

DEPARTMENT OF TRANSPORT

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**PUBLICATION OF DRAFT ROADS POLICY FOR SOUTH AFRICA FOR PUBLIC
COMMENTS**

I, Mr M.J Maswanganyi, MP, Minister of Transport, hereby publish the Draft Roads Policy for South Africa for public comments.

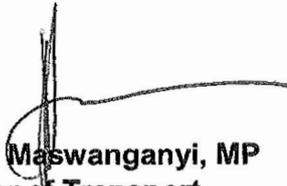
Interested parties and organisations are invited to submit to the Acting Director – General: Department of Transport, within (30) days of the publication of this notice in the gazette, written representations or comments of the Draft Roads Policy for South Africa at the following:

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Mr M.J Maswanganyi, MP
Minister of Transport
Date: 22 February 2018

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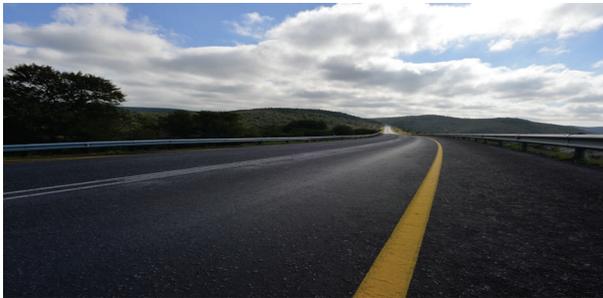
transport

Department:
Transport
REPUBLIC OF SOUTH AFRICA



DRAFT ROADS POLICY FOR SOUTH AFRICA

December 2017



FOREWORD



The core responsibility of South Africa's National Department of Transport (DoT) is to support the development an efficient, integrated transport system, through putting in place appropriate policies, regulations and models that are both implementable and sustainable by our Road Authorities, within all three spheres of Government.

Road Authorities in South Africa have the obligation to provide a reliable, effective, efficient and integrated transport system that supports the sustainable economic and social development objectives of the country. All Road Authorities also have an obligation to plan, design, construct and maintain the road network, to protect the public investment in the road infrastructure, to ensure the continued functionality of the transportation system, and to promote the safety of traffic on the road network.

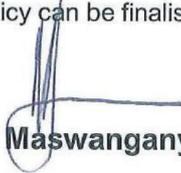
The proposed *Roads Policy for South Africa* sets out the strategic position of National Government on all matters relating to road regulation, roads infrastructure, road safety road funding and Non-motorised Transport (NMT). It does not attempt to address operational matters, except for road safety (which requires a systems approach and thus operational matters are also considered).

With mounting concerns over climate change and air pollution, the role of roads needs to shift away from serving predominantly private vehicles and road-based freight, toward supporting more integrated mobility systems centred on walking, cycling, public transport and freight via rail or sea. In light of this, South Africa needs to ensure that its roads policies make best use of infrastructure budgets to further economic, social and environmental goals simultaneously.

Our country's National Development Plan (NDP 2030) identifies road infrastructure as a key driver of the South African economy. For this reason, our road network must be developed and maintained in such a way that it supports our national development objectives. In addition, our roads must be managed as assets, and placed in the hands of the appropriate Roads Authority. Our roads must be safe, provide a high level of service at a cost our nation is able to afford, accessible for all users, and maintained in a good condition.

This Roads Policy is the first of its kind in South Africa. Although a series of transport and roads strategies and plans have been developed since 1994 (in particular the White Paper on National Transport Policy), the management of the roads environment and its users has not been fully addressed within an overarching national policy for roads. This Roads Policy therefore provides the necessary overarching framework to ensure that South Africa's roads are better managed, safer, and includes all modes, to deliver a sustainable approach to roads management.

I hereby present the proposed Roads Policy for South Africa and now look forward for robust engagement with the various stakeholders. I trust that through their inputs and participation, the development of the Roads Policy can be finalised and tabled at Cabinet for approval and implementation.


Mr M. J. Maswanganyi, MP

Minister of Transport

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The Constitution assigns different roles and responsibilities to various spheres of government. The government of the republic of South Africa is made up of three spheres, namely the National, Provincial and local spheres. These spheres are inter-related and inter-dependent and each as a power to legislate in its sphere of competence and transport is a concurrent function.	20
Schedule 4 part A and B of the Constitution assign Road Transport matters as a functional area over which National, Provincial and Local Government have a concurrent jurisdiction.	20
As stated above, it follows that any policy intervention that is proposed in the policy is cognizant with the fact that:	20
a) National and provincial government has an inherent competency to develop policy, to regulate road traffic and management across all spheres of government.	20
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	The Master Plan will detail the status quo in roads, particularly, provide an overview of all modes of roads transport, the requirements/needs in the sector, challenges, and forecast the expected demand, amongst others.	76
	The Master Plan will map a national, provincial and local view of the country's road network, also indicating the current and future infrastructure projects and the various corridors.	76
	The Master Plan will in essence identify infrastructure projects and prioritise the project, which will be informed by government priority and the needs of the country	76
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II EXECUTIVE SUMMARY

South Africa faces many developmental obstacles, including infrastructure bottlenecks, and economic and social challenges such as unemployment, poverty and inequity. Economic infrastructure, including South Africa's road network, is one of the key levers for economic growth. Roads infrastructure is able to deliver a higher economic return on investment than any single other type of infrastructure. Road transportation is an important industry in the country's economy, yet various challenges inhibit the sector's contribution to South Africa's economic and social development objectives. One such challenge is the roads implementation and maintenance backlog, where increased roads use, low investment, and poor maintenance have led to higher transportation costs and transport bottlenecks.

The effective design, construction and maintenance of roads is crucial to a well-functioning and prosperous modern economy. Roads also play a role in meeting societal needs for connection and mobility in ever-expanding human settlements, and their construction and on-going maintenance provides opportunities to address social challenges like unemployment. With mounting concerns over climate change and air pollution, the role of roads needs to shift away from serving predominantly private vehicles and road-based freight, toward supporting more integrated mobility systems centred on walking, cycling, public transport and freight via rail or sea. These have implications for the Roads Policy for South Africa, which should be aligned with the overall national sustainable objectives.

South Africa is currently experiencing many challenges within the roads sector and the aim of the Roads Policy for South Africa is to, amongst others, provide a regulatory framework for a coherent and uniform response across all spheres in government to respond to the issues experienced.

With a Vision Statement of 'Transport, the Heartbeat of Economic Growth and Social Development' the Roads Policy for South Africa has the following broad objectives:

- Alignment with national developmental priorities
- Provide an over-arching policy that covers all aspects of the road sector and applies to all three spheres of government
- Prescribe national principles, requirements, guidelines, frameworks and national norms and standards that can be applied uniformly in provinces and municipalities
- Determine responsibilities, applicability and scope for the various role-players
- Identify and implement institutional reform regarding governance structures in the road sector
- Determine financial options in the road infrastructure investments, road safety, non-motorised transport sectors resulting in enabling mechanisms to implement programmes and projects
- Provide policy certainty with clear and concise regulatory framework for roads management
- Integration of plans for stream-lined and integrated service-delivery
- Increased jobs and skills development
- Integration of NMT as a recognised mode in the transport system
- Clear national directive on addressing road safety
- Directives for monitoring, evaluation and reporting in the roads management environment

Highlights of the Roads Policy include addressing the institutional relationships between the various Road Authorities, which play a significant role in the functioning of the road management environment. This will result in reducing and eliminating un-proclaimed roads and assign responsibilities on road ownership and mandates.

In support of an approach to sustainability within the roads management sector, South Africa is charged with developing a more 'green' road network, integrated with land use in urban areas to encourage the development of more sustainable urban forms. The Roads Policy promotes compliance with the Committee of Transport Officials (COTO) technical policies and standards and charges all Road Authorities to maintain the integrity of the road reserve. Policies are proposed to address this challenge and promote the professionalisation of engineers and engineering technologists within management levels at Road Authorities. Policies are also introduced in support of sustainable transport management.

Road users are reliant on a safe and efficient road network. Roads must be developed and maintained taking into consideration the marginalisation of rural communities due to the state of access roads. Public transport users using buses and taxis are also reliant on a sound road network and public transport services across South Africa requires roads to be developed and maintained in such a manner to further the use of public transport. Freight is a major contributor to economic the South African economy and requires an efficient transport system.

Road safety has reached catastrophic proportions and South Africa is one of the 182 member states that supports the United Nations Decade of Action for Road Safety. There is in general a limited understanding of the complexity of the road safety problem in South Africa, which includes lawlessness, lack of equitable access to suitable infrastructure, inadequate law enforcement and fragmented road safety education. Road safety requires a long-term view with a multi-disciplinary approach and exceptional, consistent leadership. The Department has developed the Road Safety Strategy to provide a strategic framework for the implication of road safety initiatives. The Roads Policy provides the policy environment for the successful implementation of the strategy.

Traditionally, transport has been planned around the private vehicle user, resulting in the majority of road users, the pedestrians, not having access to equitable infrastructure. NMT is a viable and sustainable alternative to the use of private vehicles. It is accepted that NMT is an important potential transport solution for our country. NMT has many health and economic benefits, but the fact that it has zero carbon emissions aligns well with the global call for climate change. A range of definitive actions will need to be taken at various levels of government to ensure NMT achieves its rightful status in South Africa's transport system. Policy statements in support of furthering NMT have been developed to raise awareness for NMT as a sustainable mode of transport.

Inadequate funding for road infrastructure implementation and maintenance is a common refrain. Without significant investment in roads this significant asset will continue to deteriorate. Funding roads through other possibilities will most likely close the gap between the road budgetary requirements and the available funding. Other funding sources that could be considered include the fuel levy, vehicle licence fees, tolling and potentially other innovative funding sources; all towards developing an integrated funding model. Policy proposals include a focus on improving the efficiencies in budget expenditure in the roads sector and government support for the application of the user-pay principle (for example tolling, congestion charges, weight over distance charging, cross boarder levies, etc.), where required and adopted and the development of an integrated funding model. The maintenance needs of municipal roads and streets and the role of the private sector within the delivery of roads are also focus areas for policy interventions.

As part of a more sustainable approach to roads management, performance evaluation, especially in meeting sustainability targets, has been identified as a focus area in the Roads Policy. The Roads Policy for South Africa is a further key tool in accelerating economic growth towards accomplishing the objectives of the National Development Plan (NDP 2030).

III ACRONYMS AND ABBREVIATIONS

AARTO	Administrative Adjudication of Road Traffic Offences
ADV	Animal-Drawn Vehicle
ARDP	Access Road Development Plan
BRT	Bus Rapid Transit
CBRTA	Cross-Border Road Transport Agency
CCTV	Closed-Circuit Television
CIDB	Construction Industry Development Board
COGTA	Department of Cooperative Governance and Traditional Affairs
COTO	Committee of Transport Officials
DBSA	Development Bank of South Africa
DPLG	Transport and Department of Local Government
DORA	Division of Revenue Act
DoT	Department of Transport
ECSA	Engineering Council of South Africa
eNaTIS	Electronic National Traffic Information System
EPWP	Expanded Public Works Programme
GFIP	Gauteng Freeway Improvement Project
GHG	Greenhouse Gas
HHVs	Heavy-haul vehicles
HVs	Heavy vehicles
ICT	Information and Communications Technology
IPTN	Integrated Public Transport Networks
IRPTN	Integrated Rapid Public Transport Networks
IRTAD	International Road Traffic and Crash Database Group
ITP	Integrated Transport Plan
ITS	Intelligent Transport Systems

KPI	Key Performance Indicator
MIG	Municipal Infrastructure Grant
MINMEC	Ministers and Members of Executive Councils
MRMG	Municipal Road Maintenance Grant
MSA	Municipal Structures Act
MTEF	Medium Term Expenditure Framework
NERSA	National Energy Regulator of South Africa
NDP	National Development Plan 2030
NGO	Non-governmental organisation
NMT	Non-motorised Transport
NLTA	National Land Transport Act
NRMP	National Roads Master Plan
NRSC	National Road Safety Council
OSD	Occupation Specific Dispensation
PFMA	Public Finance Management Act
PLTF	Provincial Land Transport Framework
PMS	Pavement Management System
PPP	Public Private Partnership
PRASA	Passenger Rail Agency of South Africa
PRMG	Provincial Road Maintenance Grant
PSCBC	Public Service Coordinating Bargaining Council
PSC	Project Steering Committee
RAMS	Road Asset Management System
RRAMS	Rural Road Asset Management Systems
RCB	Roads Coordinating Body
RIMS	Road Incident Management Systems
RISDP	Regional Indicative Strategic Development Plan

RISFSA	Road Infrastructure Strategic Framework for South Africa
RSR	Rail Safety Regulator
RTMC	Road Traffic Management Corporation
RTS	Road Traffic Safety
SAATCA	Southern African Auditor and Training Certification Association
SABS	South African Bureau of Standards
SACPCMP	South African Council for Project and Construction Management Professions
SADC	Southern African Development Community
SALGA	South African Local Government Association
SANAS	South African National Accreditation System
SANRAL	South African National Roads Agency SOC Limited
SAPS	South African Policy Service
SARF	South African Roads Federation
SIP	Strategic Infrastructure Project
STER	Single Transport Economic Regulator
SSP	S'hamba Sonke Programme
TDM	Travel Demand Management
TOD	Transit Orientated Development
TFR	Transnet Freight Rail
TMH	Technical Methods for Highways
TRH	Technical Recommendations for Highways

IV GLOSSARY

TERM	DEFINITION OR EXPLANATION
Animal-Drawn Transport	A form of transport that is provided by a vehicle or device, using two or more wheels and drawn by one or more working animals such as horse, donkey, ox or mule, designed for transport.
Equitable Share Contributions	The equitable share is an unconditional budget allocation to the national, provincial and local government.
Freight consolidation	Cargo consolidation service provided by a freight forwarder in which several smaller shipments are assembled and shipped together to avail of better freight rates and security of cargo.
Funding cycles	The sequence of activities involved in the process of awarding a grant.
Infrastructure Service Delivery Toolkit	The Toolkit provides a documented body of knowledge and set of processes that represent generally recognised best practices in the delivery management of infrastructure. It is focused on the delivery and life cycle management of South African public sector infrastructure. The target users for this Toolkit include both technical and non-technical managers.
Inter-modal freight transport	Intermodal freight transport involves the transportation of freight in an intermodal container or vehicle, using multiple modes of transportation (rail, ship, and truck), without any handling of the freight itself when changing modes.
Logistic chain	Logistics management is that part of the supply chain, which plans, implements and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customer requirements. Logistic chain refers to all successive steps comprising a logistic-process in a particular environment or industry.
Logistics hub	Logistics hubs are generally defined as integrated centres for trans-shipment, storage, collection and distribution of goods.
Modal shift	Modal shift refers to a move away from one form of transport to another. Usually used in the context of sustainable transport planning where a shift towards more environmentally friendly modes (public transport, NMT and rail) is promoted.
Non-motorised Transport	Non-motorised transport or transport by any means other than a motor vehicle including, but not limited to, walking, cycling and animal-drawn vehicles and wheelchairs. NMT infrastructure includes bicycle paths, walkways, public open spaces and other buildings and structures used or intended for, or to promote NMT.
Planning Authority	In terms of the National Land Transport Act of 2009 a planning authority refers to a municipality in relation to its planning function
Occupation Specific Dispensation	In 2007, Occupational Specific Dispensation (OSD) was introduced for public sector employees in South Africa, which is unique to each identified occupation in the public service. PSCBC Resolution 1 of 2007 provided the framework for occupational specific remuneration and career progression dispensations to address unique

TERM	DEFINITION OR EXPLANATION
	remuneration structures, consolidation of benefits and allowances into salary, frequency of pay progression, grade progression opportunities, career pathing, and required levels of performance (performance based progression).. ¹
Rail-friendly commodities	Goods such as bulk commodities including coal, chrome and manganese, automotive parts and components, containers and chemicals are deemed to be rail-friendly due to their mass and volume.
S'hamba Sonke Programme	The S'hamba Sonke programme provides a set of principles to guide the prioritisation of infrastructure investments to maximise the economic impact and development multipliers for maintaining and upgrading South Africa's provincial road network ²⁰ .
Small-wheeled transport	Includes wheeled luggage, walkers, skates, skateboards, push scooter, Segway, handcarts, wheel barrows and wagons. Wheeled luggage increases the amount of baggage that pedestrian can reasonably carry and expands reasonable walking distances.
Travel Demand Management	Transportation Demand Management (TDM) (also known as Mobility Management) is a general term for various strategies that increase transportation system efficiency. It emphasizes the movement of people and goods, rather than motor vehicles, and so gives priority to more efficient modes (such as walking, cycling, ridesharing, public transit and telework), particularly under congested conditions ² .
Universal design	Universal design is an approach to create an environment that meets the needs of all potential users to the greatest extent possible. Taking into consideration the diverse abilities of individuals, such as agility, balance, cognition, coordination, endurance, flexibility, hearing, problem solving, sensory processing capacity, strength, vision, and walking speed; it emphasises inclusive design that ensures participation and access for all ³ .

1 INTRODUCTION



1.1 BACKGROUND

In its commitment to move South Africa forward, the Government of South Africa has embarked on a process of radical economic transformation⁴, which seeks to further transform an economic system impeded by the inhibiting trinity of unemployment, poverty and inequality. The radical economic transformation agenda is therefore an attempt to improve both the quality and equality of the economy that will ensure equal opportunity across the social spectrum. Such an ideal, however, hinges upon key prerequisites, such as road infrastructure, which allows individuals and communities to overcome geographical and social barriers to opportunity. Typically, markets can be inaccessible for rural communities and the poor. Sometimes people reside in areas far removed from central business districts (CBDs), and the jobs therein. Radical economic transformation is therefore about modernising South Africa's economy to bring it in line with the ideals of the Constitution⁵, Freedom Charter⁶, and the National Development Plan (NDP)⁷. It is in this context that the Roads Policy for South Africa draws both inspiration and direction.

Modern economies – characterised by inter-regional value chains – depend on infrastructure that supports an efficient production and exchange system. One of these key infrastructure elements is the road network, which not only provides access and mobility to people and communities, but also facilitates economic and social linkages as well as economic development and growth.

