

2018 Namibian Transport Policy

Implementation Period (2018 - 2035)

Custodian OMA: Ministry of Works and Transport



Acknowledgements

More than two hundred sector stakeholders from Government, the private sector, academia, development partners and consultants provided valuable inputs and contributions to the development of the 2018 Namibian Transport Policy, over the period between September 2014 and May 2017. Funding was provided by the Government of the Federal Republic of Germany, with implementation support from GIZ.

Foreword by the Honourable Minister of Works and Transport



The Namibian Government is determined to deliver the change in transport that the people of Namibia have been calling for. We are fully aware of the challenges that we are currently facing and what we will encounter, if we do not adjust and update our current transport policy. Hence, the Ministry took the initiative to develop an updated transport policy for all modes in late 2014.

I committed myself to a process of reviewing national transport policy to ensure that this policy meets the needs of all our people, within the constraints of our resources and within the environment in Namibia. The process began early in 2014, and after extensive consultation with stakeholders in focus groups and plenary sessions throughout 2015, the work culminated in January 2016 with the release of a Namibian transport policy document for final consultations.

This 2018 Namibian Transport Policy highlights the issues and challenges and suggests improvements. We involved stakeholders and citizens during the development and consultation process. We highly appreciate the support of the stakeholders. Having noted the varied and at times conflicting opinions of the respondents, we have reviewed our proposals and crystallised our thoughts. Inevitably we are unable to satisfy all views. In the final analysis Government has to take its own decisions bearing in mind what serves the national interest. The result is this 2018 Namibian Transport Policy, which sets out the national Government's transport policy. It will provide a basis for transport to play a more strategic role in social development and economic growth.

We recognise that some policy changes cannot be implemented overnight. In such cases we will, in discussion with the stakeholders affected, phase the implementation over a transitional period in a planned manner, inter alia, to give time for the development of a stable institutional capacity to manage the implementation.

The policies described in this document are those of the national Government. I am confident that provincial and local Governments, who have participated in the stages of this policy review process, will adopt these policies as a broad framework within which they will develop their own specific and more detailed policies. I am grateful to everyone who has participated in the policy formulation process. Like all good plans, continued consultation will be undertaken to make sure it remains relevant to the people's needs and continues to strengthen the community.

Signed
JOHN MUTORWA, MP
Minister of Works and Transport

Stamp



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List of Acronyms and Abbreviations

AAA	Affirmative Action (Employment) Act
AIDS	Acquired Immune Deficiency Syndrome
ATNS	Air Transport Navigation Services
AU	African Union
BASA	Bilateral Air Service Agreements
BOT	Build Operate Transfer
COMESA	Common Market for Eastern and Southern Africa
CT	Container Terminal
DMA	Directorate of Maritime Affairs
EAC	East African Community
EU	European Union
GDP	Gross Domestic Product
GHG	Green House Gases
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GoN	Government of Namibia
HIV	Human Immuno-deficiency Virus
IATA	International Air Transport Association
HRD	Human Resources Development
ICAO	International Civil Aviation Organization
ICVM	ICAO Coordinated Validation Missions
ICT	Information and Communications Technology
IMO	International Maritime Organisation
ISO	International Standards Organisation
IT	Information Technology
ITS	Intelligent Transport Systems
KfW	Kreditanstalt für Wiederaufbau
M&E	Monitoring and Evaluation
MARPOL	International Convention for the Prevention of Pollution from Ships
MAWF	Ministry of Agriculture, Water and Forestry
MDC	Mass-Distance Charges
MGECW	Ministry of Gender Equality and Child Welfare
MLR	Ministry of Lands and Resettlement
MLTRMP	Medium to Long Term Roads Master Plan
MME	Ministry of Mines and Energy
MOF	Ministry of Finance
MURD	Ministry of Urban and Rural Development
MTI	Ministry of Industrialization, Trade and SME Development
MVA	Motor Vehicle Accident Fund
MWT	Ministry of Works and Transport
N\$	Namibian Dollars
NABTA	Namibian Bus and Taxi Association
NAC	Namibia Airports Company
Nampol	Namibian Police
NAMPORT	Namibian Port Authority

NTA	Namibian Training Authority
NaTIS	Namibia Transport Information System
NCAA	Namibian Civil Aviation Authority
NCCI	Namibia Chamber of Commerce and Industry
NDP (4)	(Fourth) National Development Plan
NGP	National Gender Policy
NGPA	National Gender Plan of Action
NMA	Namibian Maritime Authority
NMT	Non-Motorised Transport
NPC	National Planning Commission
NPPTA	Namibia Public Passenger Transport Association
NTP	Namibian Transport Policy
NTPIU	Namibian Transport Policy Implementation Unit
NRSC	Namibia Road Safety Council
NTC	National Transport Commission
OPM	Office of the Prime Minister
PSC	Public Service Commission
PIU	Project Implementation Unit
PPE	Petroleum Products and Energy
PPP	Public-Private-Partnership
PS	Permanent Secretary
PSO	Public Service Obligations
PT	Public Transport
RA	Roads Authority
RCC	Roads Construction Company
REC	Regional Economic Communities
RFA	Road Fund Administration
ROI	Return on Investment
RUC	Road User Charges
SA	South Africa
SACU	Southern Africa Customs Union
SADC	Southern Africa Development Community
SARPS	Standards and Recommended Practices
SDG	Sustainable Development Goals
SER	Safety and Environmental Regulations
SME	Small and medium-sized enterprises
SOE	State Owned Enterprise
SOLAS	The International Convention for the Safety of Life at Sea (SOLAS)
SUTMP	Sustainable Urban Transport Master Plan
ToR	Terms of Reference
TSI	Technical Specifications of Interoperability
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
WBCG	Walvis Bay Corridor Group

Glossary of Terms

Concession - is the authority and contract to operate a road, rail line, or network at an agreed price. It could be awarded to either the public or private sector.

Contract - is an agreement between an authority and an operator regarding the delivery of a service at an agreed price.

Framework - is an outline or skeleton which provides the structure and form around which a plan or policy or strategy is constructed.

Freight transport - the physical process of transporting commodities and merchandise goods and cargo.

Goal - a goal is an idealised end-state of the system or a desired direction of the evolution of the system.

Integrated plans - plans that encompass a system, which includes land, use, spatial development, infrastructure, services and the finance thereof.

Intermodal transportation - is the concept of transporting freight in such a way that all the parts and facets of the transportation process, including information exchange, are efficiently linked and coordinated, offering flexibility, irrespective of the particular transport mode or modes used. It is not just the infrastructure, vehicles, rolling stock or equipment involved, but the management and operation processes. The true advantage of intermodalism is the ability to logistically and effectively link two or more modes of transportation for the benefit of customers and users.

Issue - an issue arises in a national, district or local community when there are conflicting goals and objectives (desires or perceptions) within the community.

Land passenger transport - is a generic term that describes the movement of people by land-based travel modes, including movement by motorised and non-motorised modes, and on foot. It encompasses both urban and rural passenger travel, for any purpose; by both private and public travel modes.

Land passenger transport planning - is a comprehensive and integrated process for generating a plan relating to the regulation and management of transport infrastructure (roads, rail, stations, terminals and public transport facilities) and for regulating public transport operations/services and the use of infrastructure by both operators of public transport and private travellers. Because of the spatial relationship between human and economic activities, resulting in the demand for travel, it is essential that an integrated passenger transport plan should be developed in the context of a land use plan which is supportive of efficient land passenger transport.

Logistics - is the process of planning, implementing, and controlling the efficient, cost-effective flow and storage of raw materials, in-process inventory, finished goods, and related information from point of origin to point of consumption for the purpose of conforming to customer requirements.

Non-motorised transport (NMT) – includes all transport modes not supported by an engine. This includes e.g. walking, bicycling as well as hand-pushed and animal-powered vehicles.

Objective - an objective is a target, the attainment of which will help towards reaching a stated goal.

Passenger transport - is a generic term that describes the movement of people by any travel mode, including movement by motorised and non-motorised modes, and on foot. It encompasses inter-city, urban and rural passenger travel, for any purpose, by air, sea and over land and by both private and public travel modes.

Permission - the authority to operate a public transport route or network without subsidy.

Permit - the current authority or licence to operate a public transport service.

Plans and planning - a plan is a product of the process of planning which is an organised method by which things are to be done. In the transport context, a plan is a vision of the desired future condition, objectives to achieve the vision, policies to regulate the transport system, strategies, actions and projects to implement the plan.

Policy - a policy is an adopted framework or basis for the action needed to overcome identified problems and achieve stated goals and objectives.

Problem - a problem is an unfulfilled or unattained goal or objective.

Public Private Partnership (PPP) - this form of cooperation is a contractual agreement between the public and private sector for the implementation of a certain project. The private sector offers efficient implementation and the public stakeholder ensures meeting its social obligations.

Public Service Obligations (PSO) - means an obligation given to an organisation or company to provide a service to an agreed standard under contractually agreed conditions. In the context of sustainable transport, this allows a certain company or organisation to offer specified services of public transport for a specified period for a given subsidy. Through the provision of a subsidy, the governing body ensures socially desirable services to the citizens.

Public transport - is the conveyance of people or freight for reward by any travel mode whether car, metered taxi, minibus-taxi, bus, tram and light and heavy rail. Seamless transport services - a user-friendly service from origin to destination that is not disrupted by time-consuming or costly transfers between un-coordinated modes or carriers, or by compliance with non-integrated formalities at border crossings.

Road User Charges (RUC) - are revenues directly linked to the usage of roads and also used for the up keeping of these. This includes fuel levies, vehicle registration and annual licensing fees, cross border charges, mass distance charges and abnormal load fees.

Strategy - a strategy is a plan or programme of action to be taken in terms of a policy. Such action may often take the form of a series of projects.

Subsidiarity - is the exercising of devolved power at the lowest competent level of government.

Sustainable mobility - aims at giving priority to public transport, goods transport and non-motorised transport. It implies using existing road space and services more efficiently to the benefits of the users before investing in new facilities.

Tendered contract - the authority to operate a public transport route or network at tendered contract rates.

Vision - a vision is a commonly shared foresight of future conditions and directions.

Executive Summary

This policy document outlines the new transport direction and policy for Namibia and lays the basis for reforms over the coming decade and beyond. The new Namibian Transport Policy will lead towards an integrated, sustainable and inclusive transport system, cognizant of the requirements of Namibia's international/ regional network connectivity and welfare of its citizens.

Roads, Road Transport and Road Safety

The affordability of the current network should be agreed together with the level of service to be provided for the different classes of roads. Re-prioritization might have to be studied in order to arrive at an affordable road network that provides for the national development goals on the one hand while considering the capacity and willingness of road users to pay for the provided level of service. The sub-optimal level of maintenance identified on corridor roads should be remedied to foster the development of the Logistics Hub.

The Vehicle Mass Bill can be used to implement green freight policies and will provide the regulations for Vehicle Overload Control. Road Safety is not managed in a coordinated fashion, thus the Road Safety Management Agency Bill sets out an entire coordinated management system.

Sustainable Mobility

Sustainable Mobility, oriented towards development of sustainable transport systems, featuring public transport and non-motorised transport (NMT), needs to be formalised and reflected in legislation. There should be a changed orientation for integrated land use / transport planning: relying on existing institutions but building the capacity and promoting coordination between relevant authorities and ensuring that NMT needs are addressed.

Rail Transport

A new kind of railway system is needed in Namibia. A massive capital investment backlog and an increasing need for investment funds exacerbate strain on the railways. To revitalise the Namibian railway sector, new policy principles and policy frameworks have been defined. A Rail Sector Bill should provide guidelines for restructuring and management of rail infrastructure.

Air Transport

The Civil Aviation Act has passed in 2016. It establishes the Namibian Civil Aviation Authority (NCAA). A medium to long-term strategy is required for the rehabilitation and upgrading of all airports under the control of the NAC. Namibia should continue air transport liberalisation on the basis of regulated liberalisation. A programme to initiate and finalise the BASA ratification should be drawn up. An independent investigation should be launched to provide findings and concrete proposals in respect of the future of Air Namibia.

Maritime Transport

The Maritime Sector legislative requirements are expected to be addressed by the draft Maritime Authority Bill, draft Merchant Shipping Bill, draft Marine Pollution Bill and their subtending draft Regulations to implement the various international legal instruments to which Namibia is a Party. The Ports Authority Act and the Maritime Authority Act should be amended to provide for regulated competition.

Intermodal Transport and Logistics

The target of Namibia becoming a logistics nation by 2025 should be pursued. The logistics hub should be developed with a comprehensive approach so that seamless intermodal connectivity between road and rail transport and the port is assured. There is a need to mobilise private capital and management skills to improve efficiency and develop logistics systems.

Policy implementation will be phased over a transitional period in a planned manner according to the Implementation Plan. This will, inter alia, give time for the development of a stable institutional capacity to manage the implementation. In the case of policy elements requiring new or amended legislation, appropriate bills and regulations to implement the policy decisions will be prepared for submission to Parliament in sessions over a three-year implementation period. The Policy provides a framework within which other transport institutions - government, statutory and private - should tailor their individual policies and strategies.

1 Introduction

This policy document outlines the new transport direction and policy for Namibia in 2018 and lays the basis for reforms over the coming decade and beyond. A Policy Implementation Plan is included. The main content of the new Namibian Transport Policy is towards an integrated, sustainable and inclusive transport system, cognizant of the requirements of Namibia's international and regional network connectivity and the welfare of its citizens.

The transport policy document includes core aspects and offers possible strategies, organised as follows:

Chapter 1 provides general background about the NTP and the rationale. This is supplemented by further details of goals and guiding principles and Vision;

Chapter 2 provides a summary of key policy reforms in the Road and Road Transport sub-sectors;

Chapter 3 provides a summary of key policy reforms for Sustainable Mobility, including Urban and Public Transport and NMT sub-sectors;

Chapter 4 provides a summary of the key policy reforms in the Rail Transport sub-sector;

Chapter 5 provides a summary of the key policy reforms in the Air Transport sub-sector;

Chapter 6 provides a summary of the key policy reforms in the Maritime Transport sub-sector;

Chapter 7 provides a summary of the key policy reforms in the Intermodal Transport and Logistics sub-sector;

Chapter 8 provides a summary of the main crosscutting policy reforms relating to social and environmental aspects of Transport; and

Chapter 9 provides details of the implementation framework and plan.

The purpose of the policy document is to guide and inform stakeholders on the key directions of the new transport sub-sector policies.

The **2018 Namibian Transport Policy** is the final formulation of proposed new transport sub-sector policies and follows closely the proposals agreed with Stakeholders during a series of Focus Group Meetings held throughout 2015 - 2016. Prior to the final Consultative Meeting -in early February 2016- final legal and institutional proposals were discussed in a series of four high-level meetings with each of the transport modal teams at the office of the PS of the MWT, during October 2015- January 2016.

