

*The South African National Roads Agency Limited
Declaration of Intent 2005 – 2008*



Creating wealth through infrastructure

**Head Office**

Ditsela Place
1204 Park Street
Hatfield
Pretoria

Tel: +27 (0) 12 426 6000
Fax: +27 (0) 12 362 2117

Registration Number

1998/009584/06

Postal Address

P.O. Box 415
Pretoria
0001
South Africa

Northern Region

38 Ida Street
Menlo Park
Pretoria

Tel: +27 (0) 12 426 6200
Fax: +27 (0) 12 348 1680

Eastern Region

58 Van Eck Place
Mkondeni
Pietermaritzburg

Tel: +27 (0) 33 392 8100
Fax: +27 (0) 33 386 6284

Southern Region

NRA House
Southern Life Gardens
72 Avenue
Newton Park
Port Elizabeth

Tel: +27 (0) 41 398 3200
Fax: +27 (0) 41 398 3211

Western Region

Parc du Cap
Building 5
Corner Mispel Street/
Willie van Schoor Avenue
Bellville

Tel: +27 (0) 21 957 4600
Fax: +27 (0) 21 946 1630

Website

www.nra.co.za

Tip-Offs Anonymous Hotline

Toll-free Phone No.: 0800 204 558

Toll-free Fax No.: 0800 00 77 88

E-mail Address: sanral@tip-offs.com

Postal Address: Tip-Offs Anonymous®

Freeport DN 298

Umhlanga Rocks 4320

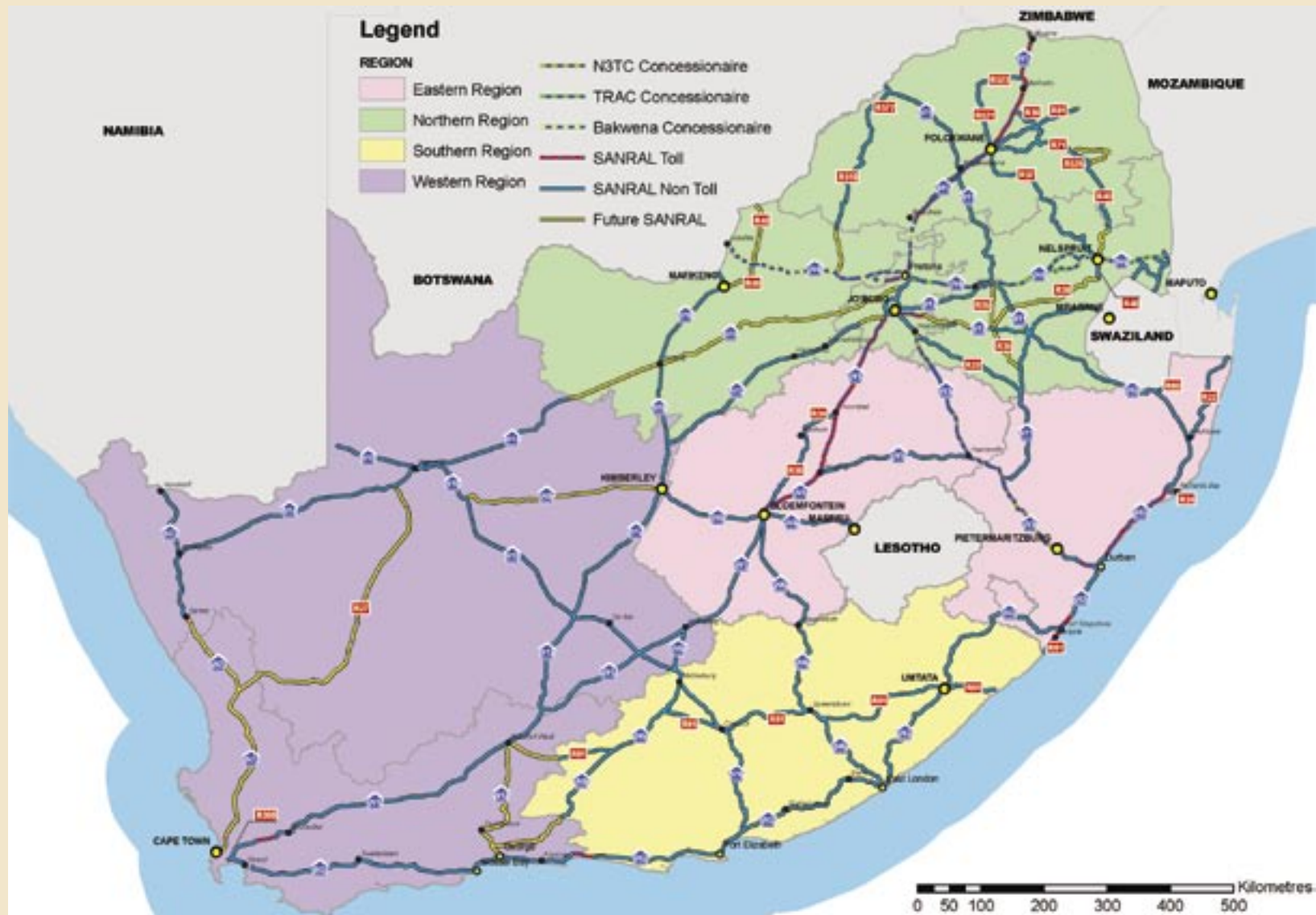


Produced by: Corporate Services
SANRAL, Pretoria
Tel: +27 (0) 12 426 6000
Fax: +27 (0) 12 362 2117
info@nra.co.za
www.nra.co.za

Editor: Connie Nel

ISBN: 0-620-35368-6

Design and Production: Blueprint Design
Tel: (012) 346 7788
blueprint@iafrica.com
www.blueprintdesign.co.za



An aerial photograph of a wide valley. A long, straight road or path runs diagonally across the middle of the valley. There are several small, irregularly shaped lakes or ponds scattered throughout the green landscape. The background shows rolling hills and mountains under a bright, slightly hazy sky. The foreground is filled with dense, green vegetation, possibly trees or shrubs, which are slightly out of focus.

*The South African National Roads Agency Ltd.
Declaration of Intent 2005–2008*

Table of contents

6	SECTION ONE – MESSAGE FROM THE CHAIRMAN	18	SECTION THREE – SANRAL’S CORE BUSINESS
6	Introduction	19	The National Road Network – Core Functions
6	Strategic Vision	19	Advantages of a Comprehensive Road Network
6	Financing Models	20	Developing the National Road Network
7	Public Private Partnerships		
7	Community Development and Job Creation	24	SECTION FOUR – FINANCING THE NETWORK
7	Environmental Management	25	Funding Requirements for Non-toll Network
8	Major Achievements	26	Funding Requirements for Toll Network
8	Co-operative Governance	27	New Toll Projects
		29	Unsolicited Bids
		31	Expenditure Split
10	SECTION TWO – SANRAL: AN OVERVIEW	34	SECTION FIVE – ROAD NETWORK MANAGEMENT
11	Vision and Mission Statement	35	Introduction
11	Vision	35	Pavement Age
11	Mission	36	Asset Preservation
11	Core Values	37	Value of Asset Preservation
12	Introduction	39	Slope Management
12	Background to SANRAL	39	Safety Management
13	Strategic Tasks and Objectives	40	Pedestrian Safety Management
13	Corporate Governance	41	Law Enforcement and Overloading
14	Legislation	41	Incident Management Systems
14	Risk Management	42	Intelligent Transport Systems (ITS)
15	Fraud and Corruption Prevention	43	Maintenance
15	Ethics Management	43	Routine Road Maintenance
15	Financial Resources	43	Periodic Maintenance
16	Funding Source for the Non-toll Network		
16	Funding Sources for the Toll Network		

44	Special Maintenance				
44	Strengthening				
44	Improvement				
46	SECTION SIX – SOCIO-ECONOMIC DEVELOPMENT				
47	Black Economic Empowerment				
47	Procurement Policy				
48	Developing Human Capital				
50	SECTION SEVEN – ENVIRONMENTAL MANAGEMENT				
51	SANRAL’s Environmental Philosophy				
51	Generic Environmental Management Plan				
51	Objectives				
51	The ISO 14001 Environmental System Standard				
52	Agreements with Authorities				
52	Amendments to the EMP				
53	Generic EMP for Routine Road Maintenance				
53	Vegetation Study				
54	SECTION EIGHT – CORPORATE MANAGEMENT				
55	Organisational Structure				
55	Human Resources				
56	Marketing and Communications				
56	Information Technology				
58	SECTION NINE – PERFORMANCE GOALS				
59	Statement of Performance Goals				
59	Engineering Goals				
59	Incorporation of Provincial Roads				
59	Public Private Partnership Programme				
59	SANRAL Toll Roads				
59	Intelligent Transport Systems				
60	Incident Management Systems				
60	Assisting Law Enforcement/Overload Control				
61	Socio-economic Goals				
61	SANRAL’s Community Development Programme				
61	Spatial Development Initiatives				
62	Job Creation				
62	Social and Entrepreneurial Development				
62	Educational Initiatives				
63	Environmental Goals				
63	Corporate Goals				
63	Developing Human Capital				
63	Corporate Identity Development				
63	Information Technology				
63	Research and Development				
66	Technology Transfer				
68	SECTION TEN – PERFORMANCE MEASUREMENT				
69	Performance Measurement Framework				
70	Performance Indicators				
70	Engineering				
71	Financial Indicators				
71	Road Network Management				
72	Road Systems				
73	National Road Development Index				
73	Socio-economic Indicators				
73	Environmental Indicators				
74	Corporate Indicators				
76	SECTION ELEVEN – TOWARDS 2010				
78	APPENDIX I				
	Policy of The South African National Roads Agency Ltd in respect of Unsolicited Proposals				
84	APPENDIX II				
	The South African National Roads Agency Ltd Corporate Environmental Policy				



“For tomorrow belongs to the people who prepare for it today.”
– African proverb



SECTION ONE

Message from the Chairman



Introduction

It gives me great pleasure to present this, our second *Declaration of Intent*, which sets out the implementation of The South African National Roads Agency's (SANRAL's) plan to further its endeavours in creating a stable transport infra-structure over the next three financial years. The Declaration of Intent follows on from SANRAL's strategic vision, outlined in *Horizon 2010*, our 10-year road infrastructure programme.

It will be recalled that SANRAL was formed in 1998 as part of the newly elected democratic government's reorganisation of the transport sector for road infrastructure to play its rightful role in the creation of jobs; to promote social and economic transformation, sustainable growth and resource development. The mission entrusted to SANRAL was to provide and manage a world-class, sustainable national road network as cost-efficiently as possible, in order to stimulate economic growth and improve the quality of life of all our people.

Underlying this mission was the recognition that transport plays a central role in the economic and social development of any country. This is also true for regions such as the Southern Africa Development Community (SADC) and, indeed, the entire continent.

Strategic Vision

This strategy was devised against the background of a required ultimate national road network of some 20 000 km compared with the current 14 000 km, in the face of budgetary constraints imposed by a National Treasury faced by pressing demands for other priorities such as social reconstruction and equalisation programmes. The problem was exacerbated by the fact that the existing road network was being consumed rapidly with growing traffic volumes and deteriorating through widespread overloading. In addition, inadequate traffic law enforcement and irresponsible driving had a negative impact on road safety statistics.

Financing Models

Since the advent of democracy in South Africa, Government has sought to realign its public expenditure and the financing of public services to redress the imbalances of the past. Minister Trevor Manuel, in 1999, noted that "the curve that describes the decay of inadequately maintained economic assets becomes dangerously steep if relative neglect persists beyond a few years."

Recognising the enormity of many demands on the fiscus and the advantage of constructive engagement with the private sector, SANRAL has proactively sought alternative sources of finance for road infrastructure and opportunities to reduce dependence on tax-based revenues. In this regard SANRAL has actively promoted the 'user pay' principle (toll roads) in developing both SANRAL and concessioned toll roads.

Public Private Partnerships

Public Private Partnerships (PPPs) have provided an opportunity to partner with the private sector and SANRAL is now able to negotiate investments in the improvement and preservation of the country's road infrastructure assets for periods well beyond Government's three-year expenditure planning horizon. The reality is that no road, whether existing or new, is ever paid for. By the same token, there are no free roads, as roads are either funded through general taxes or user fees.

SANRAL has successfully completed a number of projects under its PPP programme, the combined value of which is R9,7 billion. The National Treasury has supported the PPP programme. In the past, SANRAL was responsible for the development costs associated with projects of this nature, but the National Treasury has now offered to include these costs as a portion of the total grants made to SANRAL.

Our road infrastructure requires substantial investment and frequent re-investment if we are to have

a world-class national road network to enhance our global competitiveness. In this pursuit, we will be mindful of societal concerns encompassing the many political, economic, environmental and social issues.

Community Development and Job Creation

Being at the forefront of job creation, SANRAL has been able to show a consistent record of job creation through innovative contractual obligations and maximising the advantage of the multiplier effect of roads construction and maintenance. In line with the principles of Government for Black Economic Empowerment, SANRAL continues to raise the bar.

As part of its overall ethos, SANRAL promotes the concept of 'community regeneration' through all its projects; specifically its Community Development Programme. The expenditure under this programme is aimed at adding value for the user of road infrastructure and improving access in the rural poverty nodes as identified in Government's Rural Development Strategy. The aims are to attack poverty, assist

in human development and capacity building, the provision of jobs and seeking to make projects sustainable in the long term. Overall expenditure related to these projects amounted to R 200,564,575 for the period 2001-2005.

Environmental Management

In addition, SANRAL has always been mindful of the fact that environmental management is a key component of road infrastructure development. In providing a sustainable road network that meets the requirements of both people and the environment, SANRAL continuously strives to find a balance between the economic and social benefits of road-based transport on the one hand, and the protection of the environment on the other.

SANRAL's commitment involves the development, implementation and monitoring of an environmental management system on all contracts, thus ensuring that development proceeds in a socially, environmentally and economically sustainable manner.

Our road infrastructure requires substantial investment and frequent re-investment if we are to have a world-class national road network to enhance our global competitiveness.

The aim is to gradually build a seamless transport infrastructure, which will spread across South Africa's borders to other regions and the rest of the continent.

Major Achievements

In celebrating more than a decade of democracy, it is apt to reflect on some of the industrial ventures that were either shaped by, or contributed to our democracy. SANRAL has been instrumental in developing three of these projects, namely the N4 Platinum Highway, the N4 Maputo Development Corridor and the landmark Nelson Mandela Bridge in Newtown, Johannesburg.

The construction of the N4 Platinum Highway, together with the Maputo Development Corridor (MDC), has realised our vision of a coast-to-coast link (linking Mozambique to Namibia via South Africa and Botswana), and is regarded as a forerunner to the fulfilment of NEPAD objectives. The MDC has proved that road infrastructure does promote peaceful regional co-operation and good neighbourly relations. The coast-to-coast link will also achieve these ideals and stimulate economic growth, as well as easing travel and transportation between the two countries.

The Nelson Mandela Bridge, in turn, bears testimony to co-operative governance and South Africa's engineering and project management skills, innovation and ingenuity.

In addition, SANRAL recently was assigned counterparty and issuer credit ratings on the national scale for South Africa. The ratings are for non-guaranteed debt and therefore enable SANRAL to raise debt without the support of Treasury. SANRAL was assigned **zaAA long-term** and **zaA1+ short-term** status. These ratings were awarded after a full investigation based on the normal rating mandate. The correlated international scale issuer rating for SANRAL is **BBB+** on a local currency basis, indicating that it is of investment grade, with the support of the state guarantee, also on international comparisons.

True to its mandate, SANRAL is well underway to achieving targets set out in its *Horizon 2010* document. The building of roads, especially rural access roads, is deemed critical in providing people with jobs and assets required to build better livelihoods. The aim is to gradually build a seamless transport infrastructure, which will spread across South Africa's borders to other regions and the rest of the continent.

Co-operative Governance

In support of co-operative governance and in the interest of socio-economic goals, it is SANRAL's vision to consolidate the identified primary road network and to secure the condition of national routes of strategic and economic importance – even more so now that our country has secured the Soccer World Cup in 2010.

To our outgoing board members, our sincere gratitude for your guidance, setting the benchmark, and establishing SANRAL under the leadership of our late Minister Omar. To our incoming board, a warm welcome. We trust that SANRAL will continue to deliver on the Millennium Development Goals and will go from strength to strength under your capable leadership.

To our current Minister of Transport, Mr Jeff Radebe MP, SANRAL colleagues and industry counterparts, thank you for assisting us in making a difference. To our road users and other role-players, thank you for your support and feedback. We reaffirm our commitment of providing you with the services you have come to expect of us.

LOT NDLOVU
Chairman

Creating wealth through infrastructure



SECTION TWO

SANRAL: An overview

“Little by little, a little becomes a lot.”

– African proverb

Vision and Mission Statement

VISION

To be recognised as a world leader in the provision of a superior primary road network in southern Africa.

MISSION

We are a commercially driven organisation committed to achieving its vision for the economic benefit of the southern African community through:

- a highly motivated and professional team;
- state-of-the-art technology;
- proficient service providers; and
- promoting the 'user pay' principle.

CORE VALUES

We will always act with integrity.
We are committed to service excellence.
Our people are our most valued asset.
We subscribe to participative management.
We will be pro-active to the needs of our customers and other stakeholders.

One of the fundamental principles in achieving our goals remains the preservation of our national assets, and in so doing SANRAL will create the necessary infrastructure platform and a demand driven upgrade for a primary road network, which will play its rightful role in sustainable social and environmental development and economic growth of our country.

Introduction

Flowing from the strategic vision of The South African National Roads Agency Limited (SANRAL), outlined in *Horizon 2010*, as well as the first *Declaration of Intent 2002-2005*, this *Declaration of Intent* – the second of the new millennium – has as its basis the practical implementation of the goals and objectives of our vision to create a stable surface transport infrastructure, i.e. road network in South Africa. In support of co-operative governance and in the interest of socio-economic development, it is SANRAL's vision to consolidate the ultimate identified national road network and to secure the condition of national routes of strategic and economic importance – even more so now that our country has secured the Soccer World Cup in 2010.

This document thus deals with the projects and objectives to be delivered within the next three financial years. However, as the deliverables for non-toll roads documented herein are based on the projected allocations from the National Treasury, any reduction or increase of the allocations will impact on the envisaged programme. This document should therefore be regarded as a **work in progress**, subject to revision with regard to the non-toll road programme, depending on funds received

from National Treasury and as circumstances may warrant. As regards the toll road programme, the envisaged agenda still remains subject to issues related to Environmental Impact Assessments (EIAs) and the Intention to Declare a Toll Road.

One of the fundamental principles in achieving our goals remains the preservation of our national assets, and in so doing SANRAL will create the necessary infrastructure platform and a demand driven upgrade for a primary road network, which will play its rightful role in sustainable social and environmental development and economic growth of our country.

Background to SANRAL

In line with Government's commitment to transform the public sector, The South African National Roads Agency Ltd (SANRAL) was established in April 1998 by an Act of Parliament as an independent statutory company operating along commercial lines and at arm's length from Government. The purpose of the company, which is registered in terms of the Companies Act – with the Minister of Transport as the sole shareholder – is to maintain and develop South Africa's expanding national road

network (currently 14 000 km) and to manage assets with an estimated value of more than R6,5 billion (excluding land). (Replacement value is more than R50 billion).

Since the advent of democracy in South Africa, Government has sought to realign its public expenditure and the financing of public services to redress the imbalances of the past. Recognising the enormity of many demands on the fiscus and the advantage of constructive engagement with the private sector, SANRAL has proactively sought alternative sources of finance for road infrastructure and opportunities to reduce dependence on tax-based revenues.

SANRAL harnesses more than 600 person years of core skills and experience in road development and management within a highly motivated, professional and passionate team of people operating out of its Tshwane (Pretoria) head office and four regional offices located in Tshwane (Pretoria), Cape Town, Pietermaritzburg and Port Elizabeth.

The organisational diagram portrays the operational philosophy of SANRAL – a philosophy that embraces the person as an individual, colleague and mentor, capturing the spirit of *ubuntu* and passion to serve

the road user of South Africa. We are a non-hierarchical organisation with each person taking responsibility for his/her own actions without it being detrimental to the collective.

Fundamental considerations underlying SANRAL's strategic planning process are support for the aims and objectives of the Reconstruction and Development Programme (RDP), as well as the New Partnership for Africa's Development (NEPAD). To this end, RDP and NEPAD considerations are factored into all infrastructural development, particularly in respect of SANRAL's procurement policies to address the imbalances of the past. A greater emphasis has been placed on Black Economic Empowerment (BEE) with the creation of opportunities for small, medium and micro enterprises (SMMEs), as well as the provision of training.

Strategic Tasks and Objectives

SANRAL's principal tasks are to:

- Strategically plan, design, construct, operate, rehabilitate and maintain South Africa's national roads in order to mobilise our economy;

- Generate revenues from the development and management of its assets;
- Undertake research and development to enhance the quality of life of all South African citizens, with particular emphasis on their social and economic well-being;
- Advise the Minister of Transport on matters relating to South Africa's roads; and
- Finance, plan, construct, provide, operate and maintain roads in neighbouring countries upon request from the Minister of Transport and in agreement with the respective countries.

These are in line with the **strategic objectives** of SANRAL, as defined in its strategic vision, i.e.:

- The management of a national road network ensuring best value for money.
- To continuously improve the efficiency of business practices.
- To maintain market confidence.
- To carry out Government's targeted programmes to better the life of all citizens.
- Safer roads for all.
- To work in co-operative partnership with road users, transport providers, relevant authorities and the private sector.
- To be a good employer managing SANRAL's business efficiently and effectively and to seek

continuous improvement.

