projects

The expenditure requirement of **NATMAP National** projects are presented in **Table 3.4.1.**

Table 3.4.1: Expenditure requirement of NATMAP National Projects

Category	Total/Residual Cost (R Million)	Short -Term (R million)					Medium -Term (R million)	Long-Term (R million)
		2010	2011	2012	2013	2014	2015-2030	2030-2050
Institutional	335	0	0	125	126	55	29	0
Legal	31	0	0	29	2	0	0	0
Planning-Passenger Operations	30	0	0	15	15	0	0	0
Planning-Freight Operations	126	0	0	10	4	0	112	0
Rail -Passenger Infrastructure	171,320	0	0	3,327	7,207	10,528	54,520	95,738
Rail -Freight Infrastructure	78,368	0	0	2,986	2,986	2,986	9,500	59,909
Road	19,830	0	0	7,500	2,830	2,000	7,500	0
Pipeline	11,200	5,200	3,000	3,000	0	0	0	0
Backlog Elimination	52,454	0	0	52,454	0	0	0	0
Routine/Periodic Maintenance: National Roads	26,905	0	0	121	121	121	11,375	15,167
Routine/Periodic Maintenance: Provincial Roads	72,946	0	0	410	410	410	30,736	40,981
Total : National Projects	**433,545**	**5,200**	**3,000**	**69,977**	**13,701**	**16,100**	**113,772**	**211,795**

Source: Consultants Estimates .1. Project Costs at Constant prices (2010)

The expenditure requirements of all NATMAP Provincial projects are presented in **Table 3.2.1**.

Table 3.4.2: Expenditure requirements of all NATMAP Provincial projects

Category	Total/Residual Cost (R Million)	Short -Term (R Million)					Medium - Term(R Million)	Long-Term(R Million)
		2010	2011	2012	2013	2014	2015-2030	2030-2050
Road								
Road-SANRAL(Toll+ Non-Toll)								
EC	6210	-	-	220	530	460	2500	2500
FS	1350	-	-	-	-	-	1350	0
GP	1678	-	-	505	750	424	-	-
KZN	26477	-	-	1984	2224	3899	11572	6798
LP	1948	-	-	67	84	1051	746	0
MP	1307	-	-	173	173	173	0	787
NC	1948	-	-	381	110	110	1347	0
NW	5618	-	-	2672	774	774	1088	311
WC	34269	-	-	1420	2635	4457	7011	18747
Total -Road-SANRAL(Toll+ Non-Toll)	**80805**	**0**	**0**	**7421**	**7279**	**11348**	**25613**	**29143**
Provincial Roads of National Importance								
EC	22,011	-	-	4,632	4,632	5,422	5,185	2,140
FS	3,162	-	-	242	126	135	2,258	400
GP	8,784	-	-	3,717	3,649	1,418	-	-
KZN	13,957	-	-	-	-	545	5,468	7,944
LP	1,586	-	-	325	500	500	261	0
MP	2,412	-	-	320	274	274	290	1,254
NC	2,473	-	-	123	36	36	0	2,279
NW	964	-	-	315	91	91	52	414
WC	29,709	-	-	1,377	2,017	4,920	14,749	6,648
Total -Provincial Roads of National Importance	**85,058**	**0**	**0**	**11,052**	**11,324**	**13,340**	**28,263**	**21,078**
Facilities								
Facilities-Passenger								
EC	150	-	-	0	5	65	65	15
FS	274	-	-	91	91	91	-	-
GP	150	-	-	69	60	21	-	-
KZN	0	-	-	-	-	-	-	-
LP	1,166	-	-	313	313	313	226	-
MP	8,497	-	-	5	41	38	8,413	-
NC	74	-	-	-	-	-	74	-
NW	60	-	-	-	-	-	60	-

Category	Total/Residual Cost (R Million)	Short -Term (R Million)					Medium - Term(R Million)	Long-Term(R Million)
		2010	2011	2012	2013	2014	2015-2030	2030-2050
WC	0	-	-	-	-	-	0	-
Total-Facilities(Passenger)	**10,370**	**0**	**0**	**479**	**510**	**528**	**8,837**	**15**
Facilities-Freight								
EC	100	-	-	-	-	-	100	0
FS	0	-	-	-	-	-	-	-
GP	20	-	-	7	7	7	-	-
KZN	0	-	-	0	0	0	-	-
LP	320	-	-	69	89	89	73	0
MP	204	-	-	68	68	68	-	-
NC	0	-	-	-	-	-	-	-
NW	0	-	-	-	-	-	-	-
WC	0	-	-	-	-	-	-	-
Total-Facilities(Freight)	**644**	**0**	**0**	**144**	**164**	**164**	**173**	**0**
Rail								
Rail-Freight Infrastructure								
EC	2,490	-	-	-	-	-	2,490	0
FS	200	-	-	-	-	-	0	200
GP	3,796	-	-	90	68	68	2,562	1,010
KZN	26,640	-	-	1,518	2,011	2,368	15,864	4,880
LP	3,102	-	-	-	-	-	3,102	0
MP	8,144	-	-	-	-	-	6,318	1,826
NC	6,286	-	-	609	609	0	4,920	148
NW	3,779	-	-	0	18	18	3,704	40
WC	4,708	-	-	38	41	92	250	4,286
Total -Rail (Freight Infrastructure)	**59,144**	**0**	**0**	**2,255**	**2,746**	**2,546**	**39,208**	**12,389**
Ports								
EC	10,382	-	-	-	-	-	6,078	4,304
FS		-	-	-	-	-	-	-
GP		-	-	-	-	-	-	-
KZN	80,210	-	-	17,177	6,871	6,871	29,880	19,410
LP		-	-	-	-	-	-	-
MP		-	-	-	-	-	-	-
NC		-	-	-	-	-	-	-
NW		-	-	-	-	-	-	-

Category	Total/Residual Cost (R Million)	Short -Term (R Million)					Medium - Term(R Million)	Long-Term(R Million)
		2010	2011	2012	2013	2014	2015-2030	2030-2050
WC	20,020	-	-	3,207	1,283	1,283	12,550	1,700
Total -Ports	**110,612**	**0**	**0**	**20,383**	**8,153**	**8,153**	**48,508**	**25,414**
Airports								
Airports-Infrastructure								
EC	2,205	-	-	63	167	263	1,712	0
FS	551	-	-	-	-	11	84	456
GP	14	-	-	5	5	5	-	-
KZN	24,560	-	-	166	166	207	7,855	16,165
LP	20	-	-	-	-	-	20	0
MP	256	-	-	-	-	-	150	106
NC	231	-	-	-	-	-	119	112
NW	91	-	-	-	-	-	0	91
WC	24,171	-	-	1,774	1,773	2,113	7,710	10,800
Total -Airports (Infrastructure)	**52,099**	**0**	**0**	**2,008**	**2,112**	**2,599**	**17,650**	**27,730**
Airports (Passenger Operations)								
EC	-	-	-	-	-	-	-	-
FS	-	-	-	-	-	-	-	-
GP	-	-	-	-	-	-	-	-
KZN	-	-	-	-	-	-	-	-
LP	-	-	-	-	-	-	-	-
MP	162	-	-	-	-	-	-	162
NC	7	-	-	-	-	-	-	7
NW	4	-	-	-	-	-	-	4
WC	-	-	-	-	-	-	-	-
Total -Airports (Passenger Operations)	**173**	**0**	**0**	**0**	**0**	**0**	**0**	**173**
Pipeline								
EC	500	-	-	-	-	-	500	-
FS	-	-	-	-	-	-	-	-
GP	-	-	-	-	-	-	-	-
KZN	-	-	-	-	-	-	-	-
LP	-	-	-	-	-	-	-	-
MP	-	-	-	-	-	-	-	-
NC	-	-	-	-	-	-	-	-
NW	-	-	-	-	-	-	-	-
WC	-	-	-	-	-	-	-	-

Category	Total/Residual Cost (R Million)	Short -Term (R Million)					Medium - Term(R Million)	Long-Term(R Million)
		2010	2011	2012	2013	2014	2015-2030	2030-2050
Total -Pipeline	**500**	**0**	**0**	**0**	**0**	**0**	**500**	**0**
Planning								
EC	236	-	-	31	25	39	75	65
FS	262	-	-	8	9	12	145	88
GP	7,004	-	-	391	1,170	3,220	2,222	0
KZN	0	-	-	0	0	0	0	0
LP	11,868	-	-	277	513	1,129	9,745	206
MP	2,485	-	-	40	132	120	102	2,090
NC	0	-	-	-	-	-	-	-
NW	17,801	-	-	-	-	-	15,570	2,231
WC	0	-	-	-	-	-	-	-
Total -Planning	**39,656**	**0**	**0**	**748**	**1,850**	**4,520**	**27,859**	**4,680**
NMT								
EC	2	-	-	1	-	-	-	-
FS	-	-	-	-	-	-	-	-
GP	-	-	-	-	-	-	-	-
KZN	-	-	-	-	-	-	-	-
LP	2,100	-	-	63	63	520	982	473
MP	468	-	-	51	44	44	328	-
NC	-	-	-	-	-	-	-	-
NW	-	-	-	-	-	-	-	-
WC	-	-	-	-	-	-	-	-
Total -NMT	**2,570**	**0**	**0**	**116**	**108**	**564**	**1,310**	**473**
Road-Freight Operations								
EC	215	-	-	12	22	32	150	-
FS	118	-	-	-	-	-	118	-
GP	-	-	-	-	-	-	-	-
KZN	-	-	-	-	-	-	-	-
LP	30	-	-	19	6	6	-	-
MP	5	-	-	2	2	2	-	-
NC	5	-	-	3	1	1	-	-
NW	-	-	-	-	-	-	-	-
WC	-	-	-	-	-	-	-	-
Total -Road (Freight Operations)	373	**0**	**0**	**36**	**30**	**40**	**268**	**0**
Total (RSA)	**442,003**	**0**	**0**	**44,642**	**34,276**	**43,802**	**198,189**	**121,095**

Source: Consultants Estimates .1. Project Costs at Constant prices (2010)

3.4.3 Comparison of Revenue And Expenditure

Table 3.4.3 compares the Revenue from various sources to the total expenditure in order to determine the amount of deficit, if any. Actions to fund deficits are also indicated.