1.1 Background

The last major analysis and formulation of transport policy in Namibia took place in the early 1990's. The Ministry of Works and Transport subsequently initiated work on a *White Paper on Transport Policy*, which was promulgated in 1995. The purpose of the 1995 White Paper was primarily to review road transport

policies, and the implications of a deregulation of road transport. The focus for new sector legislation has been in the roads and road transport sub-sectors, leaving other important transport sub-sectors such as rail and maritime and public transport, in the intervening period with out-dated legislation and inappropriate institutional structures.

This policy reform environment therefore led to calls for change, not only to adapt to the needs of globalisation (e.g. increased international and regional connectivity, compliance with external transport norms and regulations) but also for modernisation of the rail and public transport sub-sectors, amongst others. In other areas, concern over a high rate of fatalities and increasing numbers of serious injury accidents hastened calls for new road safety legislation. There have been a number of important studies undertaken (national transport master plan, national logistics master plan, urban transport plan for Windhoek and environs, etc.) that have provided valuable inputs - such as situation and problem analysis - to the overall policy reform process and which have contributed towards the development of a more holistic sector policy conception.

Many stakeholders consulted believe:

- Social and environmental impacts should also inform transport policy;
- The rapidly growing national economy and the desire to develop Namibia into a transport hub/gateway to the wider region requires a wider perspective than previously obtained and a clear focus on the development of quality modal links; and
- Safety issues, particularly in regard to the road sector, should feature more strongly.

The implementation of the Transport Policy will entail necessary changes in legal, institutional and planning frameworks. Specific changes will be required in some existing transport sub-sector legislation and elsewhere-new legislation will need to be drafted and enacted, particularly in the rail and maritime sub-sectors. A detailed policy implementation plan will need to be formulated and implemented. A NTPIU will need to be established to serve as a focal point for policy implementation, and stakeholder groups will need to be formalised to monitor and oversee sub-sector reforms.

If the transport policy is fully implemented, there will be a modern legal framework established to serve all transport modes and a limited number of new sector entities will be established, as outlined in subsequent chapters. In many instance these entities can initially form part of existing sector institutions.

1.2 Rationale

The scope of the 1995 White Paper on Transport Policy was rather narrow, as it focussed mainly on roads and road transport and the implications of changed policies in those two sub-sectors. In the twenty years since 1995, important road sub-sector reforms have taken place, however progress in other modes has not kept pace and some sub-sector SOE's remain heavily in debt.

The scope of the 2018 Namibian Transport Policy is therefore considerably wider, in that it covers major policy issues facing all modes of transport; with a particular focus on the railway sub-sector reforms and the consideration of intermodal transport.

In late 2014, the MWT launched an eighteen-month long process of engaging both expert and public opinion in the formulation of the most appropriate revisions to the transport policy for Namibia. During 2014

and 2015, focus group teams comprising staff of the Ministry of Works and Transport, members of the transport sector entities and SOE's, the consulting group and other experts and interested parties, undertook research and consultation and provided guidance on implementation priorities.

1.3 Alignment

The Government of Namibia is committed to building the economy, and improving the quality of life of all of its citizens. Most recently a number of important studies and documents have been published which seek to steer the transport sector in a more sustainable direction. These are major achievements. The transport policy document is aligned to the legal frameworks/instruments including national policies (such as NDP IV, Vision 2030 etc.) as well as the regional and international protocols and conventions ratified by Namibia.

The most important of the embedded national policies are:

- “Vision 2030” (2013);
- “Fourth National Development Plan”;
- Newly adopted SDG's;
- “Transport Sector Plan 2013-17” (Feb 2013);
- “Sustainable Urban Transport Master Plan for Windhoek, including Rehoboth, Okahandja and Hosea Kutako International Airport” (2013);
- “Integrated Transport Master Plan for Namibia” (2014) and
- “Master Plan for Development of an International Logistics Hub for SADC Countries in the Republic of Namibia” (2015).

1.4 Vision

The vision for Namibian transport is of a system which will: provide safe, reliable, effective, efficient, and fully integrated transport operations and infrastructure which will best meet the needs of freight and passenger customers at improving levels of service and cost in a fashion which supports government strategies for economic and social development whilst being environmentally and economically sustainable. Regulated competition will continue to be important.

1.5 Guiding Principles of the 2018 Namibian Transport Policy

The Vision is encapsulated in a set of 17 Policy Principle adopted by a wide group of Stakeholders for the development of the Transport Sector (Annex 1). These guiding principles take account of international values and norms and socioeconomic issues and establish the fundamental norms, rules, or ethics that represent what is desirable for the transport sector policy.

1.6 Current Mission

Transport sector policy formulation now includes all principal modes: roads, road transport, sustainable mobility, railways, maritime and air transport. In addition, intermodal transport and social and environmental aspects are being considered. The mission applies throughout Namibia including rural and urban areas. International connectivity in maritime and air transport is being enhanced through implementation of international regulations (IMO, ICAO, etc.) and in the road and rail sub-sectors through implementation of regional agreements, for example those entered into at SADC/SACU level.

2 Roads, Road Transport and Road Safety

2.1 Introduction

2.1.1 The Namibian Roads Sub-Sector

The Namibian transport sector has been actively developed since independence in 1990, both in terms of its governance as well as construction of new infrastructure.

The Namibian road sub-sector reform (MWTC 2000 Project) resulted in the creation of three state owned enterprises (SOEs) on 1 April 2000, namely:

- The Roads Authority, to manage the national road network;
- The Road Fund Administration, to collect road user charges, which are channelled into a dedicated Road Fund; and
- The Roads Contractor Company, which competes with other private sector companies for road construction, maintenance and rehabilitation contracts.

The RFA as sector organization is accountable towards MOF, but is reporting also to MWT. The Ministry of Works and Transport (MWT) remains overall responsible for policy and regulation and controls the operations of the three SOEs, but is no longer directly involved in road construction.

The Roads Contractor Company (RCC) absorbed most of the previous force account units of MWT and operates in the construction market similar to a private company. The state-owned company however obtained preferential contracts from the Roads Authority for the maintenance of the national road network during a grace period which have seemingly elapsed.

2.1.2 The Namibian national road network, network planning and funding

The Namibian roads network comprised nearly 47,000 km in 2013, out of which 7,000 km are paved and nearly 5,000 km are trunk roads, built to standards comparable to best practise and still in a rather good condition, but deteriorating rapidly.

2.1.3 The Urban Road Network

The urban road network in Namibia is managed by the Local Authorities, such as cities, towns, and villages, etc. as well as Regional Councils. The development thereof is funded through the budget provided by the Ministry of Urban and Rural Development (MURD). The Road Fund is contributing towards the funding of traffic related maintenance of these streets.

2.1.4 Road User Charging System

The Road Fund Administration Act, 1999 (Act 18 of 1999, hereinafter referred to as the “RFA Act”), envisaged that the Administration should regulate funding to the road sector according to a Government policy of full cost recovery from road users for the economically justified cost of road sector projects and programmes as defined in the Act. Such regulatory function was to be performed by managing the road user charging system, as defined in section 1 of the RFA Act and which explicitly entails full cost recovery from

road users. The RFA revenue consists mainly of two components, of which the Road User Charges (RUC) make up about 80%, while contributions from Government as well as other financing instruments (e.g. Loan Stocks) account for the remainder. The RUC System contains five components, which are listed below together with their approximate percentage contribution to the RFA RUC revenue.

Revenue from Road User Charges	% Contribution
Revenue from Road User Charges on Fuel	57%
Revenue from Vehicle License Fees	31%
Revenue from Entry Fees	6%
Revenue from Mass-Distance Charges	5%
Revenue from Abnormal Load Charges	1%
Total	100%

However, the determination of the fuel levy, which is the key component of the Road User Charges, collides with the determination of the fuel price, which is regulated in the Petroleum Products and Energy (PPE) Act and puts the Ministry of Mines and Energy (MME) in charge. Therefore practically, the MME has assumed the regulation of the fuel levy, and the RFA currently only fulfils an advisory function in this respect.

- Almost 60% of all road user charges revenue is from fuel levies;
- If fuel levies are not automatically increased with inflation, it is impossible to maintain revenue in line with inflation merely by increasing other road user charges;
- Fuel levies have fallen far behind inflation: the rate should now be above N\$1.60 / l, instead of only at N\$1.14 / l.

Currently not all revenue collection instruments of the Road Fund are operated by the Road Fund. In fact, some of them are very difficult to be controlled by the RFA as the Road Fund only receives collections, but does not reconcile the collection. For instance the vehicle license fees and driver license fees are collected by the NaTIS, which is hosted by the Roads Authority.

Currently not all roads related funds are channelled through the Road Fund, making it impossible to effectively exercise control over all road related funding streams.

2.1.5 Expenditure Control

The main share of funds is allocated to the RA for the Management of the National Road Network, which constitutes about 80.6% of the total allocation. Controlling the effective spending of funds by the RA is critical in order to ensure “value for money” is received. Currently, no effective quality control mechanism is in place to allow the RFA to ensure effective spending of the provided funds. The Roads Authority is procuring design and supervision services from consultants; however, is hardly able to control the delivered products due to the relative inexperience of the project management staff. The RFA should certainly not duplicate the role of the project managers of the RA, but it is still held accountable for effective spending of its funds, while it is not in the position of ensuring that the road user received “value for money”. In order to execute the vast development initiatives of Government, it is a key requirement to have sufficient and experienced institutional implementation capacity on the one hand and on the other hand sufficient consulting and construction industry capacity.

While the consulting industry can largely tap on expert resources from neighbouring South Africa as and when required in order to support the local Namibian resources, the local construction industry is largely not in the position to handle large-scale projects. Historically, road construction was executed by Government units, thus not providing sufficient room for local companies to flourish and leaving the field mainly to large contractors from other countries. In that context, the RCC whose preferential treatment has run out on 31 March 2015 is competing on the market, however they also do not have the capacity and experience to handle large-scale projects. The lack of local implementation capacity is most significant in the Roads Authority. While the RA is employing an increasing number of young Engineers-in-Training, they lack senior personnel to train the inexperienced Engineers and to handle large-scale projects, for example the construction of freeways. This further increases the risk of receiving sub-standard work as the RA is hardly in the position to effectively control the provided services and works.

2.1.6 Road Safety Management

Road Safety is not managed in a coordinated fashion, leading to insufficient law enforcement and isolated and fragmented efforts to reduce the fatality and accident rates in Namibia. The Road Safety Management Agency Bill sets out an entire coordinated management system based on the UN Decade of Action for road Safety and the “safe systems approach”. However, there are building blocks necessary to support the system. The establishment of an information system is important, as well as a fundamental increase in funding.

2.1.7 Intelligent Transport Systems (ITS)

In view of the vision in relation to public transport and planned extension of the road network, it will be necessary for the MWT to consider the implementing of Intelligent Transport Systems.

2.2 Vision

To have safe, secure, effective infrastructure and services, which are responsive to the socio-economic needs of Namibians and others in the region.

2.3 Objectives

In order to safeguard the investment in the road network and to keep the Namibian roads system safe and high performance, there is an urgent requirement to **step up regular maintenance**, at least on highly utilised principal and trunk roads.

Road network planning and classification will be structured and will take into account the developmental objectives of government and integrated land use planning principles. These objectives will be taken into account in urban road network planning as well. For the purpose of planning and funding and addition to the normal classification of roads in terms of the current Roads Ordinance and proposed Roads Bill, the road network will be reviewed and classified into economic roads and developmental roads. This will be done according to the contribution to the GDP of the cities/towns/villages that the road links. The Medium to Long Term Roads Master Plan (MLTRMP) contains a Rural Access Road Development Policy and Programme. Although GRN should cover provision of access measures should be taken to secure the funding and to define the source of funds.

Measures to **improve construction quality** should be taken, including improvements to RA laboratory, if found to be economically feasible.

The **Road User Charging System will be refined** further in order to fully utilize its potential. The level of the individual RUCs needs to be properly determined, as per the Act, which is not yet accomplished. Issues that are lacking for compliance with the SADC Road Transport Protocol should be identified and programmes designed and projects undertaken to finalise the implementation.

Road Safety needs to be consistently addressed across various levels. It concerns road construction, rehabilitation and maintenance, traffic law enforcement, driver training and education, public awareness and legal reforms. Road networks have to be established and maintained that enable safe travels for different modes of road transportation. Driver and road users have to be properly trained, certified and educated to ensure respectful, secure, responsible and vigilant behaviour. The general public needs to be informed and educated on critical road user behaviour. Traffic law enforcement needs to ensure the safety on the roads and prosecute unlawful behaviour. Overall the legal basis needs to ensure that the necessary changes can be applied.

2.4 Strategies

It has been assessed that it will not be feasible to clear up the maintenance backlog on the whole road network system and it is therefore proposed to focus the maintenance effort on the core linkage and de-proclaim certain tertiary roads. Over and above the issue of on-going road maintenance and its funding, there are also a number of issues concerning an upgrading and expansion of the existing roads infrastructure, again linked to serious funding challenges.

Road network planning should be done taking cognisance of land use planning and the development goals of Government. No construction of roads or maintenance should be undertaken that had not been planned for. The Roads Authority should be given the responsibility by law to compile a rural access plan as well as the current MLTRMP, which should culminate into one road network plan to be included in the NDP.

RUC revenues cannot support optimum maintenance, therefore, to provide planning security, increases of RUC still have to be automated and a balance between development and preservation has to be struck, while capital investment decision criteria have to be set (mandatory % of funds reserved for preservation). The power to impose the fuel levy should be reviewed, providing the Minister of Finance through the Road Fund Administration more autonomy in setting the level of the fuel levy. The resultant legislation should then provide for the fuel levy to be adapted automatically in line with inflation.

A consolidated (harmonised) road infrastructure budgeting and expenditure control and monitoring system will be established. This will require regular communication between the RA, the RFA and the MWT on a quarterly basis, to check planned vs. actual expenditure and to revise forecasts. An updated Procedures Agreement between the RA and the RFA should be reviewed and implemented.

Road network funding must be clarified in relation to the central government's contribution as opposed to the funding contributed through user charges. A system of the classification of the road network as either "economic roads" or "developmental roads" needs to be investigated. The government would then be re-

sponsible for the construction and maintenance of the “developmental” roads. An “economic road” is classified as such in terms of the contribution that the two/more places it links make towards the GDP – in other words a road that links two or three economic hubs would be an economic road with an obvious increase in traffic volume. These roads may e.g. be fully funded by the Road Fund. Developmental roads are so classified in terms of their lower or non-contribution to the GDP and should be mainly funded by central government in relation to both construction of new roads and maintenance.