- To achieve international best practices.
- To encourage innovation in knowledge and practice.
- To research, discover and excel.
- To market our solutions to road users.

Corporate Governance

SANRAL embraces effective and appropriate corporate governance and acknowledges that it is the key to building institutional credibility and to establish and sustain public trust. It is also essential in motivating organisational behaviour towards being a good corporate citizen and to achieve the triple-bottom-line goals, which are to obtain economic, social and environmental value. At the heart of good governance is the attainment of an even balance between the individual's integrity and his/her accountability. The ultimate goal is nation-building – creating and increasing the wealth and human capital of South Africa.

SANRAL strives to reinforce the message that corporate social responsibility is about acceptable corporate behaviour from every employee. The tests of discipline, accountability, responsibility,

SANRAL embraces effective and appropriate corporate governance and acknowledges that it is the key to building institutional credibility and to establish and sustain public trust.

The compliance with all legislation affecting SANRAL and its business is a non-negotiable commitment by SANRAL to its stakeholders and the community in general.

fairness, transparency and compliance to legislation are applied within every realm of the business within the organisation.

In order to achieve its objectives, SANRAL recognises the importance of the following in the day-to-day running of its core business:

LEGISLATION

The compliance with all legislation affecting SANRAL and its business is a non-negotiable commitment by SANRAL to its stakeholders and the community in general. The South African National Roads Agency Limited and National Roads Act, Act 7 of 1998, the Public Finance Management Act, Act 1 of 1999, The Employment Equity Act, Act 55 of 1998, the Labour Relations Act, Act 66 of 1995, are but a few of the many Acts that guide and regulate the activities of SANRAL.

SANRAL will seek the clarification/amendment of certain issues included in current legislation, especially those relating to the expansion of the national road network, with particular emphasis on the toll sector. This is to eliminate the various 'grey areas' identified in legislation during the past seven years

of SANRAL's operations. In addition, SANRAL will continue to develop generic service level agreements with other road authorities such as the provincial and local authorities for synergetic performance. This would relate to issues such as law enforcement, overload control, emergency services and incident management among others. It is also necessary to develop or expand current agreements or protocols with other related authorities, such as Transnet, Telkom, Eskom etc.

RISK MANAGEMENT

The pro-active and uncompromising practice of the principles of transparency, social responsibility and accountability go a long way to bolster the sustainability of any organisation and SANRAL recognises the dangers resulting from complacency in this regard.

The management of strategic and operational risk is one of SANRAL's most critical priorities. It acknowledges the importance of effective risk management that is in line with its vision, mission and core values. SANRAL has a strong and involved Board of Directors to direct and oversee risk assessment, with management driving the process. Yet, ultimately,

the accountability for risk is the responsibility of every individual.

In the pursuit of attaining effective risk management within the organisation, SANRAL, facilitated by an independent service provider, conducted a board level assessment of its receptiveness and practice of good corporate governance principles. This was done within the context of the King II Report, the PFMA and the Protocol on Corporate Governance in the Public Sector. The exercise revealed that SANRAL's governance structures and processes were in place, especially when benchmarked against other public and private entities in the South African economic environment that have been similarly assessed. But, more encouraging is the commitment of SANRAL's strategy formulators and management towards maintaining and raising corporate governance standards within the organisation.

As the next step, SANRAL has completed the process of enterprise-wide risk assessment. Management and colleagues were given the opportunity to voice their concerns regarding the strategic and operational risks faced by SANRAL. Key risks were identified and formally submitted to the Board. Mitigating measures in respect of the key risks identified are being actively pursued. This assess-

ment will be ongoing to ensure that SANRAL will continue to achieve its core objectives. Every colleague is and will continue to be entrusted with personal accountability for his or her own risk environment.

FRAUD AND CORRUPTION PREVENTION

In addition, SANRAL implemented a Fraud and Corruption Prevention programme with the objective of protecting its revenue, expenditure, assets and reputation from any attempt by any person to gain financial or other benefit in an unlawful, dishonest or unethical manner.

The essential focus of such a strategy is the formalisation and implementation within the SANRAL environment of a culture of zero tolerance for fraud and corruption, a high level of fraud awareness, and a management and control environment that makes it as difficult as possible to misappropriate assets or to succumb to corruption.

As a deterrent against fraud and corruption, and to facilitate reporting, SANRAL has also subscribed to Tip-Offs Anonymous®, an independent whistle-

blowing service, to facilitate reporting of incidences of fraud and corruption.

ETHICS MANAGEMENT

Corporate governance principles and ethics management guidelines revolve around human behaviour. SANRAL accepts that, even with all the risk management controls in place, it is imperative to recognise that the key to good corporate citizenship is the behaviour of its people. Therefore, the values that underpin human behaviour are essential within the framework of any corporate entity. Understanding individual and collective values is critical. Our underlying interests and values drive our attitudes and beliefs. They determine our behaviour and ultimately our sense of corporate citizenship – our ethics in business, which could almost be solely responsible for the reputation of SANRAL.

The 'Code of Good Conduct' included in the Human Resources Policy and Procedures Manual sets out the core values that are applied in SANRAL. They impose an obligation to act beyond the requirement of the letter of any law or regulation. It rather requires colleagues to embrace the spirit of fairness and honesty as a 'way of life'.

The objective of ethics management is to inculcate good and acceptable work ethics into the moral fabric of colleagues at every level within the organisation and thus embed these ethics within the individual and organisational culture. Each member of the SANRAL team, from Board level downward, is expected to demonstrate respect, integrity and excellence in service delivery to internal and external stakeholders, and thus live out the ethical behaviour that is required of all.

The aim is to encourage strong, high-functioning work groups whose members motivate and trust each other when faced with challenging situations. This would in turn enable individuals to face critical issues, always remembering our core values, and thus cementing our role in and contribution to the welfare of our country.

Financial Resources

The South African National Roads Agency Limited and National Roads Act, Act 7 of 1998, stipulates the funding resources available to SANRAL. These resources are also regulated in terms of the Public Finance Management Act, Act 1 of 1999, and Treasury Regulations.

The objective of ethics management is to inculcate good and acceptable work ethics into the moral fabric of colleagues at every level within the organisation and thus embed these ethics within the individual and organisational culture.

“... we must further consolidate the practice of creating Public Private Partnerships (PPPs) and building Government/civil society cooperation, to ensure that we utilise our collective capacities to give further impetus to the overall development and transformation of our country.”
Pres. Thabo Mbeki, February 2005

FUNDING SOURCE FOR THE NON-TOLL NETWORK

The sole funding source for the non-toll national roads is the annual allocation received from the general state budget, appropriated by Parliament through the National Treasury. The revenue pool, however, is hard pressed to meet demands of all other public goods and services, resulting in funding constraints for the expanded national road network (i.e. newly incorporated provincial roads). This added expenditure results in a redistribution of available funds with a potential adverse impact on maintenance expenditure on the existing national network.

The limited nature of this allocation has been identified as a key risk by SANRAL. Our road infrastructure requires substantial investment and frequent reinvestment if we are to have a world-class national road network to enhance our global competitiveness.

Throughout the country, more than half of the non-toll road network is older than its design life. It is imperative that, for the sake of the growth of South Africa's economy and social development, the National Treasury allocates the required funds for

the expanded national network. Further expansions, upgrading of existing roads and asset preservation remain constant challenges against this background.

FUNDING SOURCES FOR THE TOLL NETWORK

In terms of Sections 33(2) and 33(3) of The South African National Roads Agency Ltd and National Roads Act, Act 7 of 1998, the approval of the Minister of Transport and the concurrence of the Minister of Finance are required for SANRAL to raise finance. The Public Finance Management Act, Act 1 of 1999, Sections 66(3)(c), 70(1)(b) and 70(2)(b) also requires the concurrence of the Minister of Finance to that of the Minister of Transport.

SANRAL, with the approval of the honourable Ministers of Transport and Finance, enjoys the support of a Government guarantee for the loans raised from the capital and money markets. This guarantee has been in place since the early 1980's and has been prudently used to expand and maintain the national road network. The guarantee is perpetuate with a limit of six billion Rand (R6 billion).

The envisaged programme might require an increase in this sum during the extension of the programme. The required increase – estimated to be twenty billion Rand (R20 billion) – will be agreed with the National Treasury.

Current sources of funding include the following:

Toll Revenue

The 'user pay' principle has facilitated the early implementation of a facility through private sector funding on commercial grounds, not only for the initial construction of the roads but for their ongoing maintenance and expansion which usually exceed the initial construction cost over the life span of the road.

The 'user pay' principle is now well entrenched and the revenue received is used to improve the road infrastructure, to service debt on the toll network and to ensure a well maintained road network for the road user.

Capital Market Loans

SANRAL Toll Roads

Section 33(2)(a) of The South African National Roads Agency Limited and National Roads Act, 1998 (Act No 7 of 1998) entitles SANRAL at any time, with the approval of the Minister of Transport

and in consultation with the Minister of Finance, to raise funds by means of loans from any source including the money and capital markets.

SANRAL has issued medium-term and long-term bonds, secured by a state guarantee, into the capital market. This funding is used for the initial construction of national toll roads and for their ongoing maintenance and expansion.

All toll-road projects funded through this instrument are structured so that all private sector borrowings plus interest can be repaid within a 30-year time frame.

Private Sector Investments

Public Private Partnerships

SANRAL has firmly established itself in the sphere of Public Private Partnerships in terms of which innovative financial instruments are used to finance the maintenance, upgrading and expansion of the national network. SANRAL applies, *inter alia*, the Build-Operate-Transfer (BOT) model or variants thereof.

Concession Toll Roads

Road infrastructure is also procured from the private sector through concession contracts. The concessionaire is required to fund, design, build, operate and maintain the road for the duration of the concession period. In this instance, the toll revenue accrues to the account of the concessionaire. At the end of the concession period (usually 30 years), the asset reverts to SANRAL free of charge in the specified condition.

SANRAL has entered into concession agreements on three of its roads. These toll roads are financed and maintained by private sector companies. No funding is undertaken by SANRAL for these projects and they do not form part of the balance sheet.

SANRAL will continue to pursue this form of funding to ensure that the economic arteries of South Africa are not blocked. Three projects, to be concessioned, are currently in the development phase, i.e. the N2 Wild Coast Toll Highway, the N1/N2 Winelands Toll Highway and the R300 Cape Town Ring Road.

Credit Ratings

It has always been an objective of SANRAL to reduce its dependence on the Government guarantee and to better utilise the existing facility of six billion Rand (R6 billion). To this effect, the recently acquired credit rating, by an independent ratings agency, of **zaAA** long-term and **zaA1+** short-term provide an opportunity to seek non-guaranteed debt instruments. The latter can be an array of securitisation, medium term note programmes, bonds, etc. SANRAL will therefore continue to investigate other innovative funding mechanisms.



SECTION THREE

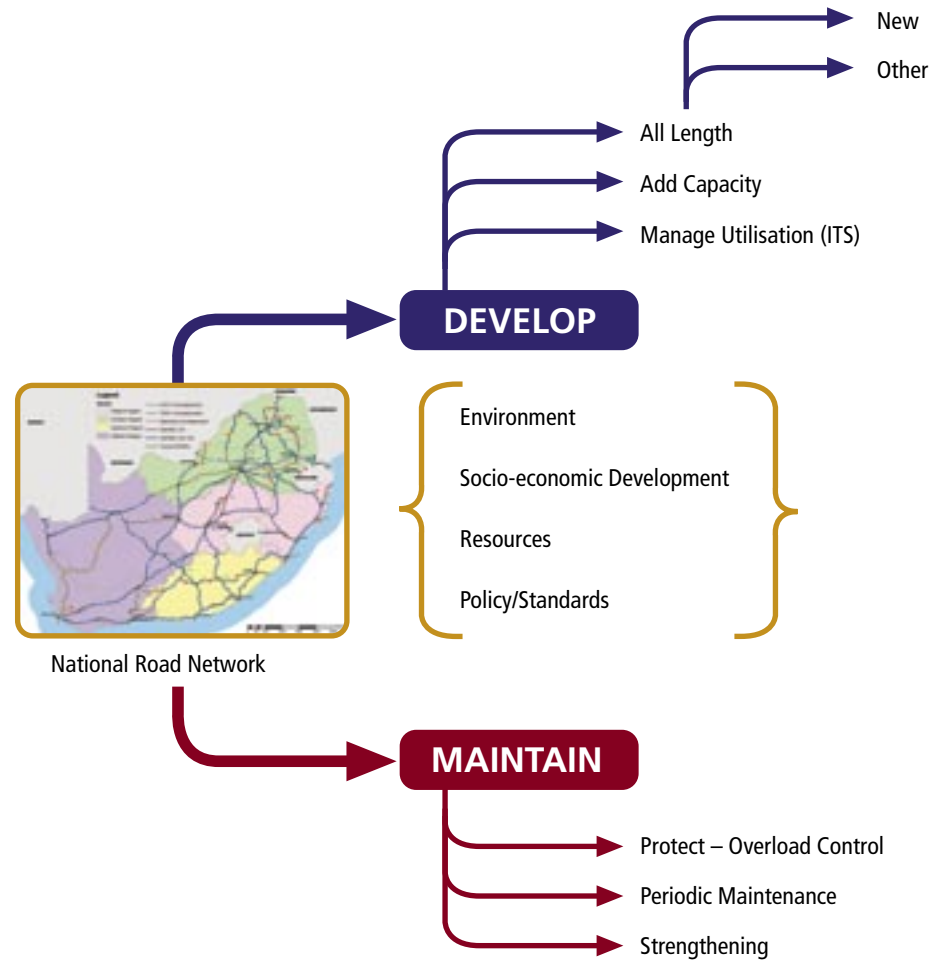
SANRAL's Core Business

“To be rich, build roads first.”

– Chinese farmer, 1999

The National Road Network – Core Functions

The figure below renders a graphic overview of SANRAL's core functions.



The South African road network is broadly classified in terms of the authorities primarily responsible for the provision of such roads and its functionality. The classification is as follows:

- National roads – Roads providing mobility of national importance. These roads are usually associated with longer travelling distances at high speeds with limited access and minimum interference to free flow of traffic. These roads are primarily provided for economic reasons and to improve and support economic growth.
- Provincial roads – Roads providing access and mobility in a regional context. These roads usually form links between towns not situated along national roads.
- Municipal roads – Roads providing mobility and access in urban areas.
- Rural roads – Roads providing mobility and access to remote communities and areas, usually inter- and intra-village roads.

Certain provincial roads have been identified as part of the long-term strategic national road network. The latter now relates to approximately 7 000 kilometres of national routes under the jurisdiction of provincial government which is required to be incorporated into the existing national road net-

SANRAL's vision is thus to be responsible for all national routes of strategic and economic importance – the national road network – a total of approximately 20 000 kilometres.

The main objective with a programme to expand and maintain a comprehensive road network is to facilitate, through the appropriate channels, acceptance for the implementation of a financing strategy for a new road network expansion programme.

work. SANRAL's vision is thus to accede to the request of various provincial administrations, in the short and medium term, to be responsible for all national routes of strategic and economic importance – the national road network – a total of approximately 20 000 kilometres. In view of the severe road funding constraints experienced by the provinces, SANRAL and the provinces have agreed to work together to declare identified provincial road sections as national roads.

Advantages of a Comprehensive Road Network

A sound balance between the social and economic interests in roads provision is essential for ensuring that the gap between the disadvantaged and the economically advantaged sectors of society is reduced. Road authorities in the past have unwisely differentiated between social and economic roads in an attempt to motivate protected sources of funding and to assume responsibility for these roads. This led to various inadequacies in the delivery of infrastructure – responsive to both economic and social needs. Road provisioning and planning also became compartmentalised resulting in various

institutions and departments with no dedicated entity responsible for a holistic, integrated and need responsive road network.

It became evident that roads provision should be approached on a network basis, and schemes justified, as appropriate, on the grounds of the secondary benefits that stand to be generated. This implies that, irrespective of the location of the road or its current or envisaged future standard, its function in the greater social and economic context of the country should be the prevailing criteria. This, in turn, should determine the party best able to manage it.

It follows to reason that a roads authority such as SANRAL, responsible for a network of primary roads, should be tasked with delivering the road infrastructure that links major economic and social spatial programmes and developments on a national scale. Other road entities should take the process a step further and ensure that locally important spatial developments are linked to both the primary road network and to the local spatial development network.

SANRAL will therefore continue to promote the concept that each and every roads authority should see its role in terms of needs that require fulfil-

ment, rather than in terms of the class of road that it should manage. In so doing, roads authorities will strengthen their position to lever-in private sector involvement and to encourage private sector participation in new schemes or solutions.

Flowing from this, roads of major economic importance should thus form part of a primary road network managed by SANRAL, whilst relevant authorities should manage other roads.

Developing the National Road Network

The main objective with a programme to expand and maintain a comprehensive road network is to facilitate, through the appropriate channels, acceptance for the implementation of a financing strategy for a new road network expansion programme. This is necessary in order to close or satisfy the funding gap between demand and National Treasury allocations for the non-toll national road network, by illustrating:

- The current condition of the non-toll national road network and the funding demand;
- Further deterioration of the non-toll national

road network, should funding levels from the fiscus remain at the current level, and consequential financial and economic implications;

- The reduction of the shortfall by the proposed toll road expansion and related funding plan;
- A conservative financing methodology and phasing strategy that will minimise financial risk for both SANRAL and the National Treasury; and
- Assistance in the establishment of a primary road network, thus alleviating the pressure on provincial governments.

In order to assist the provincial administrations, SANRAL has agreed to incorporate certain roads as part of the national road network. During the 2003/04 financial year 2053 km of provincial roads (See Table 1) were incorporated into the national road network; followed by 1560 km of provincial roads (See Table 2) in the 2004/05 financial year.

Table 1: Roads Incorporated in 2003/04 Financial Year

Province	Road	Year Incorporated	Proclamation Date	Length (Estimate)
Western Cape	National Route 2 sections 2, 3 and 4 from Grabouw to Swellendam	2003/04	22/04/2003	150 km
Eastern Cape	N9 between Eastern Cape border and Middelburg	2003/04	22/04/2003	30 km
	R61 known as the N9 between Eastern Cape border to Trunk Road	2003/04	22/04/2003	137 km
	Trunk road 49/1 also known as the R61 between the intersections with the N9 and N10	2003/04	22/04/2003	88 km
	Trunk road 49/1-2 also known as the R61 between the intersections with the N10 and N6	2003/04	22/04/2003	145 km
	Trunk road 18/1 +R61 – intersection with N6 to Umtata	2003/04	22/04/2003	220 km
	Various portions of the R61 forming part of the N2 Wild Coast Toll Project	2003/04	22/04/2003	120 km
Free State	N5 Harrismith and Winburg	2003/04	22/04/2003	220 km
	N6 Bloemfontein to Smithfield	2003/04	22/04/2003	134 km
	N8 Bloemfontein to Maseru	2003/04	22/04/2003	140 km
	R30 Bloemfontein to Virginia	2003/04	22/04/2003	134 km
	Thabong link Road	2003/04	22/04/2003	11 km
	R34 between Odendaalsrus and Kroonstad	2003/04	22/04/2003	74 km
	P4/1 linking with P36/1	2003/04	22/04/2003	47 km
Gauteng	P154 Pretoria to Mpumalanga Border	2003/04	01/12/2003	130 km
KwaZulu-Natal	MR 439	2003/04	26/09/2003	180 km
	P678 between Pongola river and Mpumalanga Border, N2 Intersection to Swaziland Border and P30 between N3 and N11	2003/04	26/09/2003	93 km
Total for 2003/04				2053km

*“The market is not attended from a single road.”
– African proverb*

*“When a road is good, it is used
a second time.”
– African proverb*

Table 2: Roads Incorporated in 2004/05 Financial Year

Province	Road	Year Incorporated	Proclamation Date	Length (Estimate)
Limpopo	Routes R521 from Polokwane to Intersection with R523, North of Vivo then on R523 up to intersection with N1 at Masekwaspoort	2004/05	07/05/2004	178 km
	R37 from Burgerspoort to Polokwane	2004/05	30/07/2004	142 km
	R40, R526, R71 and R36 from Marite at Mpumalanga Border to intersection with N1 at Bandolierskop	2004/05	22/10/2004	266 km
	R71 from Polokwane to Tzaneen	2004/05	22/10/2004	89 km
	R81 from Polokwane to Giyani	2004/05	22/10/2004	149 km
	N11 from Mpumalanga Border to RSA/Botswana Border (Martin's Drift)	2004/05	22/10/2004	276 km
	R510 from Groblersvlyt to Monte Christo	2004/05	22/10/2004	235 km
	R572 between Stockpoort to Tom Burke	2004/05	22/10/2004	95 km
Mpumalanga	N17 - Gauteng Border to Ermelo	2004/05	6/01/2005	130 km
Total for 2004/05				1560km

SANRAL will continue with this programme. Roads still to be incorporated are reflected in Table 3 on the next page:

Table 3: Roads to be Incorporated

Province	Road	Year Incorporated	Proclamation Date	Length (Estimate)
Northern Cape (2603 km)	N7 - Western Cape Border to Garies	2005/06	May 2005	35 km
	N8 - Free State Border to Groblers-hoop	2005/06	Sep 2005	285 km
	N10 - Western Cape Border to Namibia Border	2005/06	May 2005	662 km
	N12 - Western Cape Border to North West Border	2005/06	May 2005	491 km
	N14 - Springbok to North West Border	2005/06	May 2005	634 km
	N18 - (R49) N12 to North West Border	2005/06	May 2005	50 km
	R27 - Western Cape Border to Keimoes	2005/06	Sep 2005	446 km
Gauteng (273 km)	N17 - Springs to Gauteng Border	2005/06	Dec 2005	118 km
North West (1098km)	N12 - Northern Cape Border to Gauteng Border	2005/06	Sep 2005	330 km
	N14 - Northern Cape Border to Gauteng Border	2005/06	Sep 2005	432 km
	N18 (R49) - Northern Cape Border to Botswana Border	2005/06	Sep 2005	243 km
	R510 - Limpopo Border to Rustenburg	2005/06	Sep 2005	93 km

Province	Road	Year Incorporated	Proclamation Date	Length (Estimate)
Mpumalanga (814 km)	N2 - KwaZulu-Natal Border to Ermelo	2005/06	Sep 2005	167 km
	N11- Middelburg to Limpopo Border	2005/06	Sep 2005	125 km
	N17 - Ermelo to Swaziland Border	2005/06	Sep 2005	139 km
	R23 - Heidelberg to Volksrust	2005/06	Sep 2005	181 km
	R37 - Nelspruit to Limpopo Border	2005/06	Sep 2005	157 km
	R40 - Barberton to Nelspruit	2005/06	Sep 2005	45 km
KwaZulu-Natal (688 km)	R 33 - Dundee to Paulpietersburg	2006/07	Sep 2006	116 km
	R34 - Vryheid to Empangeni	2006/07	Sep 2006	201 km
	R66 - Pongola to Gingindlovu	2006/07	Sep 2006	70 km
	R69 - Vryheid to Pongola	2006/07	Sep 2006	108 km
	R602 - Ladysmith to Dundee	2006/07	Sep 2006	47 km
	R56 - Staffords Post to Pietermaritzburg	2006/07	Sep 2006	146 km
Western Cape (978 km)	N7 - Cape Town to Northern Cape Border	2005/06	Sep 2005	400 k
	N9 - George to Eastern Cape Border	2006/07	Sep 2006	147 km
	N12 - George to Beaufort West	2006/07	Sep 2006	207 km
	R27 - Van Rhynsdorp to Northern Cape Border	2006/07	Sep 2006	108 km
	R60 - Swellendam to Worcester	2006/07	Sep 2006	74 km
	R61 - Beaufort West to Eastern Cape Border	2006/07	Sep 2006	42 km
Free State	R26 - Rouxville to Villiers	2006/07	Sep 2006	468 km
Total for Future Years				6767 km

SECTION FOUR

Financing the network



*“Smooth seas do not make skillful sailors.”
– African proverb*

Funding Requirements for Non-toll Network

By incorporating the provincial roads into the declared national road network, additional pressure is exerted on SANRAL's budget. Both the MTEF budget allocations as per Table 4 and the requested funding do not reflect the required funds to rehabilitate and maintain the above roads. It is thus anticipated that additional funding will have to be procured in order to successfully service these roads.

