CHAPTER 1

OVERVIEW
1.1 Introduction

This chapter outlines the basis of the NATMAP 2050, the current realities faced in the transport sector, the vision for transport, its supporting objectives, our national strategic priorities and what success might look like by 2050. The NATMAP 2050 does not seek to replace and/or compete with any long-term government planning; rather it seeks to align and support the government and its stakeholders to bring about the vision for transport.

The primary goal of the NATMAP 2050 is the development of an integrated, dynamic, sustainable framework for transport infrastructure implementation and service provision in South Africa.

The NATMAP 2050, therefore, aims to deliver a dynamic, long-term, and sustainable transportation systems framework. It reflects the shifting ideology in transport in support of the government’s current radical economic transformation process, which aims to develop the country, not in the typical demand responsive way (e.g. providing transport infrastructure in response to sufficient demand), but rather by using a developmental and transformative approach. This means that transport projects have to be used as a catalyst to unlock development and support transformation in our country even though there is not always sufficient demand (in support of the classic planning principle supporting infrastructure provision or expansion). The ideology is aimed at developing a more socially responsible country. It also implies perhaps less emphasis on business case development in public transport and providing such services in some instances as social services, with less emphasis on pure financial and business drivers. It also means developing the nation’s capacity and empowering our people to be part of the developmental approach and spatial and infrastructure development.

Transportation and related cost-effective infrastructure facilities are prerequisites for the socio-economic development of our country. Transport is the heartbeat of our economy, stimulating socio-economic development and poverty alleviation through wealth creation and providing access to regional and global economies.

Adequate and effective infrastructure, including transport assets, is one of several key conditions for national economic growth. Investments in assets such as railways, roads, airports, ports and communication lines, and an integrated approach to development will reduce transport costs and contribute to facilitating trade and creating wealth.

The NATMAP 2050 has been developed based on the following principles:

- **It is comprehensive** – it reaches across all aspects of all modes of transport and addresses the related elements of:
  - Demographics and socio-economics
  - Economics
  - Land use
  - Transport infrastructure
  - Passenger transport
  - Freight transport
  - Energy and environment
  - Funding and financing
  - Institutional aspects
  - Legislation.

- **It is multimodal** as well as **inter-modal** – it focuses on multiple modes of transport and addresses the need for the simultaneous interchange of a combination of transport modes, such as the transportation of goods by rail and road to a cargo vessel at a port.

- **It is integrated** – it identifies the need to combine various systems and networks such as passenger transport and freight transport.

- Transport infrastructure investments **facilitate economic development through**:
  - Improving reliability
  - Providing intermodal connectivity
  - Expanding access to markets
  - Reducing the costs of doing business (travel time, operating costs, and accident costs)
  - Empowering our people
  - Supporting a developmental approach.

- It is **long-term** – it reaches beyond a 20-year horizon and, in the words of Moving South Africa, ‘breaks out of the mould of considering only immediate, short-term solutions’, to ensure growth and improve standards of life.

- It promotes **sustainability and capacity expansion** – strategies for long-term planning and infrastructure investment that address:
  - **Assets and investments** that focus on the scope of the transport system. Assets and investments must be concentrated on consolidating high volume routes and nodes on national and various urban and rural strategic networks. The strategic networks forming the backbone of the transport system, will be underpinned by supporting national, provincial, metropolitan and rural access networks, serving all land uses of national significance
  - **Economies of scale** for deploying transport modes in the strategic and supporting networks and their component routes, thereby capitalising on the ability of modes to meet customer needs
  - **Efficiency, productivity and competitiveness** that facilitate an environment that enables service providers to empower customers through improved transport infrastructure and operations.
### 1.2 Background

The need for a comprehensive, multimodal, integrated national transport plan was identified at the Transport Lekgota held from 8 to 9 April 2005 and chaired by the Minister of Transport. The Department of Transport (DoT) commenced work on the Plan in January 2007 by expanding on the road travelled since the White Paper on National Transport Policy in 1996, and Moving South Africa, 1997.