South Africa faces many developmental obstacles, including infrastructure bottlenecks, and economic and social challenges such as unemployment, poverty and inequity.

Economic infrastructure, including South Africa's road network, is one of the key levers for economic growth in South Africa. Roads infrastructure is able to deliver a higher economic return on investment than any single other type of infrastructure⁸.

Road transportation is an important industry in the country's national economy, yet various challenges inhibit the sector's further contribution to South Africa's economic and social development objectives. One such challenge is the roads infrastructure backlog, where the increased use of roads, low levels of investment and poor maintenance has led to higher transportation costs and transport bottlenecks. Poor road safety levels on South Africa's roads, including road safety concerns for non-motorised transport (NMT) users, are also adding to higher transportation costs.

As one response to these challenges, the South African Government has reaffirmed its commitment to develop the country's infrastructure base. This commitment is reflected in a number of strategies and plans, in particular the NDP, which places economic infrastructure at the heart of economic and social development. This Roads Policy for South Africa is a further key tool in accelerating economic growth towards accomplishing the objectives of the NDP.

1.2 ROLE OF THE DEPARTMENT OF TRANSPORT

The Strategic Plan for the Department of Transport (DoT)⁹ states that the DoT is responsible for conducting sector research; formulating legislation and policies to set the strategic direction of sub-sectors; assigning responsibilities to public entities and other levels of Government; regulating through setting norms and standards; and monitoring implementation. The DoT has a stated policy intention that to 'radically transform the transportation sector, re-prioritisation of resources must be enhanced; localised skills development interventions must be fast-tracked; and there must be a move towards industrialisation and beneficiation across the Transport Sector. There is a need for greater integration of efforts across all spheres of Government as well as in transport agencies in order to support the country's overall economic growth targets.'

As part of the broader service delivery implementation strategy within the roads environment, the following agencies were established by the DoT through respective legislation:

South African National Roads Agency SOC Ltd (SANRAL) is responsible for and was given power to perform all strategic planning with regard to the South African national roads system, as well as the planning, design, construction, operation, management, control, maintenance and rehabilitation of national roads for the Republic, and is responsible for the financing of all those functions in accordance with its business and financial plan, so as to ensure that the national goals and policy objectives concerning national roads are achieved¹⁰.

The Road Traffic Management Corporation (RTMC) was established with the objective to¹¹ pool powers and resources to eliminate the fragmentation of responsibilities for all aspects of road traffic management across the various levels of government in South Africa.

The Road Traffic Infringement Agency's (RTIA) main objectives are to¹² administer procedure to discourage traffic contraventions and support adjudication of infringements, enforce penalties imposed against persons contravening road traffic laws, encourage the payment of penalties imposed for infringements and undertake community education and awareness programmes

The Cross-Border Road Transport Agency's (CBRTA) mandate is to regulate access to the market by the road transport freight and passenger industry in respect of cross-border road transport by issuing of permits and to facilitate the unimpeded flow of passenger and freight movements by road across the borders of South Africa in order to contribute to the social and economic development initiatives as announced by Government.¹³

The mandate of the Road Accident Fund (RAF) is to compensate the victims of crashes for losses and suffering. This therefore becomes a consoling arm of government.

Taking into account the concurrent responsibilities as per the provisions in the Constitutional and the legislative mandates, it must be noted that the DoT is held accountable for road infrastructure planning, maintenance, development and for the monitoring and evaluation of the socio-economic impact of road infrastructure projects to ensure that the roads are accessible and safe for all users. With regards to review of management and administration of agencies, the policy shall address the gaps with regards to the responsibilities of the DoT as per the requirements of the respective Acts (founding legislation of the various Agencies).

2 PROBLEM STATEMENT

The development orientation of South Africa's national policies is to rectify the injustices and imbalances of the past, thereby providing restitution to the millions of South Africans who were marginalised and excluded from economic participation and advancement. There are a myriad of policies in this regard, each of which seeks to contribute to the objectives spelled out in the Constitution, as well as the goals embodied in the more recent NDP⁷. However, there still remain challenges in many areas of the road transport sector, which impede economic development and welfare gains.

Significant change and investment in the transport sector will no doubt contribute to correcting this historical imbalance, in particular, through meeting the mobility needs of South Africans effectively connecting people, markets and resources.

The current road transportation environment comprises both positive and negative elements. On the positive side, South Africa has a relatively robust, extensive and functional road infrastructure network. The road transport network contributes towards economic and social development goals. On the negative side, there are significant financial, institutional, physical and human challenges.

The harsh reality about the road environment in South Africa indicates the following:¹⁴

- Although the national road network is in a satisfactory condition¹⁵, the overall road maintenance backlog, including those of SANRAL, provinces and municipalities, is increasing¹⁶.
- Government has limited funds from the national fiscus to meet the road maintenance burden, as well as the increased demand for the expansion of the road network, due to increased number of vehicles and new, rapidly expanding towns and cities. This contributes to road congestion, higher vehicle operating costs, and a reduced level of service across extensive portions of the road network.
- There is now a growing recognition that roads are no longer reserved for motorised vehicles only, but for all users including public transport and NMT users. This brings about conflicting mobility and accessibility expectations, especially in urban environments. Walking is a significant commuting mode and cycling has not yet increased significantly, but NMT facilities are limited.
- In order to promote sustainable forms of transport, government has introduced integrated rapid public transport networks (IRPTNs) in major towns and cities in South Africa. The implementation of these IRPTNs places significant demand on the national fiscus.
- The bulk of all freight is conveyed by road, which contributes to poor road safety and the excessive freight volumes on the road compound the road maintenance backlog. Overloading remains a challenge and existing law-enforcement strategies are ineffective and therefore unable to arrest the negative impact of overloaded vehicles on the road network.
- The poor standard of many provincial and local roads are a concern and the road maintenance backlog is growing every year. This is compounded by limited funds as well as a reduced focus on maintenance and limited technical skills in the public sector. Many municipalities and provinces lack the skill, capacity and funding to efficiently manage local road networks.
- Access to rural areas is limited while rural road infrastructure and corridors are neglected due to limited funds, lack of skills in some areas and the prioritisation of other social needs over roads. Furthermore, some rural areas are still attempting to address the inadequate road network provision in the previous homelands.
- Growth in private vehicles and freight is increasing at a rapid rate and outstripping the supply and availability of roads, leading to growing congestion in major urban areas.

- South Africa has one of the highest road crash fatality rates in the world which negatively impacts the broader economy.
- Funding availability and the mechanisms available to explore innovative funding solutions are challenging.

From an institutional road management perspective the Road Infrastructure Strategic Framework for South Africa (RISFSA)¹⁹ has made some recommendations to improve the planning and coordination of road management. However, the provinces and local municipalities are grappling with the consequences of the shortage of appropriate skills in this sector. Without significant interventions to improve the skills and capacity within the roads management sector, the human resources required are not available at all levels of government and particularly at local authority level. The lack of resources, capacity and skills has occurred to the extent that SANRAL has been involved in maintenance of access roads, provincial roads as well as the construction of some NMT facilities.

Road Authorities need appropriately skilled, competent, qualified and experienced people in key positions to manage service delivery in the roads infrastructure, road safety and NMT sectors.

In summary, the challenges in the road sector is firstly; that there is an inequitable access for all road users i.e. pedestrians, cyclists, other Non-motorised Transport (NMT) road users, motorists, heavy vehicle operators who need access and usage of the roads for their customers, suppliers and for personal and business use. Secondly, there is on-going deterioration of the road infrastructure conditions and the quality of the infrastructure. Road users, especially in rural areas, are faced with poor transport infrastructures and inadequate public transport services that prohibit access and mobility on the road network. Given this context, the delivery of transport infrastructure and services are a significant catalyst for sustainable economic development, improved social access and assist with poverty alleviation in South Africa. Thirdly, South Africa is also challenged by the high number of road crashes, fatalities and injuries. Road crashes have a dire consequence on society as it results in an increased burden on the social security and the welfare system of a country. It also leads to increased loss of skills and rising costs to the economy. However, the biggest cost remains the loss of lives and the subsequent trauma and broken families.

These challenges reduce the economic development potential of the country and entrench the developmental challenges of weak economic growth, high unemployment, poverty, and growing inequalities across income groups.

3 EXISTING POLICY ENVIRONMENT

The DoT is charged with providing safe, reliable, effective, efficient, affordable and integrated transport services that best meet the needs of passengers and freight users as encapsulated in the Strategic Plan of the DoT⁹.

The recent development of the NDP 2030⁷ identified the creation of workable urban transit solutions, the strengthening and optimisation of freight corridors and the provision of long-distance passenger transport solutions. Furthermore, the NDP states that rural access and mobility has key policy and planning priorities. Accordingly, the development of a Roads Policy for South Africa should consider the following:

- Social issues (this relates to the role of roads in providing access to social facilities and amenities)
- Economic issues (this relates to the role of roads in terms of job creation and providing linkages to economic opportunities)
- Environmental issues (this relates to the environmental impacts of roads as well as mitigation measures).

Although a series of transport and roads strategies and plans have been developed since 1994, in particular the White Paper on National Transport Policy of 1996¹⁷, the management of the roads environment and its users has not been fully addressed within an overarching national policy, specifically focusing on roads infrastructure, road safety and NMT users. In the absence of such a national policy, relevant authorities have followed the strategic direction of the following guiding frameworks, strategies, policies and legislation:

- The Constitution of South Africa⁵ (Act 108 of 1996) outlines the responsibility for roads at the various spheres of government.
- The White Paper on National Transport Policy¹⁷ noted that 'fragmentation' was an issue and identified the 'coordination of infrastructure planning for all modes of transport' as a means to respond to this concern. It also identified road safety as a particular focus area that requires attention in all areas of transport management.
- A recent update of the White Paper on National Transport Policy¹⁸ stated the following policy objective "To improve South Africa's competitiveness and that of its transport infrastructure and operations through greater effectiveness and efficiency to better meet the needs of different customer groups, both locally and globally". More specifically, for the Roads Sector, it identified its mission as "To allow the development and management of a road network that is safe for all its users, is well-maintained and serves as a catalyst for social and economic development."
- The RISFSA¹⁹ of 2006 provided the framework for the management of roads infrastructure. It is noted that not all of the recommendations have been implemented to date. A review of the RISFSA recommendations is therefore included in this policy.
- In May 2012, the S'hamba Sonke Programme²⁰ (SSP) was developed as a response to RISFSA recommendations regarding the backlog in roads maintenance, the poor state of rural access roads, and the administration of the Provincial Road Maintenance Grant (PRMG).
- Road safety initiatives have been guided by the Department working with the United Nations' Decade of Action 'Five Pillars for Road Safety'²¹ (road safety management, safer roads and mobility, safer vehicles, safer road users and post-crash response). Recently the RTMC developed a National Road Safety Strategy²² (NRSS) which aims to reduce the number of fatal and serious crashes by promoting responsible and safe road user behaviour, providing safe and forgiving road infrastructure, ensuring safer vehicles on South African roads and delivering quality road safety management.

3.1 CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA

The Constitution Act 108 of 1996 mandates Cabinet with responsibility to develop national policy. This mandate places responsibility on the Minister of Transport to ensure that any development and implementation of national transport policy by the Dot addresses the mobility needs of all citizens.

The Constitution assigns different roles and responsibilities to various spheres of government. The government of the republic of South Africa is made up of three spheres, namely the National, Provincial and local spheres. These spheres are inter-related and inter-dependent and each as a power to legislate in its sphere of competence and transport is a concurrent function.

Schedule 4 part A and B of the Constitution assign Road Transport matters as a functional area over which National, Provincial and Local Government have a concurrent jurisdiction.

As stated above, it follows that any policy intervention that is proposed in the policy is cognizant with the fact that:

- a) National and provincial government has an inherent competency to develop policy, to regulate road traffic and management across all spheres of government.
- b) Local government has the inherent jurisdiction to regulate laws on municipal road transport.

3.2 WHITE PAPER ON NATIONAL TRANSPORT POLICY

The White Paper on National Transport Policy¹⁸ identified the following strategy objectives:

- To optimise current capacity and maintain and develop the road network
- To improve road traffic safety, enhance road traffic discipline, protect the capital investment in the road system, and enhance administrative and economic order in the field of road traffic and transport
- To optimise road transport law enforcement and promote and implement efficient, integrated, and coordinated road traffic management systems in the country, involving the role-players in all functional areas of road traffic management
- To enhance the quality, productivity and cost-effectiveness of road freight transport services by providing transport customers with a safe, secure, reliable and cost-competitive system
- To advance human resource development and expand participation in the freight industry through the creation and growth of entrepreneurial opportunities, training and skills development
- To promote seamless integration and harmonisation of standards with neighbouring member states
- To actively promote the movement of the appropriate type of freight from road to rail and
- To encourage, promote and plan for the use of NMT where appropriate.

3.3 ROAD INFRASTRUCTURE STRATEGIC FRAMEWORK FOR SOUTH AFRICA (RISFSA)

The Road Infrastructure Strategic Framework for South Africa (RISFSA¹⁹) of 2006 provided the framework for the management of roads infrastructure.

3.3.1 The Road Network

The functional road classification system should be adopted in South Africa, and the administrative responsibility and delivery functions for these roads be defined. Information Systems and Decision Support.

South Africa shall have a road network information system for decision support mechanism, especially at provincial and local authority level.

3.3.2 Road Condition

The Visual Condition Index (VCI) as an indicator of network performance should be between 5%-10% with regards to 'poor' and 'very poor' condition. It further recommended that current and new funding scenarios should be reviewed by the RCB to reduce the maintenance backlog on non-tolled roads.

The VCI of all provincial and national roads should be within the international norms.

3.4 DRAFT NMT POLICY

The Draft NMT Policy was developed in 2007 and developed policy directives for Animal-drawn transport, cycling, walking, eco-mobility and innovative solutions. It provides a single framework and an enabling environment for the Department of Transport, other government departments and stakeholders to address the challenges inherent in Non-Motorised transportation.

The primary objectives of the Draft NMT policy are, among others, to increase the role of NMT as one of the key transport mode, integrate NMT as an essential element of public transport and provide a safe NMT infrastructure and allocate adequate and sustainable funding for the development and promotion of NMT. The document also promotes and changes the mindset in our diverse culture in order to accept the use on NMT as the most appropriate for shorter distance for urban and rural areas.

3.5 ROAD SAFETY STRATEGIES

Several road safety strategies have been compiled in the last 20 years in South Africa. When studying and comparing the various road safety strategies, some conclusions can be made, but it has not resulted in a significant improvement of the road safety. This has been addressed by the development of the National Road Safety Strategy 2016 – 2030.

At a global level, there has been a greater focus on road safety in the developing and middle-income countries. In 2010, various governments met to discuss the international road safety crisis of the world and declared 2011–2020 as the Global Plan for the Decade of Action for Road Safety. The goal of the Global Plan is to stabilise and reduce the increasing trend in road traffic fatalities, saving an estimated 5 million lives over the period²¹.

The Road Traffic Safety Management System (ISO39001) was developed as one of the key instruments to support the implementation of the Decade of Action Global Road Safety Plan through having a 3rd party

certification against ISO39001 for all organizations that interacts with the road traffic system who are serious in achieving their goals to Road Safety Management.

3.6 TECHNICAL NORMS, MANUALS, STANDARDS AND GUIDELINES APPLICABLE TO THE ROADS SECTOR

The custodianship for the development, maintenance of National Standards is the South African Bureau of Standard (SABS).

The development and maintenance of technical manuals, norms and guidelines has traditionally been with the Committee of Land Transport Officials (COLTO), which subsequently changed to the Committee of Transport Officials (COTO). These technical manuals, norms and guidelines that have been developed to guide the planning, design, construction and management of roads are not readily available and not always applied across all spheres of government in a uniform way by both private sector and public sector.

There is need to build capacity and allocate sufficient resources and budgets for the DoT to fulfil its mandate to keep the technical manuals and guidelines up to date and to support industry to review and approve or endorse any relevant documents being developed within the private sector. On-going marketing and awareness programmes are needed to ensure these documents are prescribed for use by all Road Authorities are used in uniform and standard way. The introduction of the concept of having a “minimum level of service” can thus be realised.

3.7 SUSTAINABILITY – AN UNDERLYING PRINCIPLE TO ROADS MANAGEMENT

The long-term sustainability of South Africa’s future is dependent on our ability to redress our actions and reduce the harmful impact we have had thus far on the world we live in. It is essential that these actions be undertaken holistically so that environmental considerations, social development as well as economic efficiencies are addressed in an integrated manner.

Roads and transport can make a significant contribution to sustainability initiatives within South Africa because ‘*how or where*’ transport infrastructure is constructed, maintained and managed has a profound impact on our environment, communities and economy. Transport is responsible for 27% of the final energy demand in South Africa with petroleum products representing 97% and electricity representing only 3% of the energy used in the transport sector²³.

A legacy of poor spatial planning within the country has resulted in a growing dependence on road infrastructure that supports cars and an increasing number of private single occupancy vehicles. These in turn bring more road fatalities, traffic congestion, greenhouse gas emissions, air pollution and a mushrooming demand for more fossil fuels. Furthermore, the lack of more sustainable public transport and non-motorised modes of transport inhibits access to employment opportunities and key services, directly affecting poverty, inequality and the pursuit of improved living standards amongst South Africa’s poorest.

It is indisputable that we must ensure a move towards more sustainable practices within roads and transport. Therefore, the Roads Policy for South Africa has adopted a holistic approach which acknowledges sustainability as an underpinning and integral philosophy.