To address the maintenance needs of national roads, the procurement of adequate funds remains one of the biggest challenges SANRAL faces. Table 4 illustrates the deficit between the requested budget allocations and the MTEF budget allocations as per the Estimate of National Expenditure (ENE).

It is evident that the MTEF budget allocations reflect a substantial deficit when compared with actual funds required. It is within this context that SANRAL needs to preserve our national assets and hence has developed a programme to address this.

Table 4: Requested versus Actual MTEF Allocations

Description	Year (R'000)						
	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08
Budget Request	1 306 799	1 394 686	1 854 556	2 551 536	3 715 796	5 222 250	5 451 457
Budget Allocation (MTEF)	873 612	1 061 06	1 170 556	1 440 78	1 756 479	* 1 901 060	* 2 476 112
Budget Deficit	433 187	333 622	684 000	1 110 747	1 959 317	3 321 190	2 975 345
Cumulative Deficit	#433 187	766 809	1 450 809	2 561 556	4 520 873	7 842 063	10 817 408

Notes: * Anticipated allocations from National Treasury. # Cumulative prior year allocation deficits

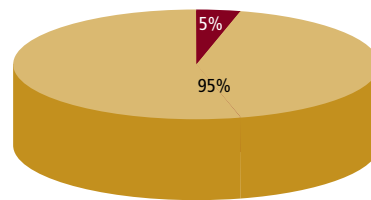
The impact of inadequate funding levels is further compounded by the fact that the cost of bitumen, which represents anything from 10% to 60 % of the cost of a maintenance activity, has increased dramatically. For example, the price of bitumen at the coast in January 1998 was R744/ton and in January 2005 R1855/ton. This represents an increase of 249% over which SANRAL or National Treasury has no influence. Unfortunately, due to the volatility of the oil price, there seems to be no respite on the horizon. The increase in the price of diesel has a similar impact.

Funding Requirements for Toll Network

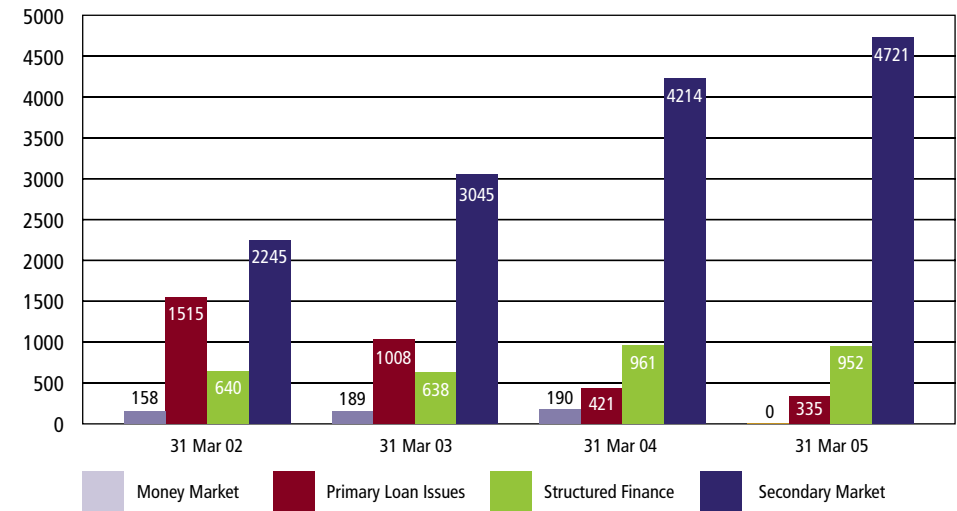
Although SANRAL proposes to extend its road network to approximately 20 000km and use various financial instruments to achieve this, the existing toll roads, however, still need to be maintained and upgraded due to traffic growth. In addition, the debt on these roads has to be serviced in the face of rising costs.

To date, sources of funding included money markets, primary loan issues, structured finance and secondary markets, as illustrated to the right.

Government guarantee utilisation for the toll network, as at 31 March 2005, is reflected below:



As at 31 March 2005



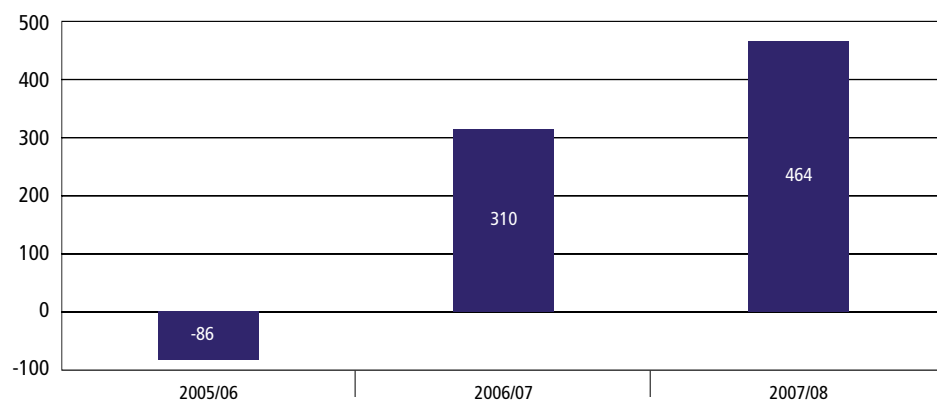
In order to manage the existing toll road network, the net borrowing requirements for the next five years are estimated to be as follows:

Table 5: Net Borrowing Requirements for the Existing Toll Road Portfolio

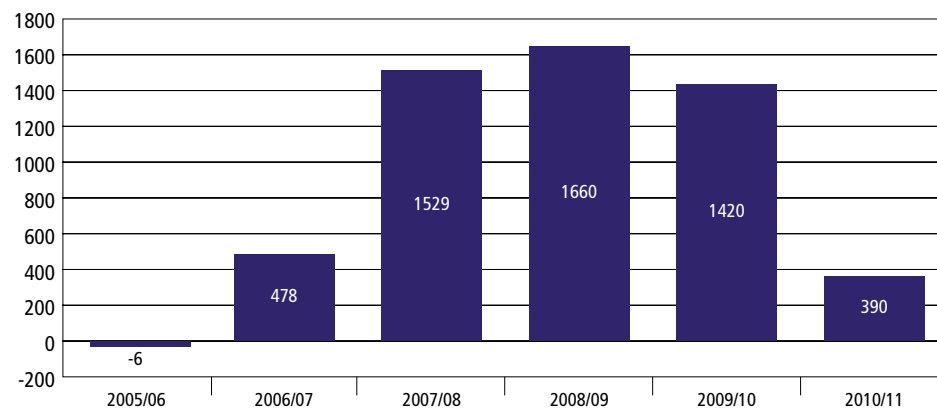
Financial Year	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
Net Borrowing Requirement (R'000)	971 000	794 000	113 000	12 000	184 000

However, should one project be added to the current toll network, e.g. the Gauteng Network Scheme, this has a dramatic impact on the borrowing requirements, as illustrated in the following graphs:

Borrowing Requirements: Current Toll Network



Borrowing Requirements including Gauteng Network



These graphs, once again, illustrate the dynamic nature of SANRAL's business and the need to proactively manage its financial affairs.

NEW TOLL PROJECTS

The current programme, which forms part of SANRAL's strategic vision outlined in *Horizon Twenty Ten*, comprises of the following:

Table 6: New Toll Projects

Planned Toll Projects (2005-2012)	
Initial Capital Works Expenditure (2004 Rand)	
N1 Huguenot Tunnel - Second bore	R 550m
N1 South and R30 Welkom - Bloemfontein (196 km)	R 444m
N2 Tsitsikamma Extension (14 km)	R 199m
N3 Pietermaritzburg to Durban (Marianhill Toll Road) (85 km)	R 881m
N17 East Toll Road Extension (180 km)	R 629m
Gauteng Network (340 km)	R 4565m
N2 Knysna Toll Highway (23 km)	R 519m
Various Bridges	R 900m
TOTAL	R 8687m

“When spider webs unite, they can tie up a lion.”
– African proverb

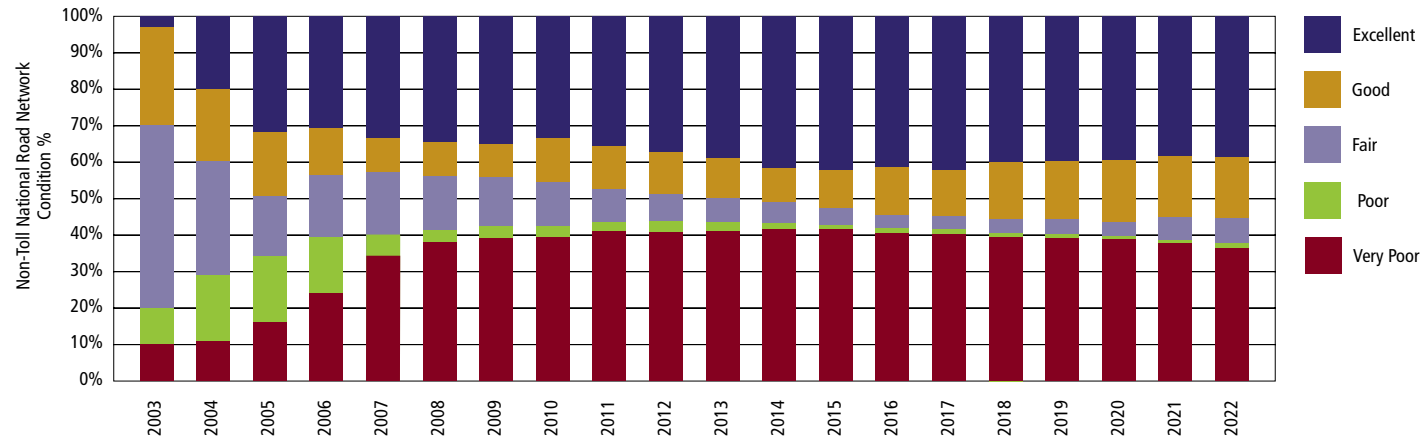
Table 7: Required Funding for New Toll Roads

Financial Year	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010
N1 Huguenot Tunnel - Second Bore	-	-	-	253	255
R30 Welkom to Bloemfontein	-	150	295	345	100
N2 Tsitsikamma Extension	-	100	100	-	-
N2 Knysna Bypass	-	-	50	207	158
N3 Pietermaritzburg to Durban	-	-	120	300	312
N17 East Extension	-	219	433	104	-
N2 Wild Coast Bridges	-	75	310	310	236
N1 Gauteng Province Network	-	852	1,029	1,029	1,029
Magalies Toll Road Extension	-	131	151	148	17
Total Borrowing (R million)	-	1,526	2,489	2,696	2,107
Total Cumulative Borrowing (R million)	-	1,526	4,015	6,712	8,819

Table 7 illustrates that SANRAL will raise an estimated R8 819 million over the next five financial years.

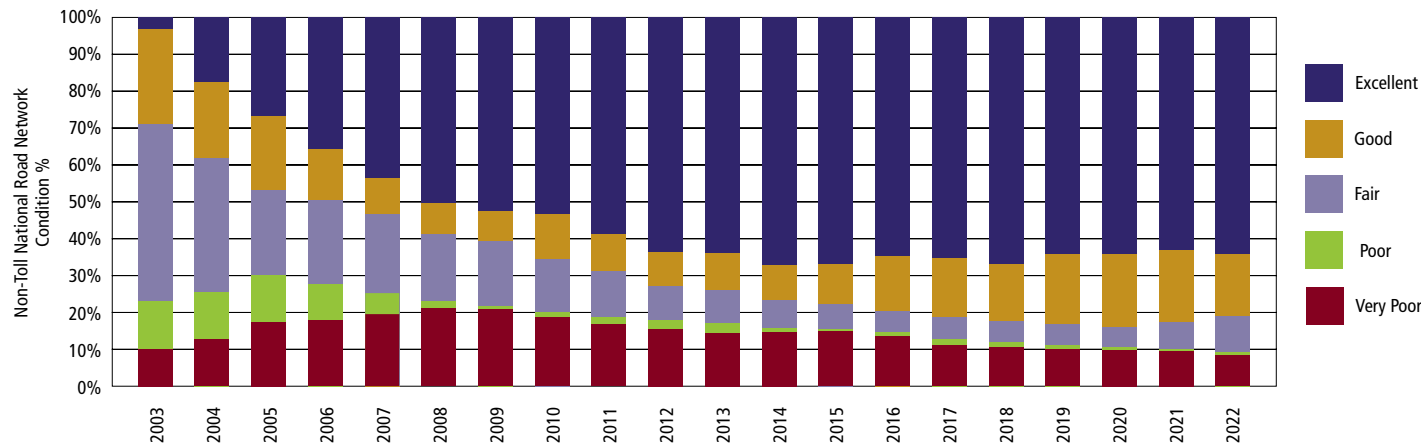
Forecasted Non-Toll National Road Network Condition

R1 400 m/year Fiscus Funding for 8 400km – No New Toll Roads (Preliminary)



Forecasted Non-Toll National Road Network Condition

R1 400 m/year Fiscus Funding for 8 400km – With New Toll Roads (Preliminary)



When looking at these illustrations, the need for furthering our toll road programme is clearly evident.

The benefits of toll financing are numerous, e.g:

- Motorists generally have the choice of using a toll facility or an alternative tax-supported route. In exchange for payment, the customer receives value in the form of savings, convenience, better maintained roads and a reduction in vehicle operating costs. The result is less congestion for all drivers and enhanced mobility and economic growth.

- Motorists are not taxed twice to use a toll facility. Instead, they are given new road capacity and are able to reduce the losses of time, economic productivity and competitiveness wasted sitting in traffic each and every day. A toll road is funded by those opting to pay for the use of the facility, whereas taxes are not optional and are charged to everyone.
- Transport funding is always critical for growing areas and areas in need of improvements. Typically, the demand for roads and bridges far outpaces conventional funding sources. Consequently, toll revenues serve as a complement to conventional funding sources and releases fiscus funds for non-toll roads.
- Early project implementation has widespread economic spin-offs. Transportation capacity is available to the driving public many years sooner

“There really is no longer any excuse for public sector managers who dilly-dally in implementing their mandates, and no reason for the public sector to doubt government’s commitment to this delivery path.”

– Trevor Manuel

than would otherwise be possible.

- Toll financing provides a dedicated revenue stream to fund ongoing operations, maintenance and improvements.
- Toll financing increases the attractiveness of road based public transport systems due to lower vehicle operating costs, possible reduced toll fees and shorter travel times.

UNSOLICITED BIDS

The South African Minister of Finance, Trevor Manuel, is emphatic that, as a result of the Standardised PPP Provisions, “there really is no longer any excuse for public sector managers who dilly-dally in implementing their mandates, and no reason for the public sector to doubt government’s commitment to this delivery path.”

SANRAL has also developed an innovative policy – titled “Policy of The South African National Roads Agency in respect of Unsolicited Proposals, May 1999” (See Appendix) – for dealing with initiatives identified by the private sector. This policy was developed in view of Government’s strong commitment to develop and maintain infrastructure and services in partnership with the private sector, thereby drawing on benefits of private sector

funding, innovation, efficiency and skills. This policy aims to encourage the private sector to propose self-funding road infrastructure projects (which are identified within the strategic framework network by SANRAL) to SANRAL for consideration. Under this policy regime, several exciting and attractive projects have been proposed which SANRAL is prepared to adopt and implement. The projects listed below are in various stages of development.

The value of the Unsolicited Bid policy was shown during the feasibility study of the N1 Gauteng Network between Tshwane (Pretoria) and Johannesburg. The study showed that this project was not financially viable as a wholly privately financed project, and will therefore be developed as a toll road financed by SANRAL.

Table 8: Proposed Concession Projects

Proposed Concession Projects	2004 Rand
The N1/N2 Winelands Toll Highway (142 km)	R5.9 billion
The N2 Wild Coast Toll Highway (540 km)	R7.3 billion
The R300 Cape Town Ring Road (68 km)	R2.8 billion

In Public Private Partnerships of this nature, SANRAL shares the costs associated with design and development work with the proponents of the unsolicited bids. All other costs, including initial construction and financial costs will be borne by the successful tenderer. These projects will be procured on a build-operate-transfer (BOT) basis, as successfully implemented on the N4 Maputo Development Corridor, the N3 Toll Road and the N4 Platinum Highway projects.

It is anticipated that the following investments will be made by the private sector in time to come:

Table 9: Investment by Private Sector

PPP Expenditure Forecast										
Project	2003/ 2004	2004/ 2005	2005/ 2006	2006/ 2007	2007/ 2008	2008/ 2009	2009/ 2010	Totals up to 2010	Location	Output
N1-N2 Winelands Toll Highway	-	-	-	156	647	647	493	1,944	Western Cape	171 km
R300 Cape Town Ring Road	-	-	-	-	122	508	508	1,138	Western Cape	94 km
N1 Gauteng Network	-	-	-	852	1,029	1,029	1,029	3,940	Gauteng	350 km
N2 Wild Coast	-	-	-	-	761	920	920	2,600	Eastern Cape	560 km
N4 Maputo Development Corridor	332	73	83	79	118	-	-	686	Mphu- malanga	-
N3 Toll Road	92	136	182	117	159	-	-	686	FS & KZN	-
N4 Platinum Toll Road	700	143	41	10	104	121	24	1,143	GT & NW	-
Totals per Year	1,125	352	306	1,214	2,942	3,225	2,974	12,137		

It is important to note that these investments are savings that will accrue to the State, further addressing limited funding without compromising the integrity of the fiscus. Furthermore, these projects also lend themselves to foreign direct investment, which will benefit the country as a whole.

“The market is not attended from a single road.”