The Vehicle Mass Bill will be implemented, which authorises a performance-based scheme, to which operators can subscribe, and which gives operators certain leniencies; the scheme can thus be used to implement green freight policies. The SADC-EAC COMESA Tripartite has been active in trying to achieve harmonisation amongst its member states in order to promote trade on the continent. Namibia is part of the tripartite and should determine its compliance with agreements reached by the Tripartite and identify programmes and projects to support its implementation.

A policy for the future consideration and coordinated implementation of ITS will be developed. The Road Safety Agency Bill will be promulgated, which will require the Roads Authority to undertake safety assessments. Some road traffic offences such as overloading will be decriminalised in order to remove them from the ambit of criminal offences, thereby enabling more successful law enforcement.

2.5 Implementation and Institutional arrangements/Framework

The overstretched road management and project implementation capacity of RA requires review and improvement (of training, performance monitoring, etc.). For projects of national importance, high costs and complexity, PIU's should be established and highly experienced staff should be employed. Practical solutions to implement MDC charging and satellite tracking will be sought.

Efforts will be revived to unify traffic law enforcement under one entity, preferably under the auspices of the MWT. Currently Nampol, the Roads Authority and various local authorities are undertaking traffic law enforcement. The enforcement agencies report to different political heads of which traffic is not the core focus. It is therefore extremely difficult to enforce the transport laws with equal application, or to achieve any coordination in the law enforcement efforts.

In order to enhance the revenue stream for the RFA, the user-pay-principle should be reviewed so as to amend the Act and to remove the refunding requirement. This would additionally reduce the very high efforts that are required by the RFA to administer the refunding system. The de-criminalization of overloading has already reached an advanced stage. It is thus recommended that the implementation of the system be prioritized and the channelling of overload fines into the Road Fund be enforced. In order to further reduce overloading, the continuous operation of all weighbridges should be reviewed in terms of the current Overload Control Strategy of the Roads Authority. Weighbridges that in terms of the Strategy do not operate on a positive cost-benefit basis should either be turned into general traffic control centres to be operated by Nampol or should be offered to other government entities or sold. Weighbridge infrastructure should be upgraded to ensure that all loaded vehicles are weighed. In addition, weighbridge personnel should be increased in order to provide for 24 hour a day weighing.

Driving schools and testing facilities need to apply to standards, that set a sound basis for safe driver behaviour and road worthiness of vehicles, in alignment to recent review of the Driver Licensing System in

2015 and reworked materials such as Driving Instructors' Manual and Driving Testing Manual for Drivers of Motor Vehicles.

2.6 Legal and Regulatory Arrangements

The legal arrangements are provided for in the Roads Bill as well as the Road Safety management Bill. Road Safety Audits should be mandatory at the Feasibility, Design and the Construction phases. Key areas in relation to green freight, which are not covered by the Road Traffic and Transport Regulations (2001) should be identified and the relevant standards issued by the Namibian Standards Institute be incorporated in the updated Regulations. The Vehicle Mass Bill can be used to implement green freight policies and will provide the regulations for Vehicle Overload Control.

The MWT will promulgate and implement the Road Safety Management Bill and Roads Bill, which require the Roads Authority to undertake safety assessments and safety audits of the infrastructure.

The Agency responsible for road safety will be elevated to the level of the Prime Minister's Office. The Agency will develop and implement a sufficient database with reliable data to support the implementation of the Road Safety Agency Bill.

The Roads Bill consolidates the law in relation to the construction of roads and replaces an old South African Ordinance, which is not relevant anymore. The Bill also provides a system for managing road sector contracts, providing for prompt payment, a prohibition of "pay when paid" clauses in a contract, and for the adjudication of disputes.

In view of the fact that currently not all roads related funds are channelled through the Road Fund, making it impossible to effectively exercise control over all road related funding streams, it is recommended to review the RFA Act and to amend it in such a way that the Road Fund can take full control over all road related funding and can subsequently also be held accountable for the management of all road funding, which is not possible at this stage. In order to allow the RFA sufficient insight in the effective spending of its funds, it is recommended that the RA and RFA discuss how the RA's quality control and the RFA's mandate to ensure effective spending can jointly be addressed effectively without duplicating work.

The RFA Act as well as the conflicting PPE Act will be reviewed in order to remove the conflict about the setting of the fuel levy and to allow the RFA to determine the fuel levy as required for the adequate fulfilment of its mandate. The revision of the Act should also address the increase of the fuel levy in accordance with inflation, over and above increases based on the requirements for an economically efficient roads network as are contained in the RFA Act.

The Road Fund Act determines that the cost to e.g. law enforcement must be defrayed, "to the extent that it is in the interest of the road user". This concept needs to be reviewed and quantified in accordance with the underlying philosophy of the social responsibility of government. The entire section 17 of the Road Fund Administration Act, 1999, needs to be reviewed in relation to which functions in the road sector the Road Fund can be expected to fund.

For the Road Fund to effectively manage and control its revenue collection tools, it is recommended that all collection tools be combined in one centrally managed Integrated and Automated System. In line with this, it can further be discussed if perhaps NaTIS should not be moved to the Road Fund, however also

considering that it does not only fulfil collection functions. A thorough discussion is required in order to accommodate the needs of RA and RFA.

The MWT will implement the Vehicle Mass Bill in order to decriminalise overload offences, provide for fines that are calculated based on the damage caused by the overloading as well as to provide for a penalty points system, which points increase in the same manner in accordance with the seriousness of the overloading. The Bill also provides for the immediate payment of a security bond that equals the fine. The operator may make submissions as to why he should not be fined. If it is found that the operator should not have been fined, the security bond is refunded. If it is found that the operator is guilty, he forfeits the security bond and is deemed to have paid the fine. The MWT will study the 2015 recommendations in relation to the driving licensing system as a matter of priority, together with the necessary amendments to the Road Traffic and Transport Act, 1999.

The SADC-COMESA-EAC Tripartite is a relatively new organisation and not all its agreements have been signed yet. The MWT should identify programmes and projects to determine to what extent Namibia complies with the agreements and plan for its ratification and implementation. A central database of road-related agreements to which Namibia is a party should be established.

The SADC Protocol on Transport, Communications and Meteorology has not been fully implemented. It provides for various issues, such as harmonised technical standards in relation to-

- Infrastructure planning and design standards including land use planning standards;
- Soils and materials testing standards; and
- Road and bridge construction and maintenance contract documentation including general conditions of contract, specifications and standard methods of measurement.

The protocol also requires a harmonised system of the transportation of dangerous goods in accordance with the Basel Convention on the Transboundary Movements of Hazardous Substances and their Disposal, 1989 and it urges Member States to accede to the Convention. Namibia incorporated regulations on the transportation of dangerous goods, which regulations are in line with the Convention but it has not been implemented yet.

3 Sustainable Mobility

3.1 Introduction

Transport systems, particularly cities, have struggled to keep pace with growing motorisation in their societies. Improving sustainable mobility aims at giving priority to public transport, goods transport and non-motorised transport. It implies using existing road space and services more efficiently before investing in new facilities.

Building more roads to satisfy the demand has led to increased car ownership and usage. Over the last fifteen years many countries have changed their focus to improving mobility: planning for the movement of people and goods rather than for vehicles. Where the mobility approach has been adopted sustainable living spaces and built environments have been possible, such as in Singapore, Stockholm and Curitiba.

Public and urban transport in Namibia has never been accorded priority in terms of planning and legislation. This current system dates from 1977 and is out-dated. The system is totally inadequate for the Namibian environment – the Road Transportation Act, 1977, had as its main purpose the protection of the government transportation services. This Act was repealed in Namibia in 2001 with regards to freight transportation.

The 1995 White Paper devolved public transport to local government. This proved to be unsuccessful, as most local authorities do not have the capacity or the means to undertake public transport management or regulation. There was also long-distance public transport to be considered as it spans the jurisdictional areas of more than one local authority. There is no effective national public transport system and therefore a need to plan and manage public transport effectively. There is in general inadequate integration of land use/transport planning.

The mode of competition that has evolved is not in the interests of the travelling public, nor is it in the longer-term interests of the passenger transport industry. Some of the key problems that arise in the sector are the difficulties in cooperating over the use of terminals and problems associated with the leasing of most taxis and small buses to drivers/crews on a daily or monthly basis by vehicle owners. Unlike salaried bus company employees such drivers are dependent on fare revenues for income leading to some negative aspects such as predation of passengers at terminals; speeding on-street to arrive at the next stop or rank first; poor condition of vehicles, etc.

World over it has been proven that public transport cannot be operated at a profit. The requirement of providing basic access (the developmental responsibility) is more evident in public transport than in any other aspect of the roads sector. In addition, public transport in Namibia is of such a nature that strict regulatory measure is required, which necessitate law enforcement and additional administrative requirements. Local government does not have the capacity or the funding to manage public transport.

In remote areas service is dependent upon bakkies and a few taxis and consequently the cost of passenger and freight transport is high, contributing to the high rates of poverty. Taxis are often reluctant to ply routes on gravel roads. In remote areas, communities are often dependant on bakkies. These are mainly organised on a private basis where the vehicle owner gives rides to other people in the community who then share the cost of the trip. Often with the back full of passenger, bakkie travel is neither comfortable nor safe. In addition, bakkies are often in poor condition compared with other passenger vehicles. Non-motorised transport comprises the biggest portion of Namibian transport, but was paid little attention in the past. This

is an important component of transport in the rural areas, and in towns and cities it could assist in alleviating congestion.

3.2 Vision

To provide connectivity between and within urban and rural areas in an efficient, reliable, affordable and safe manner by means of public transport and NMT.

3.3 Objectives

The key sub-sector objectives include:

- Drafting of a formal public and urban transport policy and legislation: oriented towards development of sustainable transport systems, featuring public transport and NMT;
- Implementation of a system of Public Service obligations for unprofitable routes; and
- Changed orientation for integrated land use / transport planning: relying on existing institutions but building the capacity and promoting coordination between relevant authorities.

3.4 Strategies

The public and urban transport policy need to be formalised and reflected in legislation. The Road Transportation Act, 1977, must be repealed and the Road Traffic and Transport Act, 1999, must be amended.

Effective competition needs certain conditions to flourish. Firstly, there must be a range of economic actors who are interested in providing the goods and services needed. Secondly, there must be a regulatory regime that facilitates improvements in efficiency and responsiveness to consumer needs. If these conditions are not present then the benefits from competition will not be realised. The public transport industry will be restructured to encourage the growth of public transport operators running on sound business lines.

Mixed taxi and bus operations will be promoted as will introduction of higher capacity modes of service in time, when justified by high levels of demand and where economically and financially feasible. The main modes for mass transit will be buses and taxis which may be present in various roles depending on the particular operating environment.

As demands rise in high usage corridors over time, higher capacity public transport modes should be considered. These could include bus rapid transit, light rail transit and heavy rail (mass rapid transit or commuter rail).

In the public transport sub-sector, the concept of Public Service Obligation (PSO) will be introduced for non-profitable routes. To implement a new system, the Road Traffic and Transport Act, 1999, has to be amended to require the planning and funding as well as to prescribe a regulatory system.

Integrated land use planning has to take mobility patterns into consideration. In coordination with MURD and MLR, sustainable mobility needs have to be reflected in future special planning in the country.

3.5 Implementation and Institutional Arrangements/Framework

The establishment of a National Transport Authority as proposed in the Windhoek Sustainable Urban Transport Master Plan was considered. However, as a minor part of public transport regulation is already housed in the Roads Authority and against the background of the principle of limiting the establishment of new entities, it is proposed that the Roads Authority be expanded to become a Roads and Road Transport Authority, housing the roads network management, possibly its financing, information systems, as well as public transport management.

On an institutional level, the Roads Authority has a unit performing a subtask of public transportation, issuing the permits in terms of the 1977 Act. This unit should be expanded to include planning expertise and the coordination of public and urban transport throughout the country. The Roads Authority would be given additional duties and powers in relation to public and urban transport, and then the Authority would migrate to a Roads and Road Transport Authority.

For public transport planning it is recommended that Regional Public Transport Boards be formed. The Regional Public Transport Boards will be responsible for the transport needs and infrastructure as guided by the legislation.

A study should be undertaken to determine the level of contribution of the central government to local and regional authorities, which cannot afford the PSO's. The level of contribution will depend on importance of routes and needed level of services.

There is a need for the integration of transport and land-use planning on a legal basis. There is a need for the deregulation of inter-urban connections and for the regulation of rules for fare increases.

3.6 Legal and Regulatory Arrangements

The current Road Traffic and Transport Act covers some aspects of public and urban transport as well as cross border transport. This could be the legal vehicle to implement a formal public and urban transport policy. The current Road Traffic and Transport Act, 1999, should be amended to incorporate a chapter regulating public and urban transport. The new amendment/ Bill must repeal the Road Transportation Act, 1977.

Cooperation is needed with MURD and MLR on the draft Bill concerning town planning and township establishment. Integrated planning, taking into account sustainable mobility, is important to ensure effective transport service delivery and free choice of mode of transport.

Public transport services are necessary to provide basic access, thereby complying with government's social responsibility, but they cannot be operated at a profit. The optimum level of government funding based on the principle of government's social responsibility to provide basic access must be determined and such funding must be given through the erection of infrastructure and PSO's in relation to the provision of public transport services. This must be incorporated into the legislation that will be drafted to regulate public transport.

It is important that transport plans pay attention to non-motorised transport and that the legislation require that it be given priority. The newly drafted roads Bill could be amended to require that new designs for roads make provision for non-motorised transport.

4 Rail Transport

4.1 Introduction

The main commodities carried by rail are mining products, liquids, containers and building materials. Rail currently holds 5% of the surface transport freight market share, based on TransNamib's uptake at the port of Walvis Bay. Total transport volumes have, however, continuously declined over the past decade. Between 2012 and 2013 alone, transported volumes of mining commodities and bulk liquid lost 27% and 11% respectively.

Rail market share is low and therefore has a tendency to stagnate or decline. The main reason is dissatisfaction with the price and quality of rail transport although, in Namibia, shippers are prepared to pay higher transport prices to the road services to ensure reliable transport. Rail is felt not to respond to market changes or customers' needs in a growing and modernising economy like Namibia, as other modes do. At the moment, TransNamib is largely insulated from market forces. The railway developed on colonial and national lines in Southern Africa, resulting in difficulties in operating across neighbouring countries such as Angola for example. The supply industry, mostly foreign, has imposed its differing technical standards in an attempt to "monopolise" rail equipment, thus creating technical rail islands. As a result, operational and technical integration in the region is far from complete.