3.7.1 The Sustainability Policy Framework

This philosophy of sustainability is aligned with the existing suite of acts, policies, strategies and frameworks that have been developed to drive sustainability in South Africa. Some examples include:

- The National Framework for Sustainable Development in South Africa calls for 'Efficient and sustainable use of natural resources, socio-economic systems that are embedded within, and dependent upon, ecosystems and human needs, enhanced systems for integrated planning and implementation and economic development via investments in sustainable infrastructure and human settlements'²⁴. While, Section 24(b) of the Constitution⁵ of the Republic of South Africa states that 'everyone has the right to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures'.
- South Africa's Intended Nationally Determined Contribution Discussion Document²⁵ has benchmarked total annual Greenhouse Gas (GHG) emissions to be in the range of 212 to 428 Mt CO₂ equivalents by 2050, having declined in absolute terms from 2036 onwards.
- The South African Green Economy Modelling Report²⁶ has established a process for local government to draw lessons on best practice in green economy initiatives and benchmark their performance.
- The White Paper on Energy Policy (1998)²⁷ states that: 'Government will ensure that the necessary resources are made available to establish structures, systems and legislation to facilitate the specification, collection, storage, maintenance and supply of energy data, and energy-related data, according to the requirements of integrated energy planning and international standards'.
- The Energy Efficiency Strategy (2005)²³ calls for fee rebates on vehicles dependent on varying energy consumption, efficiency labels on motor vehicles and the presentation of emission standards for vehicles to the general public. All of these should also be included in roadworthiness certificates.
- The Industrial Policy Action Plan²⁸ has called for GHG mitigation options that have been identified and analysed to be combined to construct Marginal Abatement Cost Curves (MACCs) for key sectors and subsectors.
- The Public Transport Action Plan²⁹ has called for 'built local transport capacity for planning, monitoring, regulation and network management, in turn, helping municipalities to develop strategic integrated network plans, operational plans, travel demand management plans, and electronic fare collection plans in conjunction with the Transport Education Training Authority (TETA), Transport Centres of Development and other Institutions of Higher Learning'.

3.7.2 Implications For The Roads Policy For South Africa

South Africa's national sustainability goals support the design, development and maintenance of sustainable road infrastructure in the country as a crucial component of a more sustainable economic system. Policy statements must therefore prioritise resource efficiency, integrated planning (e.g. integrated transport infrastructure with land use management) and economic development (e.g. sustainable employment opportunities). Implications for the Roads Policy to be aligned with sustainable objectives include inter alia the following key actions:

3.6.2.1 Integration of roads planning with land use planning

In order for future road development to be not only sustainable but also effective, all planning must consider the relevant context. For example, infrastructures requirements and maintenance strategies will be informed by very different needs found in rural areas, compared to the needs found in urban areas. In addition, integrated transport modes enhancing rural-urban linkages should be improved to ensure reliable and efficient access to commercial and public services, and increase productivity of industry (e.g. agricultural distribution). This context is very important in ensuring an effective service is provided.

Furthermore, it is important that road network planning is integrated with the appropriate government planning processes at all levels, and in particular spatial planning and land use management. This will

ensure that future road networks do not compromise valuable natural ecosystems, and that various social considerations can be included, such servicing future development and safety aspects.

3.6.2.2 Protection of 'green' systems

Although roads play a vital role in the economy and mobility for South Africa, this can come at a cost to the environment in terms of the following elements:

- Deteriorating air quality, global warming and noise pollution from rapidly growing vehicle volumes.
- Pressure on scarce fossil fuels due to the construction of road infrastructure, the growing production and use of motorised vehicles.
- Growing congestion due to increased demand for travel.
- Adverse impacts on bio-diversity and ecosystems due to an expanding road network.

Environmental preservation must be a key theme in the Road Policy. Road systems must make efficient use of land and other natural resources (e.g. energy, asphalt, gravel, and water) while ensuring the preservation of vital habitats and other requirements for maintaining biodiversity, not only during construction but also during the operational and maintenance phase.

The re-establishment of ecological functioning corridors must be taken into consideration when infrastructure is being upgraded. This must also be taken into account in the planning of new infrastructure.

The minimisation of waste, water, heat and energy requirements is critical in the construction and maintenance of road infrastructure. This includes the sustainable sourcing of materials, resources and labour to reduce costs and life cycle emissions.

Transport infrastructure must respect natural water systems. This requires appropriate network planning, as well as designs to reduce negative impacts on this vital ecosystem (i.e. water sensitive design or sustainable urban drainage).

Transportation is a major contributor to greenhouse gas emissions. It is therefore important that the roads industry take measures to actively reduce emissions as it expands networks. This may be through the following possible approaches:

- Retrofitting of renewable energy power sources.
- Use of innovative road construction materials.
- Improved network planning and the promotion of mass transport options.
- Promotion of more efficient, ultra-low emission and alternate energy vehicles. These could be for both private vehicles as well as freight vehicles particularly within congested urban centres.
- The support for new alternate fuel vehicles in the market.
- The provision of capital investment into new vehicle technologies, in the form of grants or incentives to promote sea and rail freight, as alternative freight modes.

3.6.2.3 Sustainable modes of transport

Mobility of the public is a vital component of ensuring that the public has access to opportunities. Ultimately roads contribute to the social and economic sustainability of the country. If access and mobility is in place for communities it automatically affords the public improved exposure to health care, education, employment and other opportunities.

The integration of more sustainable transport modes such as public transport, walking and cycling must be included as a key tool. Identifying ways to improve the operational efficiency of existing road infrastructure such as signal timing, road capacity enhancements, travel demand management (TDM), High Occupancy Vehicle (HOV) lanes and car-pooling can also be considered. The focus must be on ensuring that road infrastructure makes provision for and promotes integration of more sustainable modes of transport. Further, the policy must move towards improved coordination with land-use to reduce the number of trips generated.

A reduction of dependence on motor vehicles will also show a resulting reduction in the negative impacts thereof, such as air pollution, energy consumption and traffic congestion. This includes the introduction of mechanisms such as congestion tolling to discourage the use of private vehicles, Intelligent Transport Systems (ITS) to improve efficiencies of existing transport networks and constructing low carbon road infrastructure such as bus lanes, railways and NMT.

3.6.2.4 Roads aimed at achieving social equality and organisational integration

All South Africans are entitled to affordable access to other people, places, goods and services. Road and transport systems provide a mechanism to ensure social, inter-regional and inter-generational equity, by providing all road related aspects that meet the basic transportation related needs of all people.

Therefore, the development of road networks must promote community connectivity and respond to mobility needs. This will be facilitated through the development of functional road networks that include synergistic connections between nodes of economic opportunity, especially with non-motorised and public transport systems. These points of connectivity may include informal trading areas, centers of job availability, education and health care nodes.

This level of social and physical integration should be established and promoted through participatory planning. Roads are the responsibility of various bodies, and spheres of government, at varying scales and locations. In addition to this, the people affected by road plans must be included in the planning and decision-making process. Therefore, a transparent approach is proposed for planning and decision-making, which includes all spheres of government and road users.

3.6.2.5 Employment and economic growth initiatives.

Roads play a significant role in sustainable economic growth and job creation for South Africa. Policy provisions must support NDP objectives and maximise opportunities for employment, especially for the unemployed, the youth and the socially marginalised in national development plans. For example, opportunities for job creation within the road sector (infrastructure construction and maintenance) have been identified in the SSP. Opportunities can also be created in the motor vehicle manufacturing sector. It would also entail investment and research into new business opportunities in renewable, sustainable fuel and alternative power sources for private vehicles.

Without key road linkages remote rural communities would be isolated and marginalised from employment, services and other opportunities. The Roads Policy for South Africa therefore must recognise the important role roads play in rural economies.

Regional and international trade initiatives, which support overall South African Development Community (SADC) protocols, must be supported and facilitated.

3.6.2.6 Assessing Sustainability Performance

Monitoring and assessment of our success in achieving sustainability objectives as part of roads and transport is critical. Through this monitoring the roads industry's progress along the path of sustainability can be tracked. Through assessment, lessons learnt may be used to guide the industry towards desirable outcomes. Therefore, the Roads Policy should include the following:

- Enhancing cooperation amongst all spheres of government to steer relevant industries towards more holistic, pertinent and responsible practice.
- The design and development of measurement and reporting based tools for the easy identification of problem areas and potential solutions.
- A monitoring, evaluation and reporting tool that:
 - Robustly and comprehensively monitors and evaluates investments in infrastructure, and its social, economic and environmental impact.
 - Robustly and comprehensively monitors and evaluates investments and designs for integrated transport systems across the country, and its social, economic and environmental impact.
 - Accounts for all sector variables, such as actual economic and sector growth in the transport sector, thus enabling energy usage data to be normalised against representative data, which describes the sector activity over time.

4 FRAMEWORK FOR A ROADS POLICY



4.1 VISION

The vision of the DoT is:

'Transport, the Heartbeat of Economic Growth and Social Development!'

The strategic goals of the DoT's Road Transport Programme are as follows³⁰:

- An efficient and integrated infrastructure network that serves as a catalyst for social and economic development.
- A Transport Sector that is safe and secure.

The vision for the Roads Policy for South Africa is:

'to allow the development and management of a road network that is safe for all its users, well-maintained and serves as a catalyst for social and economic development.'

4.2 GOAL

The goal of the Roads Policy for South Africa is to provide an equitable access to a safe, well managed, sustainable road network.

4.3 OBJECTIVES

The Roads Policy for South Africa is to provide an over-arching policy across all spheres of government in terms of Roads Infrastructure, Road Safety and NMT in line with national developmental priorities:

- Role clarification in terms of responsibilities, applicability and scope for the various role-players
- Determine funding options in the road infrastructure investments, road safety and NMT sectors
- Provide policy certainty with a clear and concise regulatory framework for roads management
- Maximize jobs creation and skills development
- Integration of NMT as a recognized mode of transport
- Directives for monitoring, evaluation and reporting in the roads management environment

5 ROADS INFRASTRUCTURE



The mobility of people and goods is dependent on the efficient use of existing road infrastructure and the modernisation and expansion of road infrastructure to meet the future demand for transport services efficiently and cost-effectively. Adequate road infrastructure is a fundamental precondition for transport systems and one key component in ensuring social well-being.

Institutional relationships, the roles and responsibilities that result from these, and the **technical skills** required to perform these roles, have a significant impact on the way in which roads are managed in South Africa. In addition, **employment creation** is a national priority of Government and the roads sector is committed towards achieving this goal.

Road users are reliant on a safe and efficient road network. The marginalisation of **rural communities** due to the state of access roads must be taken into consideration with the development and maintenance of roads. **Public transport users** using buses and taxis are also reliant on a sound road network and the implementation of the Public Transport Strategy³¹ also requires roads to be developed and maintained to further the use of public transport. **Freight** is a major economic contributor to the South Africa economy and requires an efficient transport system.

5.1 INSTITUTIONAL RELATIONSHIPS

The intent of the Roads Policy is to create an environment where institutional relationships are clearly defined and the roles and responsibilities of each authority are unambiguous. It is also expected that municipalities play a greater role in roads delivery in line with their constitutional mandates. However, a coordinated approach is required in order to assist dysfunctional and non-performing municipalities and

Road Authorities to fulfil their mandates. Planning for devolution has to take place within a defined medium to long-term framework. A performance-based approach to roads management is also introduced, aligned with National Treasury's (NT) requirements and in support of sustainability goals of monitoring and evaluation.

5.1.1 Policy Statements For Improved Institutional Relationships

Policy Statement 1. The DoT and Road Authorities undertake to complete the functional classification of roads as a matter of priority.

- a) The DoT in partnership with Provincial Road Authorities will continue to support Local Government Road Authorities as they complete the RISFSA road reclassification process according to the Road Classification and Access Control Manual (TRH26).

Policy Statement 2. The DoT will ensure that the roles and responsibilities of the various Road Authorities and other relevant institutions are clear and unambiguous.

- a) The DoT, with the assistance of the Provinces and Local Government, will review the existing Strategic Road Network as identified in the Road Network Incorporation Report³² and consider the following; changes to the function of certain roads, inclusion of strategic national and provincial public transport routes and interchange opportunities, changes to significant SADC road corridors and inclusion of regional routes providing economic and social connections within provinces.
- b) As part of this process the Roads Needs Study³³, which was completed in the 1980s, must also be considered.

Policy Statement 3. Current legislation defines national roads as roads that are defined and declared as such; provincial roads are roads that are defined and declared as such and all other remaining roads are municipal streets. The DoT, in partnership with Road Authorities, will assign roles and responsibilities as set out in in Table 1.

- a) All un-proclaimed roads must be assigned to either Local Authorities or to Provinces depending on the functional classification and road significance until un-proclaimed roads are eventually reduced and eliminated.
- b) Provinces will eventually be responsible for provincial roads, local authorities will be responsible for local roads and streets, whilst SANRAL will be responsible for the National Strategic Road Network, some of the Primary Road Network and the approach routes to border posts and ports.
- c) The devolvement of roads from authority to authority must be undertaken only when the recipient authority has sufficient capacity and expertise to fulfil the mandate. Devolvement to SANRAL will be undertaken in accordance with the stipulations of the SANRAL Act¹⁰. Without a proper technical assessment and motivation being received from the relevant provincial Premier, the Department shall not support the transfer of Provincial Road Networks to SANRAL.
- d) The planning for devolvement of roads must target a medium to long-term framework and not aim to address short-term unrealistic expectations. However, where it is deemed a priority, these roads should be devolved.

Figure 1: Current and Proposed Roles and Responsibilities for Roads and Streets

Current Road Owner			Proposed Owner
SANRAL	Current national road network		SANRAL
	Remaining Strategic Network (after reviewed)		SANRAL
Provinces	Primary Network		SANRAL/Provinces
	Portions of provincial roads within metropolitan boundaries		Metros
	Portions of provincial roads within local authority boundaries		Provinces
	But portions of provincial roads within local authority boundaries that have skills and capacity to manage their own network		Local Authorities
Metros & Local Authorities	Approach roads to border posts (up to country's border) and ports		SANRAL
Other government departments and state owned entities	Approach roads to border posts and ports		SANRAL
-	Un-proclaimed roads		Assigned to provinces and local authorities depending on functional classification and significance of road

Policy Statement 4. The DoT will introduce performance management in the roads sector.

- a) The DoT will develop a Performance Management Framework with minimum road service standards, Key Performance Indicators (KPIs), benchmark levels and appropriate targets for the various types of Road Authorities, aligned with current norms and standards and the KPIs adopted by the Department of Planning, Monitoring and Evaluation.
- b) The various types of Road Authorities will develop their own Performance Management Plan, implement it and monitor their performance in road service delivery.

Policy Statement 5. The DoT will ensure that the devolvement of roads is planned for and undertaken in a sustainable manner.

- a) The devolvement of roads must be planned for, budgeted for and implemented in line with local and regional development initiatives.
- b) Where devolvement is opposed by one authority, the authorities will act in accordance with the principles of cooperative governance. Existing legislative processes and recourse to resolve issues must only be undertaken as a last resort.

Policy Statement 6. All Road Authorities will act in accordance with and promote cooperative governance between the various spheres of government responsible for roads management.

- a) An approach of integrated planning and stakeholder consultation must be applied to national and provincial roads traversing local authorities. Roads master planning for these roads must be aligned with local authority planning.
- b) In the event that provincial and national roads planning cannot be aligned with local authority planning, the higher-order Road Authorities roads planning will prevail, subject to the application of existing regulatory processes.
- c) In an attempt to coordinate activities amongst Road Authorities and in order to enable effective maintenance and coordination, the principles of cooperative governance must be applied.
- d) An Integrated Roads Planning Committee must be established at provincial level to coordinate roads planning, upgrades maintenance, programming and funding cycles and to integrate roads, public transport and NMT upgrades and maintenance in the provinces.

Policy Statement 7. The DoT and Road Authorities will undertake roads service delivery through either roads departments at provincial governments or local authorities or through roads service delivery entities or agencies.

- a) The DoT will support Road Authorities if they decide to implement service delivery agencies or to fulfil their road service delivery mandate within the structures of a provincial or local authority roads department.
- b) Road Authorities must, where required, investigate local, context-specific road maintenance service delivery models, where an alternative approach is required to improve roads service delivery.

5.2 MANAGEMENT OF ROADS INFRASTRUCTURE

In order to address challenges experienced in managing roads infrastructure the relevant authorities must have a single, consistent approach to manage all roads and streets in the country. It is also necessary for Road Authorities to be 'informed clients', displaying technical excellence.

In support of a sustainable approach to the management of roads infrastructure, integrated planning must be the norm for transport, land use, engineering services and human settlement development (including social housing). An approach to sustainability must be applied in the management, construction and maintenance of roads.

It is also necessary for the DoT, in partnership with the Department of Corporative Governance and Traditional Affairs (COGTA), to provide ongoing technical support and assistance to local authorities. The DoT will also take responsibility for the research, updating, ratification, warehousing, awareness and distribution of road infrastructure technical guidelines to users, within both Government and the private sector.

The Railway Safety Regulator (RSR), Transnet, Passenger Rail Agency of South Africa (PRASA) and Road Authorities must apply integrated planning and coordination at the level crossing road and rail interface in an attempt to improve the management of rail level crossings in South Africa and minimise the horrific crashes that can occur at these locations.

5.2.1 Policy Statements on the Management of Roads Infrastructure

Policy Statement 8. The DoT and all Road Authorities promote compliance with COTO technical policies and standards.

- a) All Road Authorities comply with the COTO standards and norms for road planning, design, construction and maintenance, as well as the operational management of the roads, which is included as part of the Technical Recommendations for Highway (TRH) and Technical Methods for Highways (TMH) suite of documents, as well as those that might be developed thereafter.
- b) Where required, current road design guidelines should be reviewed and updated in support of Transit Orientated Developments (TOD), public transport needs, universal access requirements and NMT goals.
- c) Road Authorities might also develop their own technical specifications, where required and where the expertise exists, which are aligned to these national guidelines.
- d) The RCB is mandated by COTO to review and officially approve all technical manuals, norms and guidelines, including the endorsing of any relevant industry produced guidelines, at a technical level. Thereafter, the DoT publishes and releases these technical manuals, norms and guidelines, except those documents that were developed by the industry.
- e) The DoT assumes responsibility for the development of a web-based data management support system for the processing, management and warehousing of RAMS data.
- f) Road users experience the same road standards throughout South Africa through the uniform application of COTO technical policies and standards.

Policy Statement 9. All Road Authorities apply Road Asset Management principles within the roads sector.

Roads are to be maintained based on asset preservation and sound asset management principles (TMH22).

SANRAL will maintain the Strategic Road Network at a desired level of quality to ensure that the various developmental needs (social and economic) of the country are met.