Table 3.4.3: Comparison of Revenue and Expenditure

Category	Sources of Funding (R million)	Additional NATMAP Projects (R million)	Total Projects (Agency + NATMAP)	Deficit/Surplus	Downstream Action (in Case of Deficit)
Roads	**SANRAL (Toll+ Non Toll Capex Plans)**	**NATMAP Road Projects**			
2010	16,453	0	16,453	0	Treasury/Share of Access and User charges
2011	10,962	0	10,962	0	
2012	7,644	14,921	22,566	-14,921	
2013	8,409	10,109	23,330	-10,109	
2014	9,250	13,348	24,171	-13,348	
Provincial Roads of National Importance	**Access/User Charges**	**NATMAP Road Projects**			
2010	0	0	0	0	Utilise share of Access and User Charges
2011	0	0	0	0	
2012	32,161	11,052	11,052	21,110	
2013	88,089	11,324	11,324	76,765	
2014	91,749	13,340	13,340	78,409	
Maintenace/Elimination of Backlog/Overheads	**Existing Collection of licensing fees + Proposed Access/User Charges**				
2010	4,571	0	4,571	0	Surplus to be utilised to cover for road mode shortfall
2011	4,898	0	4,898	0	
2012	85,300	53,139	32,161	32,161	
2013	88,748	659	88,089	88,089	
2014	92,335	586	91,749	91,749	
Facilities	**Securitization/Value Capture**	**NATMAP Facilities Projects**			
2010	0	0	0	0	NDOT + Provincial DOT
2011	0	0	0	0	

Category	Sources of Funding (R million)	Additional NATMAP Projects (R million)	Total Projects (Agency + NATMAP)	Deficit/Surplus	Downstream Action (in Case of Deficit)
2012	0	623	623	0	
2013	0	674	674	0	
2014	0	692	692	0	
Rail -Freight Infrastructure	**Divisional Income -(TFR + Rail Engineering)**	**NATMAP Rail (Freight Infrastructure) Projects**			
2010	10,874	0	10,874	0	Deficit if any, Group Balance Sheet , Bond, Debt Funding, PSP for Operations
2011	11,130	0	11,130	0	
2012	8,812	5,242	14,054	-5,242	
2013	8,313	5,733	14,046	-5,733	
2014	7,335	5,532	12,867	-5,532	
Rail-Passenger Infrastructure	**PRASA**	**NATMAP Rail(Passenger Infrastructure) Projects**			
2010	7,688	0	7,688	0	Government Gurantee, Treasury
2011	8,608	0	8,608	0	
2012	Not Available	3,327	3,327	0	
2013	Not Available	7,207	7,207	0	
2014	Not Available	10,528	10,528	0	
Ports	**Divisional Income(NPA + Port Terminals)**	**NATMAP Port Projects**			
2010	6,717	0	6,717	0	Deficit if any, Group Balance Sheet , Bond, Debt Funding, PSP for Operations
2011	4,670	0	4,670	0	
2012	5,113	20,383	25,496	-20,383	
2013	4,305	8,153	12,458	-8,153	
2014	1,720	8,153	9,873	-8,153	
Pipeline	**Divisional Income(Petronet)**	**NATMAP Pipeline Projects**			
2010	4,356	0	4,356	0	Deficit if any, Group Balance Sheet , Bond, Debt Funding, PSP for Operations
2011	3,722	0	3,722	0	
2012	2,368	0	2,368	0	
2013	491	0	491	0	
2014	189	0	189	0	

Category	Sources of Funding (R million)	Additional NATMAP Projects (R million)	Total Projects (Agency + NATMAP)	Deficit/Surplus	Downstream Action (in Case of Deficit)
Airports (Infrastructure+ Operations)	**ACSA + ATNS**	**NATMAP Airport Projects**			
2010	304,935	0	304,935	0	Bond, Debt Funding, PSP for Operations
2011	574,830	0	574,830	0	
2012	2,099,850	2,008	2,101,858	-2,008	
2013	5,090,059	2,112	5,092,171	-2,112	
2014	5,057,491	2,599	5,060,090	-2,599	
All Planning Projects	**NDOT + Provincial DOT**	**NATMAP Planning Projects**			
2010	0	0	0	0	Deficit if any to be complemented by Treasury and PSP
2011	0	0	0	0	
2012	0	809	809	-809	
2013	0	1,898	1,898	-1,898	
2014	0	4,560	4,560	-4,560	

3.5 IMPLEMENTATION

The promulgation of a NATMAP 2050 Implementation Act, incorporating all facets of transportation planning across the spheres of government, fostering comprehensive co-ordination and co-operation, establishing norms and standards with regard to project analysis to incorporate both economic and financial assessment within given policy framework(s), integrated multi-modal goal achievement matrices that are measureable in response to land-use priorities and emerging land-use trends.

The NATMAP 2050 Implementation Act should – among other - prescribe:

- Planning cycles and plan interface among and between the various spheres of government,
- institutional support and executional structures (such as TICH),
- a seamless interface with the workings of the National Planning Commission as the primary input source for transportation investment throughout the country,
- the empowerment conditions for mode-specific role players to execute upon their sectoral mandates,

4 SUMMARY AND CONCLUSIONS

This Draft Version 1 of report of Phase 4 provides an Action Agenda, consists of an implementation plan, in terms of which the identified projects can be implemented. Projects are described and programmed into different time periods, and a Goal Achievement Matrix is applied in order to prioritise projects for implementation. Goals and objectives were formulated by means of which projects were prioritised. Financial, Institutional and Legal requirements for the successful implementation of the National Transport Master Plan is also provided.

To finalise Phase 4, another round of refinement and integration between provinces is required. The Phase 4 results will be presented to various Stakeholders at the last Round Table Conference of NATMAP, after which the final Phase 4 report will be produced.

Following final comments from KZN and national stakeholders, a final version of the reports of all Phases will be produced, which will be the conclusion of the current NATMAP project.

It is however crucial that NATMAP is implemented by all the transport authorities in the country. The DoT and public entities, SANRAL, TRANSNET, PRASA and ACSA, will have to play a crucial role to ensure that NATMAP is implemented. This first National Transport Master Plan must be regarded as only the start of a continuous process consisting of annual updates and refinement of the Plan. The proposed NATMAP Implementation Act will be crucial to facilitate coordination between all Stakeholders and effective implementation.

ADDENDUM A1

PROJECT DESCRIPTIONS FOR KZN PROVINCE

NATMAP 2050

Project Information and GAM Score (2010)

Project Information and GAM Score

KwaZulu Natal

GAM Score:	Project Name:	KZN N3 a
100	Project Description:	de Beer's Pass route construction between Keeversfontein and Warden

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R5,200.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Committed	PPP	N.A.

Institutional Responsibility:

N3 Toll Company

GAM Score:	Project Name:	Upgrade and Expand Durban Port (a)
100	Project Description:	Dbn container terminal re-engineering; Develop Dbn South Port port for containers; additional single bouy mooring for oil imports; reconstruct and deepen Maydon Warf berth; upgrade road and rail access.

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Ports	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R25,920,000.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Committed	Fiscus	Transnet

Institutional Responsibility:

Transnet

Project Information and GAM Score

GAM Score:	Project Name:	Upgrade and Expand Richards Bay Port (a)
100	Project Description:	Increase dry bulk handling facilities; Increase break bulk capacity; improve road and rail access

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Ports	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R5,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	Transnet funding

Institutional Responsibility:
Transnet

GAM Score:	Project Name:	Pietermaritzburg Airport Upgrade(a)
100	Project Description:	1. Construct of parallel taxiway 2. Construction of link taxiway to parallel taxiway 3. Relocation of fuel farm 4. upgrade of terminal building

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R20.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	Municipal funding

Institutional Responsibility:
Municipality

Project Information and GAM Score

GAM Score:	Project Name:	Pietermaritzburg Airport Upgrading (b
100	Project Description:	1. Upgrade runway to code 3C (Lengthen from 1,537 to 1,800m) 2. Upgrade Terminal Building to 300 pax per hr

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R20.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	Municipal funding

Institutional Responsibility:
Municipality

GAM Score:	Project Name:	Pietermaritzburg Airport Upgrading (C) ©
100	Project Description:	1. Upgrade runway to code 4C (2,400m x 45m) 2. Upgrade terminal building to capacity of 600 passengers per hour 3. Parking 6 x Code 3C

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R45.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	Municipal funding

Institutional Responsibility:
Municipality

Project Information and GAM Score

GAM Score:	Project Name:	Richards Bay Airport Upgrade (a)
100	Project Description:	1. Lengthen runway 1,500m to 1,800m 2. Widen runway 22m to 30m 3. New terminal building in new location (200 pax/hr) 4. new aircraft parking (3 x Code 3C)

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R50.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	PPP	N.A.

Institutional Responsibility:
Private company

GAM Score:	Project Name:	Richards Bay Airport Upgrade (b)
100	Project Description:	1. Upgrade runway to Code 4C 2. Upgrade terminal building to capacity of 300 passengers per hour 3. Parking 4 x Code 3C

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R80.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	PPP	N.A.

Institutional Responsibility:
Private company

Project Information and GAM Score

GAM Score:	Project Name:	Margate Airport Upgrading (a)
100	Project Description:	1. Upgrade runway to Code 3C 2. Construct new terminal building with capacity of 300 passengers per hour. 3. Parking 4 x Code 3C

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R40.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	Municipal

Institutional Responsibility:
Municipality

GAM Score:	Project Name:	New Airport at La Mercy (a)
100	Project Description:	1. Complete construction of new airport

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R460.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	ACSA funding

Institutional Responsibility:
ACSA

Project Information and GAM Score

GAM Score:	Project Name:	La Mercy Airport Upgrading (b)
100	Project Description:	1. Upgrade landside parking 2. Terminal upgrade 13 MAP

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R7,800.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	ACSA funding

Institutional Responsibility:
ACSA

GAM Score:	Project Name:	La Mercy Airport Upgrading (c)
100	Project Description:	1. Increase apron parking 2. Second runway (with taxiways and aviation aids) 3. Aircraft parking 4. Landside and terminal upgrade to 42 MAP

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R8,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	ACSA funding

Institutional Responsibility:
ACSA

Project Information and GAM Score

GAM Score:	Project Name:	Develop Second Airport near Durban
100	Project Description:	1. Identify Location 2. Reserve land for airport (4,000 ha) 3. Design and construction of airport 4. Airport to be operational by 2055

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Airports	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R8,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	ACSA funding

Institutional Responsibility:
ACSA

GAM Score:	Project Name:	KZN 7 Rail:Richards Bay - Piet Retief Improve capacity of the
100	Project Description:	Improve the capacity of the coal line between Richards Bay and Piet Retief through various projects to improve the reliability of the infrastructure and rolling stock

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Rail	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R5,656.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Other	Transnet

Institutional Responsibility:
Transnet

Project Information and GAM Score

GAM Score:	Project Name:	Multimodal transfer at Jameson Park for transfer from pipeline t
100	Project Description:	This project shall enable efficient transfer from pipiline to road mode at the transfer station.