The citizens of Namibia have a legitimate expectation to be offered public rail services, having contributed with their taxes and work force to the establishment of the rail network. There is, however, great dissatisfaction with these services. Passenger rail services have been reduced or even abolished over the years forcing certain social groups to rely on other, sometimes more expensive services or even preventing them from greater mobility.

A new kind of railway system is needed in Namibia. 78% of revenues (2015) are required for financing the cost of personnel, which means that TransNamib is heavily overstaffed. A massive capital investment backlog and an increasing need for investment funds exacerbate strain on the railway sub-sector. In order to implement a new kind of railway and to revitalise the Namibian railway sector, new policy principles and policy frameworks should be defined and implemented.

The Rail Sector in Namibia is not regulated in terms of modern technology and modern state institutional management principles. The National Transport Services Holding Company Act, 1998, is the only piece of legislation that regulates rail in the country. It establishes TransNamib as the sole provider of rail transport services, regulates the management of TransNamib as well as safety, operations, accident and incident investigations. TransNamib is the functionary in all of these areas, with oversight from the Board and the Minister. This situation is a classic example of non-compliance with the requirements of the administrative law, of not being a judge in your own cause (not being player and referee). The Act also enshrines the anomaly that the locomotives and rolling stock belongs to TransNamib while the infrastructure is the property of the State. While the State is the only shareholder, this does not matter so much, but when the market is opened up, this may lead to conflict.

The development of a new orientation cannot effectively be realised without a changed legal, institutional and political framework. At present rail safety standards are not formally incorporated into Namibian legislation. Safety requirements need to be formalised; inspections need to be undertaken and sanctions need to be imposed by an independent organisation.

4.2 Vision

To provide seamless, efficient, affordable, customer-friendly and environmentally responsive integrated railway transportation solutions.

4.3 Objectives

The key sub-sector objectives include:

- Rail shall serve as a medium of inclusive growth, connecting ports, communities and regions, major economic centres of industry, commerce and tourism across the country.
- The spread and availability of railway services will be continuously expanded and improved by its empowered and satisfied employees using cutting-edge technology.
- It shall create a railway of the future that permits an increased number of rail passengers and freight transportation.
- Infrastructure management should in future be separated from rail services operations;
- Some rail services cannot be operated at a profit and are required in terms of government's social responsibility to provide basic access. PSO arrangements would be required for such services.

4.4 Strategies

A fundamental strategy will be the separation of infrastructure and operations in order to give the private sector the chance to operate on the public infrastructure network and invest in the rail sector. A rail sector revitalisation strategy encompasses five core elements:

1. Open rail network access in an environment of regulated competition;
2. Public service obligation;
3. Rail safety;
4. Rail interoperability; and
5. Rail accident investigation.

In addition rail infrastructure should be separated from operations: The Government should retain general responsibility for the development of the appropriate railway infrastructure, although the involvement of the private sector may be used as an option.

4.5 Implementation and Institutional arrangements/Framework

A profound restructuring of the present TransNamib organisational structure will be necessary, along with the establishment of new management principles. The complete unbundling of TransNamib Holding Ltd. into result-oriented entities is proposed. These entities will function with, if necessary for market or technical reasons, private sector participation, separation of rail infrastructure management and rail operations.

Several new rail sub-sector units need to be established, and these are closely linked to the legal arrangements (shown below).

4.6 Legal and Regulatory Arrangements

4.6.1 Open Network Access

Any enterprise has the right to operate a rail service on the Namibian rail network. Open network access occurs in an environment of regulated competition. Opening up the network will necessitate the amendment of the National Transport Services Holding Company Act, 1998 as well as promulgating new legislation. Should the network be opened up for competition, all the “non-company” aspects of the National Transport Services Holding Company Act, 1998 will have to be removed and housed in another Act. A typical legal structure for the operation of a function such as railway services will need a suite of legislation that provides for the separation of regulatory functions from operational functions.

In an environment of regulated competition, provision must be made for detailed anti-competitive measures to be imposed on rail operators, a rail operator licensing system and rail safety regulation. The Competition Commission currently enforces the Competition Act, which regulates anti-competitive behaviour. The Competition Act is framed in generic terms and should the duties to provide for rail specific anti-competitive behaviour be imposed on it, it would have to be amended and rail expertise will have to be developed in the Commission, or contracted in on an ad-hoc basis. As there will not immediately be a high volume of investigations needed, it is proposed that the Competition Commission Act be amended to provide for more detailed rail-specific regulation. To address operator licensing and safety regulation, it is proposed that a Rail Authority is established by way of a Rail Sector Bill. This Authority should be independent from the infrastructure manager and any railway undertaking.

In the case of rail, infrastructure management needs to be separated as well in the longer term, and the Rail Sector Bill enabling the establishment of the Infrastructure Manager needs to clarify the ownership of the rail network. Consideration should be given to enable the Infrastructure Manager to enter into PPP's to perform its functions.

Options for ownership could entail that both the track and land belong to the government, and is rented by rail operators. New operators that are interested in providing track and other rail infrastructure should be allowed to do so.

4.6.2 Public Service Obligations

A system of Public Service Obligations should be provided in the proposed Rail Sector Bill. It is important to establish criteria for such services and definitions for areas that might benefit from non-commercial services, which are operated in the social interest, not on a commercial basis.

4.6.3 Rail Safety

Currently, TransNamib adheres to safety guidelines of the Southern African Rail Association. TransNamib itself audits compliance. The situation is untenable in terms of the requirements of the administrative law. Rail safety standards will be set by the Rail Authority to be established in terms of the proposed Rail Sector

Bill and the application of those standards to be inspected and sanctions for non-compliance to be imposed by the Rail Authority.

4.6.4 Rail Interoperability

In terms of Article 7 of the SADC Protocol on Transportation, Communication and Meteorology, Namibia has agreed to the ideal of interoperability within the SADC Region. The basis for interoperability exists, but need to be expanded. For Namibia to ensure the interoperability of the rail network with the region it must:

- Empower the incorporation of TSI's as subsidiary legislation in the Rail Sector Bill and place a duty on the MWT to develop an interoperability strategy and implementation plan. The Regulations will have to make provision for current non-interoperable equipment may continue to be used, but that new equipment must comply with the interoperability requirements;
- Prescribe a system of accreditation for notified bodies of which the purpose is to undertake assessments in terms of the prescribed TSI's; and
- Identify countries with which Namibia needs to enter into agreements with, negotiate, ratify and implement the agreements.

4.6.5 Rail Accident Investigation

The accident investigation unit will be established in the MWT, possibly together with the Aviation Accident and Incident Investigation, and The Rail Sector Bill will have to ensure the independence of this unit. The National Transport Services Holding Company Act, 1998, will have to be amended to remove the accident investigation function from TransNamib. Negotiations would be held with the Civil Service Commission to enable the appointment of specialist accident investigators being paid internationally competitive salaries.

4.6.6 Separation of Infrastructure Management and Operations

It is best practice that these two types of operations be separated. Construction and management of rail infrastructure is a specialised function and a separate entity should take responsibility for it. The entity should be focussed only on the management of the rail infrastructure. An "infrastructure manager" is defined as *"any public or private undertaking responsible for establishing, managing and maintaining railway infrastructure, including traffic management and control-command and signalling; the functions of the infrastructure manager on a network or part of a network may be allocated to different undertakings. The infrastructure manager may also be responsible for the supply of energy, maintenance facilities for infrastructure, passenger stations and freight terminals."*

The rail infrastructure manager could contract out the management of the infrastructure, but the responsibility should lie with a public entity under the auspices of the Ministry. A separate entity is indicated when the function is of such importance to the development of the industry and the implementation of policy, that its functions and funds should be ring-fenced, ensuring focussed management. However, it is not necessary to establish such an entity right away. It will become necessary when there are new entrant rail operators and when the volumes of rail transport have increased to such an extent that it necessitates TransNamib to concentrate only on its core business.

5 Air Transport

5.1 Introduction

The ICAO provides the regulations governing international air transport. The regulatory demands of ICAO could not be met with the historic legislative foundation and much needs to be done, to provide the structure for implementing the required regulatory regime according to the Civil Aviation Act passed in 2016. Liberalisation and deregulation in the world's main air markets leads Namibia to do likewise. While there is competition in the aviation sub-sector, it has not occurred to the extent envisaged in 1995.

According to the Civil Aviation Act, the Namibian Civil Aviation Authority (NCAA) was established in November 2016, including Air Traffic Navigation Services (ATNS). It establishes an accident and incident investigation unit within the MWT. These are in line with good practice aviation management principles.

The Yamoussoukro Decision (or YD) came into force on 12 August 2000 with the aim of providing for an “open skies” policy for air transport services in Africa. A two-year transition period was given to all Member States during which they were supposed to fully implement the conditions pertaining to the Decision. This transition period lapsed on 12 August 2002 and it was very clear that basically no Member State had implemented the Decision at that time. Namibia has negotiated a vast number of bilateral air services agreements (BASA's). The Bilateral Air Services Agreements were negotiated over the past 25 years, but in some cases never been finalised, endorsed and signed. Many of them are out-dated and need to be renegotiated if so required.

The current situation where only a limited number of carriers are providing international inter-continental scheduled air transport services does not stimulate market growth neither does it cater for healthy competition. Consumers are subjected to a “limited choice” policy, not only in respect of cost/fees, but also in respect of destinations. Travellers opt for choosing carriers on parallel routes from Johannesburg and Cape Town, offering a very wide choice of destinations and fees.

Despite many efforts for turn-around strategies, including a Presidential Commission of Inquiry into the operations of the airline and continuous change of executive management and Board of Directors, the national airline continues to rely upon financial support from the shareholder, Government.

The majority of the national airports are grossly under-utilised with utilisation ranging from basically zero traffic to relatively high volume of traffic. Due to its gross under-utilisation, the majority of the 8 airports are loss making, but need to be maintained and airport services need to be provided to remain ICAO compliant and operated in accordance with the Namibian Civil Aviation Regulations applicable to registered and certified airports.

5.2 Vision

To provide sustainable aviation safety and security in line with ICAO standards and practices.

5.3 Objectives

The key sub-sector objectives include:

5.3.1 Capacitation of MWT

- To provide economic regulatory oversight function

5.3.2 Capacitation of the NCAA

- To find solutions to the lack of human resource capacity in the Aviation sub-sector;
- To provide aviation oversight functions.

It will also be required to establish a Directorate of Aircraft Accident and Incident Investigation. It is suggested that, *in the longer-term*, Air Navigation Services - once it has been developed to a satisfactory level - should be taken out from under the NCAA and be established as a separate entity.

5.3.3 Development of the Airlines and the role of Transport Commission

- The role of the BASA's and the status of the Yamoussoukro Decision (YD) – Multilateral Agreement for African States – “open-skies Policy” for Africa needs to be determined.
- The regulations for identification and appointment of Commissioners and for the duties and responsibilities of Commissioners of the NTC need to be defined.
- A common view of the development of Air Services in Namibia needs to be established as well as definition of the future role of the national carrier, Air Namibia.

5.3.4 Development of the Airport Strategy and Infrastructure

A medium to long-term strategy is required for the rehabilitation and upgrading of all airports under the control of the NAC. The Airports Company makes losses and has to rely on government for bailouts. In relation to air transport, government has a social responsibility. Funding of government undertakings is problematic, especially in a country such as Namibia with a very small tax base. Therefore, innovative methods of funding need to be found.

5.4 Strategies

The aviation sub-sector revitalisation strategy encompasses three core elements:

- Realignment of economic vs. regulatory oversight functions
- Training and capacity building in the aviation sector);
- Development of the Airlines and the role and staffing of the NTC; and
- Development of Airports.

With regard to the Airports Company, the level of government contribution should be calculated in accordance with the principle of providing basic access. In order to facilitate such quantification, the airports need to be categorised, based on which operational and capital funding should be determined – e.g. the airports or aerodromes that do not make a profit and which need to be kept open should be government funded.

5.5 Implementation and Institutional arrangements /Framework

5.5.1 Transition to New Arrangement under the 2016 Civil Aviation Act

An implementation plan to implement the Civil Aviation Act should be compiled and executed. The ICAO Resolutions that have not yet been incorporated into Namibian legislation should be identified in a continuous process. The future needs in relation to ANS should be determined (in the longer term).

It is proposed that the services of the current temporary employed foreign advisors / specialist be retained for a limited period of time – maximum 4 years – and that further foreign experts be appointed to transfer skills to Namibian officials. Highly qualified and specialised personnel such as, amongst others accident and incident investigators be paid internationally comparable salaries in order to prevent the situation where Namibia trains people only to lose them to foreign countries. To achieve this, negotiations need to be entered into with the Public Service Commission and the Public Service Act, 1995 needs to be amended.

An Office/Section within the Ministry of Works & Transport with a direct link to the NCAA will be established that will have as its main function the safety oversight of the NCAA. The services of highly qualified and experienced aviation specialists should be utilised to carry out the task of overseeing the NCAA.

The Directorate of Aircraft Accident and Incident Investigation stipulated in the Act will report directly to the ministers, with the exception of administrative and financial matters, which are dealt with by the Permanent Secretary. Although the Directorate falls under the jurisdiction of the Ministry of Works and Transport, it will function independently.

5.5.2 Development of the Airlines and the role and staffing of the Transport Commission

Namibia should continue the air transport liberalisation approach, but on the basis of regulated liberalisation. Restrictions on regimes pertaining to capacity, frequency and designation of carriers in respect of the granting of traffic rights should be waived. The SADC Protocols in respect of transport in general and, in particular Aviation, must be observed.

Bilateral Service Agreements – it should be determined which of the BASA's need to be ratified and which need to be re-negotiated, and then a programme to initiate and finalise the BASA ratification process should be established. In the case of the Air Services Act, 1949, it is proposed that the same structure be followed. The Namibian Civil Aviation Authority (NCAA) should be issuing one license, inclusive of operating and quality requirements, and a review/appeal of the decision should lie to the NTC. The Commission should not be involved in operational issues that can be handled by the NCAA.

5.5.3 Development of Airports

The airport funding model should be determined in accordance with Namibian Transport Policy proposals, including the categorisation of airports and aerodromes, taking into account the principle of government's social responsibility. Rehabilitation of infrastructure, upgrading of airports and development of airports is costly and the NAC does not have the financial means to meet all these obligations. Financial support, especially for capital projects needs to be provided by Government. By involving PPP and Airline(s), cost could be shared, but the challenge is to find willing partners and airlines to become involved as such involvement must be profitable for participating parties.

5.6 Legal and Regulatory Arrangements

5.6.1 Transition to New Arrangement under the 2016 Civil Aviation Act

ICAO Resolutions should be implemented and be part of Namibian practices.