- a) A certain level of mobility is maintained on the Strategic Road Network, with due consideration for the accessibility requirements of local communities. In these instances the recommendations contained in the TRH26: Road Access Guidelines, or any other approved local access management plan will apply. In some areas, this will require the investigation of by-passes around town centres to maintain a certain level of mobility, based on sound economic and social feasibility assessments. In the absence of by-passes local authorities must ensure that the agreed level of mobility is maintained.
- b) Regular maintenance of roads forming part of the Strategic Road Network must be undertaken to maintain the road network at an acceptable condition.
- c) No more than 5%-10% of the road networks should at any point be indicated as in a 'poor' or 'very poor' condition using the VCI as an indicator of network performance.

Policy Statement 10. All Road Authorities will maintain roads and streets under their jurisdiction at an acceptable level.

- a) Road Authorities must undertake regular road maintenance to ensure roads and streets are maintained at an acceptable level.
- b) As it is not economically feasible to maintain all roads and streets at the same level as the VCI of the higher-order network, a minimum target must be developed for roads and streets that do not form part of the Strategic Road Network.

Policy Statement 11. All Road Authorities maintain the integrity of the road network and the road reserve.

- a) All authorities strive to maintain the integrity of the road reserve in order to ensure that future network development is not compromised, and that services can be located and accessed appropriately.
- b) Roads master planning must be undertaken as part of an integrated transport and land use planning process. Roads masterplans must be included in Integrated Transport Plans (ITP) of Planning Authorities and approved as part of the approval of the ITP71.
- c) Authorities must act timeously to avoid formal or informal settlement within road reserves.
- d) Authorities must liaise with tribal authorities where relevant to ensure that road reserves and alignments are protected and to avoid formal/ informal settlement of potential road reserves in tribally owned land/ community-owned land.
- e) Services installed in a road reserve must be installed with the approval of the local authority, in the form of a wayleave. The DoT's directives for trenching and ducting in the roads and the road reserve in the form of TRH27 - South African Manual for Permitting Services in Road Reserves³⁴ must be applied. This includes the rollout of Information and Communications Technology (ICT) Infrastructure.
- f) The DoT must liaise with other authorities and ensure that regulatory frameworks dealing with the installation of utilities and services in the road reserves do not compromise the roads sector's ability to appropriately manage road reserves.
- g) Technology is used to improve the operational management of the roads environment and for law enforcement.
- h) Level crossings are managed jointly between Road Authorities (outside of the rail reserve), the Railway Safety Regulator (RSR), the Passenger Rail Agency of South Africa (PRASA), and Transnet Freight Rail (TFR), where applicable, in accordance with the safety recommendations of the Railway Safety Regulator, regulations of the National Road Traffic Act and the South African Road Traffic Signs Manual.
- i) A strategic abnormal load road network must be identified, declared and managed in accordance with the stipulations of TRH11 - Dimensional and Mass Limitations and other requirements for Abnormal Load Vehicles³⁵.

Policy Statement 12. All Road Authorities promote the integration of roads with land use and developmental objectives.

- a) Road and street networks are managed in accordance with approved access management guidelines.
- b) Where new residential areas, streets and roads are developed, these are managed in active partnership with the relevant departments to find the optimal mix and balance between road reserve, the services network and appropriate settlement density.
- c) Roads and streets can influence the urban quality of the surrounding areas and must be integrated with surrounding land use towards creating liveable environments.
- d) Access roads must be holistically planned with new land use developments.
- e) Road safety concerns must be managed when informal or formal settlements develop adjacent to higher order roads, as these roads are not currently designed for high levels of pedestrian activity.
- f) Road safety considerations must be applied to rural roads that continue through villages with appropriate speed reduction measures, sidewalks and pedestrian crossing opportunities.
- g) Road safety considerations for vulnerable road users must be taken into account in the planning of new roads, human settlements, public facilities and generally all developments, as well as when improvement of existing roads are undertaken.
- h) Integration with all sectors are undertaken to achieve optimal integration with the road network, surrounding land use, infrastructure development and transport operations.

Policy Statement 13. New roads and the management of existing roads must be based on sound sustainable transport, spatial and development planning principles.

- a) New roads must be planned, designed and constructed in accordance with sustainable transport and spatial planning principles taking into consideration the needs of all users.
- b) New roads must be subject to a needs and desirability study as part of an overall Integrated Transport Network.
- c) In congested areas, new roads and road capacity improvements must be constructed as part of a congestion management strategy, and must consider travel demand management principles in order to utilize existing road infrastructure more effectively.
- d) In congested areas, traffic signal coordination and other travel demand management strategies are used to improve overall traffic management.

Policy Statement 14. Where appropriate and safe the principles of universal design must be followed in the design of roads and streets.

- a) Facilities for people with special categories of need must be incorporated into the design and construction of new roads, where appropriate and safe to do so, to enable people to live and move independently. People with special categories of need include the following³⁶:
 - People with disabilities - defined in the National Land Transport Act⁷¹ as people with a physical, sensory or mental disability, which may be permanent or temporary. This category includes the very young (usually taken as children between the ages of 0-14), and is therefore a broader definition than most other definitions of disability.

- The aged (or elderly people) - People over the age of 55 usually fall in this category.
 - Pregnant women - usually considered as women in their last three months of pregnancy.
 - Those who are limited in their movements by children - men and women with small children also have specific access needs that public transport systems need to cater for.
- b) Whilst not formally contemplated in any current Departmental legislation, it is important to note that the following categories of passengers also have special categories of need:
- Life cycle passengers - these are customers who have additional transport needs by virtue of the fact that they happen to be in a particular stage of the human life cycle.
 - Signage passengers - People who are unable to read or who are unable to understand the language used on the signage, including tourists.
 - Female passengers - whilst safety and security affects all passenger groups and both genders, it should be noted that female passengers (together with people with disabilities) are particularly at risk of crime and abuse.
 - Load carrying passengers - people carrying bags, luggage, or goods of a size that means that they benefit from accessibility features. This is important to people on low incomes in South Africa. People travelling with bicycles are generally also included in this category.
- c) As part of ongoing road improvement projects, principles of universal design should also be incorporated, where appropriate and safe. The regulations prepared by the South African Bureau of Standards for Tactile Indicators³⁷ and for the Application of the National Building Regulations³⁸ shall apply.
- d) Sidewalks, footpaths and cycle ways must be provided along all urban roads and streets, excluding freeways.

Policy Statement 15. All Road Authorities will develop a 'green' road network, which conforms to the principles of sustainability.

- a) The DoT commits to developing a comprehensive set of minimum 'green road norms and standards', which are defined as planning, design, construction and maintenance best-practices, intended to develop road infrastructure that is more sustainable than current industry standards. Best practices in sustainability will include environmental, social and economic considerations, as described in detail in the 'Approach to Sustainability in Roads'.
- b) These norms and standards are used to define the parameters of a green road rating tool for new and rehabilitated roads. Benchmarks, which clearly define the incremental improvements in sustainability of road infrastructure as well as guide project teams (e.g. owners, designers and builders) in the process of implementation and aligned reporting must be developed. These benchmarks must be developed so that both high volume and low volume roads can be evaluated in terms of sustainable best practices.
- c) The DoT will prescribe the conditions for which a self-assessment or an independent external certification is to be undertaken. When undertaken, the level of sustainability will be reported per identified road, based on the clearly defined benchmarks.
- d) All Road Authorities will be responsible for implementing new and rehabilitated roads that meet the minimum prescribed norms and standards and, as part of overall roads management processes, existing roads are prioritised and upgraded to meet minimum green road norms and standards.

5.3 TECHNICAL CAPACITY

Road Authorities require a diverse range of professional and technical skills in order to function effectively, yet often they do not have the appropriately skilled and experienced staff. It is clear that a national guideline and staffing strategy for Road Authorities is required.

Road Authorities currently outsource the design, construction, monitoring and quality control of road infrastructure, including support services such as materials management and laboratory testing. The private sector's participation in roads infrastructure implementation is vital and forms part of an overall infrastructure delivery strategy.

In response to this growing need for the development of technical skills at Road Authorities, policies are developed in support of the implementation of an Infrastructure Delivery Support Management System (IDMS) for Road Authorities. The aim of the IDMS is 'to build the capacity to support improvement in the planning, procurement and management of infrastructure delivery at the provincial level.'³⁹ With the support of this system, the roads sector will be staffed with appropriately skilled, competent, qualified and experienced people who are professionally registered in their respective professions, where necessary in certain posts.

5.3.1 Policy Statements to improve technical capacity

Policy Statement 16. The Road Authorities employ appropriately skilled, competent, qualified and experienced people, and attract and attain civil engineering professionals in key positions.

- a) The Roads Division of each Road Authority should be managed by an engineer or technologist with sufficient experience in key performance areas, and who is registered with the Engineering Council of South Africa (ECSA) and the South African Council for Project & Construction Management Professions (SACPCMP), as required and where applicable.
- b) It is acknowledged that there is a need for staff with a variety of skills and all these staff should have professional registration with the appropriate Body or Association in their field of expertise.
- c) All relevant (technical) staff working in the roads infrastructure units should be trained and registered experts in the following ISO Standards - Quality Management System, Health & Safety Management System, Construction Management System, Environment Management Systems, Road Traffic Management Safety Management and the SABS Railway Safety Standard for Level Crossings.
- d) All staff that performs Monitoring, Oversight and Inspectorate functions should be trained and registered as experts on the relevant ISO Standards in line with their prescribed duties.
- e) New staff members should preferably meet these requirements before they are employed.
- f) Through the implementation of an IDMS, the organisational structure for the technical staff required to fulfil the mandate of a Road Authority is identified and filled with appropriately qualified staff. This could include professional staff practicing in the built environment, as required. Through the implementation of this process, existing staff without the appropriate experience and qualifications will be affected, and this will have to be managed in accordance with South African labour laws.

- g) The national DoT's role of strategic oversight, compliance monitoring, policy development, data collection, monitoring and evaluation will be strengthened through the development and implementation of the IDMS.
- h) The DoT will liaise with the Department of Public Service and Administration and motivate for a review of the OSD requirements, which can be implemented uniformly across all spheres of Government to enable attraction of professional staff to Road Authorities.

Policy Statement 17. The DoT in partnership with Provinces and Local Governments leads and guides the development of technical skills and professional registration within the Roads Sector.

- a) The DoT in partnership with Provinces supports and facilitates the development of technical capacity in all aspects of roads delivery. The Human Resources Development Strategy is currently being developed by the DoT and provides the framework for this skills development.
- b) The DoT encourages regional support between Road Authorities, which includes assistance and mentorship where necessary.

Policy Statement 18. The DoT, in partnership with Provinces, and its agencies, supports and develops struggling Road Authorities.

- a) The DoT and Provinces encourage regional support between Road Authorities, which includes assistance and mentorship where necessary. The existing regulatory framework, through the Municipal System Act, National Land Transport Act and the Constitution, defines this level of assistance to be provided between organs of state.
- b) The DoT endorses RISFSA's recommendations for the development of service delivery entities for roads maintenance, if proven to be feasible for a particular Road Authority.

Policy Statement 19. The DoT, in partnership with National Treasury and Provinces, supports the role of the private sector in roads delivery in terms of Public Private Partnerships (PPP).

- a) Road Authorities procure appropriately skilled and qualified services providers within the framework of the Public Finance Management Act⁴⁰ and the Preferential Procurement Policy Framework Act⁴¹ to provide required services to the roads sector.
- b) The DoT, together with Road Authorities and National Treasury, supports private sector involvement in road management, maintenance and construction within the various provincial and local authorities.
- c) Consultation engineering and construction firms undertaking public sector road design, construction and maintenance projects must create training and skills development opportunities for public sector staff, where required.
- d) Performance monitoring is applied to all service providers to the Roads Sector.

5.4 EMPLOYMENT CREATION

The road transport industry is able to contribute toward job creation by employing labour-intensive construction and maintenance methods. As South Africa's road network includes both paved and unpaved roads, the construction, operation and maintenance of roads, footpaths, sidewalks and cycle ways by

labour-intensive methods can deliver employment to many under-developed and under-served communities.

Construction and maintenance activities within the road infrastructure sector can also be leveraged to facilitate skills development amongst individuals employed within the industry, particularly within the technical fields. The South African White Paper on Creating an Enabling Environment for Reconstruction, Growth and Development in the Construction Industry⁴² expresses a clear vision for public-sector service delivery aimed at optimising job creation opportunities through labour-intensive construction⁴³. Thus, labour-intensive construction can be realised in the delivery of infrastructure development, which is technically and economically feasible.⁴³

5.4.1 Policy Statements to promote Employment Creation

Policy Statement 20. Increase employment opportunities in the roads sector

- a) In line with the Expanded Public Works Programme (EPWP) Infrastructure Sector and S'hamba Sonke Programme (SSP), labour-intensive technologies and methods of construction and maintenance must be employed when maintaining and constructing road infrastructure. The focus of the EPWP and SSP is on provincial (secondary) roads and rural roads. This approach should also be extended to municipal roads.
- b) Labour-intensive methods of construction and maintenance, where cost, time and quality are not compromised, must not only provide short- to long-term employment to local unemployed people, but must also provide some form of training and skills development, which can equip locally unemployed people for the labour market.
- c) Labour-intensive methods must not compromise the quality of road construction of the Strategic Road Network.
- d) Employment-creation efforts within the road infrastructure sector must focus on the creation of multi-faceted employment opportunities, including casual, temporary and permanent employment, for semi- and unskilled-individuals operating at the elementary skill level.⁴⁴
- e) The skills shortage within the road infrastructure sector, particularly with regards to technical expertise, must be addressed through the inclusion of at least one junior/ candidate specialist(s) in the construction and maintenance of road infrastructure. This may be facilitated through an internship, learnership, or apprenticeship for the duration of the activity concerned.
- f) The DoT must develop monitoring and reporting systems to assist all spheres of government in order to create and sustain effective labour-intensive maintenance methods.
- g) The role of local communities in roads construction projects is supported by Road Authorities. Possible mechanisms include the use of local labour and the temporary employment by the contractor (through the provisions of the contract) of a community liaison office.

Policy Statement 21. Prioritise employment creation in rural areas.

Rural unemployment is especially concerning. As such, secondary and rural roads development must support efforts to provide employment opportunities to rural communities, especially in marginalised areas.

5.5 RESPONDING TO USER NEEDS

As the road networks are being used by a multiple of users, the way roads infrastructure is managed should be aligned with the needs of the users of the roads. In response, policies have been developed that attempts to address the infrastructure needs of these users of road infrastructure. Integration with various sectors affected by roads management is a sound strategy to promote a more sustainable roads management environment.

5.5.1 Rural Access

Rural access, or the lack thereof to economic and social opportunities, has been identified in planning documentation as a weakness of the South African economy. The developmental challenges are especially relevant in rural South Africa. The lack of adequate access is especially relevant in rural South Africa with concerns around health, education, employment levels and economic activity being raised. Rural areas with typical long distances between towns or between farming communities and educational/ economic/ social opportunities face access and mobility challenges. This is a stumbling block for social and economic development of rural communities.



For rural communities to flourish socially and economically, rural communities need well-maintained access roads and transport services. Furthermore, road maintenance and construction initiatives in rural communities, and associated employment opportunities, should involve/target rural communities.

The DoT's Strategic Plan has identified improvement to rural access, infrastructure and mobility as one of its strategic goals. Many opportunities have also been identified in the Rural Transport Strategy⁴⁵ to address transport needs within rural communities which has been designed around two strategies; namely the provision of rural transport infrastructure and rural transport services. Policies have developed for roads infrastructure to ensure this alignment to the developmental requirements for rural South Africa.

5.5.2 Policy Statements to address needs in the rural areas

Policy Statement 22. The DoT recognises the role of roads in the rural economy.

- a) The DoT recognises the role that rural road maintenance and construction play along the provincial roads, as a tool to improve overall social and economic development of rural areas.
- b) The DoT uses the Access Road Development Plan (ARDP) as a tool to support the implementation of rural access road development across South Africa.
- c) Institutional arrangements amongst national, provincial and local authorities, as well as relevant stakeholders, are strengthened to allow for collaborative planning and implementation in rural environments.

Policy Statement 23. The DoT improves rural access to opportunities.

- a) Rural roads, paths and pedestrian bridges form part of an overall concept of road infrastructure to improve rural access.
- b) Animal-drawn transport is an important element of rural transport.

5.5.3 Public Transport

The roads sector has to mirror the sustainable transport philosophies underpinning public transport delivery to encourage effective delivery of public transport. Accordingly, road planning, design and construction should support public transport implementation and operations.



5.5.4 Policy Statements to respond to the needs of Public Transport users

Policy Statement 24. The DoT and all Road Authorities support and adopt a sustainable transport approach.

- a) Roads management and infrastructure implementation support a sustainable use of road space, where greater emphasis is placed on the role of public transport.
- b) Public transport facilities are incorporated in the planning, design and implementation of new roads, or when existing roads are maintained or upgraded.
- c) In metro areas, roads and public transport infrastructure must support urban densification strategies.
- d) Public transport routes are to be properly maintained, especially in rural areas.
- e) Public transport requirements are to be considered within Pavement Management Systems (PMS) or Road Asset Management System (RAMS).
- f) Minibus-taxi ranks and other public transport facilities must be developed for all users (vehicles and passengers) of the facility and be universally accessible where appropriate and safe.

Policy Statement 25. Public transport is integrated with other modes, town planning and roads.

- a) Human settlement planning, road network development and public transport provision are all to be integrated.
- b) Integrated Public Transport Networks (IPTNs) are to be appropriately planned around the operational needs of the various towns and cities, and not only focus on large-scale and expensive BRT implementation.
- c) Walking, cycling, public transport, universal access considerations and roads planning must be integrated as part of an overall transport system.

5.5.5 Freight Movement

Freight efficiencies must be maximized with the ultimate aim of achieving a modal shift that reflects an optimal balance between rail and road freight and in doing so, limit the deterioration of roads. The characteristics of certain goods (in terms of mass and volume) and the distances involved make rail transportation more efficient than road transportation. These goods include for example bulk commodities such as coal, chrome and manganese, automotive parts and components, and containers



As elements of road freight operations has a significant impact on road safety and overall pavement conditions, policies are proposed that supports the enforcement of all applicable provisions of the existing legislation (NRTA) to improve the efficiency and operational safety in the road transport sector. Policies in support of truck stop facilities on major freight corridors also improve driver behaviour and road safety.