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Pipelines	

Project Extent:	Project Location:
National	KwaZulu Natal Gauteng

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R20,000,000.	R.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Committed	Co-funding	N.A.

Institutional Responsibility:

Transnet/Sasol/PPP

GAM Score:	Project Name:	Multi products pipeline between Durban and Gauteng
100	Project Description:	The currently constrained pipeline environment between Durban and the interior , will be allleviated by the new 10,000 kl/annum pipeline which is due to build between Durban and coalbrook .

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Pipelines	

Project Extent:	Project Location:
National	KwaZulu Natal Gauteng

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R999,000,000.	R999,000,000.00	R999,000,000.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Committed	Co-funding	N.A.

Institutional Responsibility:

Transnet/Sasaol/PPP

Project Information and GAM Score

GAM Score:	Project Name:	KZN Wild Coast Road a
57	Project Description:	N2 / R61 Wild Coast Road from uMtavuma to Isipingo - Additional lanes, new interchanges

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,272.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Other	N.A.

Institutional Responsibility:

DoT / Toll Company

GAM Score:	Project Name:	KZN R34 a
54	Project Description:	Construction of new R34 heavy haul route between Richards Bay and Melmoth (73 km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R2,288.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	PPP	N.A.

Institutional Responsibility:

DoT / Toll company

Project Information and GAM Score

GAM Score:	Project Name:	Inter-city IRPTN Operational Plan
52.375	Project Description:	Develop Integrated Public Transport Network (IRPTN) for inter-city travel - Operational Plan, Business Plan, Financial Plan and Implementation Plan

Project Programming:	Project Type:	Other project type:
2010 - 2015	Planning	Planning related to Passenger Transpo

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R30,000,000.	R.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	N.A.

Institutional Responsibility:

DoT

GAM Score:	Project Name:	KZN N11 a
51	Project Description:	New road on N11 route to bypass the Ladysmith CBD

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R440.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	PPP	N.A.

Institutional Responsibility:

SANRAL

Project Information and GAM Score

GAM Score:	Project Name:	KZN N2N b
49.545	Project Description:	Additional lanes and interchange upgrading on N2 between N3 and Umhlanga

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R326.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:
SANRAL

GAM Score:	Project Name:	KZN N3 b
44.92	Project Description:	Additional lanes and interchange upgrading on N3 between Durban and Pietermaritzburg (140 lane km)

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,400.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:
DoT / SANRAL

Project Information and GAM Score

GAM Score:	Project Name:	KZN N2S b
43.55	Project Description:	Construction of P579 between Pinetown and Amanzimtoti to increase N2 corridor capacity

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,152.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT / eThekwini

GAM Score:	Project Name:	KZN R34 d
41	Project Description:	Construction of R34 heavy haul from N11 to N3 via Memel (29 km to KZN border)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,170.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

DoT / Toll Company

Project Information and GAM Score

GAM Score:	Project Name:	SA2 Rail a: Johannesburg - Durban High Speed Line
40.77	Project Description:	Feasibility study for a high speed standard gauge line between Johannesburg and Durban

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Rail	

Project Extent:	Project Location:
National	Mpumalanga KwaZulu Natal Gauteng

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R50.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	KZN Rail a
40.17	Project Description:	High speed rail line from Durban to Johannesburg

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Rail	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	N.A.

Institutional Responsibility:

Transnet

Project Information and GAM Score

GAM Score:	Project Name:	KZN Heavy Haul a
37.71	Project Description:	New dedicated heavy haul route from Durban container port/s to N2 (12 km)

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R720.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

DoT

GAM Score:	Project Name:	SA2 Rail b: Johannesburg - durban New High Speed line - Pro
37.12	Project Description:	Provide a high speed standard gauge line between Johannesburg and Durban - Detail planning and procurement

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	

Project Extent:	Project Location:
National	Mpumalanga KwaZulu Natal Gauteng

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R20,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	PPP

Institutional Responsibility:

DOT/PRASA/Transnet

Project Information and GAM Score

GAM Score:	Project Name:	KZN N3 c
37.05	Project Description:	Additional lanes and interchange upgrades on N3 between Pinetown and Nottingham Road (102 km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,122.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	PPP	N.A.

Institutional Responsibility:

N3 Toll Company

GAM Score:	Project Name:	KZN R617 / P604
36.95	Project Description:	a) Realignment and upgrading of P604 from Swartberg to Matatiele (57 km) b) Additional lanes on R617 from Bulwer to Kingscote (64 km)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R2,160.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT

Project Information and GAM Score

GAM Score:	Project Name:	KZN Heavy Haul b
36.75	Project Description:	New dedicated heavy haul route from N2 to Cato Ridge (65 km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R3,210.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

DoT

GAM Score:	Project Name:	KZN N2N e
36.05	Project Description:	Further additional lanes and interchange upgrading on N2 between: a) N3 and Umhlanga (12 lane km) b) KSIA and Stanger (78 lane km)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R2,170.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

SANRAL

Project Information and GAM Score

GAM Score:	Project Name:	KZN R34 c
36.05	Project Description:	Additional passing lanes on existing R34 heavy heavy haul from Melmoth to Vryheid (103 km)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,248.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

DoT / Toll company

GAM Score:	Project Name:	KZN Wild Coast Road b
36.05	Project Description:	N2 / R61 Wild Coast Road from Park Rynie to Kingsburgh - additional lanes, new interchanges

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R636.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

Dot / Toll Company

Project Information and GAM Score

GAM Score:	Project Name:	KZN N2N d
34.8	Project Description:	Additional lanes and interchange upgrades on N2 between a) N3 and Umhlanga (49 lane kn) b) Umhlanga and KSIA (20 lane km) c) Mtunzini and Mtubatuba (152 lane km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R2,210.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

SANRAL

GAM Score:	Project Name:	KZN P200
34.19	Project Description:	Upgrading of P102 from Sezela to Umzumbe with additional lanes and intersection improvements

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R648.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT

Project Information and GAM Score

GAM Score:	Project Name:	KZN N11 c
33.84	Project Description:	Additional lanes and interchange/intersection upgrades on N11 between N3 and Clontarf (120 lane km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,200.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

SANRAL

GAM Score:	Project Name:	KZN KSIA N3 Link
33.2	Project Description:	New link road from King Shaka International Airport to N3 near Pietermaritzburg (104 km)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,980.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

DoT / Toll Company

Project Information and GAM Score

GAM Score:	Project Name:	KZN rail b
33.09	Project Description:	Rail link between inland port (near Cato Ridge?) and Durban Southern Industrial Basin, including port/s

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Rail	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

Transnet

GAM Score:	Project Name:	KZN N2N f
33.05	Project Description:	Additional lanes and interchnge upgrading on N2 between N3 and Umhlanga

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R518.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

SANRAL

Project Information and GAM Score

GAM Score:	Project Name:	KZN N2N a
31.845	Project Description:	Additional lanes, including sections of dedicated public transport lanes, and interchange upgrades on R102 routes between N3 and Stanger

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R992.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT / eThekwini

GAM Score:	Project Name:	KZN R34 b
31.8	Project Description:	Realignment and upgrading of R34 heavy haul route from Vryheid to N11 (103 km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R960.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	PPP	N.A.

Institutional Responsibility:

DoT / Toll Company

Project Information and GAM Score

GAM Score:	Project Name:	KZN N11 b
31.55	Project Description:	Additional lanes and interchange/intersection upgrades between on N11 between Balangeich and Volksrust (110 lane km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,210.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

SANRAL

GAM Score:	Project Name:	KZN R102 a
31.35	Project Description:	Upgrading of R102 from Umzumbe to Port Shepstone with additional lanes and intersection improvements

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R225.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT

Project Information and GAM Score

GAM Score:	Project Name:	KZN R74 a
30.84	Project Description:	R74 Oliviershoek Pass upgrade (13 km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R420.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT

GAM Score:	Project Name:	Upgrade and Expand Durban Port (b)
29.3	Project Description:	Develop Dbn South Port for containers; Upgrade Bluff and Maydon Warf bulk terminals; Reconstruct and deepen Maydon Warf berths; improve road and rail access

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Ports	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R13,090,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	Transnet funding

Institutional Responsibility:

Transnet

Project Information and GAM Score

GAM Score:	Project Name:	Upgrade and Expand Durban Port (c)
29.3	Project Description:	Develop Dbn South port for containers; Upgrade terminals to increase throughput of containers and for larger vessels; Increase bulk liquid capacity; Bayhead vehicle park

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Ports	
Project Extent:	**Project Location:**	
Provincial	KwaZulu Natal	

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R14,210,000.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	Transnet funding
Institutional Responsibility:		
Transnet		

GAM Score:	Project Name:	KZN N3 d
28.88	Project Description:	New Pietermaritzburg Bypass between Lion Park Interchange and Nottingham Road

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	
Project Extent:	**Project Location:**	
National	KwaZulu Natal	

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R2,688.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	PPP	N.A.
Institutional Responsibility:		
DoT / Toll Company		

Project Information and GAM Score

GAM Score:	Project Name:	KZN N2N c
28.35	Project Description:	Construction of R102 Tongaat bypass (48 lane km), plus additional lanes and intersection upgrades on R102 between: a) Tongaat and Stanger (50 lane km) b) Gingindlovu and Mtunzini (34 lane km)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Roads	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,188.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT

GAM Score:	Project Name:	Upgrade and Expand Richards Bay Port (b)
27.7	Project Description:	Additional coal berths; Increase dry bulk handling facilities; Increase break bulk capacity; Increase bulk liquid tanker berth capacity; Improve road and rail access

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Ports	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R16,790,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	Transnet funding

Institutional Responsibility:

Transnet

Project Information and GAM Score

GAM Score:	Project Name:	Upgrade and Expand Richards Bay Port (c)
27.7	Project Description:	Additional coal berths; Increase break bulk capacity; Increase bulk liquid tanker berth capacity.