5.6.2 Development of the Airlines

Regulated liberalisation is applicable of scheduled international air transport services currently provided on inter-continental routes. In future the following actions should be taken:

- Provide for more air carriers on routes by promoting competition and allowing for more carriers on more inter-continental routes and destinations;
- Expansion of the inter-continental route network is required; and
- Encourage partnership-, alliance-, code share and other cooperation arrangements between Namibia's national carrier (and other Namibian designated carriers) and third country carriers to stimulate traffic growth and expansion of route network.

Air Namibia could enter into share-code agreements with e.g. Turkish airlines and Air Kenya in order to exploit new markets – agreements should be negotiated, ratified and which can give Air Namibia access via West and Central Africa to Europe and Asia. An independent investigation – possibly constituting international specialists - should be launched which to provide findings and concrete proposals in respect of the future of Air Namibia.

5.6.3 Development of Airports

The Airports Company Act should be amended in accordance with funding model. Although the Hosea Kutako International Airport provides for good connectivity to domestic destinations and some regional destinations, urgent attention needs to be given to two main negative aspects - the road between Windhoek and the airport and the limited airport facilities for transit passengers.

6 Maritime Transport

6.1 Introduction

MWT in conjunction with IMO, embarked on a maritime administration reform programme which entails replacing the archaic/pre-independence maritime legislative framework with modern and current maritime legislation including enabling legislation for the establishment of the Namibian Maritime Authority (NMA) which will serve as a statutory entity performing the powers and functions of the State at arm's length. The new legislative framework will be underpinned by the following draft bills which are at varying levels of finalization: draft Maritime Authority Bill, draft Merchant Shipping Bill, draft Marine Pollution Bill and related draft regulations.

The Namibian Port Authority (NAMPORT), the State-Owned Enterprise, holds a dominant position regarding port services in general (with some notable exceptions¹) and so far holds a monopoly position in container handling.

There are inadequate human resources for the desired logistics and transit role. Without intervention, developing Walvis Bay into a transit hub is likely to fail. There are shortages of skilled employees and labour and also difficulties in obtaining visas for foreign staff and experts.

Likewise, the Directorate of Maritime Affairs (DMA) is weak due to outdated legal and institutional frameworks coupled with limiting civil service rules and operational constraints of Government that, among others, make it nearly impossible to attract and retain skilled personnel. As a consequence of these weaknesses, which have been confirmed by various IMO studies, Namibia is unable to effectively discharge its flag, port and coastal state obligations. If this situation is not addressed, it could have a negative impact on Namibia as a budding regional maritime logistics hub, as increasing maritime safety (navigational) and environmental (oil and chemical spills) risks that will invariably flow from Namibia's new status as a maritime hub will not be managed accordingly by the current weak system i.e. there is current mismatch between risk factors and the technical and administrative arrangements to manage those risk factors will be bigger.

The current draft Maritime Authority Bill gives effect to the principle of the separation of operations and regulatory functions. It provides for the establishment of the NMA and sets out the authority's powers and obligations, which entails the implementation and enforcement of national and international laws related to maritime safety and marine environmental protection..

Present inland waterway services (mainly in the Zambezi region) are insufficient, in terms of capacity and frequency and river navigation is unsafe.

6.2 Vision

To have an efficient maritime transport system that is safe, secure, environmentally sustainable and is effectively connected to regional and international markets.

¹ Bulk terminals, ships repair and cold storage warehouse management are currently allocated to third party operators through concession arrangements.

6.3 Objectives

Important objectives for the maritime sector are to:

- Provide separation of policy, regulatory and operational functions;
- Remove safety responsibilities (at present self-regulation) from port operators;
- Implementing local and international maritime safety and marine environmental protection standards;
- Prioritise the implementation of the IMO Conventions;
- Developing support for local inland waterway services in the Zambezi Region; and
- Strategic planning and investment requirements including integration with a Logistics Hub.

6.4 Strategies

The Maritime sub sector issues have been addressed in accordance with the keys issues, namely:

1. Opening competition and meeting challenges of a growing demand;
2. Implementing local and international maritime safety and marine environmental protection standards;
3. Providing access to remote locations; and
4. Improved strategic planning, including integration with a Logistics Hub.

6.4.1 Opening competition and meeting challenges of a growing demand

The Ports Authority Act and the Maritime Authority Act will be amended to provide for regulated competition. There is a need to establish fair competition between port operators. Existing regulations, good practices and local arrangements would be made transparent, reviewed, streamlined and finally published and applied to all competitors. This may cover:

- Terms for long term leases;
- Safety and security rules, and
- Employment regulations regarding discrimination and gender issues.

It is also proposed to introduce measures to counter the shortages of skilled employees and labour.

6.4.2 Implementing local and international maritime safety and marine environmental protection standards

The Directorate of Maritime Affairs (DMA) is the Maritime Administration of Namibia and its objectives are to a) ensure the safety of life and property at sea; b) prevent and combat pollution of the sea by ships; and c) promote Namibia's maritime interests.

However, due to the reasons mentioned above, DMA currently lacks real capacity to pursue those objectives in an effective.

NAMPORT is, through delegation from DMA, in charge of investments and implementation of Ports (Safety and Environmental Regulations (SER) and also partly for providing staff /equipment /tugboats for

Maritime SER's. Port and Maritime SER's should both be transferred to an independent agency, for which financing arrangements should be defined.

6.4.3 Providing inland waterway access to remote locations

The principal objective is to support the development of inland waterway services in the Northern regions of Namibia, along the Zambezi River.

6.4.4 Improved strategic planning, including the Logistics Hub

Planning should avoid a de-concentrated, sprawled development, to focus key investment where is most needed to counteract insufficient port depth, berth length, or handling equipment, etc. Therefore there is a need for strategic port planning, which will also need to take account of the development of the Logistics Hub.

Strategic maritime infrastructure development planning should not be a purely business-driven decision (led by NAMPORT). The NAMPORT business logic could be: invest in every field of business, which is profitable today, and neglect loss-making activities (rail). For the MWT, there are important strategic considerations such as the need to help develop a Logistics Hub, help to coordinate intermodal connectivity between major new port and rail developments, help to determine the overall financing that should be made available for the different transport sub-sectors, etc. The strategic plan might indicate investments at Lüderitz port ahead of the investments in the North Port. Government should allocate (scarce) public sector investment for the development of the railway sub sector, and the ports sub-sector planning should be directed to work out PPP and other funding arrangements with private sector investors.

Underlying assumptions are that the strategic port sector project implementation capacities and financial resources are not going to allow all investment projects to be implemented simultaneously and successfully. Available budgets could be tighter than foreseen in future, so starting a de-concentrated, sprawled development, which will not become operational quickly, due to financial or any other constraints would run contrary to the assertion to "find smarter ways to implement projects".

6.5 Implementation and Institutional arrangements/Framework

6.5.1 Opening competition and meeting challenges of a growing demand

The current draft of the Maritime Authority Bill should be amended to include the management and control of beacons and navigation aids. The Draft Maritime Authority Bill should be amended to include the authority to impose a maritime fuel levy, followed by finalisation of the promulgation of the Maritime Authority Bill and establishment of the Authority.

To ease employee shortages it is proposed to hire international professional training staff etc, at least in short-term. In addition, it is proposed to conduct in-house one-on-one mentoring. This would require a base core of competent experts to do the training. It would be a good long-term solution if combined with development of a local training centre. The Walvis Bay community could take the lead to set-up a training centre for professional and vocational diplomas with local enterprises participating in the definition of courses and on-the-job training.

6.5.2 Implementing local and international maritime safety and marine environmental protection standards

The maritime administration reform programme should be pursued vigorously in order to achieve greater effectiveness and efficiency in the delivery of maritime regulatory services and the promotion of Namibia's maritime interests.

DMA and the envisaged NMA will require investments and a stable financing mechanism. A basic funding mechanism is described in the draft Namibian Maritime Authority Bill but this could be improved.

6.5.3 Providing inland waterway access to remote locations

For any option, planning should consider the safety of navigation, security standards and the method of implementation control. Informal/third party operators (for tourists, for instance) should not be allowed to provide services unless they are fully compliant with minimal safety requirements and are therefore not eligible for subsidies or levies. A mixed option is the preferred option with the community being the operator. (In general, concessions are not relevant for this type of service).

6.5.4 Strategic Port Planning and Investment requirements

Strategic planning, policy determination and international agreements remain the functions of the MWT. Large port and terminal investments are necessary to maintain attractive prices and be competitive to shipping lines. With the domestic market being of relatively small size, it is important to ensure that:

- The Namibian community does not fund investments from which it only partly benefits; and
- The port throughput share for imports and exports justifies the size of the investments. If Walvis Bay expands and become a SADC logistics hub, large investments in port infrastructure would then benefit the entire regional community.

Investment in the maritime sector should therefore be concentrated in Walvis Bay. Such projects lend themselves to private investment (perhaps through a BOT arrangement). For this, it is important to have the main market partners in the consortia; both financially and on a managerial level. For instance, involvement of the Mining industry would be critical for dry bulk and of the carriers/operators for container terminal development (Maersk, CMA-CGM, etc.).

It is proposed to develop a hierarchical port plan for Namibia. A specialist study should be conducted to bolster the role of Walvis Bay, whilst maintaining development specialisations at the two lesser competing ports. A Central Option would be to focus container operations at Walvis Bay. There is no reason for building another container port in Namibia that would compete with Walvis Bay on the container traffic. Development of Lüderitz port should be largely privately financed. The prospects for Lüderitz port mainly lie in the development of dry bulk traffic (zinc from Rosh Pinah and possibly manganese and iron ore from Northern Cape Province). Trade through SA rail link – to develop a port south of Lüderitz needs large investment and should not be Government financed.

Namibia and neighbouring countries are not expected to generate enough traffic by the 2030-planning horizon to justify two major multi-purpose ports in Namibia. If a new northern port is developed in order to attract traffic presently passing via Walvis Bay, the risk is that it would reduce the attractiveness and usage of Walvis Bay port, which would not be a sound policy.

Concerning the projected North Port development, there should be joint planning and investment decision-making between the maritime and rail sub-sectors. If the North Port will be a pure minerals terminal, the investment need for the necessary rail link could be more substantial than for the port infrastructure itself. Agreements reached on new port construction without any rail linkage would not be wise. Strategic planning would also need to be coordinated with the Walvis Bay Municipality.

Since the new port development is located in a separate location, as planned for the North Port, the present organisational setup of NAMPORT would allow for a BOT setup, providing the bidder with the contractual confirmation that he will not have to fear competition from NAMPORT. It may make sense to start the search for investors at the new port and to take up a dialogue with them in the near future. At the same time, the planned institutional reforms for the maritime sub sector could be drawn up and submitted to Government. If the franchising process goes well in within the existing organisational arrangement all would be well. If not, perhaps the franchising and funding process would then generate the necessary pressure for institutional change.

6.6 Legal and Regulatory Arrangements

The Maritime Sector legislative requirements have to a great extent already been addressed by the draft Maritime Authority, Merchant Shipping and Marine Pollution bills and their subtending draft Regulations implement the various IMO instruments to which Namibia is a Party. These draft bills should be finalised and supporting systems implemented, where necessary.

The Ports Authority Act and the Maritime Authority Act should be amended to provide for regulated competition: a chapter will have to be added to the Maritime Authority Bill that provides for the setting of requirements for port operators, (economically and safety), as well as for the procedure of application and appeal against the decision. In African countries (as elsewhere), the landlord port system has been more successful than the service port model, and is best suited to bring in private sector investment. Within a landlord port structure, attracting container line operators and major international terminal operators can produce substantial efficiency improvements as well as reducing the overall burden upon scarce Government investment funds. Consideration should be given to introduce the landlord model. This is the common solution to open up the superstructure to third parties and introduce competition but what is more important to give certain rights to landlocked countries to use the port as their own port.

Operators should be subject to the same type of regulatory controls and taxes. Hence, with the view to the establishment of the SADC Logistics Hub, the Ministry should investigate the possibility of tax incentives, which will necessitate the amendment of the fiscal legislation.

The draft Maritime Authority Bill gives effect to the principle of the separation of policy, operational and regulatory functions. The Namibian Ports Authority Act, 2 of 1994 should be amended to remove navigational safety and related functions from NAMPORT. The draft Maritime Authority Bill should be amended to include the authority to impose a maritime fuel levy. The Maritime Authority Bill should be promulgated and the Authority established.

7 Intermodal Transport and Logistics

7.1 Introduction

Namibia's National Development Plan 4 propagated the vision of transforming Namibia as a whole nation into an international logistics hub for SADC region by 2025. An international logistics hub is a place where a complete package of international logistics services is readily available in order to serve market demand for international logistics. Integrated services consist of major functions required for international trade, including the following five elements;

1. Efficient Port,
2. Storage (operation base for logistics industry),
3. Transport network,
4. Collection and distribution of goods (international logistics companies), and
5. Cross-border arrangements.

The Logistics Master Plan sets the targets in 2025 with given projected potential demand and supply capacity. According to this vision, it is planned to increase Namibia's share in the transit traffic to the neighbouring landlocked countries from presently 12%, to 20% in 2025, corresponding to a steep rise in transit tonnage in the Port of Walvis Bay from 1.2 billion tonnes in 2014 to 3.6 billion tonnes. On an annual scale, this corresponds to a continuous 13.2 % increase in volume every year until 2025.

Even though there are also some disadvantages connected to an unbroken containerised transport chain stretching all the way into the hinterland, containerisation has helped the spreading of Intermodality greatly, and an effort should be made to adapt the rail and road modes to the standards and requirements defined by international sea-container traffic, especially with regard to weight limits. Nevertheless, since the actual development depends more on shippers' and carriers' decisions than on national planning, ample space should be reserved in the vicinity of ports for container stuffing and stripping operations, in case the development should go this way. In order to promote Intermodality between rail and road, it may not be enough to provide adequate facilities. A system of incentives and penalties could possibly steer the market in the right direction (e.g. heavy road user charges for trucks on the trunk roads under competition with rail lines).

Regional collaboration in intermodal transport - though desirable - seems unlikely. Landlocked countries will likely want more than one alternative. Where the bottlenecks are at the seaports, planning and developing inland ports (dry ports) and logistics hubs deserve consideration, particularly for landlocked transit countries. Simply investing in port capacity will not turn a port into a hub, unless it has a strategic location, adequate water depth, and the facilities and performance to ensure low handling costs. A strong corridor for transit traffic also helps. This requires facilitating traffic on the main trade corridors from the port to the landlocked hinterland. A common problem is the failure to address international, intermodal transport holistically. Inland movement, particularly across borders, has been slow and expensive, thereby stifling trade. Although logistics chains are a commercial matter, they require the facilitation of integrated port, customs and inland transport arrangements, which is a matter for government.