– African proverb

“Plans are only good intentions unless they immediately degenerate into hard work.”
– Peter Drucker

EXPENDITURE SPLIT

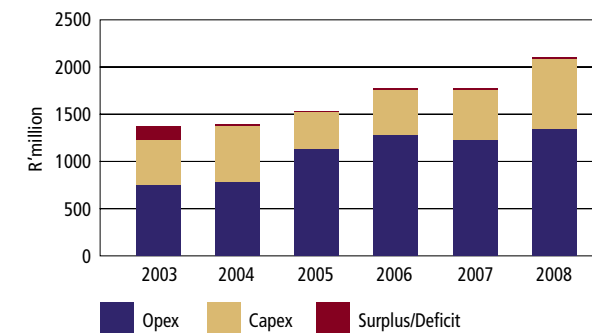
In order to maximise efficiency and effectiveness, SANRAL proposes expenditure split of its required funding. Based on the assumption that the required funding as set out in Table 4 is received from National Treasury, the expenditure split for the next three financial years will be as follows:

Table 10: Expenditure Split

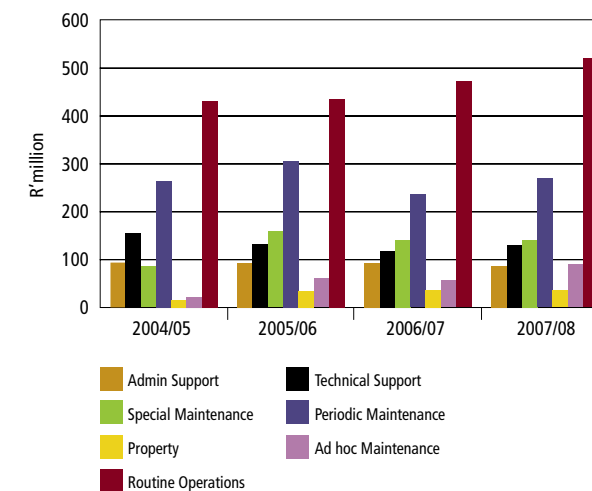
Category	Works Class	2005/2006	2006/2007	2007/2008
OPEX	Routine Maintenance	450 441	486 866	537 426
	Periodic Maintenance	316 489	243 152	276 006
	Special Maintenance	163 575	145 371	150 226
	Ad Hoc Maintenance	64,389	63 586	93 976
CAPEX	Strengthening	246 977	283 367	394 457
	Improvements	78 372	145 252	313 681
	New Facilities	149 112	106 053	15 387
TOTAL		1 469 355	1 473 647	1 781 159

Note: No overhead charges included.

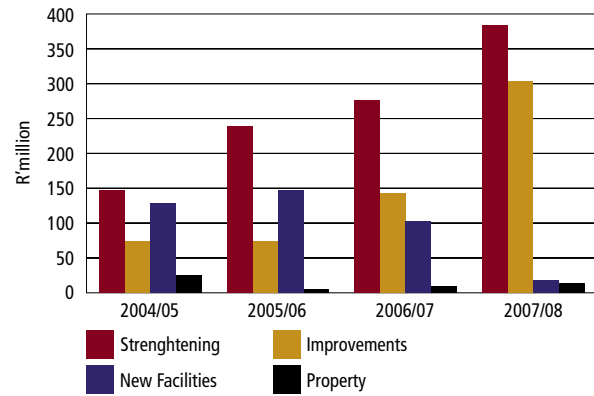
Non-Toll



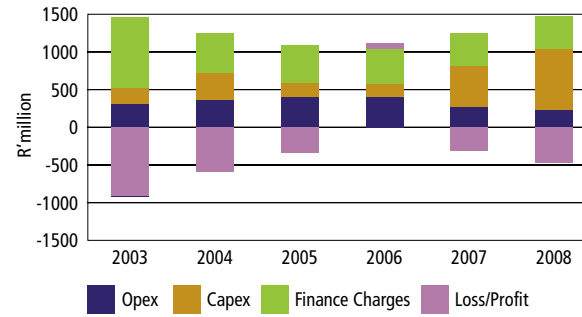
Non-Toll – OPEX



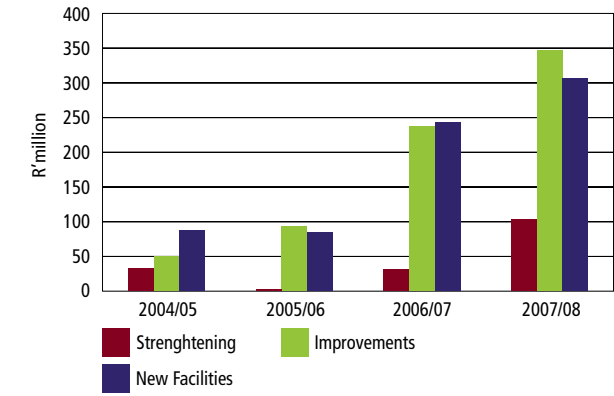
Non-Toll – CAPEX



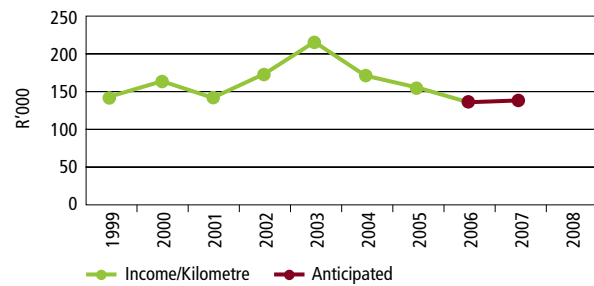
Toll



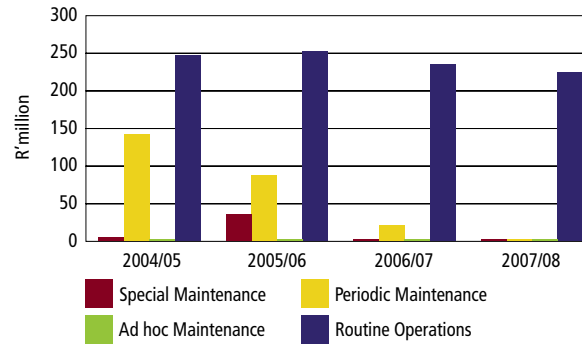
Toll – CAPEX



Non-Toll



Toll – OPEX





SECTION FIVE

Road Network Management

*“It is the function of creative man to perceive
and to connect the seemingly unconnected”
– William Plomer*

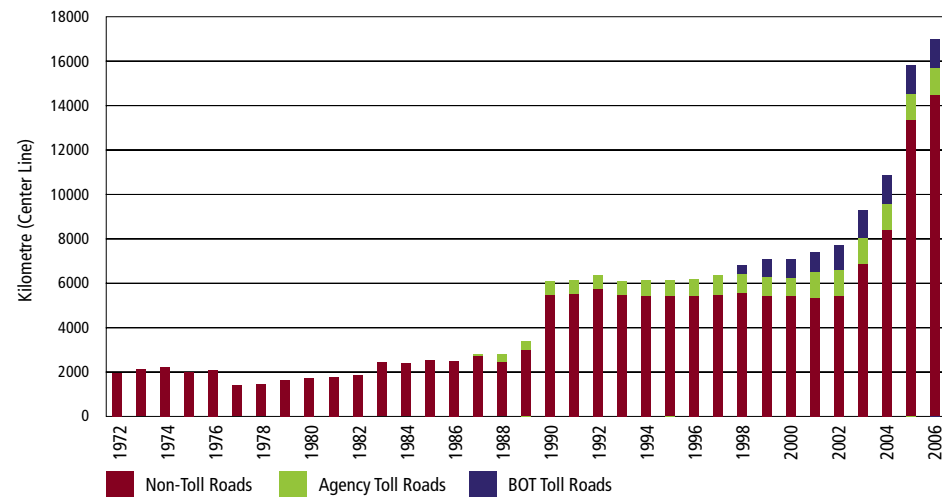
Introduction

The current 14 000km of national roads under SANRAL's jurisdiction, comprises of both toll and non-toll roads. While toll roads are funded through the 'user pay' principle, non-toll roads are funded through the National Treasury. The challenge faced by SANRAL in this regard, specifically in relation to non-toll roads, is that while road use continually increases, road funding declines. The current funding level from the National Treasury, unfortunately, has fallen to such a level that it cannot fully finance the maintenance needs of the existing network, let alone provide for expansions required to meet the growing traffic demands.

With an assumed funding level of one billion Rand (R 1,4 billion) per year for the non-toll national road network – and the non-realisation of the toll road programme – it can be deduced that the existing road network will rapidly deteriorate over the next five years to a forecasted backlog of approximately R11,5 bn (2005 Rand). In other words, this implies that the assumed funding levels are only sufficient to effectively maintain approximately 40% of the non-toll network.

The network, since the previous *Declaration of Intent 2002-2005*, has increased by 60% and will grow towards the ultimate target of 20 000 km during the period covered by this *Declaration of Intent*, as seen in Figure 3.

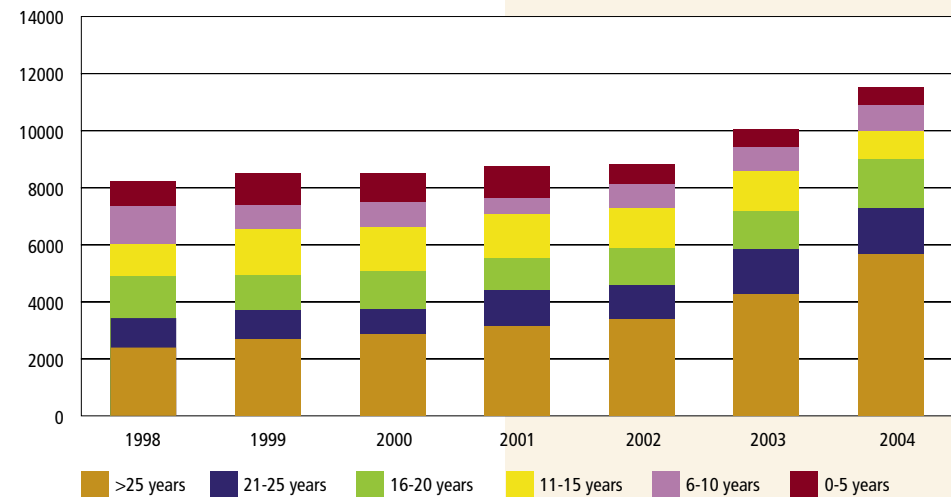
Figure 3: National Road Network Length



Pavement Age

The typical pavement structural design life period used during the design of a flexible road pavement is 20 years, assuming that all required maintenance (Opex) is done during this period. At the end of a pavement's structural life one will need to perform strengthening works (Capex) that aim to restore or improve the structural integrity of the pavement. The pavement age (carriageway kilometre) of roads under the jurisdiction of SANRAL is outlined in Figure 4.

Figure 4: Pavement Age Trend



As SANRAL's principal strategic challenge is the long-term sustainability of a primary road network, a programme is developed to finance road provision to cater for the whole nation rather than for a few privileged pockets of society.

From Figure 4 it can be noted that:

- Since the inception date of SANRAL on 1 April 1998, the pavement age trend observed is negative, with the length of network older than its original 20 year design life increasing from 3,500 km to 7,200 km currently – an increase of 110 %.
- Currently more than 62 % of the network under SANRAL jurisdiction is older than its 20-year design life - this extension of life has been made possible by using a preventative maintenance strategy of resurfacing a road every 8 to 10 years – a strategy coming under extreme pressure due to budget constraints.
- To address said negative trend, major investments into structural strengthening (Capex) works are required, which are not possible at current funding levels due to more than 65 % of the budget being required to keep the aging road network safe for daily use.

This in itself poses various challenges to SANRAL, including the financing thereof. However, this avails SANRAL with opportunities to explore new and innovative financial instruments. In support of the growth of South Africa's economy, SANRAL will

maximise the opportunity from its acquired credit ratings to reduce its dependency on the fiscus. This would include investigating non-state guaranteed capital and money market loans, medium term note programmes, monoline wrapped financial instruments and foreign direct investment. This will be a responsible option taking into account the societal concerns regarding the 'user pay' principle.

As SANRAL's principal strategic challenge is the long-term sustainability of a primary road network, a programme is developed to finance road provision to cater for the whole nation rather than for a few privileged pockets of society. However, by understanding the needs and concerns of road users, the motivation for using national roads, their expectations of what constitutes a fair return and how SANRAL can improve the safe use of the road network, clearly suggests a primary road network consisting of both toll and non-toll roads.

However, taking the disparate demands on tax-based revenues into account, the expansion of the primary road network needs to be strategically programmed and funded under a private sector borrowing/concessioning programme, thus reducing the pressures on the National Treasury to meet the basic needs of the citizens of South Africa.

It is for this reason that this *Declaration of Intent* addresses the physical and financial requirements of the next three years as a further step in attaining our goals.

Asset Preservation

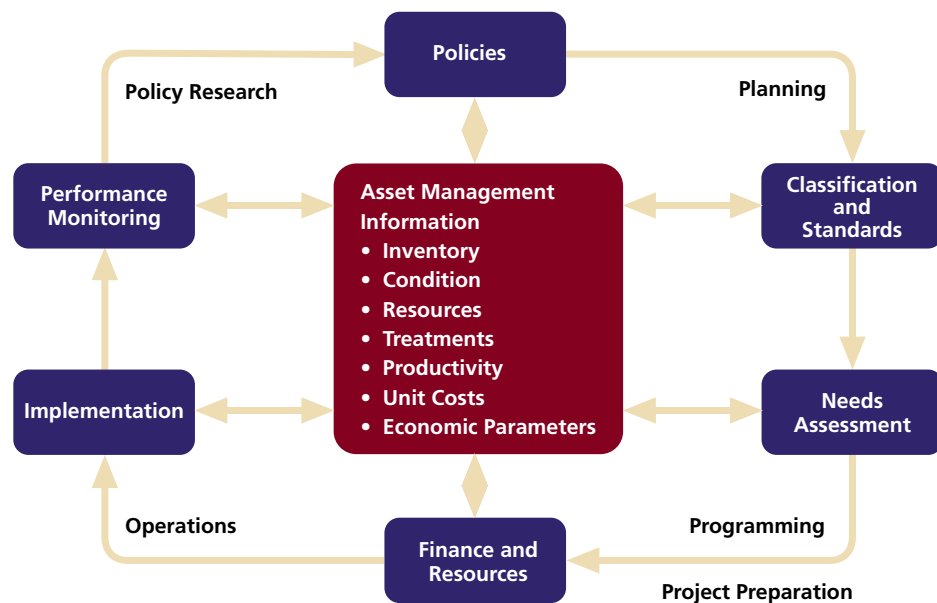
Asset Management brings a particular perspective to the manner in which SANRAL takes a long-term view of infrastructure performance and cost for various options in a comprehensive, proactive and informed way. It is driven by policy goals and objectives, and relies on systematic assessments of asset performance and costs, when making decisions on future actions.

As a result, asset management impacts on virtually every aspect of our business, including planning, engineering, finance, programming, construction, maintenance and information systems. SANRAL's asset management goals are to:

- Build, preserve, and operate the road network under our jurisdiction more effectively with improved asset performance;
- Deliver to our customers the best value for every Rand spent; and

- Enhance our credibility and accountability with the various legislative bodies.
- Improved service and performance to our customers;

Asset Management Cycle



The benefits of asset management could be regarded in many different ways. The following are some of the outcomes already achieved and/or anticipated by SANRAL:

- Lower long-term costs for infrastructure operations and maintenance;
- Improved cost-effectiveness and use of available resources;
- A focus on performance and outcomes;
- Improved accountability for decisions and expenditures; and
- Lower costs for road users.

SANRAL will continue to re-evaluate and enhance its asset management procedures during the currency of this *Declaration of Intent* to ensure achievement of envisaged outcomes.

VALUE OF ASSET PRESERVATION

Road performance depends on what, when, and how maintenance is performed. Roads deteriorate over time primarily due to traffic and environmental influences (i.e. weather, ultra-violet radiation, overloading, etc.). For these reasons roads have to be maintained throughout their design life to ensure that they deliver the performance envisaged. The timing of maintenance is crucial, and if not optimally performed the consequences can be disastrous as illustrated by the following actual examples:

- **Ideal maintenance:** If maintenance is performed as and when required based on technical assessments of the road, there will be no visible signs of distress on the road for the road user, and it might even seem to him that limited resources are not being utilised effectively. The typical cost of maintenance at this stage is 1 unit of currency per km.

SANRAL will continue to re-evaluate and enhance its asset management procedures during the currency of this Declaration of Intent to ensure achievement of envisaged outcomes.

“A tree does not move unless there is wind.”

– African proverb

- Maintenance delayed 3 years:** If the maintenance is not performed when required based on technical assessments, and the road is allowed to deteriorate for a further 3 years, visible signs of distress might become apparent to the road user, and thus the need for maintenance will be more acceptable. The typical cost of maintenance at this stage is now 6 units of currency per km for the same road. To repair this road will therefore now be 6 times more expensive compared to 3 years ago when the maintenance was actually required. With limited budgets, this also implies that for every 1 kilometre of poor road that needs to be maintained at this level, 6 kilometres of good road cannot be maintained, resulting in these good roads further deteriorating with the associated increase in future maintenance requirements.

- Maintenance delayed 5 years:** If the maintenance is not performed when required based on technical assessments, and the road is allowed to deteriorate for a further 5 years, the levels of distress will affect the road user severely. The typical cost of maintenance at this stage is now 18 units of currency per km for the same road. To repair this road will now

be 18 times more expensive compared to 5 years ago when the maintenance was actually required. With limited budgets, this also implies that for every 1 kilometre of very poor road that needs to be maintained at this level, 18 kilometres of good road cannot be maintained, resulting in these good roads further deteriorating with the associated increase in future maintenance requirements.

The economic costs of delayed maintenance actions are borne primarily by road users. When a road is not maintained – and is allowed to deteriorate from good to very poor condition – each R1.00 not spent on road maintenance (a false saving) increases vehicle-operating costs by R 2.00 to R3.00. Far from saving money, cutting back on road maintenance increases the cost of road transport and raises the net costs to the

Cost of Maintenance Delay



economy as a whole. Thus, postponing road maintenance because of ill-conceived budget constraints, results in a significant financial penalty.

With the above scenarios in mind, and mindful of the value of our assets and the challenges faced in keeping these assets in good condition in the face of declining revenues, SANRAL adopted an asset preservation policy in line with the Ideal Maintenance scenario. This adopted asset preservation policy, also referred to as the 'Prevention First' policy, seeks first to preserve existing assets at least life cycle cost with available resources, before new assets are created. SANRAL will continue with this asset preservation policy.

SLOPE MANAGEMENT

As part of the holistic approach to road asset management, a national Slope Management System (SMS) has been developed for incorporation into SANRAL's overall road network maintenance system.

The three-stage system will initially comprise a detailed inventory/risk stage whereby all slopes and embankments higher than 5m, plus all laterally

supported anchored/piled walls along the entire national road network are identified and logged for ultimate geotechnical rating purposes. This phase is expected to be completed during 2006 but will, however, become ongoing in order to include all the new routes being incorporated into the national road network. Similar arrangements have been made with SANRAL's three concessionaires in order to ensure a 'seamless' approach to risk management along the entire national road network.

The second stage involves the analysis of all the information compiled during the first stage in order to assess all existing areas of instability and to identify any locations having potential instability. A risk profile, together with a monitoring/stabilisation strategy, will thereafter be compiled for each location.

The third stage comprises procedures for monitoring and regular reporting from the routine road maintenance route managers and contractors have been put in place to report specific geotechnically related incidents, so as to facilitate possible re-assessment of risk ratings allocated previously to such individual sites.

Ultimately, Slope Management is not only to ensure effective management and maintenance of all geotechnical related assets, but also to follow a proactive approach aimed at avoiding sudden failures, with resulting road closures before they occur.

Safety Management

South Africa has a deplorable road safety history. Some gains in improving the situation have been made through the implementation of the Department of Transport's Road to Safety Strategy and its components, such as Arrive Alive, but far more needs to be done to alleviate the losses, pain and grief associated with our road transport safety problem.

SANRAL is primarily involved with the road environment and safe engineered roads, which is but one of several factors, which may influence overall road safety. We also concern ourselves with reducing the overloading of heavy vehicles, which in itself is a road safety hazard.

Such factors as poor sight distance, potholing of the road surface, inadequate fencing to prevent

SANRAL's adopted asset preservation policy, also referred to as the 'Prevention First' policy, seeks first to preserve existing assets at least life cycle cost with available resources, before new assets are created.

SANRAL remains committed to managing our roads in such a way that all of the factors which could contribute to crashes, are detected early and remedied in as short a time as possible.

animals from entering the road reserve, inadequate road signs, poor road surface friction and bad drainage, as a few examples, may contribute towards an unsafe road environment. We are very aware of the influence that these factors have on road safety, and as a result, SANRAL remains committed to managing our roads in such a way that all of the factors which could contribute to crashes, are detected early and remedied in as short a time as possible. More specific actions and programmes concerning our contribution towards reducing the number of road crashes in South Africa are discussed below.

PEDESTRIAN SAFETY MANAGEMENT

It is of little consequence that legislation prevents pedestrians from using our freeways, as our social realities dictate that people need to walk along or cross our busy roads. Our challenge is to accommodate this situation by providing infrastructure and measures, which separate people from passing traffic. As a result, our policies and procedures in respect of planning and design incorporate a special section dedicated to improving the safety of pedestrians on our roads. The policy is implemented through our involvement in the measures listed as follows:

Safety Measure	Element
Traffic calming	Raised pedestrian crossings
	Speed humps
	Painted pedestrian crossings
Safe stopping areas: Commuters	Taxi lay-byes
	Bus lay-byes
Walkways, kerbs and ramps	Pedestrian walkways
	Barrier kerbs
	Pedestrian ramps
Other road works	Road markings
	Road signs
	Guardrails
	Physical median islands
	Storm water drains
Traffic signalisation	Traffic signal upgrades
Lighting	Lighting repairs
	Lighting upgrades
Pedestrian bridges	Dedicated bridges to channel pedestrian movement

The above measures will bring about significant improvement in the levels of safety in the areas concerned, by demarcating different uses of the road network.

The community education projects that have been undertaken to address pedestrian and cyclist accidents have proven successful, and funds permitting, will be continued in the future. SANRAL also sponsors a quarterly magazine, *Strika*, which aims to address road safety principles. In addition, a

series of learners' manuals, as well as a teacher's manual have been developed to assist in the education with regard to traffic safety.

Our traffic-engineering cluster has also acquainted themselves with the contents of the Road to Safety Manual developed by the Department of Transport. We will continue with the Road Safety Audit (RSA) so as to enable us to provide a safe operating environment for the road user. Specific measures will be implemented, either as part of routine road maintenance contracts, or as part of rehabilitation and upgrading work.