A bottom-up approach was adopted in developing the Plan, having conducted extensive consultation at provincial and metropolitan level, with each province providing the basis for the final NATMAP 2050 consolidated reports concluded in 2010/11. Additional stakeholder consultation processes followed, resulting in the preparation of the Synopsis. At the same time in May 2010, President Jacob Zuma appointed the National Planning Commission (NPC) to produce the National Development Plan 2030 (NDP 2030), which was concluded in 2012.

In September 2013, the NATMAP 2050 Cabinet Synopsis was presented to the Cabinet Committee for the Economic Sectors, Employment and Infrastructure Development (the Cabinet Committee).

Cabinet noted concerns raised by members and approved that the Presidential Infrastructure Coordinating Commission (PICC), Management Committee and the Minister of Transport review the proposed NATMAP 2050.

In response, a review process was initiated to update data contained in the NATMAP 2050 and align the Plan to the NDP 2030, the government’s Medium Term Expenditure Framework (MTEF), and its Medium Term Strategic Framework (MTSF 2014–2019), as well as other government strategic Plans, strategies and initiatives that have emerged since 2007.

### 1.3 What is a Transport Master Plan?

A transport master plan is an evolving, long-term planning document that establishes the framework and key elements of a country’s transport sector, reflecting a clear vision based on its development principles. A transport master plan synthesises the government’s goals and the public’s aspirations for transport, gives it form and organisation, and defines a realistic plan for implementation (through short-, medium-, and long-term interventions).

### 1.4 Why the NATMAP 2050?

The NATMAP 2050 builds on the foundation of the government’s Medium Term Expenditure Framework (MTEF), and its Medium Term Strategic Framework (MTSF 2014–2019). The MTSF is structured around 14 priority outcomes that cover the focus areas identified in the NDP 2030 (refer to Figure 1-1). Of the 14 priority outcomes identified by the MTSF, the DoT is champion to 4 (refer to highlighted outcomes in Figure 1-1). The achievement of these shared objectives requires effective coordination within and cooperation between the various government spheres and relevant private sector and civil society partners.

The NDP 2030 defines the need for a new approach to eliminate poverty and reduce inequality in our country. The Plan signals a shift from social and economic exclusions towards a systematically inclusive approach. In addition, the New Growth Path (NGP) initiative and investments in key strategically located infrastructure projects, led by the government’s Presidential Infrastructure Coordinating Commission (PICC), set the tone for prioritised implementation of the NATMAP 2050.

To create the “virtuous cycle of expanding opportunities” desired by the NDP 2030 and the current and emerging planning policy, the principle of integrated forward planning must be pursued with renewed intent. The DoT’s contribution to sound planning and programming is, therefore, underlined by the NATMAP 2050 Vision, which will only be realised by meeting clear objectives and implementing a set of prioritised interventions and projects.

The NATMAP 2050 is, indeed, a bold, comprehensive, multimodal, integrated and long-term plan that seeks to improve the efficiency and effectiveness of multimodal transportation systems and to ensure an overall system that is well regulated and well managed. The Department of Transport relies on and works with its strategic partners, including provincial, metropolitan and local government, the agencies, operators and other stakeholders to ensure the necessary support and driving force to bring about the plan’s vision.

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“Our ambition of achieving a Gross Domestic Product growth target of 5% by 2019 is at risk, because of the slow global growth as well as domestic constraints in energy, skills, transport and logistics amongst others.”