7.2 Vision

To transform Namibia as a whole nation into an international logistics hub for SADC region.

7.3 Objectives

A well performing logistics system is vital to be able to foster domestic industrial development, thus affecting employment, economic growth and tax revenues positively. Such a system is dependent on:

- Maintain and expand critical infrastructure (ports, rail, roads)
- Put in place a public–private partnership funding framework to create synergies and funding for the logistics hub
- Set up responsible implementation unit
- Pursue international and bilateral agreements to ease the cross- border flow of goods

7.4 Strategies

The target of Namibia becoming a logistics nation by 2025 will be pursued without neglecting the requirement of a high performing transport and logistics services for the domestic demand.

The logistics hub will be developed so that seamless intermodal connectivity between road and rail transport and the port is assured. Because of the land-use planning requirement, strategic planning cannot be developed without the participation of the Walvis Bay Municipality.

There is a need to mobilise private capital and management skills to improve efficiency and develop logistics systems. Regarding the Namibian Logistics Hub Concept, a comprehensive approach will be developed with regard to several aspects/ components:

- Hinterland connections to the ports, for infrastructure and operations, are obviously of strategic importance and need to be sized correctly;
- Transport networks must permit a good level of interconnectivity and reliability: transport sector operators, and SOE’s specifically, should agree on strategic goals, and priorities –this will concern transport infrastructure development and especially railway development but also information flows and IT needs, energy, water, waste management needs, etc.
- The road haulage sector also needs to be upgraded and developed in order to face and adjust to short-term demand growth.

Ensuring a minimum return on investments is very important; this also applies for infrastructure investments. The infrastructure investments should adequately support the development of the hub: the right investments in the right place at the right moment. It is necessary to ensure that proposed investments are consistent with the overall strategic vision: many small-scale investments could be counterproductive. In order to reach minimum economies of scale or network effect, which are key aspects in the process of implementing the logistics hub, efforts should be concentrated on a very limited number of locations, perhaps at Walvis Bay, Windhoek, etc.

7.5 Implementation and Institutional arrangements/Framework

However, it is clear that the pursuit of this ambitious target will require, first and foremost, coordinated planning and acting on behalf of the different sector administration bodies, but also, at the same time, substantial amounts of investment, at a scale that Namibia has not seen in past decades. The different fields of action should be attacked in the following order of priority:

1. Upgrade of Namibia's railway system and revitalisation of TransNamib;
2. Reform of the road user charges system, balancing road maintenance finance and then achieving a stable state of upkeep of the (main) roads system;
3. Upgrade corridor roads and multi-modal/intermodal facilities at railheads; and
4. Upgrade ports infrastructure according to strict economic criteria.

Heavy investment in the rail and roads sub-sectors will be absolutely necessary, even to cater for present volumes of traffic. In the Integrated Transport Master Plan for Namibia, an interruption of Namibian rail operations is predicted by 2020 unless the necessary rehabilitation of infrastructures and renewal of rolling stock are undertaken.

Likewise, the roads sector would require a steady investment of some 1.8 billion N\$ p.a. just to stabilise the present technical condition of the trunk roads system, whereas the different income sources from the road user charges system only provide for some 1.2 billion N\$ p.a. (which is also financing the upkeep of the so-called "development roads"). So the emergency in the funding situation in these two sectors is obvious.

In the maritime sub-sector, the situation is slightly different. It is a profitable operation, run and administered professionally by NAMPORT, featuring fairly modern and high performing facilities and good productivity. However, the fact that the maritime sector is the only profitable one out of the three modal sub-sectors, should not automatically lead to the conclusion that further investments in this sector would therefore be best placed. Investments in the inland transport systems can also flow back to the Namibian Government through higher profitability in the maritime sector.

For the time being and while the rehabilitation of existing rail infrastructure will be under way, no large investments can be made available for rail network extension. In this interim period (up until rail corridor extensions will become reality) the comparatively small investments necessary to offer a comprehensive multimodal infrastructure should be pushed hard, since they are the major tool for a loading of the existing rail network with cargo to non-rail-connected locations. Planning should aim at a multimodal terminal at each railhead, but also at all major intermediate stops. These terminals would mainly consist of a marshalling yard, staging space for full and empty containers and ample heavy duty hard surfaced manoeuvring space. One or several simple gantry cranes could serve as transshipment gear at the railheads, or a container lifter at intermediate stops.

Attracting major international container lines and terminal operators can increase efficiency. However, mobilisation of that potential still requires appropriate public sector actions in the administration of customs and the regulation of inland transport. Links between rail and port concessions, while having some risk of exploitation in downstream markets, may provide the best incentive to good modal integration.

7.6 Legal and Regulatory Arrangements

The administrative and legal ground for multimodal transport must also be prepared, e.g. by institutionalising a standard contractual setup, multimodal bill of lading and legal definition of risks and responsibilities for all parties, including mandatory insurance cover.

There is no specific legislation to regulate the logistics subsector. The logistics chain touches all the subsectors in the transport sector, which are individually regulated. In addition, there is no specific legislation regulating pipelines. Should the logistics hub be established, depending on the model used, the legislation will need to be reviewed to determine whether amendments are needed to accommodate the model implemented. If, e.g. a Public Private Partnership is used as a vehicle to implement the hub, there is no need to establish a Logistics Public Entity. There may however be a need to amend existing legislation to provide for additional functions to the existing entities.

8 Social Aspects

8.1 Introduction

The points of departure for the social policy are the following:

- The sector addresses its vulnerability to the spread of HIV and AIDS and infectious diseases and puts measures in place that aim to mitigate the impact; and
- The transport sector must be responsive to the special needs and interests of transport user groups that have hardly been taken into account sufficiently in the past, if at all.

8.1.1 Health Aspects

Road transport is the predominant transport in Southern Africa. The high ratio of mobile workers (e.g. long-distance truck drivers, workers at construction sites) with prolonged separation and isolation from families and homes, workload and stress has made the transport sector a vector for the transmission of HIV. Transport corridors are associated with unsafe practices among travellers and the populations who live along the highways. Risk exposure is particularly high around hot spots such as border posts, harbours and ports, truck and bus stops, taxi ranks and hotels used by mobile workforces and passengers. The mandate for HIV and AIDS sector responses derives from a number of international and regional declarations as well as from key national and sectoral development instruments and policies. The Southern African Development Community (SADC) and its Member States agreed on a number of targets and priorities of which some refer to the importance of sectoral engagement. The need to access health facilities and HIV and AIDS services is given attention to by the Vision 2030, the National Development Plan 4 (NDP4), the National Policy on HIV and AIDS 2007 (currently revised) and other documents. The Public Works and Transport HIV and AIDS/Wellness Sector Strategy have been adopted by MWT in 2013; the Sector Policy exists in draft form (will be finalised in 2015/2016).

8.1.2 Gender Aspects

Gender inequality is a key driver of HIV and AIDS in the male-dominated workforce of the transport sector. Targeted interventions should aim at empowering women in the informal sector and focusing specifically on the socio-economic conditions of communities living alongside the transport corridors. The hiring of local labour could be encouraged to avoid high rates of labour migration. After Independence in 1990, Namibia has adopted a progressive approach to gender through the ratification of international instruments, a gender related law reform and national policies. The Fourth National Development Plan (NDP 4) acknowledges that gender equality is a prerequisite for sustainable development and that an enabling environment shall be created to realise gender equality.

The Affirmative Action (Employment) Act 1998 (AAA) provides for preferential treatment to racially disadvantaged persons, women and persons with disabilities in filling employment positions. The AAA states that women should enjoy equal employment opportunities and should be equitably represented at workplaces of relevant employers. The Labour Act 2007 prohibits discrimination on a number of grounds including sexual harassment. Occupational health and safety regulations ensure the protection of men and women at work (e.g. exposure to hazardous substances, safety and machinery, protective equipment, noise and other health issues).

The achievement of gender equality and equal opportunities is important for the Namibian Government and is reflected in the establishment of a Ministry of Gender Equality and Child Welfare (MGECW). Two national documents guide the promotion of gender equality: the National Gender Policy (NGP) 2010 – 2020 and the National Gender Plan of Action (NGPA). The Government has adopted the principle of gender mainstreaming in all its policies, programmes and projects through the NGPA. The National Gender Policy is not explicit on the transport sector, but makes relevant provisions by stating that gender mainstreaming is to be adopted implying upholding a strategy for eliminating gender inequality in all sectors.

Transport is often seen as gender neutral assuming that it benefits all users equally. However, different gender roles shape women's mobility in terms of means of transport, distances travelled, purpose, and timing, safety and security issues. As care takers and employed persons, women travel to a wide range of destinations in performing their daily duties – to schools, day care centres, hospitals, markets, workplaces and other economic and social places. The Windhoek bus and taxi system doesn't have the necessary connectivity and time schedules. The municipal bus network is however currently in the process of expanding its routes making it more suitable for the mobility needs of women. Many young unemployed men find work in the taxi industry. However, women are still almost exclusively users of public transport. Their representation in the transport service industry could make the public transport system more gender friendly and safer. Drivers of municipal busses are almost exclusively men, although women might be safer drivers and could take up such positions. The Windhoek City Police promotes the employment of women, also at Superintendent levels, however they are only few; part of their responsibility is to handle gender issues.

8.1.3 Disability

In 2015, a new office for Disability Affairs led by the Deputy Minister was established in the Office of Vice President, to cater for the needs of people with disabilities. The Ministry of Health and Social Services has the main obligation to promote and protect the rights and welfare of persons with disabilities. It ensures that people with disabilities are registered for social grant schemes, which are administered by the Ministry of Labour.

The National Disability Council deals with violations of the rights of persons with disabilities. The Council recommends to Cabinet the taking of necessary steps in order to facilitate compliance with the National Policy on Disability. Women with disabilities are reportedly even more vulnerable to sexual harassment and gender inequality.

The majority of people with disabilities live in rural areas and are largely restricted from participation in the economic and social lives. Stigma and discrimination, but also poor mobility leads to a higher degree of isolation and exclusion.

Rural roads are not suitable for the needs of people with physical disabilities, floods and heavy rainfall making them even less accessible. Most individuals using wheel chairs cannot drive through the sandy ground. Due to large distances, poor quality of roads and lack of public transportation, rural people with disabilities depend on private cars, taxis where available or organised rides with local vehicle owners. Their access to even the most basic economic opportunities and social services is unreliable. Unreliable transport leads to underrepresentation in important regional and local structures and where their needs and concerns should be raised.

Inter-urban transport is too expensive and not affordable by most people with disabilities.

8.2 Objectives

Inclusive HIV and AIDS policies can reduce the vulnerability of the transport sector, provided they holistically target transport workers, the environments they operate in and the populations that inhabit them. An affordable and more adaptive public transport system could be a useful tool for encouraging employment of women. Under the AAA provisions, gender could be incorporated into the employment policy, including recruitment, promotion and filling vacancies. Positive discrimination should be encouraged to increase women's participation in the wider industry/workforce. Example: Roads Authority requires contractors to employ 20% women within the unskilled force of labour based projects - the average female ratio exceeds this target with about 35-40% of women. Such gendered quota systems could be made mandatory for all MWT parastatals.

An accessible, affordable, multi-modal public transport system that is predictable and reliable should be developed that meets the mobility needs of persons with disabilities at affordable costs thereby realising Vision 2030. Self-representation of people with disabilities on all transport matters affecting them should be promoted. Specific user groups such as women and people with disabilities should form part of a network advisory planning team.

8.3 Strategies

8.3.1 Health Promotion and Mitigating the Transport's Propensity for Spreading Diseases

The implementation of the existing HIV and AIDS/Wellness sector should be therefore promoted and scaled up within the sector. The strategy includes approaches to address staff risks and vulnerabilities at workplace level (internal mainstreaming) and to address the health risks of people living in vulnerably spaces (external mainstreaming). External mainstreaming includes HIV and AIDS impact mitigation measures in the planning and implementation of transport projects/activities. The Roads Authority, for example, uses its authoritative position as a manager of major roads contracts to require contractors to implement HIV and AIDS awareness-raising activities - which are stipulated in the contractual terms and conditions. This could be made mandatory for all MWT parastatals in the transport sector dealing with construction work.

8.3.2 Gender Aspects: Promoting of Gender Equality in the Sector

For more evidenced planning, research under the various transport programmes should analyse the interests, needs and concerns of specific user groups (women, disabled, elderly) systematically. Data should be systematically gender disaggregated.

MWT should monitor achievements in gender equality through the inclusion of gender indicators in performance management systems. These could e.g. measure progress in mainstreaming gender in transport planning and projects, percentage of women in decision-making, employment ratios and other measurable targets.

8.3.3 Disability Aspects: Assisting People with Disabilities

Buses procured for urban use should be modern, low floor with kneeling capability. Specifications should require that these are provided with ramps plus suitably coloured grab rails and internal fittings. Space within the bus can be designated for wheelchairs, but the curb heights at the bus stops may have to be amended to suit (access to/from stops is part of the NMT policy). Audio-visual 'next-stop' information can be specified in the buses.

9 Environmental Aspects

9.1 Introduction

The points of departure for the environmental policy are the following:

- The transport sector aims to protect the environment and to respond to the challenges of climate change
- The International Environmental Conventions (Aviation and Maritime Sub-sectors) will be followed; and
- Vehicular Emissions will be reduced leading to the creation of Liveable Cities

The three main areas in which environmental aspects will need further integration lie mainly in the Road and Road Transport, Maritime and Air Transport sub-sectors. Proposals for reform in each of these sub-sectors are made in turn below.

9.1.1 Climate Change Impacts on Transport Sector

Africa is one of the most vulnerable continents to climate change. Climate change is one of the biggest challenges and threats that humanity has faced. Namibia ratified the UNFCCC in 1995 and is legally obliged to adopt and implement policies and measures designed to mitigate the effects of climate change and to adapt to such changes. Namibia acceded to the Kyoto Protocol in 2003. Namibia is very susceptible to the impacts of climate change, including sea level rise, increased frequency and intensity of extreme weather events such as floods and droughts. Southern Africa and Namibia will be hit harder by climate change than most regions of the globe, becoming hotter and drier.

Global climate has changed and will continue to change over the next century, both globally and locally, due to increased concentrations of greenhouse gases in the atmosphere. These increases are mainly due to human activity, most notably the use of fossil fuels.

Africa's contribution to greenhouse gas emissions is insignificant, being 50-100 times less than Europe's and 100-200 times less than America's. As many other countries in southern Africa, except South Africa, Namibia's contribution to greenhouse gas emissions is currently insignificant. Nevertheless, Namibia is taking its responsibility seriously and will play its role in the efforts to mitigate climate change through measures in the transport sector.