LAW ENFORCEMENT AND OVERLOADING

SANRAL does not have the legislative power, or constitutional duty to directly engage in law enforcement activities. However, SANRAL is able to contract with provincial and local traffic law enforcement agencies to obtain specific services, where this is of direct benefit to SANRAL.

Overloading of vehicles is as much a road safety hazard as it is a road pavement damage concern. For this reason, SANRAL spends a considerable

amount of money to combat overloading. The benefits of this expenditure are twofold: we conserve our road assets by minimising premature deterioration and damage caused by overloaded vehicles and, simultaneously, we are able to provide a safer road to drive on. We look forward to the functioning of the Road Traffic Management Corporation, and once it has been established, it is intended to negotiate the handing over of Traffic Control Centres to the Corporation. Until such time, SANRAL will continue its campaign, in close co-operation with the various law enforcement authorities, against overloading. This will contribute towards safer roads, and at the same time, prevent unnecessary premature consumption of our roads.

It is SANRAL's view that unless all parties involved in the loading, moving and receiving of goods exercise good corporate governance and take joint responsibility for their behaviour, the practice of overloading, operating unroadworthy vehicles and exploiting drivers will continue along with the accelerated deterioration of our road infrastructure. In this regard, SANRAL endorses the Load Accreditation Programme (LAP), which offers a recognised mechanism to companies to demonstrate their acceptance of responsibility. LAP is chaired by the

Road Freight Association (RFA) and represented by SANRAL and representatives from participating industries, as well as the Department of Transport (DOT).

INCIDENT MANAGEMENT SYSTEMS

Interaction between emergency services and law enforcement agencies, in response to incidents occurring on the national routes, is essential. This is embraced by the Incident Management System (IMS) protocols in place on all declared national routes. Central communication centres have been established on declared national routes, which facilitate the communication of incidents and the reporting thereon.

A training module on IMS for response services was developed this year and registered with the South African Qualifications Authority (SAQA) through co-operation between all stakeholders, including the DOT. This module is a level 5 training certificate in Incident Management.

The next phase of the training module process is the development of training material and the training of the trainers.

It is SANRAL's view that unless all parties involved in the loading, moving and receiving of goods exercise good corporate governance and take joint responsibility for their behaviour, the practice of overloading, operating unroadworthy vehicles and exploiting drivers will continue along with the accelerated deterioration of our road infrastructure.

In order to meet the expectations of road users and the general society, the road network operator must strive to provide 'hard' and 'soft' engineering solutions.

An electronic data-capturing programme for all incidents occurring on the national routes has also been developed by SANRAL. This database facilitates the central collation of accident and incident information for analysis and determination of safety related actions, such as improved co-ordination between services, road safety improvements or enforcement initiatives.

INTELLIGENT TRANSPORT SYSTEMS (ITS)

Transportation comprises the movement of people and goods through space and time. For the road network operator, road infrastructure symbolises the space and the efficiency of road transport operations measured in travel time. In order to meet the expectations of road users and the general society, the road network operator must strive to provide amongst others, the following:

- Trafficable roadway (pavement, tunnels, bridges, etc);
- Sufficient capacity (number of lanes, etc);
- Sufficient traveller information distribution (road signage, pre-trip and en-route, etc);
- A safe roadway (geometry, warning signage, etc); and

- An environmental friendly roadway (minimising air and noise pollution, etc).

The success and efficiency of the network operator in providing the above services are in most instances measurable, for instance:

- Riding quality to determine pavement condition;
- The level of service (LOS), queue lengths (at intersections and toll plazas), travel time or variation in travel times to determine whether sufficient capacity is provided;
- Accuracy and timeliness of traffic information;
- Road safety in terms of the number of crashes and fatalities per 100 million vehicle kilometers; and
- Environmental impacts in terms of noise levels and CO₂ emissions.

The traditional approach to achieve acceptable levels of efficiency was mainly focused on physical construction works ('hard' engineering), e.g:

- In order to ensure acceptable riding quality, pavement maintenance and rehabilitation works were carried out;
- Increased capacity of the roadway and toll plazas and the reduction of vehicle emissions were achieved by adding the capacity required;

- Traveller information was communicated to road users by means of static road signage; and
- Safety improvements were achieved by changing road geometry and the construction of barriers.

In the past two decades, there have been a number of developments whereby innovative solutions ('soft' engineering) were implemented to add value to, and to extend the life span of existing infrastructure in order to achieve increased efficiency in road network operations. Road network operators found that:

- The time period between periodic maintenance actions can be increased and damage to the pavement structure decreased with effective overload control and improved law enforcement.
- Instead of the construction of additional capacity, existing capacity can be optimised through Intelligent Transport Systems (ITS) measures (such as Electronic Toll Collection (ETC), ramp metering, urban traffic control etc.), Travel Demand Management (TDM) measures to reduce the number of single occupancy vehicles by encouraging modal shifts (from cars to public transport or bicycles) and ride sharing. These actions will also decrease the impact of transportation on the environment.
- Improved road safety can be achieved pro-

actively through early warning systems (accidents, speeding, road works) and in-vehicle systems. Incident Management Systems (IMS) can assist to detect and clear incidents effectively and thereby improve the chances of those injured to survive or recover from injuries, prevent secondary incidents and restore traffic flow as quickly as possible.

- Improved traveller information can be achieved by means of dynamic road signage, radio, internet, cell phones, in-vehicle systems, etc. These tools can assist road users to plan their trips, reach their destinations or change their route or modal choice.

In order to optimise network operations, the network operator can apply 'hard' or 'soft' engineering options or a mixture of both. The specific choice of option to be implemented will be influenced by, amongst others, individual countries or organisations/institutions, legislation, policies, social and economic circumstances, project financing mechanisms and the life cycle benefits and costs of each option. Therefore, options to be implemented may differ due to the particular circumstances within our country.

As South Africa is a country of contrasts and unique challenges (e.g. the sophistication of the urbanised

as opposed to developing rural areas), the effectiveness of integrated ITS deployment has not been tested up until now. SANRAL, together with the Gauteng Dept. of Road and Public Works, Tshwane Metropolitan Municipality, City of Johannesburg and Ekurhuleni, are therefore in the process of rolling out an Integrated Freeway Management System for the Ben Schoeman Freeway in Gauteng as a pilot project. The project will assist in determining the effectiveness of 'soft engineering' applications for our freeway network.

The extent of the existing freeway network is limited in terms of full road network management actions. At the moment, not many alternative freeways are available to divert traffic in the event of incidents. Therefore, the expansion of the freeway network ('hard engineering'), in conjunction with ITS applications, is being promoted for optimising road network operations. However, this system will aim at optimising operations for our existing network.

Maintenance

ROUTINE ROAD MAINTENANCE

Routine road maintenance is defined as those activities that are conducted on a regular basis to ensure that the road is functioning properly. As such, routine maintenance is sometimes referred to as 'proactive' and/or 'reactive' maintenance. This suggests that it is work that is performed to prevent a specific distress or as a reaction to a specific distress.

The entire national road network will continue to be covered by this type of contract, which ensures the availability of personnel to react to an emergency. These contracts will continue to be used for the development and promotion of SMMEs.

PERIODIC MAINTENANCE

In contrast to routine maintenance treatments, periodic maintenance treatments are ideally applied on pavements prior to their manifestation of distresses. These treatments are intended to prolong the life of a pavement by restoring (or maintaining) desirable properties while such measures are still

The entire national road network will continue to be covered by RRM, which ensures the availability of personnel to react to an emergency. These contracts will continue to be used for the development and promotion of SMMEs.

Periodic maintenance can delay future deterioration, or correct existing distresses.

cost-effective. Periodic maintenance can delay future deterioration, or correct existing distresses. They therefore can be classified as preventative or corrective (reduce deterioration progress, or correct existing deterioration).

SPECIAL MAINTENANCE

As with routine maintenance, special maintenance can be classified as 'reactive' roadworks due to unforeseen circumstances. These circumstances could be the result of natural phenomena such as flash floods, or damage caused due to crashes.

STRENGTHENING

Strengthening typically includes maintenance treatments such as the addition of thick surfacings, the removal of part of the existing pavement structural layers and the addition of layers to restore or improve structural integrity and to increase the strength of the pavement. It is normally applied at the end of a pavement's structural life, when the pavement's problems are only structural in nature and no service problems are anticipated in the medium to long term.

IMPROVEMENT

This relates to works, which are aimed at improving the quality of service on roads with adequate remaining pavement structural life, but with an unacceptable quality of service. Improvements are normally applied to roads experiencing an unforeseen growth in traffic due to changes in the use of the road. These include measures of improving quality of service on existing roads, such as relief of traffic congestion, etc.



500m

An aerial photograph of a rural settlement. In the center, there is a large, multi-story building with a red roof, likely a school or community center, surrounded by smaller structures. The settlement is situated in a valley with green fields and scattered houses. A dirt road runs through the center, and a larger road or path is visible on the right. The background shows rolling hills and a clear sky.

SECTION SIX

Socio-economic Development

“You cannot hope to build a better world without improving the individuals. To that end, each of us must work for our own improvement and, at the same time, share a general responsibility for all humanity, our particular duty being to aid those to whom we think we can be most useful.”

– Marie Curie

Black Economic Empowerment

Black Economic Empowerment (BEE) has often, most unfortunately, been regarded as a means solely to redress the legacies of apartheid. This is a narrow view, as it should be seen as a value-creating business tool, which will serve not only to realise the human potential of South Africa, but to create a better life for all.

Government approached BEE in a non-prescriptive manner in favour of creating an enabling environment through legislation. SANRAL, recognising the development of the historically disadvantaged individuals (HDIs) and entities as an imperative, incorporated – from the outset – the principles of a balanced scorecard in its procurement practices. SANRAL sets specific targets for the development of HDIs to enable them to become part of the mainstream economy. SANRAL further emphasises the promotion of SMMEs in pursuit of attacking poverty and creating sustainable entrepreneurs.

Procurement Policy

SANRAL's targeted procurement philosophy is aimed at broad-based BEE, thus contributing to and achieving economic growth in our country and the southern African region as a whole, by, for instance, training historically disadvantaged individuals (HDIs) to become economically active, by reducing unemployment and by stimulating growth in the small and informal sectors of our economy. In so doing, SANRAL enhances the provision of basic services, builds capacity and acts as a catalyst for development in other growth areas, creates employment, develops small and medium enterprises, alleviates poverty and elevates the status of women.

Contracts, preceding the appointment of a management contractor through the tender process, were of the conventional ad-measure nature. In recognition of the opportunities offered to promote and develop entrepreneurs through routine road maintenance, SANRAL revisited its contract model to produce the following performance based outcomes:

- The main contractor operates as a management contractor.
- Low entry barriers for small contractors are maintained.
- There is no exploitation of small contractors.
- 80% and more of the work is to be executed by small contractors of which 90% is to be executed by black companies.
- Skills development and mentoring.

The procurement process for the appointment of small contractors is by public advertisement, pre-qualification, adjudication and award. Specifications include the targeting of local labour and women, thereby enhancing the principles of the Reconstruction and Development Programme. Project Liaison Committees (PLCs), comprising of members from SANRAL, the engineering concern, the main contractor and members of the local community, are established on these projects in order to oversee the socio-economic requirements. The establishment of PLCs thus ensures active community involvement and smooth running of the respective contracts.

SANRAL sets specific targets for the development of HDIs to enable them to become part of the mainstream economy. SANRAL further emphasises the promotion of SMMEs in pursuit of attacking poverty and creating sustainable entrepreneurs.

The challenge is to avoid fragmentation and inaction due to a lack of coordination between transport, land use and development programmes.

Developing Human Capital

Institutional arrangements and human capital enhancement remain serious concerns in South Africa. We will need to strive to enhance and retain our human resources and recognise that our human capital possesses the skills and knowledge that are important to the well-being of South Africa.

We are also faced with the challenge to consolidate our human resources and institutional arrangements to ensure competitiveness and a single point of responsibility. This implies that the institutional arrangements to ensure delivery of much needed infrastructure must have integrity and be beyond reproach. The challenge is to avoid fragmentation and inaction due to a lack of coordination between transport, land use and development programmes. This can only be rectified by good governance. To meet this challenge we require a strategy that will remove the constraints of disjointed and fragmented development. Our challenge is to remove the supply of transport infrastructure from the realm of energy sapping competition and turf battles between road authorities.

In addition, SANRAL will continue its empowerment programme by means of:

- Promoting and implementing Government programmes for broad-based Black Economic Empowerment (BEE) and sustainable development through job creation, as well as SMME development.
- Enhancing the country's human capital through the sustained support for programmes such as:
 - The Chair in Pavement Engineering at the University of Stellenbosch.
 - The provision of courses, both for local and regional practitioners, in co-operation with the University of Pretoria, in the use of the internationally acclaimed Highway Development and Management Tools 4 (HDM-4) software.
 - Research in road related matters at the Council for Scientific and Industrial Research.
 - The provision of Transport Research Activity Centres (TRAC-PAC) software and related experiments to high school learners.
 - Road safety education.
 - Research into the role of women (and particularly rural women) in transport.
 - The provision of management and voca-

- Retaining existing talent and developing our scarce human resources to serve us in our endeavours to keep our country amongst the world leaders.
- Consolidating our human resources and institutional arrangements to ensure competitiveness and a single point of responsibility.





SECTION SEVEN

Environmental Management

*“The prosperity of the trees is the well-being of the birds”
– African proverb*

SANRAL's Environmental Philosophy

SANRAL's environmental philosophy can briefly be summarised as follows:

- To maintain, improve and expand the national road network in an environmentally responsible way;
- To be a compassionate corporate citizen in pursuit of sustainable development;
- To develop an environmental management system for SANRAL based on the ISO 14001 system standard; and
- To provide a systematic approach to the continual improvement of the Environmental Management System (EMS) in SANRAL.

Generic Environmental Management Plan (EMP)

SANRAL has a generic EMP for those road projects that fall outside the scope of the EIA regulations and would thus not require authorisation from DEAT for construction to proceed. The aim of this Environmental Management Plan (EMP) is to ensure that proper controls are in place to address the environmental impacts during the maintenance,

rehabilitation and upgrade of SANRAL projects and to set out the methods by which the environmental controls are to be implemented by the contractor.

Objectives

THE ISO 14001 ENVIRONMENTAL SYSTEM STANDARD

SANRAL intends to implement an Environmental Management System (EMS) based on the ISO 14001 system standard. An EMS is a systematic approach to dealing with the environmental aspects of an organisation. It is a 'tool' that enables an organisation of any size or nature to control the impact of its activities, products or services on the natural environment. The ISO 14001 standard – "*Environmental Management Systems –Specification with Guidance for Use*" - is the standard within the ISO 14000 series, which specifies the requirements of any EMS.

The purpose of an ISO 14001 EMS is to develop a systematic management approach to the environmental concerns of the organisation. The expected outcome of this approach is the continual improvement in the sustainable management of the

environment. By setting an environmental policy, then making the environmental concerns of the organisation clear and defining the measures implemented to control the objectives and targets, planning is accomplished. Then, by establishing organisational structure, personnel responsibilities, competency and training, implementation begins. Communication practices, documentation control, procedural documents, operational control and emergency preparedness define the operation portion of the programme.

The aforementioned will be included in an EMS manual, which documents a programme to accomplish SANRAL's environmental objectives and targets. SANRAL's methods for measuring and monitoring its environmental impacts will also be included in the manual, along with practices for identifying non-compliance and for implementing corrective and preventative actions. These, along with routine systems audits and record keeping, constitute the 'checking and corrective action' programme of the EMS. Finally, the programme will have a routine management review of its activities.

SANRAL's environmental policy is already in place, which provides a solid foundation for the implementation of the EMS. Full implementation of the

SANRAL intends to implement an Environmental Management System (EMS) based on the ISO 14001 system standard.

SANRAL continues to strive to find the balance between the economic and social benefits of road-based transport on the one hand and the protection of the environment on the other.

system will include the development of a detailed legal register, environmental awareness training and the alignment of necessary contractual requirements in accordance with the EMS.

AGREEMENTS WITH AUTHORITIES

Department of Mineral and Energy Affairs

A Memorandum of Understanding (MOU) is being negotiated and will be signed with the Department of Mineral and Energy Affairs with regard to the following:

- Providing the institutional background and objectives of SANRAL;
- Confirming SANRAL's requirements of rock and gravel for the construction and maintenance of national roads;
- Confirming adequate financial provision by SANRAL for the rehabilitation of land disturbed by mining activities; and
- Demonstrating the special provisions and conditions in the construction contracts pertaining to rehabilitation of land disturbed by mining activities.

Department of Environmental Affairs and Tourism (DEAT)

A Working Agreement has been reached with the Department of Environmental Affairs and Tourism (DEAT), relating to the various road projects and their context within the environmental legislation. The purpose of this agreement is to optimise efficiency and minimise delays by providing an overview of SANRAL project types. The agreement clarifies when SANRAL has to obtain authorisation to commence with an activity and the circumstances under which SANRAL need not apply for authorisation.

It is intended to include the storage of fuel at the various project sites into the Working Agreement in order to be exempted from the EIA process.

However, the storage of fuel is covered in SANRAL's generic EMP to illustrate our commitment and responsibility towards the environment.

Department of Water Affairs and Forestry

A policy for the control of veld fires in our road reserve has been drafted for SANRAL in line with

the Veld and Forest Fire Act, 1998 (Act 101 of 1998) (VFFA). The policy outlines SANRAL's responsibility towards the VFFA, the most suitable location for a fire break, the extent of SANRAL's participation with regard to fire protection associations, procedures to be followed during the burning of fire breaks, assistance to be provided to adjacent land owners and the procedure for obtaining permission from SANRAL for burning on SANRAL property.

It is intended to finalise the policy for inclusion in the routine road maintenance contracts.

AMENDMENTS TO THE EMP

The current EMP will be upgraded to include:

- Detailed descriptions of activities to be undertaken for stockpiling, and use of spoil areas and borrow pits.
- A definition and description of the designated environmental officer.
- An auditing checklist to ensure compliance with the EMP.
- External auditing to be conducted during the course of the project.
- Penalty clauses.

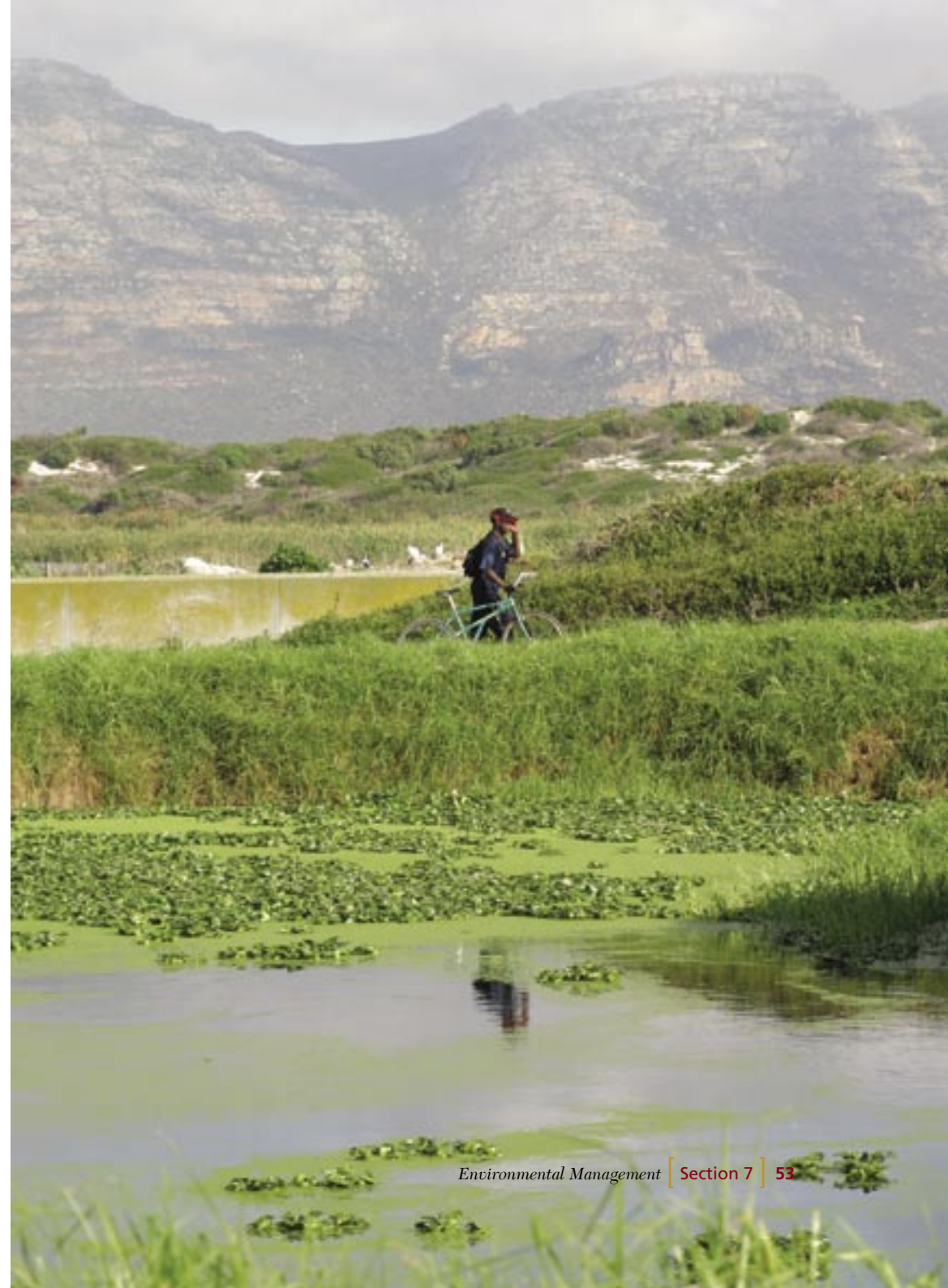
- The exclusion of tar-based products.
- Mitigation of noise pollution during the design phase (surfacing/noise barriers)

GENERIC EMP FOR ROUTINE ROAD MAINTENANCE

A generic EMP for SANRAL routine road maintenance projects is being developed. The aim of EMP is to ensure that proper controls are in place to address the environmental impacts during routine road maintenance of SANRAL projects and to set out the methods by which the environmental controls are to be implemented by the contractor.