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Ports	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R5,200,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	Transnet funding

Institutional Responsibility:

Transnet

GAM Score:	Project Name:	KZN N2S c
26.84	Project Description:	N2 additional lanes and new interchanges between: a) Port Shepstone and Izingolweni (74 lane km) b) Weza and Brookes Nek (84 lane km)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,422.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

SANRAL

Project Information and GAM Score

GAM Score:	Project Name:	KZN R620
25.68	Project Description:	Upgrading of R620 from Port Shepstone to Southbroom with additional lanes, parallel service roads and intersection improvements

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R320.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:
Municipality

GAM Score:	Project Name:	KZN 5 Rail: Stanger - Richards Bay: Doubling
24.55	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R4,658.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Other	Transnet

Institutional Responsibility:
Transnet

Project Information and GAM Score

GAM Score:	Project Name:	SA 2Rail c: Johannesburg - durban New high speed rail
24.47	Project Description:	Provide a high speed rail between Johannesburg and Durban - Construction & procurement of rolling stock

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Rail	

Project Extent:	Project Location:
National	Mpumalanga KwaZulu Natal Gauteng

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R77,950.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	PPP

Institutional Responsibility:

DOT/PRASA/Transnet

GAM Score:	Project Name:	KZN R74 b
23.75	Project Description:	Additional lanes and upgrading of R74 between Frere and Bergville (46 km)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R468.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

KZN DoT

Project Information and GAM Score

GAM Score:	Project Name:	KZN R68
21.35	Project Description:	Additional lanes and upgrading on R68 from Dundee to Nqutu (54 km)

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Roads	
Project Extent:	**Project Location:**	
Provincial	KwaZulu Natal	

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R918.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	N.A.
Institutional Responsibility:		
KZN DoT		

GAM Score:	Project Name:	KZN 4 Rail a: Durban - Stanger: Upgrade & Provide 3rd Line
20.14	Project Description:	Planning & procurement: Upgrade existing lines and provide a 3rd line in suburban area.

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Rail	
Project Extent:	**Project Location:**	
Provincial	KwaZulu Natal	

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R600.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Other	Transnet
Institutional Responsibility:		
Transnet		

Project Information and GAM Score

GAM Score:	Project Name:	KZN 4 Rail b: Durban - Stanger Provide 3rd Line
20.14	Project Description:	Construction of a 3rd line and upgrading of existing lines.

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R5,622.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Other	Transnet

Institutional Responsibility:

Transnet

GAM Score:	Project Name:	KZN 11 Rail: Cato Ridge New container depot
18.14	Project Description:	Provide an new container terminal at Cato Ridge to reduce road traffic between Cato Ridge and Bay Head.

Project Programming:	Project Type:	Other project type:
2015 - 2030	Freight Transport	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R962.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Other	Transnet

Institutional Responsibility:

Transnet

Project Information and GAM Score

GAM Score:	Project Name:	KZN 2 Rail a: Johannesburg - Durban Provide 3rd line
13.54	Project Description:	Planning & commencement of construction of a 3rd line between Durban and Johannesburg. (Note: Project SA 2 is an alternative to this project)

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	

Project Extent:	Project Location:
National	Mpumalanga KwaZulu Natal Gauteng

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R14,106.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Other	Transnet

Institutional Responsibility:

Transnet

GAM Score:	Project Name:	KZN 6 Rail: Richards Bay - Golela Improve capacity
13.54	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2015 - 2030		

Project Extent:	Project Location:
Regional	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,045.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Other	Transnet

Institutional Responsibility:

Transnet

Project Information and GAM Score

GAM Score:	Project Name:	KZN 2 Rail b: Johannesburg - Durban: Provide 3rd line
13.54	Project Description:	Construction of a third line between Johannesburg and Durban

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Rail	

Project Extent:	Project Location:
National	Mpumalanga KwaZulu Natal Gauteng

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R21,158.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Other	Transnet

Institutional Responsibility:

Transnet

GAM Score:	Project Name:	KZN 9 Rail: Umbogintwini - Umkomaas Double rail line
11.89	Project Description:	Double the rail line between Umbogintwini and Umkomaas and improve signalling

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,190.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Fiscus	Transnet

Institutional Responsibility:

PRASA

Project Information and GAM Score

GAM Score:	Project Name:	KZN 3 Rail: Bayhead - Cato Ridge New Bypass
11.14	Project Description:	Provide a new bypass between Bathead and Cato Ridge to avoid suburban trains

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	
Project Extent:	**Project Location:**	
Provincial	KwaZulu Natal	

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R6,222.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Other	Transnet
Institutional Responsibility:		
Transnet		

GAM Score:	Project Name:	KZN 1 Rail: Durban - Palmford Signal infilling
9.37	Project Description:	Provide intermediate signals on the main line to increase capacity

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	
Project Extent:	**Project Location:**	
National	KwaZulu Natal	

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R143.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Not committed	Other	Transnet
Institutional Responsibility:		
Transnet		

Project Information and GAM Score

GAM Score:	Project Name:	KZN N2S a
3.75	Project Description:	Additional lanes and interchange upgrading on N2 between the R603 (Winkelspruit) and N3

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Roads	

Project Extent:	Project Location:
National	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R461.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	PPP	N.A.

Institutional Responsibility:

Sanral

GAM Score:	Project Name:	KZA 10 Rail: Umkomaas - Kelso Double rail line
0.1	Project Description:	Double the rail line between Umkomaas and Kelso and improve signalling

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Rail	

Project Extent:	Project Location:
Provincial	KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R1,048.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:

PRASA

Project Information and GAM Score

GAM Score:	Project Name:	KZN 8 Rail:Richards Bay - Broodsnyersplaas Provide 3rd line
-10.45	Project Description:	Provide a 3rd line for the coal line between Richards Bay and Broodsnyersplaas

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Rail	

Project Extent:	Project Location:
National	Mpumalanga KwaZulu Natal

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R29,803.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Other	Transnet

Institutional Responsibility:
Transnet

ADDENDUM A2

PROJECT DESCRIPTIONS FOR NATIONAL PROJECTS

NATMAP 2050

Project Information and GAM Score (2010)

Project Information and GAM Score

National

GAM Score:	Project Name:	Create Transport Investment Clearing House (TICH)
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	Create Transport Economic Regulator
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R20,000,000.00	R.00
Commited Funding or not:	**Funding mechanisims:**	**Other Funding Mechnisims:**
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	Create Weight Distance Charging Agency
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R80,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	Implement road freight operator register and licensing system
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	Changes to SANRAL to expand board and portfolia
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	Provincial Departments of Roads: Audit and develop standards
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R20,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	Transnet Ringfencing and Divisionalisation
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R80,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	DPE or Transnet

Institutional Responsibility:

DOT

GAM Score:	Project Name:	PRASA Ringfencing and Divisionalisation
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R20,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	PRASA?

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	DOT - Expand Rail Division to give strategic guidance
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R20,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	ACSA - Expand portfolio and board
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	ACSA?

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	DOT - Expand Aviation Division to give strategic guidance
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	SA Marine Safety Authority - review of responsibilities and alig
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	DOT - Create Multimodal Policy Forum
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R5,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	National Ports Authority - structure to allow for more competitio
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	DOT Maritime Division - expand and align responsibilities
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

GAM Score:	Project Name:	Reorganise DOT to create structure for the management of reg
100	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Institutional	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R10,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Committed	Fiscus	N.A.

Institutional Responsibility:

DOT

Project Information and GAM Score

GAM Score:	Project Name:	Moloto Jane Furse: Extend New Moloto Rail corridor
37.78	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2015 - 2030	Infrastructure - Rail	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R9,500,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:
Unknown

GAM Score:	Project Name:	Pretoria Moloto New Medium Speed Rail line and passenger s
36.18	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2010 - 2015	Infrastructure - Rail	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R12,000,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:
DOT

Project Information and GAM Score

GAM Score:	Project Name:	Pretoria - Polokwane High Speed Rail
10.77	Project Description:	No description provided

Project Programming:	Project Type:	Other project type:
2030 - 2050	Infrastructure - Rail	

Project Extent:	Project Location:
National	National

First Order Lifetime Cost:	Capital Cost:	Maintance/Operational Cost:
R.	R14,000,000,000.00	R.00

Commited Funding or not:	Funding mechanisims:	Other Funding Mechnisims:
Not committed	Fiscus	N.A.

Institutional Responsibility:
DOT

ADDENDUM A3

PROJECT DESCRIPTIONS FOR INSTITUTIONAL PROJECTS

1. Project Reference

Project Name	Department of Transport Multimodal Policy Forum
Reference number	I1

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

Create a Multimodal Policy Forum in the DOT where policy can be developed that can guide modal choices in order to allow the different modes to focus on mode specific issues. Currently a lot of energy is wasted in turf-wars between modes "fighting" for territory. These can be done away with by keeping the modal choice debate out of the mode specific debate.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R5.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport

1. Project Reference

Project Name	Create Transport Investment Clearing House (TICH)
Reference number	I2

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

Create a Transport Infrastructure Clearing House (TICH) as an entity of the DOT responsible for evaluating transport infrastructure projects that require national funding for appropriateness and to ensure that the appropriate mode is selected. The entity can originally be located inside the DOT and over time be constituted separately if necessary. The entity to consist of a few multi modal infrastructure experts as well as a few modal experts with the rest of technical advisors to be provided by the proposed project motivators.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R20.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport

1. Project Reference

Project Name	Create Transport Economic Regulator
Reference number	I3

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	X

Other:

Regional		Committed	
National	X	Not committed	X
Provincial			

3. Description of Project

Create a Transport Economic Regulator as an entity dealing with the economic regulation of all transport modes. There are generic principles that apply to the economic regulation of transport which could be dealt with on the policy and principle level. Mode specific issues can be dealt with in the modal divisions of the Transport Economic Regulator similar to the approach taken by ICASA.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R20.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport

1. Project Reference

Project Name	Create Road Weight Distance Charging entity
Reference number	I4

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	X

Other:

Regional		Committed	
National	X	Not committed	X
Provincial			

3. Description of Project

To allow for the national charging of road usage a national Road Weight Distance Charging entity is required to collect user charges for the road networks of the country. As such it should own the national infrastructure to measure usage and systems to charge for usage. The agency could be managed as a division inside SANRAL however it would have to be in a position where it can direct funding to provinces as well.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R80.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport

1. Project Reference

Project Name	Implement Road Freight Operator Register and Licensing System
Reference number	I5

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

Specify all aspects of an effective Road Freight Operator Registration System . DOT will create registry office and will manage the implementation and operational controls , with enforcement delegated to provinces

System to include the testing and certification .of “Competent Persons” who will be issued with a Certificate of Professional Competence “(CPC) and this will be a mandatory requirement to operate road freight transport.

Application processes to be designed for Transport companies to be registered and to record all pertinent details Name of Operator, Addresses, CPC holder per depot, Drivers employed, Vehicles operated, premises , maintenance arrangements etc All operators will have unique registration numbers.