Climate change mitigation policies also bring a great potential to realise co-benefits towards sustainable development goals such as poverty reduction, reduction of air pollution, lower the rate of traffic accidents or the reduction of congestions levels in urban areas.

Namibia will also act as an example and provide leadership and guidance for the region of southern Africa in this regard. Namibia can showcase how to prevent a lock-in effect of high-emission technologies by investing in low-emission technologies and systems, which are still viable in 30 years from now.

Namibia's Proposed Climate Change Strategy and Action Plan was drafted in 2009 and provides a background to climate change impacts predicted globally, regionally and nationally. It highlights how vulnerable

Namibia is in this regard and argues the need for climate change adaptation and mitigation. Guiding principles are proposed in the strategy to guide the planning, development, implementation and monitoring and evaluation of climate change response activities.

Increase in Incidence of Flooding: In Zambezi as well as in other regions, natural shocks such as floods for those living in low-lying wetlands, droughts and climate change, livestock diseases and pests are factors that make people vulnerable. In 2009, close to 700,000 people were either directly or indirectly affected by floods in the north and northeastern parts of Namibia, which cost an estimated N\$1.7 billion (1% of GDP) worth of damages and losses, both public and private.

Mean Sea Level Changes (rise): The coastline is very important for tourism and recreation activities, which contribute significantly to the Namibian economy. Four major towns are situated along the coast, namely Lüderitz, Oranjemund, Walvis Bay, Swakopmund and Henties Bay. Walvis Bay is located between one and three metres above sea level, in a semi-sheltered bay surrounded by an erodible coastline. The coastal aquifers, which supply water to the town, are susceptible to salt intrusion, which would be further exacerbated by sea level rise. A sea level rise of 0.3 metres, now regarded as virtually certain, will flood significant areas, and a one-metre rise would inundate most of the town during high tide.

9.1.2 International Environmental Conventions (Aviation and Maritime Sub-sectors)

Namibia acceded to the Convention on International Civil Aviation with effect from 30 May 1991. The primary aviation legislation in Namibia is the Aviation Act (No. 74 of 1962), which has been amended several times.

The Act provides for the Minister to make regulations, amongst others for the prevention of nuisances arising out of air navigation or aircraft factories, aerodromes or other aircraft establishments, including the prevention of nuisance due to noise or vibration originating from the operation of machinery in aircraft on or above aerodromes, whether by the installation in aircraft or on aerodromes

The marine pollution conventions to which Namibia is a party - covering both preventive and remedial measures - include:

- a) International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties (INTERVENTION), 1969
- b) International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto and by the Protocol of 1997 (MARPOL)
- c) International Convention on Oil Pollution Preparedness, Response and Co-operation (OPRC), 1990
- d) International Convention on Civil Liability for Oil Pollution Damage (CLC), 1969
- e) 1992 Protocol to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (FUND 1992)
- f) Convention on Limitation of Liability for Maritime Claims (LLMC), 1976

However, Namibia's is not yet a party at the following important international conventions:

- a) Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (LC), 1972 (and the 1996 London Protocol)
- b) Protocol on Preparedness, Response and Co-operation to pollution Incidents by Hazardous and Noxious Substances, 2000 (OPRC-HNS Protocol)
- c) International Convention on the Control of Harmful Anti-fouling Systems on Ships (AFS), 2001

- d) International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004
- e) The Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships, 2009
- f) International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS), 1996 (and its 2010 Protocol)
- g) International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001
- h) Nairobi International Convention on the Removal of Wrecks, 2007

9.1.3 Reducing Vehicular Emissions/Creation of Liveable Cities

The transport sector is a significant emitter of CO₂, because of the great distances travelled in order to distribute goods and services within the country. While the Kyoto Protocol covers a broad range of emission sources, it does not include important GHG sources like air and maritime transport, the volume of which has grown dramatically over the recent years.

Mitigation of Deterioration in Air Quality in main urban areas:

- Car ownership in Namibia is growing fast, particularly so in urban centres.
- There is usually a close correlation between car ownership growth and average per capita income.
- The capital of Namibia (Windhoek) has by far the highest population of any settlement in Namibia (in excess of 250,000 persons). All other settlements are of considerably less population and therefore deteriorations in air quality due to increased vehicle emissions are likely to be considerably less in impact, with the possible exception of some cities along the coast, such as Walvis Bay and Swakopmund that may have microclimates in which fog and mist could be exacerbated by increased vehicular emissions.

9.2 Objectives

Climate change mitigation is addressed through two themes namely sustainable energy provision and low-carbon development and transport.

Mitigate adverse climate change: GHG reduction measures must be considered in the transportation planning process, e.g. in through low-carbon transport and higher fuel efficiency in public transport as well as other public fleets.

Adapt to adverse climate change: measures shall be taken to design transport infrastructure in such a way that would cater for more intense rainfall and/or which might help to support communities through long periods of drought.

The IMO and ICAO Conventions are the appropriate Policy Tools for mitigating environmental damage and should be implemented.

Environmental protection should be improved by promoting: (i) fiscal and other incentives aimed either at the use of low emission vehicles: and/or (ii) greater use of public and non-motorised transport/rail modes.

9.3 Strategies

9.3.1 Mitigation of increase in Incidence of Flooding

The evidence for increased risk of flooding appears to be rather localised in certain areas, prominently in Northern and North-Eastern Namibia. The principle impact is likely to be on roads and bridges. During extreme rain and flood seasons, rural access roads and culverts especially in the Cuvelai basin of central-northern Namibia get overtopped and villages and social facilities become inaccessible.

Infrastructure should be designed to withstand climate change:

- Drainage designs for the flood prone areas should include sensitivity analysis regarding design flood return periods (e.g. increase from 1:10 years to 1:25 years);
- However, with all increased design specifications, economic evaluations should be carried out to justify the measures;
- Improve access roads to social services to remain accessible during floods (as a starting point, KfW currently funds the construction of about 80 selected accesses to schools and clinics in the flood prone areas, to ensure accessibility during the rainy season);
- Join hands with the Ministry of Agriculture, Water and Forestry (MAWF) in the installation of hydrographs in the central northern areas in order to improve the database regarding flood levels and durations within the Cuvelai Delta, ultimately improving the drainage designs for roads, bridges and culverts.

9.3.2 Mitigation of rise Mean Sea Level Changes (rise)

The evidence for increased risk of coastal inundation due to changes in mean sea levels appears limited to the municipality of Walvis Bay. Walvis Bay has been cited as particularly vulnerable and should safeguard its continued economic activity (and the plans for new terminals and the Logistics Hub) by properly planning for future effects. Land-use transport planning in Walvis Bay area should take account of future likely increases in mean sea level there.

9.3.3 International Environmental Conventions (Aviation and Maritime Sub-sectors)

The ICAO regulations should be implemented:

- Key element - Environmental Protection;
- Role of the International Civil Aviation Organisation, ICAO – applicable standards and recommended practices, SARPS;
- Aircraft Engine Emissions – policy making;
- Climate Change – alternative fuels;
- Operational Measures – developments and future; and
- Approach to aircraft noise - management.

The IMO Convention remains the primary tool for mitigating environmental damage at sea. IMO environmental protection standards should therefore be implemented and key coastal state conventions should be

acceded to. The most important marine environmental protection standards as stipulated in the IMO conventions are already transposed into national law through the draft marine pollution bill.

9.3.4 Reducing Vehicular Emissions /Creation of Liveable Cities

The following policies should be implemented:

- Encourage greater use of NMT and public transport in urban centres;
- Encourage the use of low emission vehicles (seen as a medium to long term) and encourage the use of more fuel-efficient/ less polluting urban public transport vehicles;
- Institute minimum design/ emission standards for road vehicles, particularly for public transport vehicles (buses and taxis) and public fleets; and
- Consider monitoring Air Quality (introduction of Air Quality Indices) in Windhoek.

10 Policy Implementation Arrangements

The recommendations of the 2018 Namibian Transport Policy in respect of implementation mechanism, coordination and implementation arrangement are provided below.

10.1 Policy Framework

After approval of this 2018 Namibian Transport Policy, the resulting sector policies will provide a framework for the future actions of the Ministry of Works and Transport.

Those elements of the new policy, which require only administrative action, will be implemented immediately. Those elements of the new policy, which require major changes from existing practice, may not be implementable immediately. In such cases, in discussion with the stakeholders affected, the implementation will be phased over a transitional period in a planned manner according to the Implementation Plan. This will, inter alia, give time for the development of a stable institutional capacity to manage the implementation.

In the case of policy elements requiring new or amended legislation appropriate bills and regulations to implement the policy decisions will be prepared for submission to Parliament in sessions over a three-year implementation period.

The 2018 Namibian Transport Policy also provides a framework within which other transport institutions - government, statutory and private - should tailor their individual policies and strategies.

10.2 Policy Implementation Action Plan

To ensure successful implementation of the 2018 Namibian Transport Policy, which will ensure the Namibian transport sector revitalisation and renaissance, the interventions have to be prioritised by sub-sector. The priorities have been identified to ensure the achievement of the overall goals and objectives of the transport policy.

The 2018 Namibian Transport Policy implementation action plan is provided in Annex 1.

10.3 Policy Delivery Structure

It is proposed that an institution capable of delivering the major policy reforms to which the nation is committed should be established. A 2018 Namibian Transport Policy Implementation Unit (NTPIU) will be tasked to implement and monitor the stated transport sector reforms to initiate, follow-up, give feedback and report hindrances for the implementation to Government and the stakeholders. The core function of the unit will be to develop an implementation plan (for each activity the start/end and responsibility) agreed upon with OPM, PSC and the key stakeholders.

The unit, which will sit under the Policy Directorate of the MWT, should have a budget to contract Companies as well as national/ international short-term experts in specific areas of expertise.

10.4 Resource Mobilisation

All key actors and agencies involved in the 2018 Namibian Transport Policy Implementation will need to budget / or mobilise resources in order to fulfil their role in the Transport Policy's implementation action plan.

10.4.1 NTPIU Core Team Staffing

For the implementation of the non rail-subsector areas of the Transport Policy, the NTPIU will be managed by a long-term transport economist expert, having significant Namibian Transport Policy experience under the direction and guidance of the Director of Transport Policy and Regulation, within the Division of Transport Policy.

The following short-term experts are of great importance and their engagement should be prioritised:

- Senior (cross modal) Legal expert, who will act as Deputy NTPIU Team Leader, with significant experience of the legal sector in Namibia;
- Senior Intermodal Transport and Logistical expert with experience of the Namibian situation;
- Senior Maritime expert with significant and relevant experience of legal and regulatory change in the Ports sub-sector *world-wide*;
- Senior Aviation expert with significant experience of the Namibian air transport sub-sector; and
- Senior Public Transport and NMT expert.

10.4.2 Contracting

A number of implementation activities could be contracted, under the direction and management of the NTPIU.

It is recommended that the institutional study and implementation, which in a first phase should focus on the MWT, be contracted to a Company. It is recommended that the rail sector reform and implementation be contracted to a Company.

10.5 Monitoring and Evaluation framework and Reporting

The NTPIU will establish a monitoring and evaluation system that is capable of identifying policy performance targets and monitoring indicators and modalities based on the NTP implementation dashboard.

A series of key performance indicators/measures have been suggested during development of the revised 2018 Namibian Transport Policy. The indicators for each mode address in the dashboard in broad terms:

- Sub-sector economic growth;
- Sub-sector efficiency;
- Safety;
- Agreed cross-cutting social issues; and
- Customer and public satisfaction.

As a result of the full 2018 Namibian Transport Policy modal analyses, some sixty-five (65) primary policy implementation measures are listed, comprising in some cases several sub-items. Policy implementation will impose serious demands on data, information and reporting systems to determine the extent to which the established targets and objectives are being met.

Each group of policy implementation measures will usually address one or two of the agreed sector development objectives, ranging from economic growth, sub-sector efficiency, safety or public satisfaction, etc. The dashboard illustrates important triggers as well as key assumptions made.

Some baseline studies may be required to be undertaken to establish the situation currently beyond the information provided in the annexes. During implementation, the NTPIU will monitor achievements. This process will provide the answer to how far Namibia has moved towards the targets and if there is no adequate movement towards the target: why this is happening.

10.6 Advocacy and Dissemination (Communication Strategy)

An important aspect of the 2018 Namibian Transport Policy will be to design a dissemination strategy in order to create awareness among various stakeholders and general public at large during implementation.

The policy will be launched and widely publicised through various platforms. This is shown as an activity in the implementation action plan.

10.7 HRD and Capacity Building

Broad recommendations are made for a revised framework for the organisational structure for the Ministry of Works and Transport (MWT); amendments to the organisation of the National Transport Commission and wider institutional/regulatory options for management of the main State Owned Enterprises (SOE) operating in the transport sector.

10.7.1 Restructuring of the MWT

In order that the MWT is prepared to implement both its present commitments and any additional commitments in the 2018 Namibian Transport Policy, an early decision will be made in regard to the basic structure of the MWT. After Cabinet accepts the 2018 Namibian Transport Policy, there will be a detailed review of the capacity of each nascent Department within the restructured MWT to implement the new Transport Policy.

The MWT will commission change management consultants to finalise the revised structure for the Ministry. Priority will be given to a programme that will allow for the early achievement of this structure. It is expected that change management consultants would be appointed to guide the Ministry through the change process. The restructuring process shall be rapid so as to allow the Ministry immediately to assume its role as the implementer of the 2018 Namibian Transport Policy.

10.8 Conclusion

The transport policies described in this document are those of the national Government. It reflects the views of the persons and entities that have participated in the policy formulation process. Like all good plans, continued consultation will be undertaken to make sure it remains relevant to the people's needs and continues to strengthen the community. It is expected that there will be a review of the new Transport Policy should the need arise.

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Key Transport Sector Policy Principles

Annex 1: Key Transport Sector Policy Principles

The policy principles derived during the research and consultation phase during 2014/2105 resulted in the establishment by Stakeholders of some 17 key policy areas, classified into nine categories. Some of the broad categories of policy principles are described below:

1. Competition and Compensation (Subsidy)

In developed countries and many developing countries, the fostering of competition has generated substantial improvements in the transport sector, both in increasing levels of investment and provision of a broader range of and improved transport services. It is Government's view that the optimum development of the sector can best be met by ensuring competition in the provision of infrastructure and operations. As a tool for promoting efficiency competition can include 'freedom of market entry in the sectors that operators wish to provide a service in and the promotion of alternative operating models which allow intra-modal competition.