5.5.6 Policy Statements to address the needs of the Freight Sector

Policy Statement 26. The DoT supports a freight modal shift from road to rail.

- a) The DoT supports and encourages the role of market forces in determining which commodities will be moved on the road and which will be moved on rail, based on the efficiency considerations of each respective mode.
- b) The freight modal shift from road to rail encapsulates inter-regional freight transport throughout the SADC region. Where possible, rail-friendly goods currently transported inter-regionally from South Africa's sea and inland ports are shifted onto the inter-regional rail network.
- c) The consolidation of freight, where appropriate, and the investment in freight consolidation facilities is promoted through the use of logistics hubs that are strategically located based on current and future land-use and spatial development.

Policy Statement 27. The DoT engages with the road freight industry about aligning market cost of road freight activities with the true cost.

- a) The DoT will formulate a framework for the road freight industry to align the market cost of road freight activities with the true cost thereof in order to ensure that the road freight industry costs are commensurate with the impact of road freight activities on the existing network.
- b) The DoT supports the creation of a single transport economic regulator for the transport sector, which will oversee aspects related to pricing in the road freight industry.
- c) The DoT supports the enforcement of a set of minimum standards for the road freight industry.

Policy Statement 28. The DoT supports the implementation of truck stops along the road network.

- a) Truck stops on the existing road network are promoted based on a needs and desirability basis, and adhere to existing operational and engineering guidelines as set out by the relevant Road Authorities.
- b) These truck stops are aligned with the spatial and development plans and frameworks of the areas affected. It also serves as an opportunity to maximize local socio-economic development opportunities in local communities.
- c) The implementation of truck stops is underpinned by comprehensive economic and financial feasibility analyses.

Policy Statement 29. The DoT supports overloading control initiatives.

- a) The DoT supports the combination of strategically placed weighbridges, managed by competent authorities throughout the road network. Voluntary compliance and self-regulation are supported along with other overloading control interventions.
- b) Government will review and improve enforcement of all provisions of the existing legislation (NRTA) to improve efficiency in the law enforcement operations.
- c) The DoT continues to support research and implement programmes that will improve the efficiency and operational safety in the road transport sector.
- d) The DoT continues to support self-regulation and voluntary compliance by the freight transport industry through partnerships with industry role-players.
- e) The DoT supports the use of technology to monitor overloading control.
- f) The DoT supports the process of operator registration for RTQS implementation and actively engages the industry about auditing, certification, and quality assurance.
- g) The DoT supports the process of operator registration in terms of the NRTA as part of the official transport regulatory framework and to support the improvement in quality of all aspects of freight and passenger transport operations.
- h) The DoT will engage with the transport industry and actively address the regulatory framework for transport operations to ensure operator compliance with regards to vehicles, drivers, offences, and operational issues such as overloading to reduce the damage to roads, and improve the overall quality of transport operations.
- i) The DoT supports the control measures placed on consignors and consignees to ensure overloaded vehicles are not dispatched or received in order to protect the road infrastructure and ensure safer vehicles.

Policy Statement 30. The DoT supports the integration of freight movement with other transportation modes.

- a) An integrated approach is required between road infrastructure and how it relates to other transportation modes, such as ports and rail, in parallel with the approach of the Strategic Infrastructure Projects and the National Infrastructure Plan. Joint and coordinated planning at a strategic level

between Road Authorities and other transport modal authorities must be strengthened and encouraged.

- b) Inter-modalism, primarily between road and rail, and the strengthening of key logistic corridors, nodes and links, must be encouraged and promoted to strengthen the linkages throughout the national logistics chain and align the road sector with future economic development initiatives within the country, particularly in the green- and blue-economy fields.

Policy Statement 31. The DoT promotes the right mode used for the right commodity.

The appropriate modal allocation must be applied to ensure certain goods and services are transported using the appropriate mode.

Policy Statement 32. The DoT promotes the use and analysis of statistics in the management of roads.

- a) In order to protect and maintain the existing road infrastructure network throughout the country, the Road Authorities need to understand the movement of freight on existing road network. Therefore, the analysis of data to support intelligent decision-making must be implemented.
- b) The road freight industry should be encouraged to supply the relevant Road Authorities with information related to freight movements along the road infrastructure network on a regular basis in order to allow the Road Authorities to make intelligent analysis possible.
- c) The collection and analysis of more detailed information regarding freight movements, such as weight and content, which should extend across other policies and strategies relating to the road freight industry, must be encouraged.
- d) As part of promoting and strengthening integrated cross-border freight movement, SADC-based freight operators must be encouraged to provide more detailed information with regards to freight.

Policy Statement 33. The DoT promotes technology and innovation in the road freight industry.

- a) The policy supports the identification of specific routes and corridors that accommodate new and advanced technologies related to freight movement on the road, so as to minimise the negative impact of such technologies on other parts of the existing road network.
- b) Road infrastructure operation and maintenance should be cognisant of technological developments in the road freight industry and should take a measured and considered approach to the adoption of such technologies in the future.
- c) Technological advancements and innovation in the road freight industry are to be encouraged and supported by the relevant Road Authorities, which should lead to improvements in the efficiency of freight movement on the road network, provided that such technological advancements and innovation do not harm the existing road network or impede the ability of the relevant Road Authorities to protect and maintain the existing road network.

5.5.7 Regional Integration within SADC

Regional integration implies the planning, construction and maintenance of roads infrastructure across countries of the Southern African Development Communities (SADC). The Regional Indicative Strategic

Development Plan (RISDP)⁴⁶ is a comprehensive development and implementation framework guiding the Regional Integration agenda of SADC over a period of fifteen years (2005-2020)⁴⁷. It was designed to provide clear strategic direction with respect to SADC programmes, projects and activities in line with the SADC Common Agenda and strategic priorities, as enshrined in the SADC Treaty of 1992. SADC developed the Regional Infrastructure Development Master Plan⁴⁸ as a strategic framework guiding infrastructure development in Southern Africa.

At present, most Member States of SADC maintain dedicated road agencies, while substantial improvements are underway for regional railways and air transport. In particular, three primary corridors – the North-South Corridor running north from Durban, South Africa; the Maputo Corridor running through Mozambique, and the Dar-es-Salaam Corridor in Tanzania – are the focus of most development. As these development corridors connect shipping ports to areas of industrial productivity, much infrastructure has been supplied by the private sector through public-private partnerships and user-pays principles. This system has proven effective, enabling road and railway development to commence where government intervention had previously stagnated.

All road users traveling across borders should encounter similar standards along the road network within the SADC region. Through achieving this, the efficiencies and management of freight movement within the region is improved. This is further supported by the Border Management Agency Bill⁴⁹ which is also tasked, amongst others, to coordinate with other organs of state, through the principles of cooperative governance, the functions performed by these organs of state, in respect of border management generally; and provide an enabling environment to facilitate legitimate trade.

5.5.8 Policy Statements to improve regional integration within the SADC region

Policy Statement 34. The DoT and other relevant departments facilitate regional development through more efficient movement of goods and people.

- a) Regional development is fostered through strategic partnerships between international cooperating partners and regional stakeholders.
- b) Compatible policies, legislation, rules, standards and procedures are implemented in order to facilitate the integration of regional transport networks. The RTMC Act¹¹ provides for a partnership with the private sector on road traffic matters. Section 2 of the Cross-Border Road Transport Act caters for cross-border agreements and committees. The legislation is in place to give effect to the policy statement.

Policy Statement 35. The DoT and SANRAL improve the border approach roads.

- a) As border approach roads will form part of the Strategic Road Network and become the responsibility of SANRAL. These roads must be improved and properly maintained to facilitate improved movement of goods and people across South Africa's borders.
- b) In planning and operating border approach roads, Road Authorities will consider the role of border posts as one-stop service facilities and provide the necessary access and facilities in support thereof.
- c) Border approach roads will also accommodate the movement of pedestrians across the borders of South Africa and where practically possible, make the border posts universally accessible.

6 ROAD SAFETY



6.1 BACKGROUND

South Africa has one of the highest road death rates in the world with a reported road death rate of approximately 25,2 per 100 000 people in 2016⁵⁰.

In 2010, the governments of the world declared 2011–2020 as the Decade of Action for Road Safety. The goal of the Decade of Action is reduce road traffic fatalities and serious injuries by 50% from the 2010 baseline, saving an estimated 5 million lives over the period. A Global Plan of Action was developed to guide countries so that their actions could holistically support the overarching targets identified. Within the legal constructs of national and local governments, countries are encouraged to implement activities according to the five pillars mentioned, namely:

- Road Safety Management
- Safer Roads and Mobility
- Safer Vehicles
- Safer Road Users
- Post-crash response

Currently most road safety action plans are being developed in alignment with the United Nations Decade of Action requirements and various initiatives have been established because of it.

6.2 EXTENT OF CRASHES AND FATALITIES IN SOUTH AFRICA

South Africa had 14 071 fatalities in 2016 according to the RTMC.

Vulnerable road users, namely pedestrians and cyclists made up 41,6% of the fatalities during 2016, with 5,410 pedestrians and 451 cyclists killed in crashes.

Road users between the ages of 24 and 35 are the most at risk, with this age group representing 27% of the pedestrian and 35,7% of the driver fatalities in 2016.

Human factors represented 77,5% of the contributing factors to the 11,676 fatal crashes reported in 2016, while vehicle factors and road and environment factors represented 6% and 16,5% respectively.

The following graph, Figure 1 below, indicates the fatalities recorded by the RTMC from 2001 to 2016.

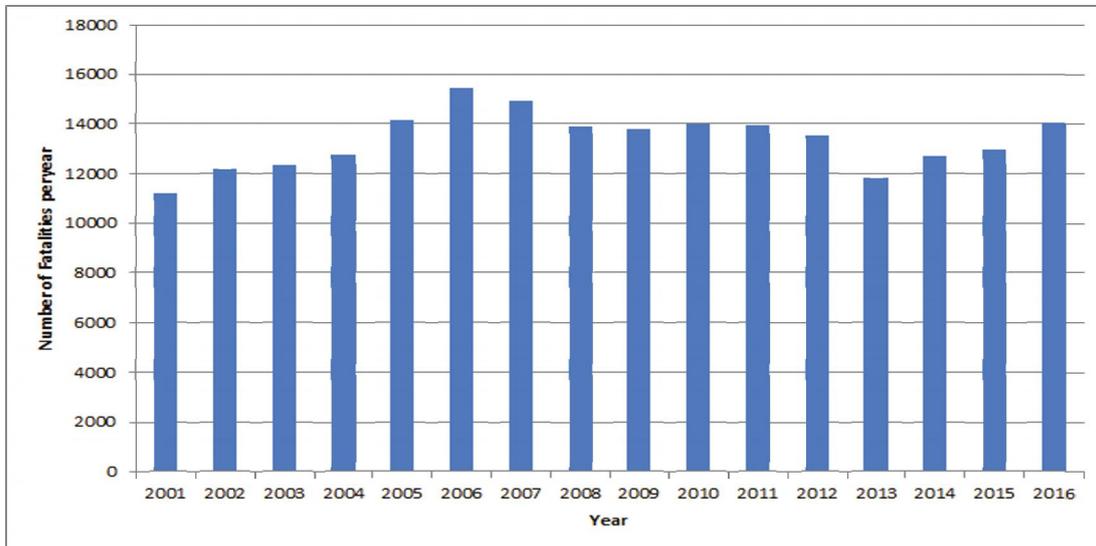


Figure 1: Fatalities per Year

The number of major, minor and damage only crashes, which are indicated as 40,117, 132 609 and 648, 560 respectively in the year 2015 in the “Cost of Crashes in South Africa” report by the RTMC in collaboration with CSIR⁵¹ is an estimation only, calculated by using historical data.

In the above-mentioned report the total cost of road traffic crashes on South Africa’s road network for 2015 amounted to an estimated R142.95 billion - equating 3.4 per cent of GDP.

6.3 PREVIOUS ROAD SAFETY STRATEGIES AND POLICIES

Several road safety strategies and actions have been undertaken in the last 20 years. These strategies have been summarised in the report by the Department of Transport that was submitted to the United Nations in November 2015⁵². The different strategies are listed here, with a summary thereafter.

- 1991 Road Safety Strategy
- 1996 Road Traffic Management Strategy
- National Road Safety Strategy – 2006 Onwards

- Road Safety Summit in 2013

The issues from the above road safety strategies can be summarised as follows:

- All the previous strategies in essence state the same actions to be taken. There is a repeat of the basic elements, namely engineering, education and enforcement.
- The various specific strategies mentioned were all focused at addressing one of the many elements of road safety to reduce the number of crashes and fatalities. The general view is that the targets set, such as halving of fatalities, or reducing it by 10% per year, were unrealistic, given the resources.
- From the different strategies that were compiled every 5 years, with the exception of 2010, when the UN Decade of Action was adopted, there is no clear thread running through to provide a long term view.
- Too little attention is given to the detail of whether previous strategies were effective, and there is a need for more secondary indicators. Traffic offences are monitored, but there is not a national monitoring programme of speeding, and the non-payment of traffic fines is a serious issue.
- The quality of available human resources was not addressed in the strategies. The importance of experienced, skilled people was never raised in these strategies, and it is regarded as one of the key elements required to ensure the successful implementation thereof. This is applicable to all areas, namely education, engineering and enforcement, and especially with regards to the management and leadership on a national level to implement the road safety.

6.4 ROAD SAFETY PROBLEM STATEMENT

This section provides an overview of the problems in road safety in South Africa. It is a summary of the main problems identified in the previous policies and strategies, although some problems are described in more detail in the different implementation areas provided later.

- There is in general a limited understanding of the complexity of the road safety problem in South Africa. South Africa is a diverse society, with many social differences, different levels of road user education, high levels of corruption and an ageing vehicle fleet. In order to address road safety problems, a long term view as well as a multidisciplinary approach and exceptional, consistent leadership over a long period is required.
- The total number of crashes is a key statistic that needs to be verified – without accurate data on all crash types (not only fatal crashes), the extent of the road safety problem will remain unclear. As only a relatively small percentage of vehicles in SA are insured, many crashes are not even reported for insurance purposes.
- The lack of good quality crash data makes it difficult to accurately estimate the extent of the problem. The location and type of crashes are generally not reported well, making the implementation of specific solutions in specific locations difficult. A study conducted in 2014 revealed that some provinces do not keep proper databases. Officials report crashes using their own systems, but these are not correlated in a central database per region. There is a need for traffic departments, SAPS, emergency services, public hospitals, the Road Accident Fund (which spends more than R30 billion per annum in post-crash care and rehabilitation), private institutions such as towing services, private ambulances, insurance companies, private hospitals and others to include their data to correlate with the provincial and then national data.
- There is the risk that the problem is significantly larger than currently assumed, and an investigation regarding the extent of underreporting is needed.

- The problem with crash data also arises from the Accident Report Forms, which are often completed inaccurately, making it difficult to derive some data. There is therefore a need to train the people in completing the forms accurately and to do quality control when capturing the data.
- The 2010 target to halve fatalities in ten years was unrealistic. A more realistic reduction per year of 4% will result in a total reduction of 33% over 10 years, or say a reduction of 470 fatalities per year.
- Many policies and strategies have been developed in the past with limited effective implementation. The poor implementation record is most likely due to lack of leadership, ineffective management structures, not employing the suitable resources, limited funding and a culture of corruption in law enforcement and other areas.
- Road safety education is fragmented, lacks coordination and quality control. Proper road safety education and awareness will lead to the development of responsible citizens and responsible road users. This is the major problem that needs to be addressed in order to change the long term road user culture in South Africa.
- The existing driver training and testing is of poor quality and is further weakened by high levels of corruption. The K53 driver licence is in the process to be reviewed. The use of technology in driver testing to curb corruption, is lacking.
- Vehicle roadworthiness is a problem, with corruption reportedly high at vehicle testing centres and driver testing centres.
- The implementation of AARTO by RTIA, given the approval of the AARTO Amendment Act **Error! Bookmark not defined.**, will address some of the challenges faced with effective law enforcement. The points demerit system is to be pursued and fully implemented.
- Limited funding for road safety needs to be addressed to improve road safety efforts.
- Inadequate mechanisms to evaluate effectiveness of road safety programmes such as among others awareness campaigns, to ensure maximum benefit and return on investment.

6.5 AIMS OF THE ROAD SAFETY POLICY

The aims of the road safety policy are as follows:

- Identifies the role-players that need to be involved in addressing road safety.
- Ensures a common understanding by all road safety role-players of the problem, the approach to be adopted to address the problem, and the way forward.
- The roles and responsibilities of all role-players are defined and are understood.
- The relationship between the road safety policy and a more detailed implementation strategy is outlined.
- Provides clear policy directives for the national road safety strategy.
- Provides guiding principles for the Road Safety Strategy process towards building and strengthening the human resources and management capacity at a technical level for effective implementation of road safety activities, as well as the adoption of international standards and practices for traffic and crash data collection and management.
- Improve the data collection process to ensure the quality meets international standards.

6.6 GUIDING PRINCIPLES FOR THE DEVELOPMENT OF A ROAD SAFETY POLICY

In the road safety environment, there have been several key concepts developed to assist in simplifying the problem and to make it more understandable.

These include the 4E's (Education, Enforcement, Engineering and Evaluation), the Five Pillars of the UN and most recently the concept of a Safe systems approach'. The safe systems approach refers to a holistic approach to road safety where all elements of the road, the environment in which the driver is trained and tested, as well as the vehicles, are considered as a system that needs to function as one. In this policy a set of guiding principles have been developed, as outlined below, followed by nine policy statements. Each of the policy statements contains several detail statements that need to be developed into more detail as part of the road safety strategy and subsequent action plans.

Figure 1 provides an overview of the relationships between the different concepts.