Operating offences related to vehicles, drivers, and other offences reported by SAPS or provinces as well administrative contraventions will be linked to operator number and will be placed on record for analysis and action.

Foreign operators, vehicles and driver will be captured via C-BRTA as a DOT agency.

Arrangements for e-filing of monthly reports or alternatives e.g. fax, post office scan, etc

Once system has been populated and is operational non-commercial performance reporting will be introduced into the monthly reporting system.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R10.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	SANRAL Expand board to allow for operator participation and expand network responsibilities
Reference number	I6

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

The expansion of the board of SANRAL to allow for operator participation is not expected to result in additional investment requirements. The expansion of the road network that SANRAL is responsible for would require additional funds to in future flow to SANRAL to fund additional works. The structures of SANRAL would require marginal increases in personnel. Fund an investigation into the best way to expand the SANRAL responsibilities and specific requirements that would result.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R10.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	Provincial Departments of Roads (or agencies) - Audit operations and development of standards for compliance
Reference number	I7

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

Concern has been raised about the service delivery of some provincial roads departments and the disparity in their cost structures. A national audit of costs, effectiveness and efficiency of activities of the provincial roads departments is required. Based on the audit standards should be developed for their operations to comply with. Possible restructuring should be addressed from findings of the audits as and where required.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R20.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	Ringfencing and divisionalisation of Transnet into Rail Infrastructure Divisions and Rail Service Operator Divisions
Reference number	I8

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	X

Other:

Regional		Committed	
National	X	Not committed	X
Provincial			

3. Description of Project

Concerns have been raised about the lack of competition in the freight rail environment as well as the disuse/neglect of branch lines. It is proposed that the infrastructure and operations of the Transnet be ringfenced as a first step. Further that the branchlines be separated inside the rail infrastructure entity so that it can be managed separately. Allow for third party operations on the national network by using the Transport Economic Regulator to regulate access and charges on the national rail network.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R80.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Transnet to initiate with the involvement of DPE

1. Project Reference

Project Name	Divisionalisation of PRASA into Rail Infrastructure Divisions and Rail Service Operator Divisions
Reference number	I9

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

PRASA – ringfence costs and activities of infrastructure and operational divisions; ensure metros are effectively represented on board; allow for performance agreements with metros to ensure accountability; promote third party operations on commuter network; ensure rail fares cover operational cost and reduce subsidy dependence; to lay the foundation for possible future vertical separation.

.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R20.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	Department of Transport – Expand Rail Division to undertake strategic planning and guidance of rail infrastructure
Reference number	I10

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail	X	Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	

Other:

Regional		Committed	
National		Not committed	X
Provincial	X		

3. Description of Project

The Department of Transport's current lack of involvement in the strategic planning of the rail network and guidance to institutions like Transnet and PRASA is of concern. The DOT should take an active role in the guidance of the strategic direction and planning of its rail infrastructure assets inclusive of the roll-out of a future standard gauge network.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R20.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

10. Project Reference

Project Name	ACSA expand portfolio of airports managed
Reference number	I11

11. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail	X	Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	

Other:

Regional		Committed	
National		Not committed	X
Provincial	X		

12. Description of Project

ACSA – expand number of airports managed; allow for competition between airports. This is expected to have a marginal impact on the personnel complement of ACSA. Additional operational expenses to be financed out of user charges.

13. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

14. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

15. Motivation

Goal achievement matrix score

16. First Order Cost Estimate

Total R10.0 million

17. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

18. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	Department of Transport – Aviation Division Expand responsibilities strategic management and National Airports Development Master Plan
Reference number	I12

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

Department of Transport Aviation Division: ensure strategic management of airport infrastructure; initiate a National Airport Development Master Plan; etc

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R10.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	SA Marine Safety Authority – Review responsibilities and align with other modes
Reference number	I13

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	X

Other:

Regional		Committed	
National	X	Not committed	X
Provincial			

3. Description of Project

SAMSA (SA Marine Safety Authority) – review roles and expand to eliminate overlaps with other institutions; ensure the whole spectrum of marine safety issues is covered. Ensure that approach is homogeneous with other modes.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R10.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	National Ports Authority – restructure to allow for more competition
Reference number	I14

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	**X**

Other:

Regional		Committed	
National	**X**	Not committed	**X**
Provincial			

3. Description of Project

National Ports Authority – competition be allowed between ports; structure ports into separate business entities; allow for specialisation and niche markets between ports.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R10.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	Department of Transport Marine Division – expand and align responsibilities
Reference number	I15

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail		Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	X

Other:

Regional		Committed	
National	X	Not committed	X
Provincial			

3. Description of Project

Department of Transport Maritime Division – create functional area responsible for promotion of inter-coastal shipping; create coordination structures with all relevant entities and institutions.

4. Programming

2010 to 2015	X
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R10.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	X
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

1. Project Reference

Project Name	Reorganise Department of Transport to create structure for Management of regulated competition for all modes
Reference number	I16

2. Category of Project

Infrastructure – roads		Passenger transport	
Infrastructure – rail	X	Freight transport	
Infrastructure – ports		Legal / policy	
Infrastructure – airports		Financing	
Infrastructure - pipelines		Institutional	

Other:

Regional		Committed	
National	X	Not committed	X
Provincial			

3. Description of Project

Reorganise DOT to create structure for effective management of regulated competition between operators in all freight modes :

Create or reorganise Freight Regulation Division to cover Road, rail, ports, pipelines and air transport :

- Safety Regulator [Road, rail, ports, pipeline, air]
- Economic Regulator [Road, rail, ports, pipeline, air]
- State Asset Agency [Roads Agency, Rail Track Agency, Ports authorities Pipeline Agency , Airports Agency]

The restructuring should be achieved by retraining and deployment of existing staff.

Consultants will be needed to assist with the integration of existing entities and agencies into a cohesive system as well as the development of the management and monitoring systems required to create registers and define procedures.

4. Programming

2010 to 2015	**X**
2015 to 2030	
2030 to 2050	

5. Location

Western Cape		Gauteng	
Northern Cape		Mpumalanga	
Eastern Cape		Limpopo	
Free State		North West	
KwaZulu Natal		Outside of South Africa	

6. Motivation

Goal achievement matrix score

7. First Order Cost Estimate

Total R10.0 million

8. Proposed Funding Mechanisms

Funding committed yet? No

National fiscus	**X**
Provincial funding	
Public enterprise	
Private sector	

Other

9. Proposed Institutional Responsibility

Other Department of Transport to initiate

ADDENDUM B1

GOAL ACHIEVEMENT RATINGS FOR KZN PROVINCIAL PROJECTS

NATMAP 2050

GAM Score per Project - Provincial

KwaZulu Natal

GAM Score	Project Name:	Programming	Project Category	Project Category Other	Project extent	Funding	Other Funding	First Order Lifetime Cost	Capital Cost	Maintance/ Operational Cost	Funding Mechanisims	Institutional Responsibility
57	KZN Wild Coast Road a	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,272.00	Other	DoT / Toll Company
54	KZN R34 a	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R2,288.00	PPP	DoT / Toll company
52.375	Inter-city IRPTN Operational Plan	2010 - 2015	Planning	Planning related to Passenger Transport	National	Not committed	N.A.	R30,000,000.	R.00	R.00	Fiscus	DoT
100	KZN N3 a	2010 - 2015	Infrastructure - Roads		National	Committed	N.A.	R.	R.00	R5,200.00	PPP	N3 Toll Company
51	KZN N11 a	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R440.00	PPP	SANRAL
49.545	KZN N2N b	2010 - 2015	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R326.00	PPP	SANRAL
44.92	KZN N3 b	2010 - 2015	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,400.00	PPP	DoT / SANRAL
43.55	KZN N2S b	2010 - 2015	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R1,152.00	Fiscus	KZN DoT / eThekwini
41	KZN R34 d	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,170.00	PPP	DoT / Toll Company
40.77	SA2 Rail a: Johannesburg - Durban High Speed Line	2010 - 2015	Infrastructure - Rail		National	Not committed	N.A.	R.	R.00	R50.00	Fiscus	DOT
40.17	KZN Rail a	2010 - 2015	Infrastructure - Rail		National	Not committed	N.A.	R.	R.00	R.00	Fiscus	Transnet
37.71	KZN Heavy Haul a	2010 - 2015	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R720.00	Fiscus	DoT
37.12	SA2 Rail b: Johannesburg - durban New High Speed line - Procurement	2015 - 2030	Infrastructure - Rail		National	Not committed	PPP	R.	R.00	R20,000.00	Fiscus	DOT/PRASA/Transnet
37.05	KZN N3 c	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,122.00	PPP	N3 Toll Company
100	New Airport at La Mercy (a)	2010 - 2015	Infrastructure - Airports		National	Committed	ACSA funding	R.	R.00	R460.00	Other	ACSA

GAM Score per Project - Provincial

100	La Mercy Airport Upgrading (c)	2030 - 2050	Infrastructure - Airports		National	Committed	ACSA funding	R.	R.00	R8,000.00	Other	ACSA
100	Develop Second Airport near Durban	2030 - 2050	Infrastructure - Airports		National	Committed	ACSA funding	R.	R.00	R8,000.00	Other	ACSA
36.95	KZN R617 / P604	2030 - 2050	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R2,160.00	Fiscus	KZN DoT
36.75	KZN Heavy Haul b	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R3,210.00	Fiscus	DoT
36.05	KZN N2N e	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R2,170.00	PPP	SANRAL
36.05	KZN R34 c	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,248.00	Fiscus	DoT / Toll company
36.05	KZN Wild Coast Road b	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R636.00	PPP	Dot / Toll Company
34.8	KZN N2N d	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R2,210.00	PPP	SANRAL
34.19	KZN P200	2015 - 2030	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R648.00	Fiscus	KZN DoT
33.84	KZN N11 c	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,200.00	PPP	SANRAL
33.2	KZN KSIA N3 Link	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,980.00	Fiscus	DoT / Toll Company
33.05	KZN N2N f	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R518.00	PPP	SANRAL
33.09	KZN rail b	2010 - 2015	Infrastructure - Rail		National	Not committed	N.A.	R.	R.00	R.00	Fiscus	Transnet
100	Multi products pipeline between Durban and Gauteng	2010 - 2015	Infrastructure - Pipelines		National	Committed	N.A.	R999,000,000.	R999,000,000.00	R999,000,000.00	Co-funding	Transnet/Sasaol/PPP
31.845	KZN N2N a	2015 - 2030	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R992.00	Fiscus	KZN DoT / eThekwini
31.8	KZN R34 b	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R960.00	PPP	DoT / Toll Company
31.55	KZN N11 b	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,210.00	PPP	SANRAL
31.35	KZN R102 a	2010 - 2015	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R225.00	Fiscus	KZN DoT