President Jacob Zuma
2015 State of the Nation Address
MTSF Outcome 1: Quality basic education

MTSF Outcome 2: A long and healthy life for all South Africans

MTSF Outcome 3: All people in South Africa are and feel safe

MTSF Outcome 4: Decent employment through inclusive growth

MTSF Outcome 5: A skilled and capable workforce to support an inclusive growth path

MTSF Outcome 6: An efficient, competitive and responsive economic infrastructure network

MTSF Outcome 7: Vibrant, equitable, sustainable rural communities contributing towards food security for all

MTSF Outcome 8: Sustainable human settlements and improved quality of household life

MTSF Outcome 9: Responsive, accountable and efficient local government

MTSF Outcome 10: Protect and enhance our environmental assets and natural resources

MTSF Outcome 11: Create a better South Africa and contribute to a better Africa and a better world

MTSF Outcome 12: An efficient, effective and development-orientated public service

MTSF Outcome 13: A comprehensive, responsive and sustainable social protection system

MTSF Outcome 14: A diverse, socially cohesive society and national identity

FIGURE 1-1: MTSF 2014–2019: FOURTEEN (14) PRIORITY OUTCOMES. HIGHLIGHTED: THE DOT TO CHAMPION
1.5 The NATMAP 2050 Vision and Objectives

The NATMAP 2050 vision reinforces that transport is the heartbeat of the economy and the fabric of our socio-economic development.

1.5.1 The NATMAP 2050 Vision

Having aligned the vision to the context presented by the DoT Strategic Plan, the NDP 2030, and other planning policies and current national imperatives, the NATMAP 2050 aims to achieve:

An integrated, smart and efficient transport system supporting a thriving economy that promotes sustainable economic growth, supports a healthier lifestyle, provides safe and accessible mobility options, socially includes all communities and preserves the environment.

In working towards this vision, transport will support and enable government strategies, particularly those for growth development, wealth redistribution, employment creation, and social integration in South Africa and in the Southern African Region.

1.5.2 The NATMAP 2050 Objectives

In supporting the vision for the NATMAP 2050, objectives have been defined. These objectives have been developed on the basis of considering the DoT Strategic Plan, the NDP 2030, other planning policies and current national imperatives. The aim of these objectives is to set an exciting new focus for transport and help demonstrate clearly the case for supporting and investing in transport.

It is important not to confuse objectives with activities or actions. An objective is a broad, general statement of what a plan, programme or strategy intends to accomplish, whilst an activity is an action that is performed to obtain some objective.

The following NATMAP 2050 objectives are aimed at facilitating the vision:

- A much-improved sustainable public transport system that is appropriately funded, with a reduction in the subsidy burden, with better and safer access, more frequent and better quality services and facilities to an agreed standard
- Greater mobility options, particularly for those who do not have cars
- Non-motorised transport network development
- A transport system that promotes better integration between land use planning and transport planning to encourage densification and sustainable development in supporting high volumes of travel required for public transport
- Better infrastructure, better maintained road and rail networks, with proper management and operations practices that link and provide interchange opportunities for different modes of transport
- A transport system that is consistent with the real needs of people living in different parts of South Africa and with differing abilities to afford travel
- A transport system that charges the traveller a fair reflection of the costs of making a journey or transporting a product, financially, socially and environmentally
- A transport system that supports focused funding of transport priorities
- A transport system that has sufficient human capital to drive the vision of transport
- A transport system that enables and supports rural development.

These objectives need to be translated into actions. Broadly, the following list highlights activities required to take place, whilst the remainder of the report focuses on the specific interventions to be implemented. Important activities include:

- Grow the economy
  - Enabling economic growth and development by connecting current and new economic or growth nodes and by making better use of and maintaining transportation networks
  - Facilitating development through increasing GDP and wealth creation and promoting cost savings by reducing the cost of production and distribution of raw materials
  - Maximising economic return on investment through minimising transport cost and delays (time), eliminating bottlenecks on transport infrastructure and operations and meeting user demands
  - Supporting regional economic competitiveness

THE NATMAP 2050 VISION

An integrated, smart and efficient transport system supporting a thriving economy that promotes sustainable economic growth, supports a healthier lifestyle, provides safe and accessible mobility options, socially includes all communities and preserves the environment.
– Charging the traveller a fair reflection of the costs of making a journey
– Providing inexpensive transportation options that make it easier for households to go car-lite or car-free, resulting in more money that can be spent elsewhere in the economy.