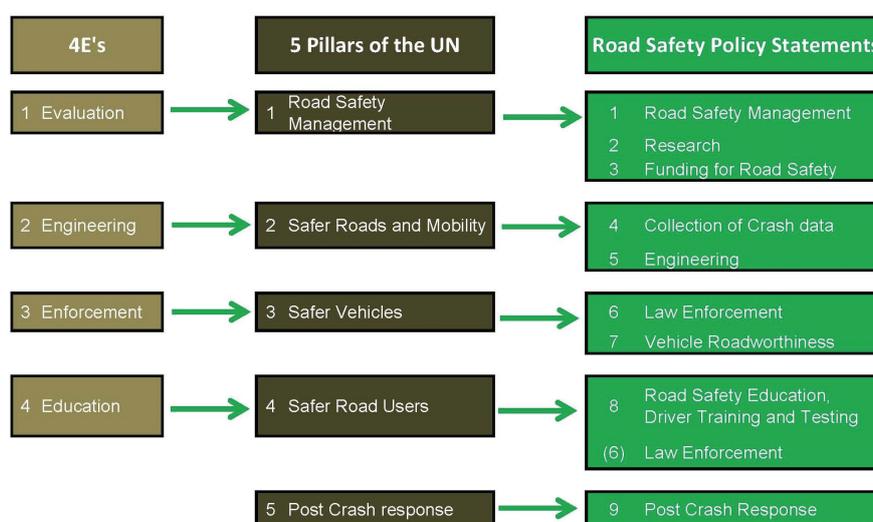


Figure 2: Development of the Policy Statements of the Road Safety Policy

6.7 ROAD SAFETY IMPLEMENTATION AREAS – POLICY STATEMENTS

The policy has been aligned largely with the five pillars of the decade of action. The following sections provide the policy statements in the different implementation areas.

6.7.1 Policy Statements to improve Road Safety Management

Policy Statement 36. To achieve the goal of reducing crashes, injuries and fatalities, institutional structures are needed.

- a) Management should ensure the utilisation of the limited resources - human, financial and others - by proper planning and coordination of activities.
- b) An extensive number of role-players need to be coordinated, including inter alia the following:
 - Department of Transport
 - Road Traffic Management Corporation
 - Road Traffic Infringement Agency
 - Cross Border Road Transport Agency
 - Road Accident Fund

- South Africa National Road Agency Limited
 - Engineering Departments (Provinces and Municipalities)
 - Provincial Departments of Community Safety (usually incorporates Road Safety)
 - Metropolitan Police Departments and Municipal Traffic Departments
 - Emergency Services departments (Fire and Ambulance)
 - Department of Health (Hospitals and Pathology services / Morgues)
 - Department of Basic Education
 - Insurance Industry
 - Private Hospitals
 - Private Ambulances
 - Private vehicle towing and recovery services
- c) In order to coordinate and manage the actions required from the many role-players listed above, will require an institutional structure that is inclusive and where all road safety actions can be coordinated.
- d) The DoT should provide the policy directives in the Road Safety Structure. The RTMC, as the lead agency, should play the coordinating role and ensure duplication is minimised. At present the RTMC is the lead agency, but the DoT also coordinates certain actions, while RTIA and the RAF also have their own road safety actions.
- e) The management structure shall be constituted as follows:
- f) It shall consist of the following:

- National Road Safety Steering/Coordinating Committee (RTMCC)

Role: Implement the policy and strategy. Collate the data from the provinces and municipal structures, evaluate, give guidance and ensure knowledge sharing between implementing authorities take place. The committee shall meet on a monthly basis and consists of officials employed full time with responsibilities in the road safety field. The coordination of national research efforts will be conducted.

Members:

- RTMC – Chair / Lead agency
- Department of Transport
- SANRAL (Engineering and Education)
- RAF
- SAPS
- Department of Education
- Heads of Departments of the Provinces
- SALGA
- STATS SA

Each member of the coordinating committee must be assigned a role and responsibilities in line with their core expertise. The RTMC as the lead agency must coordinate the division of responsibilities to avoid duplication and to ensure the effective use of limited resources.

- Provincial Road Safety Steering/Coordinating Committee

Role: Coordination of the preparation of a road safety plan per province and for every large municipality or metro in the province. The road safety plan must have three elements:

Identification of all hazardous locations based on existing knowledge, crash statistics, etc. Define safety preliminary plans for these hazardous locations with an estimated budget.

A structured plan for road safety education in schools must be compiled with an improvement map and database of all schools, and an 'educate the educator' programme per province. The target must be to reach every learner at least once a year. Existing resources must be combined and a plan with the requirements for training material must be compiled.

Members:

- Provincial and Metropolitan Municipality Engineering Department - Professional Engineer
- Provincial and Metropolitan Traffic departments
- Emergency services Department
- SAPS
- Provincial Department of Education

- National Task Teams

Role: National task teams can be established to address specific topics, do research or to address specific policy issues, for example:

- Research
- Engineering
- Systems and Technology
- Standards, and
- Other topics to be identified

Members: Identified as required, including people with specific expertise, or professional service providers as required.

6.7.2 Policy Statements to address the role of Law Enforcement

Policy Statement 37. Law enforcement actions should be aimed at addressing road user behaviour. Law enforcement should be an adequate deterrent to encourage road users to obey the law.

- a) The national database with hazardous locations should be used as the base for identifying areas where law enforcement should be done. The type of law enforcement action should be determined based on what will be required to reduce crashes in these locations.
- b) Using available speed data from probe vehicles and other measurements, should determine which routes have speeding (where the operational speed exceeds the posted speed limit by say 20%) and to develop specific speeding programmes for those routes.
- c) Locations with high pedestrian / alcohol related crashes should be identified in every province, and specific programmes focused on pedestrians should be developed. Pedestrians account for 40% of fatalities and require specially designed programmes.
- d) Zero tolerance zones should be implemented per province. A minimum of two hazardous locations or routes in each province should be identified, where 'Zero Tolerance Zones' should be implemented. Strict law enforcement will be applied in these zones to ensure that drivers adhere to the traffic laws.

The purpose of the zero tolerance zones will be to develop a culture of adherence to traffic laws, which can be extended to other roads and will have a lasting impact on road user behaviour.

- e) The statistics from law enforcement actions should be presented to the National Road Safety Steering/Coordinating Committee on a quarterly basis, to identify where changes and improvements should be made in the programmes.
- f) The national contravention register exists on the eNaTIS for all AARTO infringements and offences. With the roll out of AARTO on a national level, this central database of drivers and their offences should be used to identify repeat offenders.
- g) The law enforcement fraternity must be professionalised, using the guidelines by the RTMC.
- h) Measures should be implemented to reduce corruption.
- i) The database of vehicle roadworthy test centres (private and public), exists in eNaTIS. This should be kept up to date and regular inspections should be conducted to (a) ensure high standards of tests and (b) to reduce corruption.
- j) Vehicle roadworthy test centres should be monitored, and technology such as cameras and voice recording devices should be used to monitor officers and reduce corruption.
- k) Government shall continue to support the expansion of self-regulation in the heavy vehicle transport industry through partnership with industry, SABS, SANAS, SAATCA, Transport Agencies and the CSIR to implement the following and other relevant South African National Standards:
 - SANS 1395 (Road Transport Management Systems)
 - SANS 39001 (Road Traffic Safety Management Systems)
 - SANS 10187 - Part 1 to 9 (Requirements and recommendations for load securement on vehicles)
- l) Overloading control with the necessary law enforcement actions should be increased on all the major heavy vehicle transport routes.

6.7.3 Policy Statements to improve the Collection of Crash Data.

Policy Statement 38. All crashes should be reported and accurately captured.

- a) To improve the collection of all crash data, the process for capturing crash data must be reviewed. The data flow from the crash scene, involving all possible role-players right up to the national data base need to be outlined and accepted by all.
- b) The standard data fields in the Accident Report Form need to be reviewed and an electronic form should be developed.
- c) Quality control of captured crash data, in the form of a team of people verifying the data should be designed into the system.
- d) The crash data collection should be electronic, and web based and should be based on a standard data protocol, allowing seamless data integration from various existing databases in the municipalities and provinces.

- e) The crash data must comply with the international standard by including fatalities resulting from injuries within 30 days after the crash.
- f) Crash data should be made available to stakeholders for their own specific analysis. This will assist to improve their own effectiveness in road safety measures.
- g) Crash data should be analysed and discussed per province on a quarterly basis with the relevant role-players in order to address hazardous locations, determine necessary actions and to review the quality of the data collection process.

6.7.4 Policy Statements to minimize crashes as far as possible from an engineering perspective

Policy Statement 39. A database of all hazardous locations in South Africa must be developed.

- a) Engineering standards should constantly be reviewed and improved to ensure that appropriate designs be implemented to reduce the risk of crashes.
- b) There should be coordination on engineering standards between all levels of Government, and coordinating bodies such as COTO should play an important role in improving road safety.
- c) The National Traffic Engineering Technical Committee (NRTETC) which is a sub-committee of the NRSSC which membership represents all road authorities should establish a national database of hazardous locations.
- d) The hazardous locations should direct all road safety efforts i.e. enforcement, engineering and education by all related agencies and authorities to the most hazardous locations.

Policy Statement 40. Road Safety Audits (RSA) for new projects should become compulsory on all road projects and engineers need to be trained and to develop experience in road safety audits.

- a) A RSA is a proactive measure with proven international success. Crash prevention via RSAs is considered an important aspect of proactive road safety management. South Africa recognized the need for implementing this road safety tool by compiling the updated South African Road Safety Audit Manual⁵³.
- b) The manual aims to assist road authorities to conduct RSA for new road projects and road safety appraisals for existing roads to and network level assessments towards identifying potentially hazardous locations to plan remedial measures to minimize crashes on the road network. The RTMC as mandated by the RTMC Act to coordinate road infrastructure assessments in South Africa is in the process to establish a road safety auditor registration body through the Engineering Council of South Africa; this process should be concluded. The Road Safety Audit Manual (RSAM) published by the RTMC in 2012 should be reviewed and then updated. The updated Road Safety Audit Manual will be published by the RTMC as part of the Technical Methods for Highways (TMH) documents which will make the RSAM a compulsory document to be used by all roads authorities.
- c) Speed limits on roads should be tested against the operational speeds, and changes to speed limits should involve a multi-disciplinary team of traffic law enforcement personnel, engineers and other relevant disciplines, applying the policy on the setting of speed limits.

- d) Speed law enforcement actions need a strategic review, as it should not happen in isolation from other actions. It should not be done to earn income for a municipality, but should be focused on improving road safety.

6.7.5 Policy Statement to address the road user culture in South Africa

Policy Statement 41. Road safety education for learners should be structured and should be incorporated into the curriculum.

- a) There are existing agreements between the Department of Transport and the Department of Education - this need to be further developed and supported by implementation of structures and budget.
- b) The approach of 'train the trainer' should be followed, where national, provincial and local road safety officials should train educators in each school. The educators follow a programme to provide each of the 12.5 million learners with at least one road safety learning opportunity per year.
- c) The road safety programme should be monitored on a national and provincial level, with quarterly reports on the schools and learners trained. This should be reviewed by the national road safety coordinating committee.

Policy Statement 42. Corruption has been reported widely in the driver testing environment and specific and strict measures need to be implemented.

- a) The K53 driver licence test should be redesigned and focus should be placed on using technology to train and test drivers.
- b) A curriculum for driver training should be developed and driving schools should be regulated. Regular testing of trainers at driving schools must take place and inspections are required – which must include retraining and testing of trainers as well as examiners.
- c) Vehicle testing centres must be better monitored and controlled by implementing measures such as time restraints to act against perpetrators and/ or the owners of testing stations, the implementation of electronic testing procedures and compulsory photos of vehicles that are tested.
- d) The professional qualifications of vehicle testing examiners need to be reviewed and an accredited course needs to be developed.
- e) Standards for the testing equipment required for vehicle testing will have to be implemented. Regular roadworthiness testing for all vehicles over a specified age or kilometre reading must be implemented.

6.7.6 Policy Statement to improve research being undertaken on road safety

Policy Statement 43. A national coordinated research programme should be developed for road safety involving the universities, research institutions, private industry, the relevant government agencies, insurance companies and other relevant stakeholders.

- a) The research should assist in monitoring progress and should provide feedback and guidance for the overall management of the road safety programme.

- b) The National Road Safety Steering/Coordinating Committee should coordinate the road safety research initiatives. Research topics must be identified, prioritised, and budgeted for on an annual basis.

6.8 ROAD SAFETY POLICY IMPLEMENTATION FRAMEWORK AND WAY FORWARD

The proposed new structures for the management of road safety, comprising of the National Steering/Coordinating Committee, the Provincial Committees and Task Teams to execute specific actions, should form the basis for the implementation of the policy. These are similar to existing structures, but the aim is to have a more coordinated, teamwork focused approach, with measurable targets, regular meetings and strong leadership.

These committees should be established, and responsibility for the different aspects outlined in the policy should be assigned. The policy address a range of multi-disciplinary aspects, and it will take a special coordination effort to ensure the policy statements are converted into actions.

In order to implement the Road Safety Policy, it will be necessary to obtain buy in from all the stakeholders. Given the extent of the measures proposed on a policy level, it will require extensive consultation, training and leadership to take a new direction.

South Africa has one of the highest road death rates in the world with a reported road death rate of approximately 23.5 per 100 000 people in 2014⁵⁴.

In 2010, the governments of the world declared 2011–2020 as the Decade of Action for Road Safety. The goal of the Decade of Action is to stabilize and reduce the increasing trend in road traffic fatalities, saving an estimated 5 million lives over the period. A Global Plan of Action²¹ was developed to guide countries so that their actions could holistically support the overarching targets identified. Within the legal constructs of national and local governments, countries are encouraged to implement activities according to the five pillars mentioned, namely:

- Road Safety Management
- Safer Roads and Mobility
- Safer Vehicles
- Safer Road Users
- Post-crash response

Currently most road safety action plans are being developed in alignment with the United Nations Decade of Action requirements and various initiatives have been established because of it.

7 NON-MOTORISED TRANSPORT



This NMT chapter forms part of the Roads Policy for South Africa prepared by the DoT. It provides a framework guiding all aspects around NMT planning and implementation in South Africa including such areas as institutional relationships, governance, infrastructure, road safety and funding. The main purpose of the chapter is to provide a common reference position for all government authorities and agencies to deal with NMT in a cohesive manner so that everyone can take the required actions toward jointly realising the country's long-term vision for NMT.

It is accepted that NMT is an important potential transport solution for our country. NMT has many health and economic benefits, but the fact that it has zero carbon emissions aligns well with the global call for climate change. NMT is a viable and sustainable alternative to the use of private vehicles, but has been fraught with various challenges that have inhibited its widespread roll-out countrywide. A range of definitive actions will need to be taken at various levels of government to ensure NMT achieves its rightful status in South Africa's transport system.

Active transport or non-motorised transport (NMT) is a term typically used in South Africa. It refers to all forms of movement that does not rely on an engine or motor for mobility. Walking and cycling are more common forms of NMT but it also includes other transport options such as pedicabs, roller-skates or in-line skates, skateboards, wheelbarrows, push carts and non-powered scooters. Animal-drawn or animal-powered vehicles (ADV) as well as people with special needs are also included in this NMT definition⁵⁵. People with special categories of need include the following⁵⁶:

- People with disabilities - defined in the National Land Transport Act⁷¹ as people with a physical, sensory or mental disability, which may be permanent or temporary.
- The aged (or elderly people) - People over the age of 55 usually fall in this category.
- Pregnant women - usually taken as women in their last three months of pregnancy.

- Those who are limited in their movements by children - men and women with small children also have access needs that public transport systems need to cater for.

Whilst not formally contemplated in any current Departmental legislation, it is important to note that the following categories of passengers also have special categories of need:

- Life cycle passengers - these are customers who have additional transport needs by virtue of the fact that they happen to be in a particular stage of the human life cycle.
- Signage passengers - People who are unable to read or who are unable to understand the language used on the signage, including tourists.
- Female passengers - whilst safety and security affects all passenger groups and both genders, it should be noted that female passengers (together with people with disabilities) are particularly at risk of crime and abuse.
- Load carrying passengers - people carrying bags, luggage, or goods of a size that means that they benefit from accessibility features. This is important to people on low incomes in South Africa. People travelling with bicycles are generally also included in this category.

In addition, eco-mobility modal options are also included into this definition of NMT. These refer to transport options that are:

- Integrated with public transport
- Socially inclusive
- Environmentally-friendly
- They are right sized for their purpose,
- Energy source sustainable
- Produces zero emissions
- Preferably they are powered by renewable energy sources such as solar, wind or bio-energy from waste
- NMT vehicles are deemed to not exceed a top-speed of 35 kilometres per hour

Government is committed to a modal shift away from single occupancy private vehicles and towards developing NMT as a desirable mode of travel. NMT or active transport is good for the economy, the environment and everyone's health or social well-being. The NMT chapter provides a common, integrated basis for the long-term development and implementation of NMT policies amongst various sectors and levels of government. It serves to:

- Raise awareness for NMT as a sustainable mode of transport
- Emphasise NMT on the political agenda and show Government's commitment for NMT
- Articulate a vision and objectives to ensure co-ordinated actions amongst the different departments and private sector partnerships
- Provide a basis for consistent evaluation and monitoring of the successful implementation of NMT policy by all spheres of government
- Help leverage funding for NMT
- Help set standards and develop quality criteria around NMT

7.1 POLICY AND LEGISLATIVE FRAMEWORK FOR NMT

The summary of NMT policies and legislation for South Africa provide a framework guiding the planning, design and safety of NMT facilities and activities. These include the following:

- The Constitution of the Republic of South Africa, 1996⁵
- White Paper on National Transport Policy, 1996¹⁷
- National Land Transport Strategic Framework, Draft 2015⁵⁷
- Public Transport Strategy and Action Plan, 2007⁵⁸
- Rural Transport Strategy for South Africa, 2007⁵⁹
- NMT Facility Guidelines, 2016⁶⁰
- National Land Transport Act 5 of 2009 (NLTA)⁷¹
- The National Road Traffic Act 93 of 1996 (NRTA)**Error! Bookmark not defined.**
- National Road Traffic Regulations, 2000 (NRT Regulations)⁶¹
- Administrative Adjudication of Road Traffic Offences Act 46 of 1998 (AARTO Act)¹²
- National Building Regulations and Building Standards Act 103 of 1977⁶²
- South African National Roads Agency Limited and National Roads Act 7 of 1998 (SANRAL Act) and other roads legislation¹⁰
- National Environmental Management Act 107 of 1998 (NEMA)⁶³
- National Heritage Resources Act 25 of 1999⁶⁴
- South Africa's Universal Access Regulations⁶⁵
- The White Paper on National Climate Change Response, 2011⁶⁶
- Municipal By-Laws

7.2 WHY DO WE NEED NATIONAL POLICY ON NMT?

A policy on NMT provides a common, integrated basis for the long term development and implementation of NMT policies amongst various sectors and levels of government. It serves to:

- Raise awareness for NMT as a sustainable mode of transport
- Emphasise NMT on the political agenda and show Government's commitment for NMT
- Articulate a vision and objectives to ensure co-ordinated actions amongst the different departments and private sector partnerships
- Provide a basis for consistent evaluation and monitoring of the successful implementation of NMT policy by all spheres of government
- Help leverage funding for NMT
- Help set standards and develop quality criteria around NMT.