GAM Score per Project - Provincial

30.84	KZN R74 a	2015 - 2030	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R420.00	Fiscus	KZN DoT
100	Multimodal transfer at Jameson Park for transfer from pipeline to road	2010 - 2015	Infrastructure - Pipelines		National	Committed	N.A.	R20,000,000.	R.00	R.00	Co-funding	Transnet/Sasol/PPP
100	Upgrade and Expand Durban Port (a)	2010 - 2015	Infrastructure - Ports		Provincial	Committed	Transnet	R.	R.00	R25,920,000.00	Fiscus	Transnet
29.3	Upgrade and Expand Durban Port (b)	2015 - 2030	Infrastructure - Ports		Provincial	Not committed	Transnet funding	R.	R.00	R13,090,000.00	Fiscus	Transnet
29.3	Upgrade and Expand Durban Port (c)	2030 - 2050	Infrastructure - Ports		Provincial	Not committed	Transnet funding	R.	R.00	R14,210,000.00	Fiscus	Transnet
28.88	KZN N3 d	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R2,688.00	PPP	DoT / Toll Company
28.35	KZN N2N c	2015 - 2030	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R1,188.00	Fiscus	KZN DoT
27.7	Upgrade and Expand Richards Bay Port (b)	2015 - 2030	Infrastructure - Ports		Provincial	Not committed	Transnet funding	R.	R.00	R16,790,000.00	Fiscus	Transnet
27.7	Upgrade and Expand Richards Bay Port (c)	2030 - 2050	Infrastructure - Ports		Provincial	Not committed	Transnet funding	R.	R.00	R5,200,000.00	Fiscus	Transnet
100	Pietermaritzburg Airport Upgrading (C) ©	2030 - 2050	Infrastructure - Airports		National	Committed	Municipal funding	R.	R.00	R45.00	Other	Municipality
26.84	KZN N2S c	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R1,422.00	PPP	SANRAL
25.68	KZN R620	2010 - 2015	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R320.00	Fiscus	Municipality
24.55	KZN 5 Rail: Stanger - Richards Bay: Doubling	2015 - 2030	Infrastructure - Rail		Provincial	Not committed	Transnet	R.	R.00	R4,658.00	Other	Transnet
24.47	SA 2Rail c: Johannesburg - durban New high speed rail	2030 - 2050	Infrastructure - Rail		National	Not committed	PPP	R.	R.00	R77,950.00	Fiscus	DOT/PRASA/Transnet
23.75	KZN R74 b	2030 - 2050	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R468.00	Fiscus	KZN DoT
100	Richards Bay Airport Upgrade (b)	2030 - 2050	Infrastructure - Airports		National	Committed	N.A.	R.	R.00	R80.00	PPP	Private company
100	Margate Airport Upgrading (a)	2030 - 2050	Infrastructure - Airports		National	Committed	Municipal	R.	R.00	R40.00	Other	Municipality
21.35	KZN R68	2030 - 2050	Infrastructure - Roads		Provincial	Not committed	N.A.	R.	R.00	R918.00	Fiscus	KZN DoT

GAM Score per Project - Provincial

20.14	KZN 4 Rail a: Durban - Stanger: Upgrade & Provide 3rd Line	2010 - 2015	Infrastructure - Rail		Provincial	Not committed	Transnet	R.	R.00	R600.00	Other	Transnet
20.14	KZN 4 Rail b: Durban - Stanger Provide 3rd Line	2015 - 2030	Infrastructure - Rail		Provincial	Not committed	Transnet	R.	R.00	R5,622.00	Other	Transnet
18.14	KZN 11 Rail: Cato Ridge New container depot	2015 - 2030	Freight Transport		Provincial	Not committed	Transnet	R.	R.00	R962.00	Other	Transnet
100	Richards Bay Airport Upgrade (a)	2010 - 2015	Infrastructure - Airports		National	Committed	N.A.	R.	R.00	R50.00	PPP	Private company
100	KZN 7 Rail:Richards Bay - Piet Retief Improve capacity of the coal line	2010 - 2015	Infrastructure - Rail		National	Committed	Transnet	R.	R.00	R5,656.00	Other	Transnet
100	Pietermaritzburg Airport Upgrading (b	2015 - 2030	Infrastructure - Airports		National	Committed	Municipal funding	R.	R.00	R20.00	Other	Municipality
100	Upgrade and Expand Richards Bay Port (a)	2010 - 2015	Infrastructure - Ports		Provincial	Committed	Transnet funding	R.	R.00	R5,000,000.00	Fiscus	Transnet
13.54	KZN 2 Rail a: Johannesburg - Durban Provide 3rd line	2015 - 2030	Infrastructure - Rail		National	Not committed	Transnet	R.	R.00	R14,106.00	Other	Transnet
13.54	KZN 6 Rail: Richards Bay - Golela Improve capacity	2015 - 2030			Regional	Not committed	Transnet	R.	R.00	R1,045.00	Other	Transnet
13.54	KZN 2 Rail b: Johannesburg - Durban: Provide 3rd line	2030 - 2050	Infrastructure - Rail		National	Not committed	Transnet	R.	R.00	R21,158.00	Other	Transnet
11.89	KZN 9 Rail: Umbogintwini - Umkomaas Double rail line	2015 - 2030	Infrastructure - Rail		Provincial	Not committed	Transnet	R.	R.00	R1,190.00	Fiscus	PRASA
11.14	KZN 3 Rail: Bayhead - Cato Ridge New Bypass	2015 - 2030	Infrastructure - Rail		Provincial	Not committed	Transnet	R.	R.00	R6,222.00	Other	Transnet
-10.45	KZN 8 Rail:Richards Bay - Broodsnyersplaas Provide 3rd line	2030 - 2050	Infrastructure - Rail		National	Not committed	Transnet	R.	R.00	R29,803.00	Other	Transnet
9.37	KZN 1 Rail: Durban - Palmford Signal infilling	2015 - 2030	Infrastructure - Rail		National	Not committed	Transnet	R.	R.00	R143.00	Other	Transnet
100	Pietermaritzburg Airport Upgrade(a)	2010 - 2015	Infrastructure - Airports		National	Committed	Municipal funding	R.	R.00	R20.00	Other	Municipality
100	La Mercy Airport Upgrading (b)	2015 - 2030	Infrastructure - Airports		National	Committed	ACSA funding	R.	R.00	R7,800.00	Other	ACSA
3.75	KZN N2S a	2010 - 2015	Infrastructure - Roads		National	Not committed	N.A.	R.	R.00	R461.00	PPP	Sanral
0.1	KZA 10 Rail: Umkomaas - Kelso Double rail line	2030 - 2050	Infrastructure - Rail		Provincial	Not committed	N.A.	R.	R.00	R1,048.00	Fiscus	PRASA

ADDENDUM B2

GOAL ACHIEVEMENT RATINGS FOR NATIONAL PROJECTS

NATMAP 2050

GAM Score per Project - Provincial

National

GAM Score	Project Name:	Programming	Project Category	Project Category Other	Project extent	Funding	Other Funding	First Order Lifetime Cost	Capital Cost	Maintance/ Operational Cos
37.78	Moloto Jane Furse: Extend New Moloto Rail corridor	2015 - 2030	Infrastructure - Rail		National	Not committed	N.A.	R.	R.00	R9,500,000,000.
36.18	Pretoria Moloto New Medium Speed Rail line and passenger service	2010 - 2015	Infrastructure - Rail		National	Not committed	N.A.	R.	R.00	R12,000,000,000.
100	Transnet Ringfencing and Divisionalisation	2010 - 2015	Institutional		National	Committed	DPE or Transnet	R.	R.00	R80,000,000.
100	PRASA Ringfencing and Divisionalisation	2010 - 2015	Institutional		National	Committed	PRASA?	R.	R.00	R20,000,000.
100	Reorganise DOT to create structure for the management of regulated competition between all modes	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.
100	DOT - Expand Aviation Division to give strategic guidance	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.
10.77	Pretoria - Polokwane High Speed Rail	2030 - 2050	Infrastructure - Rail		National	Not committed	N.A.	R.	R.00	R14,000,000,000.
100	Create Transport Investment Clearing House (TICH)	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.
100	DOT Maritime Division - expand and align responsibilities	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.
100	SA Marine Safety Authority - review of responsibilities and align with other modes	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.

st	Funding Mechanisims	Institutional Responsibility
.00	Fiscus	Unknown
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT

GAM Score per Project - Provincial

100	Changes to SANRAL to expand board and portfolia	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.
100	Provincial Departments of Roads: Audit and develop standards	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R20,000,000.
100	Create Weight Distance Charging Agency	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R80,000,000.
100	ACSA - Expand portfolio and board	2010 - 2015	Institutional		National	Committed	ACSA?	R.	R.00	R10,000,000.
100	Create Transport Economic Regulator	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R20,000,000.
100	Implement road freight operator register and licensing system	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.
100	DOT - Expand Rail Division to give strategic guidance	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R20,000,000.
100	National Ports Authority - structure to allow for more competition	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R10,000,000.
100	DOT - Create Multimodal Policy Forum	2010 - 2015	Institutional		National	Committed	N.A.	R.	R.00	R5,000,000.