VEGETATION STUDY

A vegetation study will be performed on the indigenous vegetation within the road reserve of the entire SANRAL network. Information regarding vegetation of conservational value within our road reserve will assist SANRAL in drawing up a vegetation management plan for the entire network.





SECTION EIGHT

Corporate Management

“Man came to the world to make a contribution.”

– African proverb

Organisational Structure

SANRAL harnesses more than 600 years of core skills and experience in road development and management within a highly motivated, professional and passionate team of people operating out of its Tshwane (Pretoria) head office and four regional offices located in Tshwane (Pretoria), Cape Town, Pietermaritzburg and Port Elizabeth.

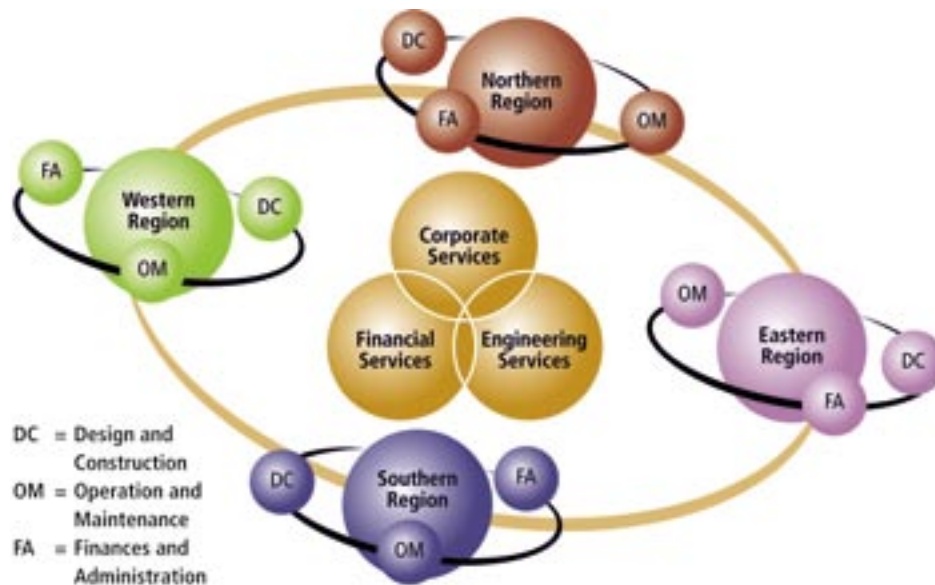
The development of SANRAL's human capital to meet performance and growth objectives is a core value. This is powered by the experience and drive of a strong and balanced leadership team. Management is supported by professional clusters of experience and expertise in the various areas of engineering skills. Working in partnership are the Corporate Affairs and Finance clusters.

The organisational chart emphasises the importance of the collective rather than the individual judgement, which is so prevalent in the 'normal' hierarchy.

The non-hierarchical approach discourages the concept of subordinates reporting to superiors and inculcates a culture of collective mentorship on the one hand, and individual responsibility and empowerment on the other.

In addition, the organisational structure allows SANRAL to be an entity that flexes with tectonic shifts in Government policies and objectives, markets and policies. It encourages open dialogue, a sense of dignity and respect, as well as providing an opportunity for growth and excellence.

Organisational Chart



Human Resources

SANRAL'S human resources policies are driven by the understanding that, as a corporate citizen, it pursues the goals of fair labour practices in recognition of the rights of employees and compliance with all applicable laws and regulations. The objective is the application of all procedures in the workplace with consistency and fairness in order to sustain a contented and motivated work force. This would preserve SANRAL's most valued asset – its people, and have the multiplier effect of economic empowerment of society as a whole.

The development of SANRAL's human capital to meet performance and growth objectives is a core value.

SANRAL actively pursues the urgent attainment of employment equity on every level of business activity.

SANRAL actively pursues the urgent attainment of employment equity on every level of business activity. Diversity within the workforce and working in an atmosphere that encourages employee development by mentorship and training are important values. Managing the insecurities and doubts of individuals arising as a natural by-product of transformation is a constant challenge.

The areas of internal communication, incentive/reward policies, career enhancement and skills development have been identified as critical areas that require constant attention. Improvements in these areas will be mapped out.

Marketing and Communications

One of the biggest challenges facing SANRAL is the inaccurate perceptions, both from the general public and transport operators, as to the advantages and challenges of roads - and in particular, the 'user pay' principle.

SANRAL has therefore embarked on an extensive marketing strategy to inform, educate and communicate with all relevant stakeholders (including road users) in an attempt to address these misperceptions and, at the same time, stimulate interactive relationships.

A comprehensive marketing and communications strategy was compiled during 2004 and the following key objectives were identified:

- The appointment of dedicated specialist service providers (or advertising agencies) to manage SANRAL's account.
- To research the market and establish relevant stakeholder needs through the commissioning of research and participation in forums in which SANRAL can interact with stakeholders.

- To develop specific communications strategies for identified stakeholder groups with the express purpose of:
 - a. increasing awareness of SANRAL as the custodian of national roads;
 - b. informing and educating stakeholders as regards SANRAL's objectives, achievements, professionalism, socio-economic and environmental concerns;
 - c. creating and implementing persuasive advertising and promotional materials;
 - d. designing and implementing effective public relations and media liaison strategies; and
 - e. informing the various stakeholders about the facts and myths of toll roads.

SANRAL will pursue a growth strategy during this marketing period by prudently investing in appropriate and informative integrated marketing communications.

Information Technology (IT)

Manuel Castells, pre-eminent author on the knowledge economy and network society, once stated: “The developing world must not just leap into the high technology of the leading societies and continue along the traditional path of industrial development. On the contrary, what is critical is Internet-based agriculture, Internet-based services, Internet-based health, Internet-based education.” In order to become more responsive to rapid change and harness the wealth of information available across an organisation, one needs to:

- Enhance communication and collaboration;
- Harness information in order to multiply knowledge capital; and
- Streamline processes to reduce administrative overhead costs.

At SANRAL these activities are driven by information technology (IT). Through the utilisation of IT, increased communication and to some extent, collaboration will happen naturally due primarily to two factors: increased access to information via the web (Intranet and www) and the exponential growth of electronic mail. This environment

generates a wealth of information at our users’ fingertips. However, the vast information serves no purpose, and can actually be counterproductive, if it is not made relevant to the user. Relevancy can once again be maintained via IT that assists users to sort, filter, find, prioritise, process and manage the ‘information overload’.

The output of SANRAL’s IT model is the business value derived by effectively managing increased communication and collaboration. This includes enhanced knowledge capital and streamlined business processes. To achieve this, SANRAL has implemented solutions from the following market leaders:

- Office Automation – Microsoft
- Enterprise Resource Planning – SAP
- Relational Database – Oracle
- Electronic Document Management – Hummingbird DM
- Remote Access – Citrix

SANRAL will continue to track the development of these solutions, and implement upgrades as and when required over the next three years.

“The developing world must not just leap into the high technology of the leading societies and continue along the traditional path of industrial development. On the contrary, what is critical is Internet-based agriculture, Internet-based services, Internet-based health, Internet-based education.”
– Manuel Castells



SECTION NINE

Performance Goals

“We must become the change we want to see.”

– Mahatma Gandhi

Statement of Performance Goals

Considerable progress has been made in respect of performance goals outlined in our first *Declaration of Intent 2002-2005*. Although these goals remain high on the agenda for the next cycle, additional goals have been identified. These are as follows:

Engineering Goals

INCORPORATION OF PROVINCIAL ROADS

Certain national route sections (currently under provincial jurisdiction) have been identified together with the provinces as part of the long-term strategic national road network - a network of roads that would be essential to meet the medium and long-term developmental needs of South Africa. This relates to approximately 7 000 kilometers of roads under provincial government control, which need to be incorporated into the existing national road network.

In support of co-operative governance and to secure the condition of the economically defined

network, an understanding has developed between the provinces and SANRAL to work together to declare some provincial road sections as national roads. To date roads with a total length of 4 000 km have been incorporated.

PUBLIC PRIVATE PARTNERSHIP PROGRAMME

SANRAL will continue with its PPP programme. The following projects are in the development phase:

- N2 Wild Coast Toll Highway
- N1/N2 Winelands Toll Highway
- R300 Cape Town Ring Toll Highway

SANRAL TOLL ROADS

In addition, SANRAL will continue with its programme of SANRAL Toll Roads. It is currently developing the following projects:

- N2 Tsitsikamma Extension
- N2 Knysna Bypass
- N3 Marianhill Extension

- N17 Extension
- Gauteng Toll Highway Network

Above-mentioned projects need to be implemented to ensure that the logistics chain is not adversely impacted due to inadequate non-functional infrastructure. The location of these projects is such that it will enable South Africa to meet its key strategic challenges related to road infrastructure.

It is anticipated that these projects with a combined value of R8,7 billion will be funded by money and capital market loans.

INTELLIGENT TRANSPORT SYSTEMS (ITS)

SANRAL is also in the process of implementing Intelligent Transport Systems (ITS) to, *inter alia*, achieve the following:

- Improved reaction to incidents, thereby reducing delays to road users and improving the efficiency of the economy.
- Improved Freeway Management in order to manage traffic movements in the event of non-recurrent congestion as a result of incidents

Certain projects need to be implemented to ensure that the logistics chain is not adversely impacted due to inadequate non-functional infrastructure.

“Each decision we make, each action we take, is borne out of an intention.”
– Sharon Salzberg

- or special events.
- Optimisation of the usage of traffic flow during peak hours (recurrent congestion) through measures such as ramp metering.
- Traveller Information Systems to timeously inform road users of delays, travel times, incidents, etc. in order for them to adjust their route or travel pattern.

In order to achieve the above, electronic systems such as variable message signs, closed circuit television, inductive loops and electronic vehicle identification – all linked to a communication backbone – need to be implemented. All the information collected will be processed at a Network Management Centre where decision-making will take place on a real-time basis. The successful rollout of the project will require close co-operation of all spheres of government and will enhance co-operative governance.

INCIDENT MANAGEMENT SYSTEMS

Much has been done with regard to the establishment of Incident Management Systems on all national roads and incorporated roads forming part of the primary road network. This is an ongoing process and includes the following:

- The development of new protocols, and/or the modification of existing protocols.
- Improvement of traffic operations and safety, using changes in road environment and measures to influence driver behaviour.
- Improvement of traffic sign and road marking visibility.
- Continued and expanded training programmes, especially for young road users, as well as the rehabilitation of traffic offenders.

ASSISTING LAW ENFORCEMENT/ OVERLOAD CONTROL

Although law enforcement with regard to overload control does not form part of our core business, SANRAL has to minimise its exposure to risks and has subsequently embarked on the establishment of Traffic Control Centres (TCCs). Considering that overloaded trucks cause losses of millions of Rand per annum, SANRAL regards this as a relatively small investment given the returns. In the interest of co-operative governance and the preservation of our assets, SANRAL has entered into partnerships with provincial authorities whereby SANRAL provides the physical infrastructure and the provincial

authorities the necessary personnel. It is anticipated that this responsibility will eventually be transferred to the Road Traffic Management Company.

TCCs, i.e. on the N3 and the N4 Maputo Development Corridor, have already been established. Agreements have been entered into for the establishment of an additional three TCCs in the near future, i.e. one on the N4 (Pretoria to Bronkhorstpruit stretch) and two on the N4 West Platinum Highway (Swartruggens and Zeerust). A management contract is being negotiated with Bakwena for the Mantsole TCC.

SANRAL regards the establishment of TCCs as an ongoing process, which will consist of the following:

- Coverage will be extended to deter law-breakers from using any perceived escape route.
- Partnering with the private sector (which depends on best management practices to survive in a competitive world) for the operation of these centres will be intensified in the quest for an efficient and cost effective deterrent against overloaded vehicles.
- Investigating possible amendments to legislation to combat overloading in a more cost-effective and efficient manner.
- Investigating modern technology with a view to

- construct cost-effective facilities and to provide a more expansive overload control network.
- Calculating the cost relating to the infrastructure and operations of TCCs against the background of their value in a complete system, rather than against the background of the location of a single facility on one particular road.
- Assisting with the establishment of the Road Traffic Management Corporation and the Administrative Adjudication of Road Traffic Offences system.
- Strengthening our co-operative agreements with the law enforcement authorities.

Socio-economic Goals

SANRAL's socio-economic goals were outlined in its vision statement (1998) and further enhanced by the United Nations (UN) Millennium Development Goals (2002). (The Millennium Project is an independent advisory project commissioned by the UN Secretary and supported by the UN Development Group.) The Millennium Development Goals can briefly be summarised as follows:

- The eradication of extreme poverty and hunger;
- Achieving universal primary education;

- Promoting gender equality and empowering women;
- Reducing child mortality;
- Improving maternal health;
- Combating HIV/Aids, malaria and other diseases;
- Ensuring environmental sustainability; and
- Developing a global partnership for development.

SANRAL'S COMMUNITY DEVELOPMENT PROGRAMME

Community development remains an all important performance goal, with the emphasis being on creating access and mobility in rural areas. SANRAL will continue this programme and will strive to meet the following objectives:

- The relief of poverty to specific circumstances;
- Assistance in human development and capacity building (including skills transfer and training);
- The provision of jobs and concomitantly ensuring community participation;
- Positive impact on rural communities;
- Positive impact on households in which women are the breadwinners;
- sustainable in the long term; and

- The development of SMMEs.

SANRAL's respective projects will address the up-grading of rural access roads, pedestrian facilities and minor bridge construction.

SPATIAL DEVELOPMENT INITIATIVES

The implementation of Spatial Development Initiatives (SDIs) has been heralded as a significant solution to integrate transport with broader socio-economic developments.

SANRAL acts as a catalyst to increase the rate of regional and national economic growth and development through the provision of infrastructure on various SDIs. It will continue with its stated initiatives in this regard.

SANRAL's objectives with regard to SDIs can be summarised as follows:

- Creating long-term, sustainable employment in the region;
- Identifying and fostering complementary strategies, as opposed to unnecessarily destructive forms of competition in the structures responsible for production;

Community development remains an all important performance goal, with the emphasis being on creating access and mobility in rural areas.

SANRAL will continue with its ethos of targeted procurement, thus contributing to economic growth in our country, and in the southern African region as a whole.

- Providing road infrastructure to directly influence the correcting of imbalances between the spatial distribution of centres of production, transport infrastructure and the potential of new locations to support growth; and
- Ongoing mobilisation of Foreign Direct Investment.

JOB CREATION

The creation of opportunities for maximisation of the labour content, together with the development of skills for Small, Medium and Micro Enterprises (SMMEs) within the zone of influence of the projects, remains high on SANRAL's agenda and also happens to be in line with the Expanded Public Works Programme. This will provide continuity and encouragement for those who have acquired new skills and the necessary confidence to participate in the ongoing construction related projects in the country.

SOCIAL AND ENTREPRENEURIAL DEVELOPMENT

In this regard, SANRAL has made great strides. Routine Road Maintenance targets in respect of SMMEs have increased from 30% to 80% on all

contracts. In rural areas this roughly equates to 1 person employed per 4 km, and in urban areas 1 person employed per 1 km.

SANRAL will continue with its ethos of targeted procurement, thus contributing to economic growth in our country, and in the southern African region as a whole. To this end, we will continue our training programmes for historically disadvantaged individuals (HDIs) to become economically active, as well as all other programmes aimed at stimulating growth in the small and informal sectors of our economy. In so doing, we will continue to enhance the provision of basic services and act as catalysts for development in potential growth areas.

EDUCATIONAL INITIATIVES

SANRAL has embarked on a countrywide initiative to educate our youth regarding traffic safety. Considering that school pupils are the road users of tomorrow, appropriate traffic safety education plays a major role in reducing accident rates and changing attitudes towards road safety. A series of booklets – aptly titled *Streetwise* – was developed for different age groups, as well as a teacher's manual, which aims to alert teachers to the limitations of learners and assist them with the education of basic traffic safety principles.

Further to aforementioned, SANRAL aims to ultimately have Traffic Safety Education included in the school curriculum. In addition, SANRAL will support any educational programme which aims to equip school leavers with a learner's licence.

Junior Traffic Training Centres (JTTCs) have been built at two schools - an initiative that will also be expanded upon. The purpose of JTTCs is to educate and train learners to become safe and responsible road users. A pedestrian route interacting with the vehicle route (roads) exposes the learners to a series of basic pedestrian tests, for example walking on a sidewalk, crossing the road at a pedestrian crossing and walking in areas where no pedestrian facility is provided.

Projects have been identified to improve roadside facilities so as to accommodate pedestrians, non-motorised vehicles and long distance travellers. These projects will aim to create infrastructure such as on- and off-ramps, bus and taxi bays, overhead bridges and underpasses for pedestrians and cyclists, passenger shelters and safe trading facilities. Infrastructure of this nature will contribute to the creation of sustainable employment opportunities for communities.

Environmental Goals

The challenge to SANRAL lies in balancing the rights and obligations of both the environment and the welfare of our people. The manner in which this process is managed and the fact that the strident call in the name of protecting the environment should not be answered at the expense of the poor, are issues that we continue to grapple with on a daily basis. Despite the dilemma posed by the need for development on the one hand and the need to preserve the environment on the other, SANRAL's approach remains focused with all processes being consultative and transparent, so as to ensure that we deal with the major issues of sustainable development and challenges for economic growth and that we don't get side-tracked into issues that detract from our core mandate, i.e. to provide our country with a superior primary road network.

Corporate Goals

DEVELOPING HUMAN CAPITAL

Government's BEE objectives are fully entrenched in SANRAL's management and procurement policies.

In addition, SANRAL's Human Resources Policy was recently updated. The aims and objectives of the manual are, *inter alia*, to:

- Communicate, record and administer approved human resources policies and procedures within SANRAL;
- Ensure the consistent application of discipline procedures;
- Assist with the effective management of human resources;
- Ensure that all employees are aware of their rights and obligations;
- Further the creation of an environment of non-discrimination;
- Establish a motivated workforce within SANRAL;
- Ensure compliance with relevant legislation; and
- Redress disparities in the workplace caused by past legislation.

CORPORATE IDENTITY DEVELOPMENT

To ensure that the aims, achievements and professionalism of SANRAL are properly communicated to local and international stakeholders, SANRAL has developed a marketing and communications

strategy and implemented a public relations and promotional plan. This is an ongoing process and all activities pertaining to brand building are aimed at the effective communication of aforesaid objectives.

INFORMATION TECHNOLOGY

The introduction of technologies capable of interfacing with different management systems such as the Pavement Management System and the budgetary process are well underway.

Business processes have now been enhanced by the installation of the Enterprise Resource Planning Solutions System.

RESEARCH AND DEVELOPMENT

Road Infrastructure Research Programme

SANRAL's strategic vision for the Road Infrastructure Research Programme is geared towards improving efficiency in road infrastructure design and delivery. Attention will be devoted to economically favourable road techniques, including the develop-

The challenge to SANRAL lies in balancing the rights and obligations of both the environment and the welfare of our people.

“He who learns, teaches.”

– African proverb

ment of performance-related design systems and amelioration of road building materials, whilst also developing risk quantification and optimisation techniques as well as decision-support systems with regard to appropriate forms of construction and maintenance to yield specified performance targets.

Due attention will also be given to social and environmental needs, traffic management, law enforcement, as well as asset preservation, and the transfer of knowledge and appropriate technologies to practitioners by means of structured training and education programmes.

The programme will be approached in a holistic manner, taking a view on the goals and deliverables and then focusing on the most critical areas. It will entail building on experiences from the past, taking cognisance of successful international research programmes and ensuring that funds/capital invested into research programmes offer the required returns to the road user and our economy.

SANRAL will ensure that sustainable long-term research funding is available not only from within SANRAL but also through partnerships with other road authorities and the relevant role-players within the industry. An Advisory Committee on

Road Infrastructure Research has therefore been established with the purpose to:

- determine the needs and strategic direction of road infrastructure research;
- provide input on the utilisation of limited research funding and capacity to the benefit of the transport industry; and
- provide a communication forum for relevant role-players within our industry.

SANRAL is already committed to the funding of a number of research projects, *inter alia*:

- Accelerated Pavement Testing (Rigid and Flexible Pavements)
- Updating and revision of Technical Methods for Highways (TMH) and Technical Recommendations for Highways (TRH) documentation
- Improving Hot Mix Asphalt (HMA) design guidelines
- Cost-effective ways to upgrade gravel roads
- Large TRI-AXLE testing
- Pedestrian Safety Management.
- Investigation into suitable replacement of tar products
- Strategy for vehicle overload control.

Low Volume Sealed Roads Project

A project that was commissioned by the Southern African Development Community (SADC) and funded by several European Development Agencies to produce a ‘Guideline for Low Volume Sealed Roads’ has recently been completed. SANRAL colleagues provided meaningful input into the contents of the document, and SANRAL now serves as a permanent member on the project management team.