7.3 NMT VISION AND OBJECTIVES

The vision for NMT in South Africa is as follows:

Our vision is for non-motorised transport (NMT) to be accepted and valued as a sustainable transport alternative within both urban and rural South Africa, where NMT is materially contributing to the mobility needs, economic vibrancy and social health of our communities.

The policy on NMT has the following broader objectives:

- A reduction in carbon emissions.
- A safe and comfortable environment for NMT.
- An increase in the modal share of NMT.
- NMT satisfies the mobility needs of rural communities.
- An increase in the affordability of transport modes.
- NMT infrastructure provides for people with special needs.
- NMT modes are affordable and easily accessible.
- Land use responds to the needs of NMT.
- Improved social health and economic opportunities.

Five focus areas have been identified and are used to group the various NMT policies. These work holistically to achieve the overarching vision for NMT in South Africa.

7.4 REGULATION, INSTITUTIONAL ARRANGEMENTS AND GOVERNANCE

There is a whole suite of legislation and policies in place that serve as the regulatory framework for NMT in South Africa. This regulatory framework sets out principles that have been incorporated in this NMT Policy. However, having a comprehensive regulatory framework has not automatically translated into effective NMT implementation. There are a number of reasons for this, which includes inter alia:

- A lack of capacity to enforce traffic laws and legislation
- Poor coordination and integration across the various departments and sectors
- Limited expertise and specialised NMT skills within various transport planning authorities to undertake required planning and implementation
- A shortage of funding to implement the required NMT awareness campaigns, facilities or infrastructure
- Lack of competence and deficiencies in the current judicial system.

It is therefore essential that these issues be dealt with in order to urgently address the gap between policy and practice.

The lack of appropriate institutional structures and capacity has been impacting the delivery of NMT at various spheres of government across the country. Transport, including NMT is a cooperative governance issue that has to be performed by all three spheres of government and across the various Departments. Collaboration with all relevant stakeholders plays a critical role. In order for DoT to fulfil its mandate to facilitate all modes of transport it will need to review institutional arrangements to implement NMT as part of an integrated transport system. This will have a major impact on closing the gap between policy and legislative framework and actual implementation of NMT in reality. It will also start addressing the skills and capacity issues within government that is significantly impacting transport and roads delivery.

NMT statistics and data are problematic for most local authorities in South Africa. In order to understand the extent of NMT and to monitor successful implementation it is essential that a formalised system of NMT data collection and analysis be set in place. It is envisioned that standardised data collection be undertaken by all planning authorities and a central database be managed by DoT.

7.4.1 Policy statements for Regulation, Institutional Arrangements and Governance

Policy Statement 44. All transport planning authorities must establish a strategy and regulatory framework that will promote NMT usage.

- a) The DoT must review and assess gaps in NMT legislation and update where required.
- b) The DoT and other relevant departments must enforce, monitor and update regulatory frameworks. Some examples include:
 - Fault legislation for NMT
 - Animal friendly, health and welfare
 - Vulnerability of pedestrians
 - Regulations to force drivers to stop for NMT users
- c) The Municipalities must update their traffic by-laws in line with the updated and new regulations that incorporate NMT.

Policy Statement 45. Capacity building must be undertaken by the DoT and all transport planning authorities to ensure NMT skills are in place.

- a) Regular analysis and collection of NMT data must be undertaken by planning and transport authorities.
- b) Research must be undertaken on NMT.
- c) The DoT will continue research regarding incorporation of the new innovative technologies that will enhance low carbon transport into the mainstream transport system.

Policy Statement 46. The DoT will encourage the use of alternative modes of NMT such as small-wheeled transport and other innovative NMT modes.

Policy Statement 47. All spheres of government will be responsible for the monitoring and evaluation of overall NMT Policy performance and to ensure effective policy implementation.

Local government will be responsible for monitoring and evaluation of plans and implemented projects related to NMT provision at local levels.

7.5 INTEGRATED TRANSPORT AND LAND USE

A large part of South Africa's infrastructure and road network has been constructed subsequent to the invention of the private car. As a result, its towns and cities have largely been designed to facilitate the movement of cars rather than people. Combined with the effects of apartheid-era spatial planning, South Africa's poor face many obstacles in accessing the formal economy without a private car. Overcoming inequality requires that interventions focus addressing access and mobility opportunities for the marginalised. Reducing the dependence on private vehicles requires the provision of alternative modes of transport, and a different approach to spatial planning that reduces distances between residential areas and places of work.

Transport planning continues to marginalise ADV in areas where the use of animal transportation is critical. Traditionally transport planning primarily focused on the use of the private car with limited attention or none to public transport and NMT.

There are a number of improvements that need to be made to the physical environment to ensure that an 'Integrated NMT Network' is in place. This ranges from the higher level planning to ensure that NMT is coordinated with other sectors and integrated with other transport modes to the more localised design of roads to ensure that NMT has been effectively accommodated in the road space.

Current road designs still favour motorised transport often at the expense of NMT users. It is essential to ensure that NMT infrastructure is provided which offers coherent and direct NMT routes as well as that the environments are safe, comfortable and attractive to encourage the use of all modes of NMT.

7.5.1 Policy Statements on Integrated Transport and Land Use

Integration between land use and transport will need to be undertaken at all levels of planning, design and implementation. Better integration and coordination will improve the effectiveness of expenditure as well as the functioning of both rural and urban settlements.

Policy Statement 48. All planning guidelines must support and promote NMT at all spheres of government.

- a) Appropriate structures are to be put in place by all spheres of government to support the spatial and sectoral integration of NMT.
- b) All spatial and land use planning must incorporate NMT and Transit Oriented Development (TOD) principles of mixed development and walk-able environments.
- c) Existing neighbourhoods must be rehabilitated and retrofitted with NMT infrastructure and facilities.
- d) NMT (including ADV where applicable) must be included in ITPs and Provincial Land Transport Frameworks (PLTF).
- e) Provinces and municipalities must develop integrated NMT network plans.
- f) The DoT must ensure that NMT forms part of the National Transport Master Plan and this will reflect NMT-related needs and constraints.

Policy Statement 49. Designs of new roads and future developments must incorporate NMT considerations and design philosophy.

- a) Road authorities must assess existing infrastructure to ensure that the quality and needs of NMT improvements are met for both urban and rural environments in line with NMT Facility Guidelines.
- b) Road authorities must maintain all NMT surfaces to the agreed upon standards.
- c) NMT maps, signpost and infrastructure must be prepared.
- d) Municipalities must provide NMT mode specific support such as bicycle parking or bicycle stations, bicycle rental, minimum standards for ADV facilities in accordance with animal welfare and safety requirements and eco-mobility modes

7.6 SOCIAL HEALTH AND ECONOMIC OPPORTUNITIES

South Africa has one of the highest unemployment rates in the world. Poor and non-integrated road infrastructure limits citizens' ability to access employment opportunities and key services, directly affecting poverty, inequality and the pursuit of improved living standards amongst South Africa's poorest.

There are currently striking inequalities concerning public access to private or public transport modes. The lack of integrated public transport systems (e.g. road to rail links), NMT infrastructure and extensive sprawl of South African cities combined with the effects of historic apartheid-era spatial planning further exacerbates the problem.

South Africa's poor face many obstacles in accessing the formal economy without a private car. Walking, cycling, ADV and other NMT modes can play a significant role in the local economic development of these marginalised communities but the role of NMT in job creation initiatives and business are often overlooked.

Investments into affordable, reliable and efficient public and NMT modes are expected to boost the economy (e.g. through greater productivity within workplaces and enhanced connectivity between South Africa's poor and a variety of public and private services). Increased reliability, user access and public safety provisions on public transport infrastructure combined with fiscal policies that raise the cost of operating a private vehicle, are expected to increase usage of public transport systems and instigate more sustainable behaviour change amongst citizens.

Health is a national concern and NMT can contribute to a healthier lifestyle for South Africans. Increased use of active transport modes will create healthier vibrant communities with lower obesity rates that are more interactive.

Public investments in road infrastructure will directly contribute to job creation through construction, operation, maintenance and production, and indirectly through improved economic efficiencies. Labour intensive road construction and maintenance projects, particularly those that employ advanced technology also provide an element of training and skills development where local communities/unemployed individuals are taught specific skills in construction, engineering, maintenance and other related trades. Such circumstances empower trained individuals to market new skills for application in other projects and contexts.

7.6.1 Policy Statements on Social Health and Economic Opportunities

Policy Statement 50. The DoT, together with the relevant departments and the private sector, must unlock business and commercial opportunities within the NMT sector to assist with socio-economic development and poverty alleviation.

Policy Statement 51. Promote NMT as an affordable and healthy mode of transport

The three spheres of government increase awareness of NMT as an affordable and healthy mode choice.

7.7 ROAD SAFETY

Road safety is a serious consideration within NMT since pedestrians, cyclists and other NMT users are the most vulnerable transport users against other higher speed motorised modes. Roads are still largely seen as reserved for motorised vehicles. Thus, pedestrians, cyclists and other NMT users are often perceived as being at fault for being on the roads.

7.7.1 Policy Statements on Road Safety

Policy Statement 52. Facilitate interaction between role-players at different spheres of government and community to improve NMT road safety

- a) Sensitise communities, officials and practitioners about the travel needs of NMT.
- b) The DoT, in collaboration with the RTMC, must raise awareness to promote safety and animal welfare amongst the operators
- c) The DoT in collaboration with Department of Agriculture, Forestry and Fisheries and SABS must ensure that ADV meet the minimum safety requirements (including harnessing and visibility).
- d) The DoT must develop safety gear guidelines in consultation with key stakeholders.
- e) The DoT must develop a Cycling Protection Charter outlining regulation, training, sales, safety requirements, facilities and cyclists' behaviour.
- f) Pursue alignment between the Roads Safety Policy and the NRSS to ensure integrated road safety management for NMT.

Policy Statement 53. The DoT must ensure that safer road networks are provided and road safety audits are conducted.

- a) Appropriate infrastructure is provided for safe NMT usage.
- b) The DoT must update the signage system to integrate cycling needs and requirements and the Road Authorities will ensure its adequate implementation.

Policy Statement 54. Update legislation to support enforcement of NMT road safety issues and other penalties to discourage traffic transgressions such as making it compulsory to yield at controlled crossings.

- a) Prioritise the enforcement of speed limits and other traffic rules aimed at reducing NMT fatalities.
- b) Existing legislation is enforced for pedestrians on freeways.
- c) The DoT must deal with stray animals in accordance with the existing legislation.

Policy Statement 55. The DoT and the RTMC must ensure NMT education and awareness is undertaken.

- a) That operators of animal transportation have the basic knowledge on traffic laws and regulations and road safety education and awareness programmes are included in schools.
- b) Develop and implement the school zone concept to prioritise learner safety within a given radius around schools.

7.8 ENVIRONMENTAL SUSTAINABILITY

Road transport has a significant impact on environmental sustainability. NMT is a viable sustainable transport alternative. In 2012, 9% of national CO₂ emissions related to road transport. If South Africa

wishes to meet its commitment to total annual GHG emissions in the range of 212 to 428 Mt CO₂ equivalents by 2050⁶⁷, road infrastructure and transport must be a central part of the solution. Transport is also responsible for 27% of final energy demand in South Africa. Petroleum products represent 97% of the energy used in the transport sector, with electricity only representing 3% of usage.

The implication of not making sustainable choices to ensure our environmental future is not really an option. We need to move away from the dependency of private vehicles and take the necessary steps to more sustainable modes of transport such as public transport, NMT and other eco-mobility technologies.

These policies impact all government departments, agencies, private sector companies as well as public at large in that it is everyone's responsibility to take the necessary actions to preserve our precious environment.

7.8.1 Policy Statements for Environmental Sustainability

Policy Statement 56. The DoT will implement programmes aimed at reducing greenhouse gas (GHG) emissions by promoting the use of public transport, NMT and eco-mobility technologies such as battery powered vehicles and cycles.

- a) The DoT in partnership with other government departments, private sector and civil societies will establish incentives for research to encourage students and scholars to research and study the role of NMT in climate change.
- b) Increase awareness and education programmes of transport impacts to the environment.

Policy Statement 57. Introduce environmental sustainable practices into NMT facility and infrastructure design.

8 FUNDING



Insufficient funding for road infrastructure implementation and maintenance was confirmed in the South African Road Network Condition and Budget Needs Report that was compiled under auspices of the RCB in 2014 wherein it was emphasised that there is insufficient funding to maintain the existing road infrastructure, not only national roads, and that the value of the backlog amounts to R197 billion⁶⁸. SANRAL has repeatedly cautioned that road conditions will deteriorate more rapidly if dedicated revenue for road improvements cannot be sourced via tolling. The valuation of SANRAL's road network is R303 billion and that of the country's is R2.1 trillion.

Typically the extent of funds raised from traditional rates and taxes is inadequate to cover the onerous requirements to maintain existing or construct new links in the strategic road network, other transport infrastructure or operations. Although fuel, sales and other taxes have been successfully used to raise additional revenue for the national fiscus, roads still need to compete with other national social priorities.

There is a growing awareness that the fuel tax as a steady form of income is unsustainable. Relying on the fuel tax is problematic since it assumes increased traffic volumes will equate to an increase in income. Not only is this assumption in contradiction to the argument of promoting environmental sustainability i.e. reducing travel demand and improved fuel consumption through new vehicle technologies or TDM interventions, but it is also places government in the precarious position of having to provide additional road infrastructure for the ever-growing traffic volumes. Typically there has been a gradual slippage in the overall condition of road network due to insufficient funds and support the need to explore alternative sources of funding for roads and transport such as congestion pricing, tolling, freight distance charging, etc.

Funding and ensuring effective expenditure are imperatives to sustainability within the roads sector.

The funding challenges are facing all Road Authorities throughout the world. In response to this challenge, the introduction of the "User Pay Principle" through tolling is now a common approach adopted in various countries. The implementation approach differs. Examples of international funding models include the following

- Government takes full responsibility funding road construction, maintenance & operations
- funding the entire project through loans and introducing a toll for loan repayment, maintenance & operations
- funding the project capital costs and introducing a toll for maintenance & operations
- “road concessions” i.e. transferring the responsibilities, through a concession contract to the private sector, who takes responsibility for construction, maintenance & operations. The concessionaire is allowed to recover costs through toll fees.
- Shadow tolling - Shadow tolls have been used in the UK, Finland and the Netherlands, and the terminology has confused many people. No tolls are levied from road users under this approach. Instead the shadow tolls are paid by Government to the operator, based on traffic counts on the road, an agreed rate per vehicle/vehicle type and an agreed set of performance criteria. The benefits of this system do not therefore stem from the development of a new source of funds, or from making users internalize the external costs of their travel, but rather from Government commitment to continued financial support over several years. The shadow toll approach does not require traffic to slow down for toll collection. It does require the Government and private sector to agree the vehicle counts and because of the difficulties surrounding legal arrangements, the transaction costs can be very high. The current PPP framework in South Africa has not been tested in this regard, but more importantly extensive lobbying will need to be made at National Treasury to get commitment of public funds for repayment of the private investment over a concession period of typically thirty years.

Without significant investment in roads this significant asset will continue to deteriorate. Funding roads through other possibilities will most likely close the gap between the road budgetary requirements and the available funding. Other funding sources that could be considered include the fuel levy, vehicle licence fees, tolling and potentially other innovative funding sources. This approach is also reflected in SANRAL Strategy Horizon 2030, which identifies an integrated funding model as a potential source. This includes public tax-based funding, toll revenue, own revenue and private capital for public roads. It also emphasise the need for seeking new funding streams.

This also holds true for the management of road safety and the implementation of NMT facilities and mechanisms. It is fundamental that any road safety policy or strategy requires adequate funding. All available and existing resources, especially in terms of human resources, need to be utilized as efficiently as possible.

The necessary exploration of funding opportunities involving all relevant role-players, public and private sector, must be explored as a matter of priority. Funding levels can also be increased from a range of alternative funding sources in partnering with the private sector as well as exploring opportunities for revenue generation from existing assets to better match the extent and quality of the roads network required to support the socio-economic growth envisioned in the NDP of South Africa and must enable integrated transport delivery across roads infrastructure, public transport and NMT.

A sustainable approach to roads management also includes a sustainable financial approach. National Treasury has stated that as there are no additional funds available for roads, funding availability can only be increased through more efficient expenditure in the roads sector. In response to this, policies supporting a performance-based approach to roads management and funding is introduced to improve financial efficiencies and efficacies.

8.1 Policy Statements to increase funding opportunities and availability

Policy Statement 58. Road Authorities will improve efficiencies in budget expenditure in the road sector.

- a) Through the concept of having a “minimum level of service” to be prescribed i.e. use and compliance to the COTO, TRH and TMH Technical Manuals, it is expected that contributions from the Equitable Share received by Provinces and Local Authorities would be increased and spent on road maintenance and related activities to meet their obligations.
- b) All intervention funds/grants shall be prescriptive to allow for the appropriate and integrated development of roads, public transport and NMT infrastructure.
- c) National Treasury and the DoT introduce a performance-based approach administering grant funds, continuously monitor performance, and will incentivise performing Road Authorities through access to top-up funding, where performance targets have been met or exceeded.

Policy Statement 59. Government supports the application of the user-pay principle (for example tolling, congestion charges, weight over distance charging, cross boarder levies, etc.), where required and adopted.