.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT
.00	Fiscus	DOT

ADDENDUM C1

PROJECT EXPENDITURE PROGRAMME FOR KZN PROVINCIAL ROADS

NATMAP PHASE 4: ROAD PROJECTS														
						Short -Term						Medium - Term	Long- Term
Category	#	Name of the Project	Status : Committed (Yes or No)	Is the project identified as NATMAP Critical Provincial Project (Yes or No)	Total/Residual Cost (R Million)	2010	2011	2012	2013	2014	2015	2015-2030	2030-2050
PROVINCIAL : KWA-ZULU NATAL													
Road		N2 South between R603 and N3	No	Yes	R 1,883.00			R 115.25	R 115.25	R 115.25	R 115.25		R 1,422.00
		Construction of P579 between Pine Town and Amanzimtoti	No	No	R 1,152.00							R 1,152.00	
		N2 North Construction of Tongaat bypass	No	No	R 1,188.00							R 1,188.00	
		N2 North between N3 and stanger	No	No	R 992.00							R 992.00	
		N2 North Mtubatuba and Hluhluwe	No	No	R 2,170.00								R 2,170.00
		N2 North between N3 and Umhlanga	No	Yes	R 3,054.00		R 81.50	R 81.50	R 81.50	R 81.50		R 2,210.00	R 518.00
		N3 De Beers Pass between Keeversfontein and Warden	No	Yes	R 5,200.00		R 1,040.00	R 1,040.00	R 1,040.00	R 1,040.00	R 1,040.00		
		N3 between Durban and Pietermaritzburg	No	Yes	R 1,400.00		R 280.00	R 280.00	R 280.00	R 280.00	R 280.00		
		N3 between Pinetown and Nottingham road	No	No	R 1,122.00							R 1,122.00	
		N3 New Pietermaritzburg bypass	No	Yes	R 2,688.00								R 2,688.00
		N11 to bypass the Ladysmith CBD	No	No	R 440.00							R 440.00	
		N11 between N3 and Clontarf	No	No	R 1,200.00							R 1,200.00	
		N11 between Balangeich and Volksrust	No	No	R 1,210.00							R 1,210.00	
		R34 between Richards bay and Melmoth	No	No	R 2,288.00							R 2,288.00	
		R34 N11 to N3	No	No	R 1,170.00								R 1,170.00
		R34 Vryheid to N11	No	No	R 2,208.00							R 960.00	R 1,248.00
		R74 Frere and Bergville	No	No	R 888.00							R 420.00	R 468.00
		R620 from Port Shepstone to Southbroom	No	Yes	R 320.00					R 160.00	R 160.00		
		New Heavy haul Route from Durban to N2	No	Yes	R 3,930.00				R 240.00	R 240.00	R 240.00	R 3,210.00	
		KSIA N3 link	No	No	R 1,980.00								R 1,980.00
		R102 Umzumbe to Port Shepstone	No	Yes	R 225.00					R 112.50	R 112.50		
		P200 from Sezela to Umzumbe	No	No	R 648.00							R 648.00	
		R68 from Dundee to Nqutu	No	No	R 918.00								R 918.00
		R617/P604	No	No	R 2,160.00								R 2,160.00
TOTAL (PER PROVINCE)					R 40,434	R 0	R 1,402	R 1,517	R 1,757	R 2,029	R 1,948	R 17,040	R 14,742

ADDENDUM C2

PROJECT EXPENDITURE PROGRAMME FOR KZN PROVINCIAL RAIL

NATMAP PHASE 4: RAIL PROJECTS													
Category	No	Name of the Project	Status : Committed (Yes or No)	Is the project identified as NATMAP Critical Provincial Project (Yes or No)	Total/ Residual Cost (R Million)	Short -Term						Medium - Term	Long-Term
						2010	2011	2012	2013	2014	2015	2015-2030	2030-2050
PROVINCIAL : KWAZULU-NATAL													
Rail	KZN 1	Durban - Palmford: Implement Signiling infilling to improve capacity	N	N	R 143	R 0	R 0	R 0	R 0	R 0	R 0	R 103	R 40
	KZN 3	Bayhead - Cato Ridge: New Bypass	N	Y	R 5,716	R 0	R 0	R 0	R 0	R 0	R 0	R 5,716	R 0
	KZN 4	Durban - Stanger: Upgrade & 3rd line	N	Y	R 6,222	R 0	R 0	R 0	R 0	R 100	R 500	R 5,622	R 0
	KZN 5	Stanger - Richards Bay: Doubling	N	N	R 4,658	R 0	R 0	R 0	R 0	R 0	R 0	R 1,397	R 3,261
	KZN 6	Golela - Richards Bay: Improve capacity	N	N	R 1,045	R 0	R 0	R 0	R 0	R 0	R 0	R 751	R 294
	KZN 7	Richards Bay - Piet Retief: Coal Line improve capacity	Y	Y	R 5,656	R 1,334	R 1,312	R 636	######	R 787	R 3	R 456	R 0
	KZN 9	Umbogintwini - Umkomaas: Double Line	N	N	R 1,190	R 0	R 0	R 0	R 0	R 0	R 0	R 952	R 238
	KZN 10	Umkomaas - Kelso: Double Line	N	N	R 1,048	R 0	R 0	R 0	R 0	R 0	R 0	R 0	R 1,048
	KZN 11	Cato Ridge: New Container Terminal	N	N	R 962	R 0	R 0	R 0	R 0	R 0	R 96	R 866	R 0
TOTAL (PER PROVINCE)					R 26,640	R 1,334	R 1,312	R 636	######	R 887	R 599	R 15,864	R 4,880

ADDENDUM C3

PROJECT EXPENDITURE PROGRAMME FOR KZN PROVINCIAL PORTS AND AIRPORTS

NATMAP PHASE 4: AIRPORTS AND PORTS PROJECTS														
						Short -Term							Medium -Term	Long- Term
Category	#	Name of the Project	Status : Committed (Yes or No)	Is the project identified as NATMAP Critical Provincial Project (Yes or No)	Total/Residual Cost (R Million)	2010	2011	2012	2013	2014	2015		2015-2030	2030-2050
PROVINCIAL : KWA-ZULU NATAL														
Airports		New International Airport at La Mercy	Yes	Yes	R 16,260.00	R 322.00	R 27.60	R 27.60	R 27.60	R 27.60	R 27.60		R 7,800.00	R 8,000.00
		Pietermaritzburg Airport Upgrading	*Yes*	No	R 85.00	R 3.33	R 3.33	R 3.33	R 3.33	R 3.33	R 3.33		R 20.00	R 45.00
		Richards Bay Airport Upgrading	*Yes*	No	R 150.00	R 8.33	R 8.33	R 8.33	R 8.33	R 8.33	R 8.33		R 20.00	R 80.00
		Margate Airport Upgrading	*No*	No	R 65.00	R 1.00	R 1.80	R 1.80	R 1.80	R 1.80	R 1.80		R 15.00	R 40.00
		Second International Airport near Dbn	*No*	No	R 8,000.00									R 8,000.00
Ports		Expand & Upgrade Durban Port	Yes	Yes	R 53,220.00	R 8,639.00	R 8,639.00	R 8,639.00					R 13,090.00	R 14,210.00
		Expand & Upgrade Richards Bay Port	Yes	Yes	R 26,990.00	R 1,667.00	R 1,667.00	R 1,667.00					R 16,790.00	R 5,200.00
TOTAL (PER PROVINCE)					R 104,770.00	R 10,640.66	R 10,347.06	R 10,347.06	R 41.06	R 41.06	R 41.06		R 37,735.00	R 35,575.00

ADDENDUM C4

PROJECT EXPENDITURE PROGRAMME FOR NATIONAL PROJECTS

NATIONAL														
						Short -Term					Medium -Term	Long- Term	Instution	Annual operating cost (R Million)
Category	Proj No	Name of the Project	Status : Committed (Yes or No)	Is the project identified as NATMAP Critical Project (Yes or No)	Total/Residual Cost (R Million)	2010	2011	2012	2013	2014	2015-2030	2030-2050		
Institutional		Vertical Seperation of National Rail System	N	Y	100	1	10	15	15	30	29	0		
Institutional	I1	Department of Transport - Create Multimodal Policy Forum	N	Y	5.0		2	3						0.0
Institutional	I2	Create Transport Investment Clearing House	N	Y	10.0		2	3	5					10.0
Institutional	I3	Create Transport Economic Regulator with modal units	N	Y	20.0		5	10	5					30.0
Institutional	I4	Create Road Weight Distance Charging entity	N	Y	80.0	2	3	20	30	25				10.0
Institutional	I5	Implement Road Freight Operator Register and licensing system	N	Y	10.0		3	3	4					30.0
Institutional	I6	Changes at SANRAL to expand portfolio and board	N	Y	10.0		2	4	4					0.0
Institutional	I7	Provincial Departments of Roads - Audit & Develop Standards	N	Y	20.0		5	10	5					0.0
Institutional	I8	Transnet Ringfencing & Divisionalisation	N	Y	80.0	2	8	25	25	20				0.0
Institutional	I9	PRASA Ringfencing & Divisionalisation	N	Y	20.0	2	5	5	5	3				0.0
Institutional	I10	Department of Transport - Expand Rail Division to give Strategic Guidance	N	Y	20.0		10	10						10.0
Institutional	I11	ACSA - Expand portfolio and board	N	Y	10.0		2	4	4					0.0
Institutional	I12	Department of Transport - Expand Aviation Division to give Strategic Guidance	N	Y	10.0		5	5						10.0
Institutional	I13	SA Maritime Safety Authority - Review responsibilities and align w other modes	N	Y	10.0		5	5						5.0
Institutional	I14	National Ports Authority - restructure to allow for more competition	N	Y	10.0			5	5					0.0
Institutional	I15	Department of Transport - Maritime Division expand and align responsibilities.	N	Y	10.0			5	5					5.0
Institutional	I16	Reorganise DOT to create structure for management of regulated competition for all modes	N	Y	10.0		5	5						10.0