The objective of the project is to raise awareness of more appropriate and cost-effective approaches for the delivery of low volume sealed roads and the critical issues that must be addressed to ensure sustainability. This guideline thus has the potential of benefiting a substantial proportion of the 200 million people living in this region, particularly the rural and urban poor.

SANRAL is presently initiating and presenting a number of workshops nationally in order to disseminate and promote implementation of the Guideline recommendations, particularly with respect to its relevance to the National Expanded Public Works Programme initiative.

Performance Certification of Road Construction Manuals

Agrément South Africa has been in existence for more than 50 years with a mandate to develop performance criteria where, for proprietary and innovative construction products, there are no relevant standards. Up until the very recent past, no products related to the provision of road infrastructure had ever been certified. However, the relatively recent introduction of international as well as locally developed innovative proprietary products into the market as alternatives to the generic/traditional products has necessitated a review with respect to the following:

- Exposure to risk resulting from premature non-conformance of new 'unknown' products; and
- Procurement of products in a fair and transparent manner.

SANRAL is represented at Board as well specific Technical Committee level at Agrément SA and has been active in initiating and driving the process towards certification of road infrastructure products. Following on the successful development and implementation of a certification process for bridge joints, a programme for the assessment of fit-for-

purpose criteria for non-traditional stabilisers (products other than lime, cement, bitumen) has very recently been developed and is currently being implemented (a first in the world for these types of products). SANRAL has also recently commenced with an initiative to develop certification criteria for thin-layer asphalt surfacings that are being marketed as proprietary products and it is planned to introduce this facility by early 2006.

SANRAL's commitment to follow the Certification route has already realised significant benefits, such as:

- Enthusiasm in the industry to develop innovative and cost-effective products that are fit-for-purpose;
- Commitment to quality in both product manufacture and application stages (as both form part of the certification process); and
- Industry voluntary offering extended performance warranties, in some instances four to five times longer than the traditional 12 months prescribed as a result of their 'ownership' of the product and increased confidence in the quality thereof.

Innovative Pavement Repair

The typical pavement structural design life period used during the design of a flexible road pavement is 20 years, assuming that all required maintenance (Opex) is done during this period. At the end of a pavement's structural life one will need to perform strengthening works (Capex) that aim to restore or improve the structural integrity of the pavement. The pavement age of more than 60 % of the network under SANRAL's jurisdiction is older than its 20-year design life, confirming the need for major investments into structural strengthening (i.e. Capex) works - not possible at current funding levels, due to more than 65 % of budget being required to keep the aging road network safe for daily use.

The solution to this problem is two-fold:

- Budget allocations for roads in South Africa need to be substantially increased – a process SANRAL is continuously involved with, but has no direct control over; and
- Innovative pavement repair strategies need to be developed through research that will be more cost-effective – a process SANRAL has direct control over.

SANRAL's commitment to follow the Certification route has already realised significant benefits.

SANRAL is a founder member and sponsor of Transportation Research Activity Centres (TRAC) South Africa. The TRAC programme is aimed at promoting mathematics, science and technology education in South African secondary schools.

One such innovative pavement repair strategy identified by SANRAL is the use of technologies developed for industrial floor repairs. Due to the promise shown by the technology, the decision was made by SANRAL to construct experimental sections at the Heidelberg Traffic Control Centre (HTCC), to evaluate the performance of this technology under accelerated loading (short-term) using the Heavy Vehicle Simulator (HVS), as well as under actual heavy vehicle traffic (long-term). These experimental trials are required in order to reduce the risk to SANRAL and to increase confidence in the use of the technology.

Concrete Pavement Research

SANRAL will remain a major contributor, both in terms of funding as well as technical input, to the ongoing development and calibration of the locally developed cnc Pave Concrete Pavement Design method. Together with Gautrans and C&CI as co-funders and the CSIR as service providers, a major accelerated testing project using a Heavy Vehicle Simulator (HVS) is nearing completion.

Testing of various specially constructed test sections is producing valuable information with regard to:

- Prediction of erosion potential of slab support;
- Prediction of thermal and drying shrinkage behaviour through the concrete; and
- Influence of aggregate type and size as well as climatic conditions, both during construction as well as service life on load transfer efficiency across the joints.

The outputs of this research project are being utilised to further validate/calibrate cnc Pave, which is already being viewed as one the leading, if not most advanced, concrete pavement design tools available internationally.

TECHNOLOGY TRANSFER

Technology transfer remains an ongoing objective, inextricably linked to SANRAL's core business.

SANRAL is a founder member and sponsor of Transportation Research Activity Centres (TRAC) South Africa. The TRAC programme is aimed at promoting mathematics, science and technology education in South African secondary schools.

The Technology Transfer Programme T2 is a co-operative programme between SANRAL and the Federal Highway Administration (United States). The programme aims at transferring transportation technology, training and technical skills.

In addition, SANRAL sponsors the Chair in Pavement Engineering at the University of Stellenbosch. The aim of this sponsorship is to promote, *inter alia*, the development of human capital and capacity building in South Africa by empowering students and practitioners through high quality education, training and research by the Incumbent of the Chair, as well as through co-operation and partnerships with recognised international institutions in the field of Pavement Engineering.

Finally, a research initiative in partnership with the HSRC and CSIR is currently being conducted with the aim of determining transport specific needs of women in rural areas.



SECTION TEN

Performance Measurement

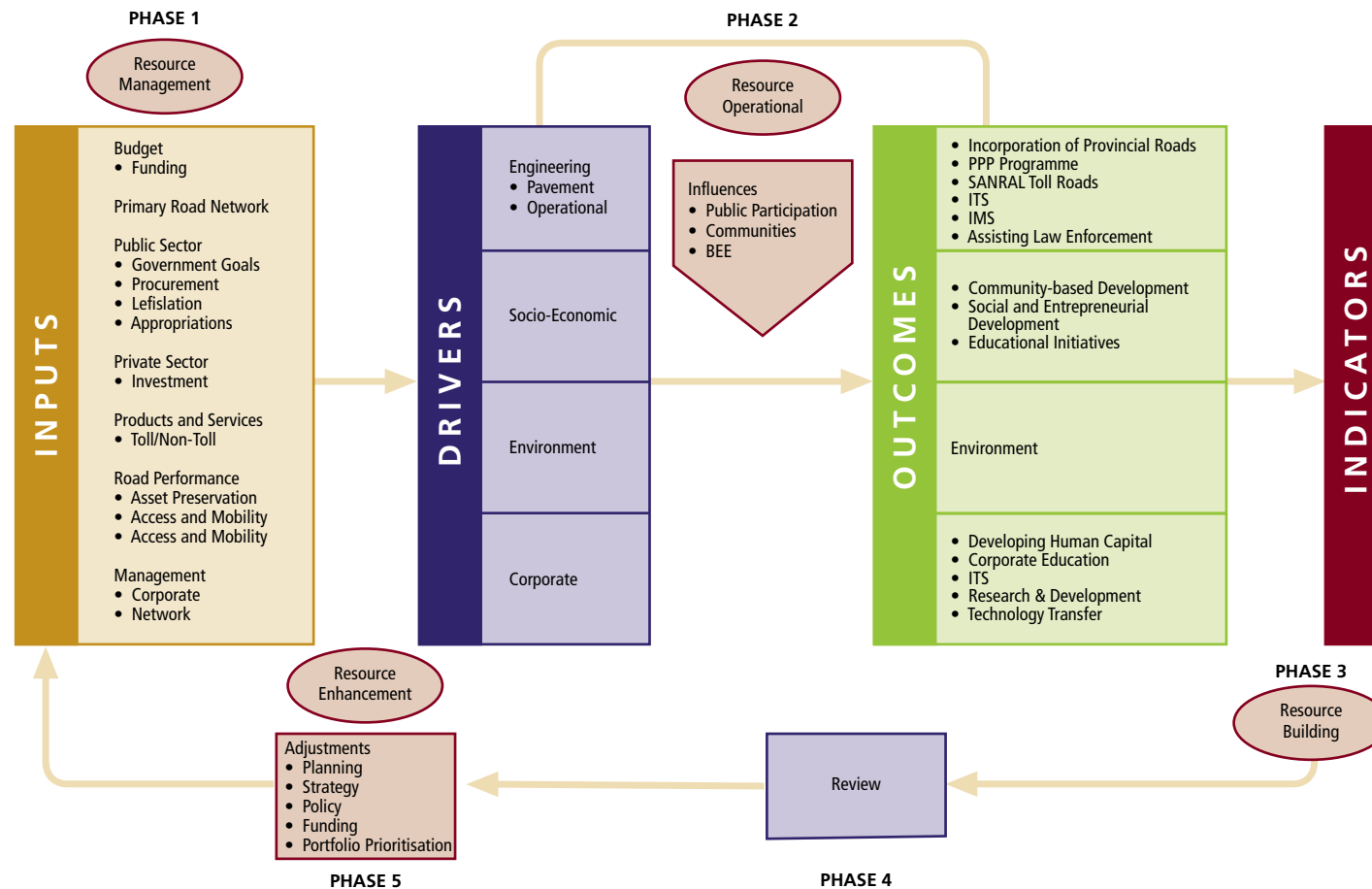


“When one is prepared, difficulties do not come.”

– African proverb

Performance Measurement Framework

Further to the performance goals stated in the previous section, SANRAL has a comprehensive performance management framework against which its performance can be benchmarked.



*“If you don’t stand for something
you will fall for something.”
– African proverb*

The use of performance indicators addresses the performance of the primary road network and its contribution to socio-economic development.

SANRAL's Performance Measurement Model
The processes involved in performance measurement can briefly be summarised as follows:

- Articulate the business strategy;
- Identify critical success factors;
- Develop performance measures;
- Fix accountability for performance; and
- Align structure, systems, skills and styles to corporate advantage.

(Schneier, et al, 1991)

Performance Indicators

The use of performance indicators addresses the performance of the primary road network and its contribution to socio-economic development.

SANRAL will continue to use the indicators listed below in the course of its business. However, a clear distinction should be made between indicators pertaining to toll roads and those related to non-toll roads. Although the same indicator may be used, targets may differ due to the fact that toll roads are deemed to be self-funding, whereas non-toll roads depend on actual allocations from National Treasury.

ENGINEERING

Smooth Travel Exposure (STE)

- **Description:** The proportion of travel undertaken each year on roads with roughness (longitudinal surface undulations affecting the wear and operating costs of vehicles, road safety, and the impact of the vehicle on the road through excitation of the vehicle mass), conditions less than the specified level.
- **Purpose:** To monitor whether roads are providing acceptable travel conditions.
- **Considerations:** The Smooth Travel Exposure (STE) indicator represents the proportion of travel undertaken each year on roads with surface roughness less than the defined level.
- **Target:** 95% of travel on less than 4,2 m/km roughness

Low Rut Exposure (LRE)

- **Description:** The proportion of travel undertaken each year on roads with rut depth (surface depressions that can hold water and cause a vehicle to aquaplane), conditions less than the specified level.

- **Purpose:** To monitor whether roads are providing acceptable travel conditions.
- **Considerations:** The Low Rut Exposure (LRE) indicator represents the proportion of travel undertaken each year on roads with rut depth less than the defined level.
- **Target:** 95% of travel on less than 20mm rut depth

High Texture Exposure (HTE)

- **Description:** The proportion of travel undertaken each year on roads with macro-texture (visual coarseness of the road surface that affects surface friction at high speeds (> 60 km/h) for wet conditions), conditions higher than the specified level.
- **Purpose:** To monitor whether roads are providing acceptable travel conditions.
- **Considerations:** The High Texture Exposure (HTE) indicator represents the proportion of travel undertaken each year on roads with macro-texture higher than the defined level.
- **Target:** 95% of travel on higher than 0.4 mm texture

Bridge Condition Exposure (BCE)

- **Description:** The proportion of vehicles per year that travel over or under bridges with conditions higher than the specified level.
- **Purpose:** To monitor whether bridges are providing acceptable travel conditions.
- **Considerations:** The Bridge Condition Exposure (BCE) indicator represents the proportion of vehicles that travel over or under bridges with Overall Condition Index (OCI) higher than the specified level.
- **Target:** 90% of travel over or under bridges with OCI higher than 80

Financial Indicators

Return on Construction Expenditure (RCE)

- **Description:** The weighted Internal Rate of Return of total capital construction expenditure per annum.
- **Purpose:** To monitor the predicted economic benefits to the community from SANRAL capital programmes.

- **Considerations:** The Return on Construction Expenditure (RCE) indicator is based on weighted Internal Rate of Return estimates of capital projects undertaken by SANRAL. The Internal Rate of Return is calculated as the discount rate for which community life-cycle benefits equal SANRAL's life-cycle costs.
- **Target:** IRR > 15 %

Private Sector Investment Index (PSII)

- **Description:** The proportion of total annual expenditure secured from the private sector.
- **Purpose:** To monitor the attraction of private sector investment.
- **Considerations:** The Private Sector Investment Index (PSII) is the ratio between expenditure funded from the private sector and expenditure funded from the fiscus.
- **Target:** 0,85

Expenditure Efficiency Index (EEI)

- **Description:** The percentage of annual expenditure on overhead costs.
- **Purpose:** To monitor the efficiency of SANRAL.

- **Considerations:** The Expenditure Efficiency Index (EEI) is the annual percentage spent on overheads by SANRAL compared to the total expenditure of SANRAL.
- **Target:** < 5 %

Road Network Management

Road Maintenance Effectiveness (RME)

- **Description:** A cost index reflecting the proportion of the road network, which is being maintained to target conditions and the expenditure per kilometre required.
- **Purpose:** To monitor the effectiveness of maintenance functions undertaken by SANRAL.
- **Considerations:** The Road Maintenance Effectiveness (RME) indicator represents the cost per kilometre to maintain the roads in smooth condition (less than defined roughness level).
- **Target:** Under development

“A reserve will not decay.”

– African proverb

“Where a road passes, development follows right on its heels.”

– Old man from Cameroon, 1995

Intelligent Transport Systems (ITS)

- **Description:** Several forms of ITS technology incl. a centralised network management centre, closed circuit television cameras, variable message signs, loops and other traffic detection and traffic information devices.
- **Purpose:** To improve road safety and incident management on our national road network.
- **Targets:**
 - Reduce accidents by 20% within pilot area
 - Reduce delays and associated costs by 30% in pilot area
 - Increase traffic throughput by 5%

Asset Preservation Index (API)

- **Description:** The ratio between expenditure and increase in pavement layer asset value.
- **Purpose:** To monitor the efficiency of SANRAL.
- **Considerations:** The Asset Preservation Index (API) is the ratio between construction expenditure and the increase in the asset value of the pavement layer portion of the pavement.
- **Target:** Under development

Incident Management Systems (IMS)

- **Description:** Modification of existing and development of new protocols for improvement of traffic operations and road safety.
- **Purpose:** To improve road safety and incident management on our national road network.
- **Targets:**
 - To improve response time to incidents, as well as the time it takes to stabilise road environment after occurrence of an incident
 - An overall reduction of incidents on our national road network
 - Establishing additional IMS on our national road network

Overload Control

- **Description:** Introducing measures to curb pavement damage due to overloading.
- **Purpose:** To preserve our national road network and to improve road safety.
- **Targets:**
 - Partnering with provincial authorities in the establishment of additional TCCs on our national road network
 - Introducing the LAP Accreditation system to all industries (e.g. paper and pulp, steel, coal, etc.) over the next three years

Reduce prosecutable overloading to less than 3% in the sphere of influence of the TCC network (i.e. ± 50 km from TCC)

Road Systems

User Satisfaction Index (USI)

- **Description:** Index of user's qualitative evaluation of satisfaction with national road network.
- **Purpose:** To provide a qualitative indication of users' perceptions of the performance of the national road network.
- **Considerations:** The User Satisfaction Index (USI) is a measure of road users' satisfaction with the national road network. The index is based on road users' ratings (roadside surveys) of a number of attributes related to the national road network.
- **Target:** Under development

National Road Development Index

National Road Development Index (NRDI)

- **Description:** The annual proportion of vehicle travel on the national road network in relation to all vehicle travel in South Africa.
- **Purpose:** To monitor the importance of the national road network.
- **Considerations:** The National Road Development Index (NRDI) is the ratio between the total vehicle kilometres travelled on national roads and all vehicle travel in South Africa. All vehicle travel in South Africa will be estimated from the annual litres of fuel sold and assumptions with regard the vehicle fuel consumption.
- **Target:** No target, since it is an importance indicator.

SOCIO-ECONOMIC INDICATORS

Economic theory indicates that economic welfare is increased if regions with a comparative advantage specialise in producing certain goods and exchange

these goods with those from other areas that have different economic advantages. Road transport facilitates this exchange as it can provide a fast, point-to-point movement of both goods and people within and between countries.

This exchange of goods and people is important in all road development phases, but it becomes critical for improved economic outcomes in the early stages of agricultural and industrial economic development because there is a sparse paved road system that restricts the movement of goods in and out of regions and therefore limits the development of production facilities.

This exchange of goods and people will not only depend upon the extent of the road network, but also on the total number of motor vehicles, and particularly the number of trucks that are using this road network.

In more developed service based economies the standard of the paved road network needs to be increased so as to reduce the time and cost of service based economic activities.

The ideal performance indicator to measure the effect of SANRAL's management procedures on economic outcomes would be the increase in economic welfare (i.e. number of jobs created, number of people trained, etc.) delivered annually to various communities from the road expenditure and community development budgets.

This expenditure is, by definition, not based on producing economic outcomes, but in providing for better social outcomes and regional equity. Expenditures on the improvement of social infrastructure, such as pedestrian bridges and commuter facilities, should also be allocated in this budget.

In terms of the Transport Sector's BEE Scorecard 0,3% of budget must be allocated to Corporate Social Investment (CSI) initiatives.

ENVIRONMENTAL INDICATORS

SANRAL's Environmental Management Plan contains significant counter-measures to negative environmental impacts due to road construction activities.

SANRAL's accomplishments on all levels have been guided by the essence of our egalitarian Constitution and it is in this spirit that our efforts to push back the frontiers of poverty have to be redoubled.

“Roads serve not only as physical connectors but also as communication connectors that expand poor people’s options and their power to negotiate.”
– Deepa Narayan

In addition, the following indicators would determine performance in this area:

The proposed rural road indicator would provide an estimate of the corridors or road lengths that have appropriate flora, fauna and drainage characteristics. It would, for instance, reflect the road length that has been formally studied and corrective action taken, when necessary, in the form of tree plantings, fauna preservation corridors, etc.

The proposed urban road indicator would be an estimate of the percentage of major urban arterial corridors that have appropriate flora characteristics. This indicator should also reflect the urban arterial corridors studied for vegetation characteristics, and action then taken to reduce negative impacts.

Finally, the percentage of the total SANRAL budget that is spent on environmental outcomes compared to the percentages spent on economic, social and health outcomes will also determine the level of performance of environmental outcomes.

CORPORATE INDICATORS

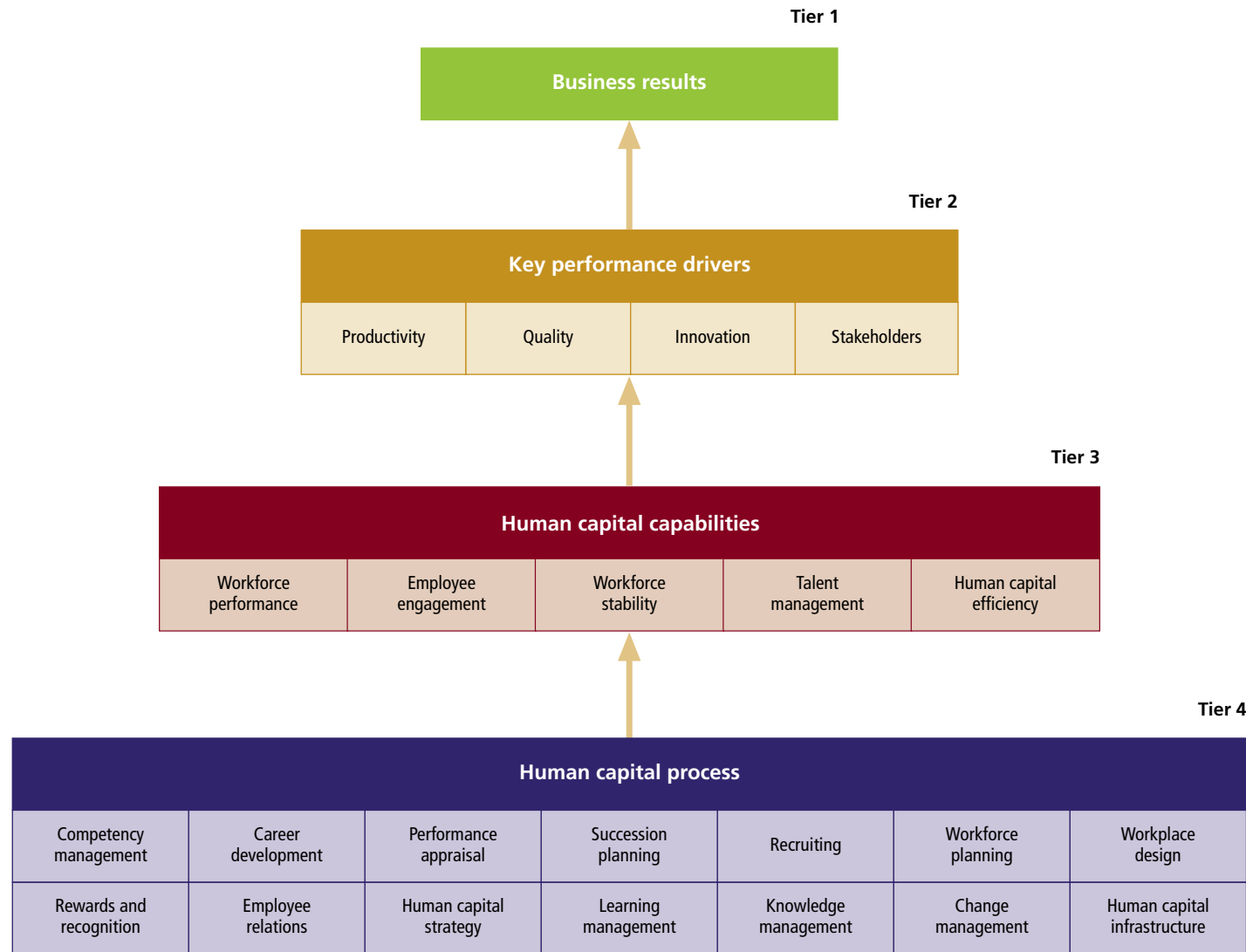
No matter how perfect a business strategy is, it will almost certainly fail without skilled human resources to execute it. In this regard, SANRAL has adopted the Accenture Human Capital Development Framework, which is an analytical measurement and planning tool that enables an organisation to identify and measure the human capital factors that affect organisational performance. The framework uses four distinct levels of measurement to assess human capital practices and determine the benefits it receives from investments in people.