- a) Government supports the application of the user-pay principle in the road sector to ensure quality road infrastructure in support of economic growth.
- b) Government acknowledges that current funding sources for grants (vehicle licence fees, fuel) are insufficient. Additional revenue streams (mixed sources), based on an integrated funding model approach, must be actively sought. These revenue streams include the user-pay principle, developer contributions / tariffs for roads, public transport and NMT infrastructure and the use of the road reserve as an income-generating source.
- c) The extent of private sector involvement in roads delivery and potential partnerships with the private sector must be investigated to determine the most appropriate funding model.
- d) The function of a Toll Regulator is included as part of the proposed STER. This entity must create an environment of coherence, independence, accountability, transparency, predictability and capacity in the development and approval of annual toll tariffs⁶⁹. The Road Management Act (RMA) as proposed in this Policy, NLTA or a separate act similar to the National Energy Regulator (NERSA) Act⁷⁰, is required to accommodate a STER.

Policy Statement 60. The DoT and National Treasury explores the full range of financial mechanisms available to enable increased funding.

- a) Roads infrastructure will be funded through user charges and/or investments by the private sector.
- b) New financing models involving the private sector will be developed by the DoT and National Treasury to finance roads infrastructure.
- c) Funding opportunities through value capture will be explored so that the benefits derived from road infrastructure investment can also be used to continue financing roads.

Policy Statement 61. Government will increase the focus on the maintenance of municipal roads and streets.

Local authorities undertake road maintenance through the current Municipal Infrastructure Grant (MIG) subject to adopting the COTO business planning guidelines and selecting project using the RAMS as the primary source.

Policy Statement 62. The DoT supports the role of the private sector within the roads sector to fast-track roads delivery.

- a) Road Authorities need to consider alternative funding models partnering with the private sector, for construction, maintenance and financing of projects. However this has to be done within the existing legislative parameters.
- b) In the event any particular Provincial Road Authority would want to partner with a recognised Development Finance Institution (DFIs), on the strength of the approved Provincial Road Maintenance Grant (PRMG) MTEF allocation, the DoT shall support their application to the National Treasury based on the merits of the business case.

8.2 Policy Statements to increase funding opportunities and availability for the Non-motorised Transport sector

Policy Statement 63. Include NMT into RAMS databases and utilise together with crash data to identify priority maintenance requirements or areas of interventions.

Policy Statement 64. Utilise MIG funding towards new infrastructure and maintenance for NMT.

Policy Statement 65. Coordination across sectors and spheres of government to ensure effective of expenditure due to integration of NMT.

Policy Statement 66. The three spheres of government to establish funding for other NMT support mechanisms such as promotional and education campaigns.

Policy Statement 67. The DoT in partnership with other government departments, private sectors and civil society must include a climate change response into the fiscal budgetary process and so integrate the climate change response programmes at national, provincial and local government and at developmental finance institutions and state-owned entities.

8.3 Policy Statements to increase funding opportunities and availability for the Road Safety sector

Policy Statement 68. In order to ensure the effective implementation of the policies proposed in this document, a detailed budget will have to be prepared with a funding strategy that is sustainable for the next 20 to 30 years.

- a) Engineering - Adequate funding will be required for the improvement of hazardous locations. A programme with significant impact needs to be developed, such as spending R500 million per annum at 100 locations country wide to improve hazardous locations.

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- b) Road safety education – Funding needs to be secured to cover costs for education material. Inter alia, material is required to train educators and to distribute learning material to the learners. In terms of this policy, it forms an essential part of the long term sustainable road safety strategy.
 - c) Crash Data - Develop and maintain a system and data base to efficiently and accurately record crash statistics. It is evident that the only way to capture crash statistics is electronically and to store it in a central database. This will require funding for IT infrastructure, data capturers as well as for the maintenance thereof in the long term. As indicated, provision should also be made for quality control, which will require human resources that are located centrally – which will also require funding in the long term.
 - d) Technology - It is proposed in this policy that technology be deployed to reduce corruption.
 - e) Adequate funding for the above, and other measures, over the next 20 years, will be critical to ensure the successful implementation of this policy and the strategy that will be prepared by the RTMC. The detail costing for the different actions needs to be included in the strategy developed by the RTMC, so that a 20 year funding plan for road safety can be developed.
 - f) The DoT through the RTMC shall lobby and support for road safety budget requests. However, the need to allocate and set aside a budget for road safety programmes and initiatives has to be prioritised by all Road and Traffic Authorities, within existing budgetary constraints.
 - g) A dedicated effort need to be made to involve the private sector, to also assist in funding of road safety projects that are part of the larger road safety plan.

9 LEGAL FRAMEWORK



Road infrastructure development is the responsibility of different spheres of government. It is governed by the White Paper on National Transport Policy¹⁷, the National Land Transport Act, Act No. 05 of 2009⁷¹, the National Land Transport Strategic Framework, the Public Transport Action Plan and the National Road Traffic Act⁷². The National Road Traffic Act in particular has specific regulations that govern NMT behaviour. The SANRAL Act¹⁰, Public Finance Management Act (PFMA)⁷³ and Municipal Structures Act (MSA)⁷⁴ also impact on road infrastructure development.

Various acts, both national and provincial, will have to be amended to accommodate the legislative amendments that are needed to give effect to the road infrastructure policy statements. An alternative suggestion is to draft a stand-alone act that will accommodate all the provisions required and will comply with the provisions of the Constitution. Uniform legislation creates a better understanding of the tasks, duties and structures created by such legislation and ensures that all relevant organisations understand the terminology and the legislation in the same way. Conflicting legislation is minimised and one point of reference can be used for all the requirements.

Although road safety is a mandated function for various spheres of government, and the RTMC is mandated through the RTMC Act⁷⁵ to form a partnership with all spheres of government and the private sector to enhance road traffic management activities, this has not resulted in a significant improvement in the management of road safety matters. Consolidated legislation in this regard is considered necessary to achieve the road safety objectives of Government. The proposed act will set out certain rights and duties of road users and will be applicable across all the roads in South Africa.

In developing a stand-alone act general principles applicable to road management will be included. The roles, functions and powers of a road authority will be set out. Codes of Practice to provide practical guidance in relation to road management will be incorporated in the Act. It must further allow for the declaration and discontinuance of roads. Classification of roads and the re-allocation of management

responsibility will form part of the legislation. Provision will be made for a road authority to keep a register of public roads in respect of which the road authority is the coordinating road authority.

The construction, inspection, maintenance and repair of public roads will be managed in terms of the Act. The proposed Act will also provide for issues relating to civil liability arising out of road management. Enforcement mechanisms on all the matters regulated by the Act will be included as well, to ensure compliance with the legislation.

Provisions in existing legislation will also be deleted or amended as part of the new proposed Road Management Act to ensure conflicting or ambiguous provisions do not remain in place.

It is the Roads Policy's intent that clear legislative provisions must be developed to ensure that road infrastructure development is not affected by the provisions in other acts. Furthermore, the division of responsibilities between national, provincial and municipal road authorities is clear. Ultimately legislation should be drafted that ensures all the provisions in the road infrastructure policy are enforceable and applied uniformly.

9.1 Policy Statements to address the Legal Framework

Policy Statement 71. The DoT will develop an overarching Road Management Act.

- a) The DoT will draft an overarching Act that addresses all the aspects of roads management and the standards and minimum requirements for roads and the management thereof in the applicable functional areas. The legislation includes the management of roads in the different spheres of government, and the responsibilities are clearly defined.
- b) The relevant legislation must be clear, concise and supportive of the policies developed to design, maintain and expand the roads infrastructure. Fragmented legislation and management result in failed maintenance and high costs, as well as the associated risk where authorities are not clear about their roles and responsibilities.
- c) South Africa has also experienced a shift in focus over the last few decades, and more emphasis is now placed on the provision of NMT facilities and on road safety. Each of these matters requires uniform legislation, and an overhaul of the existing legislation was identified as key in the development of a Roads Policy.

10 MONITORING AND EVALUATION



As part of a more sustainable approach to roads management, performance evaluation, especially in meeting sustainability targets, has been identified as a focus area. Government has introduced performance monitoring and evaluation in the public sector as a strategic approach to management, which equips leaders, managers, employees and stakeholders with a set of tools and techniques to regularly plan, continuously monitor, periodically measure, and review the performance of the organisation using indicators and targets for efficiency, effectiveness and impact.

The approach of monitoring and evaluation is also a continuous thread throughout the NDP as it aims to build a capable and developmental state in South Africa. To this end, a Department of Performance Monitoring and Evaluation was established in 2010 in order to *'drive a results-orientated approach across the three spheres of government and other organs of state'*⁷⁶ and the National Policy Evaluation Framework⁷⁷ proposed to institutionalise evaluation in Government and has identified processes, roles and responsibilities for undertaking this.

The National Treasury has also proposed that a performance-based approach be applied to the road infrastructure conditional grants and that the DoT introduces RAM principles into the roads sector. This requires particular data collection processes for traffic, condition and location of infrastructure, indicators, methodologies and reporting mechanisms as contained in TMH22. (*Refer to Annexure A*).

Overall there is a growing need for appropriate monitoring and evaluation systems, supported by sound data collection methodologies and KPIs. Data collection should be simple, and outcomes- rather than input-based. Accordingly, policies are proposed in support of the adoption and implementation of a performance-based approach to roads management across all spheres of government.

10.1 Policy Statements to improve Monitoring and Implementation in the Roads Sector

Policy Statement 72. The DoT and Road Authorities will follow and adhere to a performance management approach for roads management and roads service delivery.

- a) The DoT and Road Authorities must use the RAMS and the various COTO standards and norms for road planning, design, construction and maintenance, as well as the operational management of the roads, as the basis for performance management in the roads sector.
- b) The DoT must develop a Performance Management Framework that forms the basis for Road Authorities to develop Performance Management Plans.
- c) These Performance Management Plans must ensure that performance management measures are in place to monitor and evaluate the performance of Road Authorities.
- d) KPIs must be developed to enable performance management. The KPIs must be outcomes-based and support performance management and budget motivations. These KPIs must differentiate between the abilities of the various Road Authorities at different spheres of government.
- e) The DoT is also responsible for the monitoring and evaluation of Provinces and SANRAL. Provinces are responsible for monitoring local authorities.

11 WAY FORWARD



The Draft Roads Policy outlined recommended policy positions that will be discussed and debated during the consultation phases of the Policy Development process. Post stakeholder consultation, the Policy will be submitted for approval. Once the Policy has been approved, the Department will commence in developing the Road Management Act, which is an overarching Act that addresses all the aspects of roads management and the standards and minimum requirements for roads and the management thereof in the applicable functional areas. The legislation includes the management of roads in the different spheres of government and the responsibilities are clearly defined.

11.1 POLICY IMPLEMENTATION PRIORITIES

11.1.1 Develop a National Roads master plan

The Department will develop a National Roads Master Plan (NRMP), which will form part of the National Transport Master Plan (NATMAP). The Master Plan is a national strategic plan, which will direct road infrastructure initiatives over the next 30 years. The Master Plan will ensure centralised strategic roads planning. It will detail the vision, goals and objectives for roads going forward. The Master Plan will also identify networks, constraints and opportunities, as well as the required infrastructure improvements/expansions to ensure the safe and efficient of all modes of road transport, including NMT.

The Master Plan will detail the status quo in roads, particularly, provide an overview of all modes of roads transport, the requirements/needs in the sector, challenges, and forecast the expected demand, amongst others.

The Master Plan will map a national, provincial and local view of the country's road network, also indicating the current and future infrastructure projects and the various corridors.

The Master Plan will in essence identify infrastructure projects and prioritise the project, which will be informed by government priority and the needs of the country.

11.1.2. Develop A National Road Investment Strategy

The National Investment Strategy will form part of the NRMP. The Department will develop a comprehensive investment strategy that will guide both public and private sector investment in roads. Funding options models for roads investment will be explored as part of the strategy.

11.2 CONCLUSION

The implementation of the Roads Policy for South Africa will clarify roles of all three spheres of government in terms of responsibilities, applicability and scope for the various role-players, determine funding options in the road infrastructure investments, road safety and NMT sectors, provide policy certainty with a clear and concise regulatory framework for roads management, maximize jobs creation and skills development, integrate NMT as a recognized mode of transport and provide directives for monitoring, evaluation and reporting in the roads management environment.

Upon implementation of the Roads Policy, the Department shall monitor and evaluate its effectiveness in partnership with the Road Authorities. The policy shall be reaffirmed or reviewed and updated every five years.

ANNEXURE A: TECHNICAL MANUALS, NORMS AND GUIDELINES

Table 1: COTO TRH Documents

No	Title
TRH1	Prime coats and bituminous curing membranes
TRH2	Geotechnical and soil engineering mapping for roads and the storage of materials data
TRH3	Design and Construction of Surfacing Seals
TRH4	Structural design of flexible pavements for interurban and rural roads
TRH5	Statistical concepts of quality control and their application in road construction
TRH6	Nomenclature and methods for describing the condition of asphalt pavements
TRH7	Use of bitumen emulsions in the construction and maintenance of roads
TRH8	Design and use of Hot-mix asphalt in pavements
TRH9	Construction of road embankments
TRH10	Design of road embankments
TRH11 (two documents)	Dimensional and Mass Limitations and Other Requirements for Abnormal Load Vehicles (Technical Guideline) and Administrative Guidelines for Granting of Exemption Permits for the Conveyance of Abnormal Loads
TRH12	Flexible pavement rehabilitation investigation and design (Bituminous pavement rehabilitation design)
TRH13	Cementitious stabilizers in road construction (Cementitious pavement rehabilitation design)
TRH14	Guidelines for road construction materials
TRH15	Subsurface drainage for roads
TRH16	Traffic loading for pavement and rehabilitation design (To be discontinued once incorporated into new TRH4)
TRH17	Geometric design of rural roads
TRH18	The investigation, design, construction and maintenance of road cuttings
TRH19	Standard nomenclature and methods for describing the condition of jointed concrete pavements
TRH20	Unsealed Roads: Design, Construction and Maintenance
TRH21	Hot Mix Recycled Asphalt
TRH22	Pavement management systems
TRH25	Guidelines for the hydraulic design and maintenance of river crossings:
	Vol 1: Hydraulics, hydrology and ecology

	Vol 2: Structural aspects, bridge configurations and foundations
	Vol 3: Embankment and bank protection
	Vol 4: Parameters for the design of low-level structures
	Vol 5: Bridge management of river bridges
	Vol 6: Risk analysis of river crossing failure
	Vol 7: Legal aspects
TRH 26	South African Road Classification and Access Management Manual
TRH 27	South African Manual for Permitting Services in Road Reserves

Table 2: COTO TMH Documents

No	Title
TMH1	Standard methods of testing road construction materials (TMH1 is being converted to SANS3001 and SANS4001. Various SANS standards have been published)
TMH2	National standard for the spraying performance of binder distributors
TMH3	Specifications for the Provision of Traffic and Weigh-in-Motion Monitoring Service
TMH4	Superseded by TRH17
TMH5	Sampling methods for road construction materials
TMH6	Special methods for testing roads
TMH7	Code of practice for the design of highway bridges and culverts in South Africa, Parts 1 & 2
TMH7	Code of practice for the design of highway bridges and culverts in South Africa, Part 3
TMH8	Traffic and Axle Load Monitoring Procedures
TMH9	Standard Visual Assessment Manual
TMH10	Manual for the completion of as-built materials data sheets
TMH11	Standard Survey Methods
TMH13:	Automated Pavement Condition Measurements
TMH 13: 1	Guidelines on Roughness Measurements
TMH 13: 2	Guidelines on Rut Measurements
TMH 13: 3	Guidelines on Deflection Measurements
TMH 13: 4	Guidelines on Skid Resistance Measurements
TMH 13: 5	Guidelines on Imaging and GPS Measurements
TMH 14	South African Standard Automatic Traffic Data Collection Format
TMH 15	South African Engineering Service Contribution Manual for Municipal Road Infrastructure
TMH 16 (Vol. 1)	South African Traffic Impact and Site Traffic Assessment Manual
TMH 16 (Vol. 2)	South African Traffic Impact and Site Traffic Assessment Standards and Requirements Manual
TMH 17	Volume 1 South African Trip Data Manual
TMH 18	Road Asset Data Electronic Exchange Formats
TMH19	Manual For The Visual Assessment of Road Structures
TMH 22	Road Asset Management Manual
N/A	Proficiency testing schemes for quality control of road building materials

Table 3: COTO UTG Documents

No	Title
UTG1	Guidelines for the Geometric Design of Urban Arterial Roads
UTG2	Structural Design of Segmental Block Pavements for South Africa
UTG3	Structural Design of Urban Roads
UTG4	Guidelines for Urban Stormwater Management
UTG5	Geometric Design of Urban Collector Roads
UTG6	Guidelines on Maintenance Management for Large Municipalities
UTG7	Geometric Design of Urban Local Residential Streets
UTG8	Guidelines for the Preparation of an Urban Transport Plan First Amendment
UTG9	Guidelines for the Transportation System Management Process
UTG10	Guidelines for the Geometric Design of Commercial and Industrial Local Streets
UTG11	Guidelines for Public Participation in Land Use/Transport Planning

Table 4: Specifications

No	Title
	COLTO Standard Specifications for Road & Bridge Works for State Road Authorities
	COLTO General Conditions of Contract for Road and Bridge Works for State Road Authorities
	General Conditions of Contract for Construction Works (Second Edition) 2010
	FIDIC General Conditions of Contract for Works of Civil Engineering Construction (6 th Edition)
PG 3/85	Parking standards 2 nd edition
PG 2/85	Bus Terminals and Bus Stations: Planning and Design Guidelines by DOT (Metroplan)
RDDA	Route Description and Destination Analysis
CR-96/036	National Guidelines for Traffic Calming
	Non-Motorised Transport Facility Guidelines
TG1	The use of Modified Bituminous Binders in Road Construction
TG2	Interim Technical Guideline: The Design & Use of Foamed Bitumen Treated Materials
	Road Drainage Manual

Table 5: Road Traffic Signs Guidelines

No	Title
SADCRTSM Vol. 1	Southern African Development Community Road Traffic Signs Manual
South Africa RTSM Vol. 2	South African Road Traffic Signs Manual
South Africa RTSM Vol. 3	South African Road Traffic Signs Manual
SADCRTSM Vol. 4	Southern African Development Community Road Traffic Signs Manual

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