Legal	L1	Department of Transport - Multimodal Policy Forum - Legislative Revision	N	Y	2.0		2							
Legal	L2	Transport Investment Clearing House - Legislative Revisions	N	Y	3.0		1	2						
Legal	L3	Transport Economic Regulator - Legislative Revisions	N	Y	3.0		1	2						
Legal	L4	Road Weight Distance Charging entity - Legislative Revisions	N	Y	2.0		1	1						
Legal	L5	SANRAL - Legislative Revisions	N	Y	2.0		1	1						
Legal	L6	Provincial Departments of Roads - Legislative Revisions	N	Y	4.0		2	1	1					
Legal	L7	Passenger Rail Agency of South Africa (PRASA) - Legislative Revisions	N	Y	2.0		1	1						
Legal	L8	Department of Transport - Rail Legislative Revisions	N	Y	3.0		2	1						
Legal	L9	The Airports Company of SA (ACSA) and ATNS - Legislative Revisions	N	Y	2.0		1	1						
Legal	L10	SA Maritime Safety Authority (SAMSA) - Legislative Revisions	N	Y	4.0		2	2						
Legal	L11	National Ports Authority - Legislative Revisions	N	Y	2.0		1	1						
Legal	L12	Ports Regulator - Legislative Revisions	N	Y	2.0		1	1						
Pipeline	8	Construct 450 km Kendal to Matola petroleum pipeline	Y		2200	2200	0	0	0	0	0	0	Petroline	
Pipeline	9	Construct 525 km New Multi-Modal Pipeline from Durban to Jameson Park (Heidelberg)	Y		9000	3000	3000	3000	0	0	0	0	Transnet	
Planning	4	Development of Integrated Rapid Public Transport Network (IRPTN) for inter-city transport for country	N		R 30.00	R 5.00	R 10.00	R 15.00						
Planning-Freight Operations	10	Research and finalise Road usage and cost issues	N		1.5	1.5	0	0	0	0	0	0	National DOT	
Planning-Freight Operations	11	Reorganise rail freight	N		2	2	0	0	0	0	0	0	National DOT	
Planning-Freight Operations	12	Research and revise cross border arrangements	N		1	0	1	0	0	0	0	0	National DOT	
Planning-Freight Operations	13	Research and plan overloading control system	N		3	0	3	0	0	0	0	0	National DOT	
Planning-Freight Operations	14	Design and plan implementation of Road Freight Operator Registration system	N		2	0	2	0	0	0	0	0	National DOT	
Planning-Freight Operations	15	Research all RTQS issues and revise /upgrade systems	N		2	0	0	2	0	0	0	0	National DOT	
Planning-Freight Operations	16	Research and analyse current HGV driver training processes and plan to upgrade	N		4	0	0	4	0	0	0	0	National DOT	
Planning-Freight Operations	17	Analyse artisan training needs in all freight modes and report/plan for skills training systems	N		4	0	0	0	4	0	0	0	National DOT	
Planning-Freight Operations	18	Plan and organise ports to promote coastal shipping	N		2	0	0	0	2	0	0	0	National DOT	
Planning-Freight Operations	19	Plan regulations and terms for creation of train operating companies	N		10	0	0	0	0	10	0	0	National DOT	
Planning-Freight Operations	20	Prepare plan to establish transport training institutions /colleges/ for all modes	N		100	0	0	0	0	0	100	0	National DOT	
Planning-Freight Operations	21	Research implications of fuel shortage and prepare action plans	N		12	0	0	0	0	0	12	0	National DOT	
Rail-Freight		Ore Line: Improve Capacity	Y	Y	8959	2458	3023	2095	835	548	0	0		
Rail-Freight		Ore Line: Double line	N	Y	39605.6					0	9500	30105.6		

Rail-Passenger	1	Johannesburg to Durban Rail Link	N		98,000	3	7	10	10	20	20000	77950		
Rail-Passenger	22	Develop a regional passenger rail system: Moloto corridor (Siyabuswa to Pretoria)	N		17000	850	850	5100	5100	5100	0	0	National DOT, PRASA, private sector	
Rail-Passenger	23	Develop a regional passenger rail system: Moloto corridor (Siyabuswa to Marble Hall)	N		12000	0	355	355	3195	3195	4900	0	National DOT, PRASA, private sector	
Rail-Passenger	24	Develop a regional passenger rail system: N12 corridor (Johannesburg-Delmas-Ogies-eMalahleni)	N		9500	0	0	0	0	0	4700	4800	National DOT, PRASA, private sector	
Rail-Passenger	25	Develop a regional passenger rail system: N4 corridor (Pretoria-eMalahleni-Middelburg-Mbombela-Kaapmuiden)	N		23920	0	0	0	0	0	23920	0	National DOT, PRASA, private sector	
Rail-Passenger		Johannesburg - Durban : Provide 3rd Line	N	N	35264	0	0	0	0	0	14105.6	21158.4		
Rail-Passenger		Broodsnyersplaas - Richards Bay: Provide 3rd line	N	Y	29803.2	0	0	0	0	0	0	29803.2		
Rail-Passenger		Pretoria - Moloto - Medium Speed Rail	Y	Y	12000	5	100	500	1500	5000	4895	0		
Rail-Passenger		Pretoria - Polokwane - High Speed Rail	N	N	13999.6	0.2	0.3	1	2	8	1000	12988.1		
Road	3	Upgrade of secondary road network	N		64366	12873.2	12873.2	12873.2	12873.2	12873.2				
Road	5	Road link between N4 to Maputo through Nelspruit, Bushbuckridge, Burgersfort, Phalaborwa and Giyani to Musina	N		4500	0	0	0	0	0	4500	0	0	
Road, Rail	6	Road and rail regional access to Lephalale along R33 corridor	N		9330	930	900	7500						
Road	7	N2 Multi-modal Coastal route corridor	N		R 6,000.00				R 1,000.00	R 2,000.00	R 3,000.00			
					396,087	**22,335**	**21,213**	**31,606**	**24,634**	**28,832**	**90,662**	**176,805**	**0**	**120**

ADDENDUM D

FUNDING SOURCES

Category	Total/Residual Cost (R Million)	Short -Term					Medium - Term	Long- Term
		2010	2011	2012	2013	2014	2015-2030	2030-2050
Institutional	435	7	72	137	112	78	29	0
Institutional-Opex	4,800	120	120	120	120	120	1,800	2,400
Legal	31		16	14	1	0	0	0
Planning-Passenger Operations	30	5	10	15	0	0	0	0
Planning-Freight Operations	144	4	6	6	6	10	112	0
Rail - Passenger Infrastructure	251,487	858	1,312	5,966	9,807	13,323	73,521	146,700
Rail -Freight Infrastructure	48,565	2,458	3,023	2,095	835	548	9,500	30,106
Road	19,830	930	900	7,500	1,000	2,000	7,500	0
Pipeline	11,200	5,200	3,000	3,000	0	0	0	0
Backlog/Maintenance	64,366	12,873	12,873	12,873	12,873	12,873	0	0
Total (RSA)	**400,887**	**22,455**	**21,333**	**31,726**	**24,754**	**28,952**	**92,462**	**179,205**

NATMAP Proposed Funding Sources

1. **RIGHT OF ACCESS** consists of **:**

    a. Licence fees that discriminate between commercial and private use, freight and passenger conveyance
    b. Environmental externalities recoupment according to degradation caused

Licensing Fees: Calculation Formula

Charge = Base Licensing Rate for vehicle category X Category of use factor X No. of Registered Vehicles

Category of use factor:

- Private cars: 1.10
- Motor Cycles: 1.10
- Minibus taxis: 1.00
- Busses: 1.00
- LDVs: 1.15
- HDV2s (>20tons): 1.30
- Other: 1.10

Based on the formula above the calculated licensing fees are presented below:

Table 1: Proposed Licensing Fees

Provinces	Proposed Licensing Fees (R million)				
	2010	**2011**	**2012**	**2013**	**2014**
GP	2,015	2,096	2,181	2,269	2,361
KZN	1,264	1,315	1,368	1,424	1,481
WC	979	1,019	1,060	1,103	1,147
EC	566	589	613	638	663
FS	317	329	343	357	371
MP	376	391	407	424	441
NW	517	538	560	583	606
LP	349	364	378	393	409
NC	174	181	189	196	204
RSA	**6,558**	**6,823**	**7,099**	**7,386**	**7,684**

Source: Consultant's Calculations

Table 2: Comparison of Budget Estimate vis-à-vis Consultant's Proposed calculations

Provinces	Budget Estimate (R million)	Consultant's Calculations(R million)	Difference(Budget-Proposed)-R Million
2010			
GP	2	2,015	-2013
KZN	1	1,264	-1263
WC	1	979	-978
EC	0	566	-566
FS	0	317	-316
MP	0	376	-376
NW	0	517	-517
LP	0	349	-349
NC	0	174	-174
2011			
GP	2	2,096	-2094
KZN	1	1,315	-1314
WC	1	1,019	-1018
EC	0	589	-589
FS	0	329	-329
MP	0	391	-391
NW	0	538	-538
LP	0	364	-363
NC	0	181	-181
2012			
GP	Not Available	2,181	-
KZN	Not Available	1,368	-
WC	Not Available	1,060	-
EC	Not Available	613	-
FS	Not Available	343	-
MP	Not Available	407	-
NW	Not Available	560	-
LP	Not Available	378	-
NC	Not Available	189	-
2013			
GP	Not Available	2,269	-
KZN	Not Available	1,424	-
WC	Not Available	1,103	-
EC	Not Available	638	-
FS	Not Available	357	-
MP	Not Available	424	-
NW	Not Available	583	-
LP	Not Available	393	-

Provinces	Budget Estimate (R million)	Consultant's Calculations(R million)	Difference(Budget-Proposed)-R Million
NC	Not Available	196	-
2014			
GP	Not Available	2,361	-
KZN	Not Available	1,481	-
WC	Not Available	1,147	-
EC	Not Available	663	-
FS	Not Available	371	-
MP	Not Available	441	-
NW	Not Available	606	-
LP	Not Available	409	-
NC	Not Available	204	-

Source: Budget Estimates, Consultant's Calculations

Externalities Surcharge: Calculation Formula

Externalities Surcharge = Licensing rate X emission factor x No. of Registered Vehicles
Emission factors:

- Flat rate of 1.1 of licensing rate for category

Based on the formula above the calculated licensing fees are presented below:

Table 3: Proposed Externalities Surcharge

Provinces/Year	Proposed Externalities Surcharges (R million)				
	2010	2011	2012	2013	2014
GP	22	24	25	27	28
KZN	10	10	11	12	12
WC	10	10	11	12	12
EC	5	6	6	6	7
FS	4	4	5	5	5
MP	5	5	5	6	6
NW	4	5	5	5	5
LP	4	5	5	5	6
NC	2	2	2	2	3
RSA	**67**	**71**	**75**	**80**	**85**

Source: Consultant's Calculations

2. USAGE COST RECOVERY

User charge that accounts for geographic location, weight-distance travelled and pavement condition

USER CHARGE COLLECTABLE = Kilometres travelled X rate (R 0.50c/km) X weight factor X No. of Registered Vehicles

Weight factor:

Private cars:	0
Motor Cycles:	0
Minibus taxis:	0
Busses:	0.5
LDVs:	0.5
HDV2s (>20tons):	1.0
Others:	0

Table 4: Proposed User Charges

Provinces	Proposed User Charges(R million)				
	2010	2011	2012	2013	2014
GP	1,756	1,864	1,978	2,099	2,227
KZN	435	461	489	519	551
WC	377	400	424	450	478
EC	108	115	122	130	138
FS	69	73	77	82	87
MP	121	128	136	144	153
NW	73	78	82	87	93
LP	65	69	73	78	83
NC	14	15	16	17	18
RSA	**3,018**	**3,203**	**3,399**	**3,607**	**3,827**

Source: Consultant's Calculations

Table 5: Comparison of General Fuel Levy vis-à-vis Consultant's Proposed Calculations

Category	2010	2011	2012	2013	2014
General Fuel Levy (R million)	25.2	Not Available	Not Available	Not Available	Not Available
Proposed User Charges (R million)	3,018	3,203	3,399	3,607	3,827

Source: 2009 Estimate of National Revenue, Consultant's Calcula