The model uses four distinct measurement tiers in arriving at an assessment of SANRAL’s human capital practices, and in so doing, not only covers core human resources processes such as recruiting, career development and competency management, but broader human capital processes as well, e.g. workplace design, learning and training, and knowledge management.

In addition, the model provides measures that are meaningful both from an organisational perspective (i.e. measures that reflect the way in which value is created), as well as from an investment perspective (i.e. by highlighting the kinds of skills

colleagues will need to achieve SANRAL’s long-term strategies, as well as the kind of human resources capabilities SANRAL will need to acquire, develop and retain).

Human Capital Development Framework



No matter how perfect a business strategy is, it will almost certainly fail without skilled human resources to execute it.



SECTION ELEVEN

Towards 2010

“After climbing a great hill, one only finds that there are many more hills to climb.”

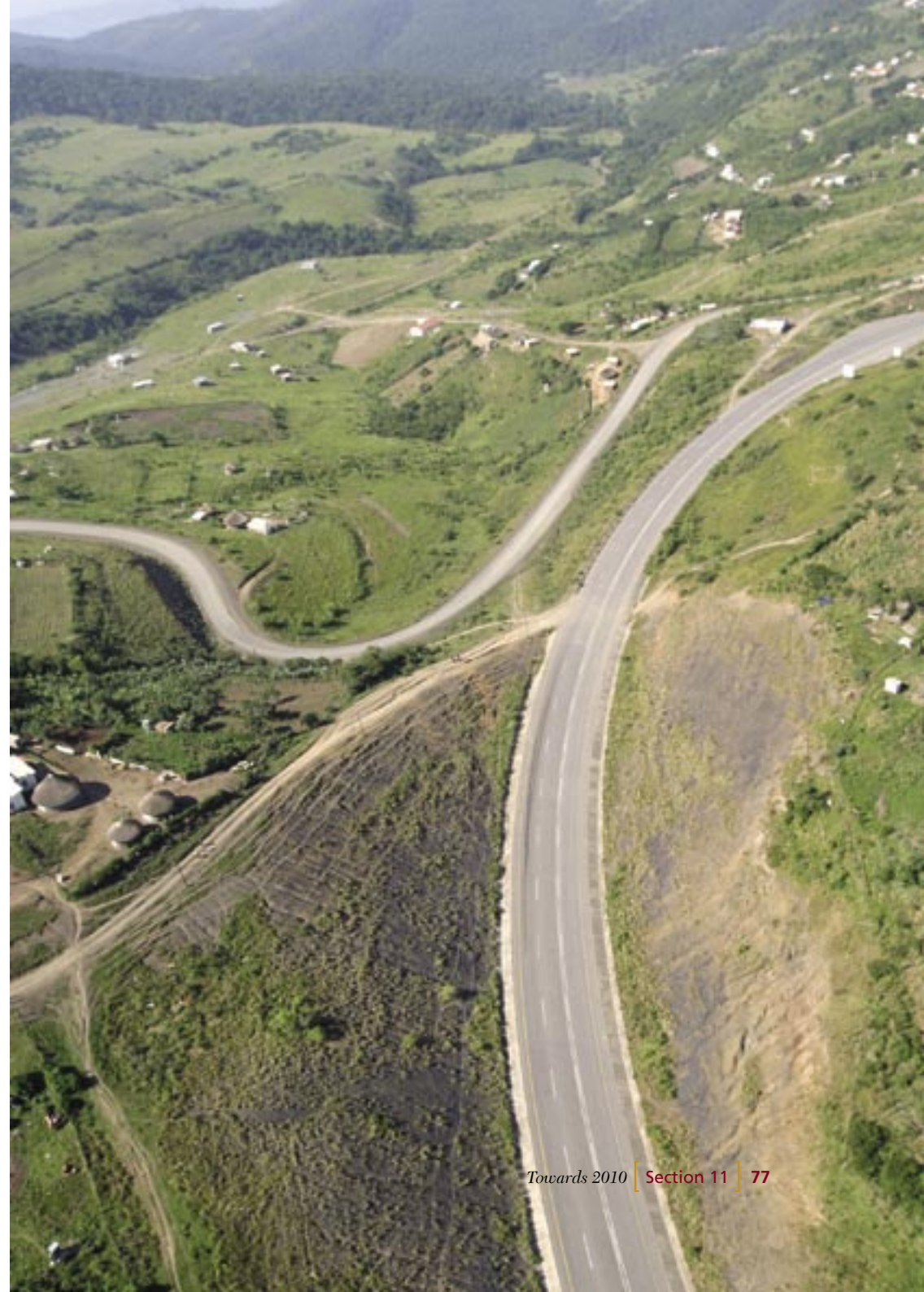
– Nelson Mandela

This second *Declaration of Intent* is SANRAL's response to the ongoing challenge of meeting the disparate demands of our fellow citizens. It is also based on the fact that the envisaged toll road programme, as outlined in the *Horizon 2010* document, is furthered and supported by Government and SANRAL's stakeholders.

It is important to note that our national roads form the backbone of economic activity and growth in our country. This basic infrastructure is the epicentre of development, demographic and economic growth and above all, access to points of economic and social activity that will ensure the development of our country. The preservation and enhancement of national roads is thus an essential element in the continued recognition of our country as a major role player in the global village we find ourselves in.

Whereas *Horizon 2010* sets the scene that will allow us to improve the quality of life of all citizens and ensure our economic growth, this second *Declaration of Intent* serves as the vehicle by means of which we will aim to achieve these goals. However, without the necessary funding and support from Government and our stakeholders, as well

as perseverance and innovation, these goals become far more challenging. Now is the time to secure our future!



APPENDIX I

*Policy of The South African National Roads Agency Ltd
in respect of Unsolicited Proposals*



1 The Client

For the purposes of this document, the client is The South African National Roads Agency Ltd, hereinafter referred to as 'SANRAL' or its successor in title.

2 Introduction

SANRAL, in support of the Minister of Transport's aim to stimulate innovation and to create new opportunities for the private sector, is keen to receive proposals for road transport infrastructure development.

This policy guideline is a revision of the policy dated September 1997, issued by the predecessor of SANRAL, namely the South African Roads Board.

It has been drafted in order to provide the private sector with a framework within which Unsolicited Proposals ('the Proposals') should be prepared. It also explains how Proposals will be dealt with by SANRAL, and lays down procedures which will be followed in order to stimulate a competitive environment, ensure transparency, and offer the

public protection from the possibility of monopolistic practices and exploitation.

In general, Proposals should reflect a conformance with governmental aims, be in the public interest, avoid the creation of monopolistic practices, not seek to place onerous conditions upon government, for example no explicit government guarantees will be issued, and reflect environmental, social and economic sustainability. In this respect, the White Paper on Transport and the Reconstruction and Development Programme may further assist sponsors with the preparation of their Proposals.

3 Procedure

3.1 PRELIMINARY NOTE

Annexure 1 contains a diagrammatic presentation of the procedure that will be followed in dealing with Unsolicited Proposals.

No obligation shall rest on SANRAL to accept any Proposal. For the avoidance of doubt, SANRAL shall not be responsible for any costs which a party may incur in preparing and submitting a Proposal, and such costs will not be considered by SANRAL

in negotiating the costs as provided for in Section 3.4. SANRAL may enter into an Agreement with the Proponent as Scheme Developer subsequent to the submission of the Proposal. Cost apportionment, thereafter, shall be as provided for in Section 3.4 of this document.

In the event of a Proposal being rejected, aborted or abandoned by SANRAL, or having being withdrawn, aborted or abandoned by the Proponent, neither the Proponent nor SANRAL may claim from the other party damages or loss of earnings or loss of profit, or any other compensation whatsoever, other than as may have been provided for in the Agreement between SANRAL and the Proponent for Scheme Development, such amount to be agreed upon as set out in Section 3.4 of this document.

3.2 CONTENTS OF AN UNSOLICITED PROPOSAL

In order to qualify as an Unsolicited Proposal, the Proposal must contain, *inter alia*, the following:

- a clear description of the scope of the Proposal together with a key plan to elucidate the description

- present traffic figures as well as traffic growth predictions
- proposed road cross sections and a programme of cross sectional development motivated by means of predicted traffic patterns
- road pavement proposals and pavement improvements with a programme motivated by means of predicted traffic patterns
- any other safety and capacity enhancing features proposed
- proposed residual life of pavement at the end of the concession period
- cost estimate of sufficient accuracy to illustrate the financial viability of the project. This must also identify whether SANRAL is expected to contribute financially
- tolling strategy
- minimum design standards and performance criteria
- a list of the parties making the Proposal and their partners, if any, as well as details of their capabilities and relevant experience in the field of the Proposal
- a list of all conditions precedent which are part of the Proposal, or which remain to be overcome, and which will be required to be fulfilled prior to the implementation of the project.

3.3 EVALUATION OF PROPOSAL

SANRAL will consider the Proposal in terms of, *inter alia*, SANRAL's business and strategic planning. If SANRAL is interested in developing the Proposal, SANRAL will:

- inform the Proponent of any scope changes SANRAL may require or propose for consideration by the Proponent
- inform the Proponent of all Matters to be Resolved which SANRAL may have identified and which need to be addressed during the Development Phase of the Proposal.

3.4 APPOINTMENT OF SCHEME DEVELOPER, AND DEVELOPMENT AGREEMENT

If the Proponent: accepts the scope changes required by SANRAL, or accommodates the proposals put forward by SANRAL for the Proponent's consideration and also undertakes to address the Matters to be Resolved raised, SANRAL will;

- award the Proponent the status of Scheme Developer, which will enable it to formally approach other Authorities and perform duties required to address the various issues raised

- publicly announce an acknowledgement of the Proposal and the award of Scheme Developer Status to the Proponent.

At this stage a Scheme Development Agreement (the 'Agreement') between SANRAL and the Scheme Developer will be drawn up to, *inter alia*, address;

- the rights and obligations of the two parties flowing from the Agreement
- the time at which SANRAL may accept liability for the whole of or part of the costs incurred by the Proponent with regard to the Proposal ('the agreed costs'). The time for acceptance of the liability of the agreed costs will be agreed upon between the parties and may be at any time between the stage of award of Scheme Developer Status and the stage where Tender Documentation has been compiled. The acceptance by SANRAL of this liability will be determined by the nature of the Proposal. It is recorded that this acceptance is to be agreed upon and SANRAL is under no obligation to accept this liability
- the budget amount for the development of the postulated scheme up to the stage where Tenders are invited. This amount will be provided for in the Tender Documentation as a provisional amount, payable by the successful

Tenderer to the Scheme Developer, in the event of the Scheme Developer not submitting the most attractive tender. Should the project be aborted by SANRAL after SANRAL Acceptance, SANRAL will reimburse the Scheme Developer for its costs incurred up to the date as agreed upon, such date not being earlier than the date of appointment of Scheme Developer, to an amount not exceeding this budget amount

- the limit of the liability of the Proponent to SANRAL in respect of the costs incurred by SANRAL in procuring third party advice with respect to the Proposal, in the event of the Proponent withdrawing their bid in the period subsequent to their having been awarded Scheme Developer status, but prior to calling for tenders for the project

3.5 ADDRESSING OF MATTERS TO BE RESOLVED IDENTIFIED BY SANRAL, AND SCHEME DEVELOPMENT

As part of the Agreement, the Scheme Developer and SANRAL shall agree on a time period within which the Matters to be Resolved and any required scope changes must be addressed.

The Scheme Developer shall then liaise with the relevant stakeholders and/or role-players and take any actions that may be necessary to resolve the identified Matters to be Resolved and to bring about the required scope changes. If successful, the Scheme Developer should optimise the Proposal and present SANRAL with the optimised Proposal as well as evidence (where applicable) of solutions to the Matters to be Resolved.

Once SANRAL's Matters to be Resolved have been satisfactorily addressed and the scope changes have been satisfactorily affected, SANRAL will allow the Scheme Developer, in conjunction with SANRAL (and other Authorities, if applicable) to further develop the Proposal in accordance with the Agreement, including, but not limited to;

- technical aspects
- plaza positions
- the Environmental Impact Assessment (including public participation, and socio-economic aspects) up to and including the Environmental Management Plan

It must be noted that this is an integrated process and it might not be possible to address all Matters to be Resolved without taking at least some, if not all of the other actions listed above.

3.6 SCHEME ACCEPTANCE

Once the Proposal has been developed to the point where, at the sole discretion of SANRAL, it satisfies the terms of the Agreement, it will be accepted by SANRAL in writing.

3.7 TENDER DOCUMENTATION

Upon successful completion of the above Development phase and the acceptance of the Proposal by SANRAL, the Scheme Developer will be required to compile tender documentation under SANRAL supervision, after agreeing with SANRAL on;

- the format of the documents
- projected time frames
- information to be included in, or excluded from the documents

3.8 CALLING FOR TENDERS AND THE TENDER PROCESS

The Scheme Developer may now bid along with all other interested parties for the project. From this point onward the normal bid evaluation and award process, as for any SANRAL initiated project, will be followed.

The two most advantageous Tenders will be selected by SANRAL, from which Best and Final Offers will be invited. Should the Scheme Developer's Tender not be among these, he will, however, be afforded the opportunity to also submit a Best and Final Offer, which will be evaluated along with those of the Selected Tenderers. It is recorded, however, that at no stage will SANRAL disclose any information with respect to any of the other Tenders submitted to the Scheme Developer. From these will then be selected the Preferred Tenderer with whom SANRAL will then enter into negotiations. This selection will be at the sole discretion of SANRAL and SANRAL will be under no obligation to select any Preferred Tenderer.

4 Simultaneous Proposals

In cases where more than one Proposal is received for the same, or a similar project at the same location, before SANRAL has awarded Scheme Developer Status to the first Proponent, the following shall apply:

If the projects are materially the same, a first come first serve approach will be adopted by SANRAL,

and the second Proposal will be returned to its Proponent.

If two or more projects, at one location, having common elements, but being substantially different in other respects, are submitted, SANRAL will decide at its sole discretion which of the projects is the most desirable, and return the other(s) to its/their Proponent(s).

5 Third Party Advice and Appraisal

SANRAL reserves the right to submit Proposals, at any stage during the process, to third party advisors for appraisal and advice.

Appropriate undertakings for the confidential handling of the Proposals will be obtained from advisors before any documentation is handed to them.

The cost of obtaining such third party advice will be for the account of SANRAL. However, should the Proponent withdraw the Proposal subsequent to their having been awarded Scheme Developer status, but prior to tenders having being called

for the project, the Proponent shall be liable for the costs incurred by SANRAL in respect of obtaining third party advice. The limit of this liability shall be as agreed in the Agreement.

6 Submission of Bids

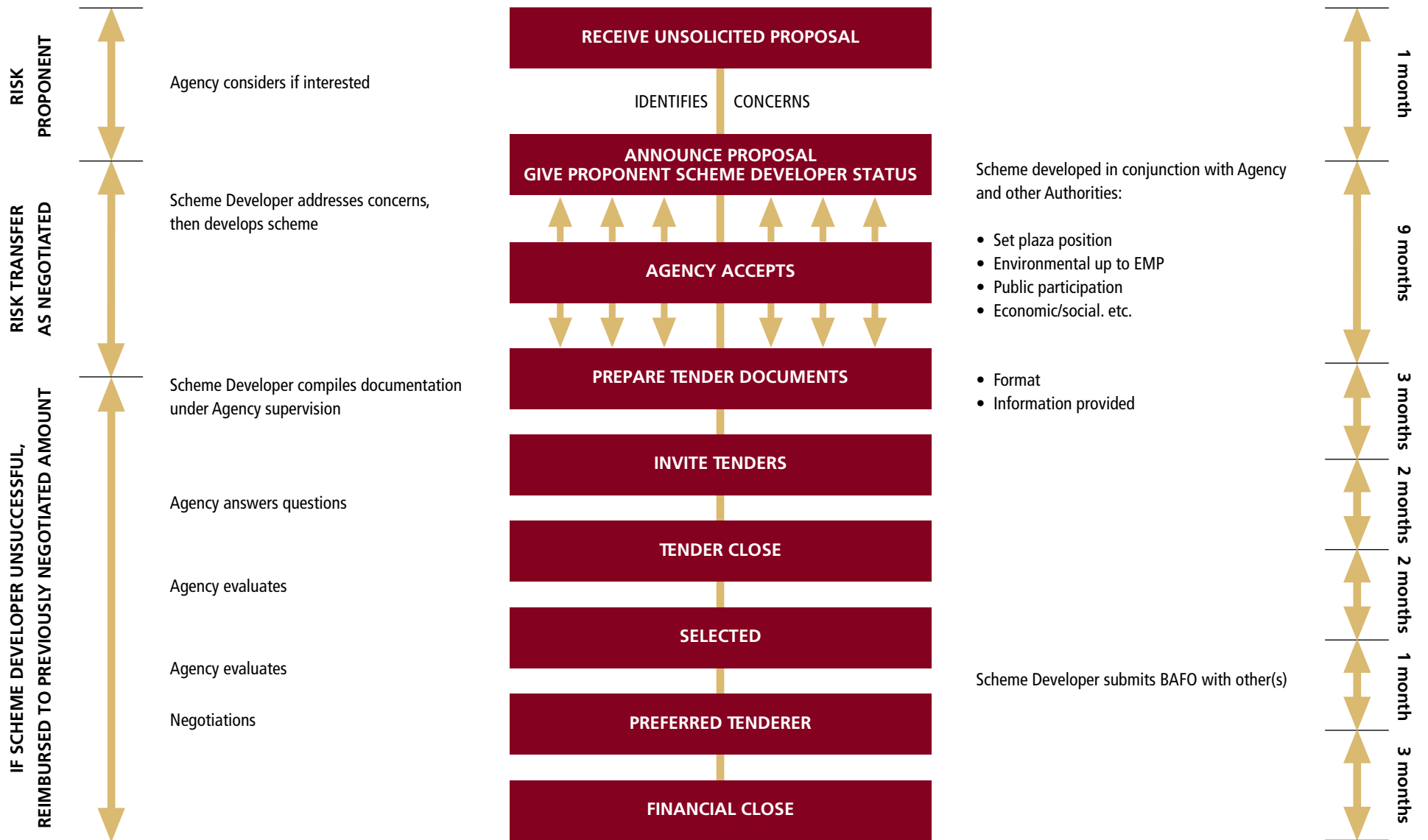
Four copies of the Proposal should be delivered by hand to;

The Chief Executive Officer
The South African National Roads Agency Limited
1204 Park Street, Hatfield, Pretoria

SANRAL will record the date and time it receives Proposals.

Please note: In the evaluation process the emphasis will be on value for money and the affordability of the Project.

The following flow diagram describes the above procedure and should be read as forming part of this document.







APPENDIX II

*The South African National Roads Agency Ltd
Corporate Environmental Policy*

Vision

To be recognised as a world leader in the provision of a superior primary road network in Southern Africa

Policy

Environmental management is a key component of road infrastructure development to achieve a shared vision for economic development and growth in South Africa in particular, and southern Africa as a whole. In providing a sustainable road network that meets the requirements of both people and the environment, we are faced with many exciting challenges. We shall continuously strive to find a balance between the economic and social benefits of road-based transport on the one hand, and the protection of the environment on the other.

We shall meet the challenges of providing sustainable, environmentally sensitive development through:

- Developing, implementing and monitoring an environmental management system;

- Ensuring that development proceeds in a socially, environmentally and economically sustainable manner;
 - Continual improvement of environmental performance through regular reviews of the effects of development;
 - Pursuing the best practical environmental option by promoting integrated environmental management principles;
 - Integrating environmental duty of care into business planning and day to day activities;
 - Conducting all operations, whether carried out by or on behalf of SANRAL, in accordance with relevant environmental legislation, government policy, standards and industry accepted best practice;
 - Minimising pollution and reducing, or where possible, mitigating the negative environmental impacts and/or promoting the positive environmental aspects as a result of SANRAL's activities within socially and economically acceptable limits;
 - Promoting the participation of all interested and affected parties in planning and implementation decisions taking into account the interests, needs and values of all stakeholders involved;
 - Including environmental considerations in all aspects of strategic planning of our road and traffic management;
- Promotion of environmental awareness among employees;
 - Recognising the vital role of women and youth in environmental management and development and promoting their full participation therein.

ISBN: 0-620-35368-6

www.nra.co.za