Currently Government subsidises (or compensates) certain transport operations for specific purposes. Where Government finds it desirable to continue to make grants or pay subsidies to achieve elements of its transport goals, it will do so in a manner, which ensures transparency. To achieve the above objectives in a manner which is economically and environmentally sustainable, and minimises negative side effects. Public service obligations and access to remote areas: it will be important to establish criteria for such services and definitions for areas that might benefit from non-commercial services. The options for infrastructure provision and tendering/operating these routes (by whatever mode) will be important. Decisions on service provision may depend on the wider desire within Government to minimise the role of Government and/or to contract-out services to a more efficient private sector.

- For particularly remote areas, road or air transport might be viable options and there could be a need for clear decision-making criteria. If air transport is selected, then tenders specifying minimum service levels and awarded to operators who can provide the service at minimum subsidy have worked well in other countries.
- Civil aviation: it is probable that more competition and increased numbers of private sector operators would drive down fares (this on both international and domestic routes). Such moves would, however, have to be balanced against Public Service Obligations (PSO) to provide services to remote areas and to prevent private sector operators from cherry-picking profitable routes. Clearly if PSO are imposed on carriers this should be to the account of Government, though policies to minimise the size on any subsidies should be examined.

2. Environmental Effects and Safety

The provision of transportation infrastructure and the operation of the transportation system have the potential for causing damage to the physical and social environment, inter alia through atmospheric or noise pollution, ecologic damage, and severance. Government is cognisant of these dangers in regard to the detrimental effect on the environment. The Ministry of Transport is committed to an integrated environmental management approach in the provision of transport. Two important aspects of environmental policy include to:

- *Support wider programmes for improving environmental protection:* policies could, for example, promote: (i) environmentally friendly road construction methods; (ii) fiscal and other incentives aimed either at the use low or zero emission vehicles; and/or (iii) greater use of non-motorised transport/rail modes that minimise pollution; and
- *Mitigate adverse climate change:* policies could, for example, incorporate measures to improve fuel efficiency or explore alternative fuel systems for public transport vehicles in order to reduce carbon emissions.

The safety, security, and quality of service of some modes of transport are currently unacceptable. The government is committed to a concentrated and integrated effort to bring them into line with international best practice. Particular attention will be paid to road safety.

Transport policy can be an important tool for achieving wider Government objectives such as climate change adaptation/mitigation, cleaner cities and reduced fatalities.

3. Social Aspects including Poverty Alleviation/Welfare and other Cross-cutting Issues

Transport policy can be an important tool for achieving wider Government objectives such as increased employment, regional development, reduced poverty and generating economic opportunities for women and achieving gender equality. Three important aspects of social policy include to:

- *Reduce poverty:* the policy could positively discriminate in favour of improved infrastructure and services in areas with large numbers of poor/previously disadvantaged people;
- *Promote health and prevent spread of diseases:* policy might be to give additional weight to projects which provide better access to health facilities and/or to provide care/HIV testing programmes aimed at those working in the transport sector – transport workers and travellers are likely to be spreaders of infections; and
- *Promote gender equality:* policy might emphasise ancillary roadside toilet and other facilities desired by women and, perhaps promote positive discrimination to encourage women’s participation in the wider industry/workforce.

4. Strategic Coordinated and Integrated Multimodal Planning

The goal is to improve Namibia'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. A key goal is to build Namibia's competitiveness in international trade by ensuring that the region's competitive advantages can be accessed and marketed. The transport element of the cost of agricultural products, raw materials, and manufactured goods can be a significant and deterring proportion of the final cost of both exports and imports. This will require a decrease in transport costs for a given level of service, or increase in quality of service for a given level of cost, or where possible, both an increase in service and a decrease in cost.

Assurance of modal, spatial, institutional and planning integration is critical to transportation policy. Depending on the decision to be made, the appropriate government departments, private sector, and consumers will be integrated in the decision-making process through appropriate fora.

It is clear that urban development should take into consideration different forms of transport and that there should be better coordination between land use and transport development planning. There is at present a strong road transport (car) oriented focus, which would benefit from compliance with international environmental requirements.

Intermodal co-ordination, co-operation and sharing of information will be encouraged in both infrastructure provision and operations to optimise customer service, reduce duplication, reduce destructive competition, minimise total costs, and maximise social and economic return on investment.

While there are preferred roles for the various transport modes, often in a hierarchical framework, and there are benefits to be gained by the use of the most appropriate mode, or of multiple modes with effective interchanges between them, it is not the intention of government to dictate such mode choices. In promoting intermodalism the Government intends to level playing fields and eliminate constraints or disincentives resulting in inefficiencies, including the use of inappropriate modes. A key driver of reducing costs of transport is capacity utilisation.

As such, a goal of infrastructure and modal planning will be to optimise capacity utilisation and to achieve a level of integration between modes.

As the present rail network carries mostly mined material, it might be inappropriate (and certainly costly) to plan for substantial passenger use – though within the Windhoek agglomeration there has already been identified the need for an urban rail corridor. The railway and road modes are in need of large infrastructure funds. The underlying studies that guide investment in the transport sector are the National Transport Masterplan study of 2014 and the National Logistics Masterplan Study of 2015.

5. Financing, PPP and Cost Recovery

Given the long-term nature of investments in transport infrastructure and systems, Namibia must build a strong financial base for the creation, maintenance and upgrading of transport infrastructure. There will be targeted investment to build infrastructure in the right places and of the right kind, which serves the needs of the society and the economy. There is generally a conflict between providing higher levels of service and minimising infrastructure costs for both the high-level infrastructure needed for the efficient functioning of the economy, and the infrastructure required of social development. It will not be possible to satisfy all demands, and tough choices will have to be made.

Investments will be made after analysis of the return on such investment (ROI). Long-term investment decisions will be based on sound and explicit criteria aimed at optimising the use of scarce resources. These resources are not only financial, but also human and material resources.

Investment decisions will be taken against a set of criteria which include lifetime cost, economic, social, and other returns on the investment to the country; returns to the transport system itself; and returns to the customer of the investment decision as well as resilience to climate changes impacts.

- Financial vs economic returns and criteria that should be adopted for feasibility studies:
- Financial criteria: the thresholds for Financial Returns and, if appropriate, the criteria likely to lead to successful Public-Private-Partnerships will be critiqued – in this regard: the legal framework that such financing might now and in the future operate under will be assessed; the appetite for risk and the returns on equity that private-sector investors might expect will be assessed; and any measures that might mitigate the above discussed; and
- Economic criteria: the thresholds Economic Rates of Return appropriate for investments and the appropriate approaches to accommodate risk will be critiqued.

In the roads sub-sector important considerations might include (i) the intervention criteria for rehabilitation/upgrading as traffic increases; (ii) situations in which a PPP might be beneficial (iii) output and/or performance-based maintenance options;

In the ports and shipping sub-sectors: under-provision is likely to be more costly to the economy than overprovision. For efficiency it may also be sensible to make maximum use of private sector capital and PPP – for ports, financial viability is rarely a problem – it will also be important to have strategies for regional ports, for example, Lüderitz and the complementary/competitive roles that they might play within the economy

In the civil aviation sub-sector: large airports might also be provided by PPP though in this case, there would be a need to decide how to fund commercially non-viable smaller air-strips- either by cross-subsidisation or Government subvention from the national budget.

Some further aspects of commercialisation policy, for example, are that it may be possible and sensible to further commercialise/ privatise: road vehicle and drivers licensing; road vehicle emissions and safety testing; airport and rail road-vehicle parking.

6. International Transport and Traffic

These are the obligations and benefits that come from international and regional treaties (Particularly SADC and SACU) and UN, ICAO and IMO conventions (those that Namibia has already acceded to and which may, or may not, have been implemented and those that Namibia might be recommended to accede to).

7. Planning Data: Ensuring Access by MWT to SOE and other Ministry Data

Planning standards: any recommended changes would be a product of the above studies of operational, regulatory and licensing policies. SOEs and other Ministries to provide the MWT directorates responsible for policy and planning with regularly updated statistical data on traffic – the format for this data should be determined by the MWT and the SOEs/other Ministries working together.

8. MWT HRD and Capacity Development

A strong, focused, professional Ministry of Transport will play a leading role in co-ordinating transport policy, and developing and implementing strategies. This it will do in close co-operation with other government departments, other levels of government, and other stakeholders. There will be closer co-operation between transport and land use planning. Appropriate service delivery mechanisms for the provision of infrastructure and operations will as far as possible be carried out through the use of agencies outside of government.

Three key aspects are:

- Capacity building at the MWT,
- Improving MWT's M&E and SOE Oversight responsibilities; and
- Fostering a sustainable and integrated transport /land-use planning capability.

The human resource needs of the transport sector are multidisciplinary in nature. Neither the public nor private sectors possess the people, skills, or technological knowledge to fully implement this policy framework, manage the system envisaged, and so achieve the vision for transport. Government will assume some responsibility for capacity enhancement and improving the human resource pool in the transport sector.

9. Transport Sector Legal and Institutional Aspects

The point of departure for the formulation of proposals has been the following:

- Institution follows law: The Constitution is the primary law of the country and all other legislation is subject to the Constitution. The Constitution establishes the government institutions, which it in turn empowers to make policy and legislation, to establish additional institutions. Any public entity is a creation of Parliament and it cannot do what its legislation does not empower it to do.
- Separation of functions: When dealing with parastatals, one should distinguish between pure government functions and functions that can be outsourced or performed at arm's length. The functions that are usually associated with transport are policy making, regulatory functions and operational functions. These should ideally be kept separate.

Impact the economy as little as possible: In proposing new legislation or institutions, the basic point of departure should always be to impact the economy as little as possible. Overregulation can kill an economy even before it has taken off. There are of course various other principles that legislation has to comply with, such as constitutionality, legality, and fairness

Namibian Transport Policy Implementation Action Plan

Table 1-1: Summary of 2018 Namibian Transport Policy Implementation Programme: Components, Agencies and Timing

Main Component	Sub-section	Activity	Lead Agency	Implementation 2018	Implementation 2019		Implementation 2020		Possible Donor Assistance
1		Further Reforms in the Roads and Roads Safety sub-sectors	MWT						(GIZ/KfW)
	1	Road Network Classification and Masterplans	<i>RA/RFA</i>	xxxx	xxxx	xxxx	xxxx	xxxx	
	2	Pass Vehicle Mass Bill and determine changes to other sub-sector legislation		xxxx	xxxx	xxxx	xxxx		
	3	RUCs examination, focus on trunk road maintenance		xxxx	xxxx	xxxx	xxxx	xxxx	
	4	Plan for SADC – COMESA - EAC tripartite agreements and implementation arrangements			xxxx	xxxx	xxxx	xxxx	
	5	Finalise and pass Road Safety Agency Bill		xxxx	xxxx				
	6	Establish Road Safety Agency			xxxx	xxxx			
	7	Develop and implement Information System supporting RSMA				xxxx	xxxx		
	8	Draft Bill to decriminalise road traffic offences and implement support system			xxxx	xxxx	xxxx	xxxx	
2		Further Reforms in the Rail sub-sector	MWT						
	1	Finalisation of Business Plan: Restructuring of TransNamib		xxxx					
	2	Production of draft legislation			xxxx	xxxx			
	3	Passage of legislation					xxxx		
	4	Implementation of revised system by MWT	<i>Trans Namib</i>					xxxx	
3		Further Reforms in the Aviation sub-sector	MWT						
	1	Implementation of revised system (CAA) by MWT	<i>NTC</i>	xxxx	xxxx				
	2	Implementation of Airline Reforms	<i>Air Namibia, Air lines</i>		xxxx	xxxx	xxxx	xxxx	
	3	Implementation of Airport Reforms and airport classification	<i>NAC</i>	xxxx	xxxx	xxxx	xxxx		
4		Reforms in the Sustainable Mobility sub-sector	MWT						Possible GIZ
	1	Drafting of a formal public and urban transport policy oriented towards sustainability, including institutional arrangements	<i>MURD</i>	xxxx	xxxx	xxxx	xxxx		

	2	Implementation of PSO'S				XXXX	XXXX	XXXX	
	3	Increased focus on integrated land-use transport planning, in high usage corridors	<i>MURD, Municip.</i>			XXXX	XXXX	XXX	
5		Reforms in the Maritime sub-sector	MWT						
	1	Finalise Maritime legislation			XXXX	XXXX			
	2	Implementation of revised system by MWT	<i>Namport</i>				XXXX	XXXX	
	3	Refine policy and institutional structures for Inland Waterways						XXXX	
6		Logistics Hub Development	MWT						
	1	Set Up Logistics Hub institutional arrangements	<i>NPC, MTI</i>	XXXX					
	2	Further examination of bottlenecks and constraints in the rail, road and port sub-sectors (principal corridors and intermodal connections)	<i>Namport, Trans-Namib, RA</i>		XXXX	XXXX	XXXX		
	3	Infrastructure and regulatory support					XXXX	XXXX	
7		Integrated Institutional Strengthening and Policy Implementation	MWT						
		Programme coordination and M&E		XXXX	XXXX	XXXX	XXXX	XXXX	
		Set up and operate NTP Implementation Unit (NTPIU)		XXXX	XXXX	XXXX	XXXX	XXXX	Possible
	1	Implement Capacity Building in the MWT	<i>PSC</i>	XXXX	XXXX	XXXX	XXXX	XXXX	
	2	Assistance to Rail sub-sector			XXXX	XXXX	XXXX	XXXX	
	3	Assistance to Road and Road Transport sub-sectors (including Road Safety)	<i>RA, RFA, OPM</i>		XXXX	XXXX	XXXX	XXXX	Possible
	4	Assistance to Sustainable Mobility sub-sector (including NMT)	<i>MURD, Municip.</i>		XXXX	XXXX	XXXX	XXXX	Possible
	5	Assistance to Aviation sub-sector	<i>CAA</i>		XXXX	XXXX			
	6	Assistance to Maritime and Intermodal Transport (Logistics) sub-sectors	<i>MTI, NPC</i>		XXXX	XXXX	XXXX	XXXX	
	7	Improvement of training policy & practice (HRD)	<i>MWT, SOE's, PSC</i>				XXXX	XXXX	Possible
	8	Launch and Implement Transport Policy Communication Strategy			XXXX	XXXX	XXXX	XXXX	
		Three Year Implementation Programme		XXXX	XXXX	XXXX	XXXX	XXXX	

Key:

Lead Agency:	Overall responsibility for programme component indicated in bold type – joint responsibility for sub-component indicated in <i>italics</i>
MWT:	Ministry of Works and Transport
NPC:	National Planning Commission
MTI:	Ministry of Trade and Industry
RA:	Roads Authority
RFA:	Road Fund Administration
NAMPORT:	National Ports entity
NCAA:	Civil Aviation Authority
TransNamib:	National Rail Operator
NTPIU:	Namibian Transport Policy Implementation Unit (housed in the Directorate of Transport Policy and Regulations MWT)
OPM:	Office of the Prime Minister
PSC:	Public Services Commission