- **Protect the environment**
  – Reducing greenhouse gases and other emissions
  – Minimising transport’s impact on the environment
  – Reducing traffic congestion
  – Minimising environmental impact through promoting public passenger transport, choosing optimal transport modes, using low-carbon-emitting energy sources and renewable energy resources.

- **Integrate land use and transport planning**
  – Supporting compact community development and land use intensification, helping to preserve natural habitat
  – Providing efficient land use and traffic policy enforcement
  – Managing transport information efficiently to enable data-driven planning by developing a central land use/transportation data bank using GIS.

- **Improve public transport**
  – Introducing a modern, integrated, high-quality, affordable and customer-focused public transport system that will improve people’s quality of life
  – Improving the safety, security, resilience, reliability and efficiency of the public transport network
  – Providing a combination of demand-responsive and developmental-approach-led public transport services using appropriate technology types.

- **Enhance and manage infrastructure**
  – Providing infrastructure that encourages modal integration with seamless transfer across provincial boundaries and across international boundaries to neighbouring states
  – Providing universally accessible transport suitable to all stakeholder groups, including but not limited to persons with disabilities across different regions and provinces
  – Promoting the use of new and more efficient technologies such as modern rolling stock, infrastructure and systems, intelligent transport solutions and energy efficient solutions.

- **Promote safety and well-being**
  – Working to eliminate traffic-related fatalities and addressing concerns of personal safety and security
  – Enabling people of all ages and abilities to get to where they need to go, comfortably and safely.

- **Ensure social inclusion and accessibility**
  – Providing access to vibrant public open spaces that encourage a culture of walking, cycling, social interaction and active lifestyles
  – Improving accessibility and connectivity to marginalised communities
  – Providing strategic connectivity between provinces where this is appropriate.

- **Promote freight integration**
  – Integrating freight transport operations where all modes work together in service provision from ‘pit-to-port’ (i.e. from mining and other resource bases to sea ports), with more equal share between modes in freight service delivery, instead of only one mode (roads) being the dominant mode.

- **Support rural development**
  – Giving priority to presidential nodes (13 cities)
  – Creating linkages between rural nodes or inaccessible areas and main economic centres.

### 1.6 Current Realities of Transport in South Africa

Before formulating a vision and objectives for transport and clearly defining priorities, it is important to understand the issues, challenges and current realities we face in transport. We must be honest and recognise these realities and shortcomings. Before we can move forward, we must first look back.

Outlined below is an overview of the main current realities and challenges the South African transport sector faces, with subsequent chapters providing more detail on them. This overview forms a basis to defining key strategic priorities and interventions:

- **Public transport** – Non-integrated transport planning across various modes has resulted in modes that are not sufficiently customer-focused and that are inefficient and have poor levels of reliability, predictability, comfort and safety. Such planning does not reflect the world-class aspiration of the NDP 2030. The fragmented nature of institutional governance over public transport is also not helpful.

- **Freight movement** – Freight movement by road has a significant impact on the national road network and results in high transport cost in the logistics value chain and damage to road infrastructure. This prevents South Africa from being competitive in a global market and attracting sufficient international investment in supporting economic growth.

- **Road safety** – South Africa has some of the worst road accident and fatality rates in the world.

- **Infrastructure and accessibility** – Rail and rural road infrastructure has been neglected and/or under-maintained for a couple of decades. This is, in part, due to the transport sector having to compete for funding from the fiscus with other government/public sector services and national priorities. Poor infrastructure also contributes to limited accessibility in rural areas.
**Economic challenges** – The physical remoteness and low population densities of both urban and rural areas have an impact on the ability of transport to support national economic and social development objectives. Transport is intrinsically linked to the economy – global and regional economic conditions have a bearing on our transport system and its ability to compete and support South Africa’s desired growth path.

**Liveable communities and urban migration** – The spatial divides created by the apartheid legacy prevent inclusive development, and are compounded by poor road accessibility in rural areas and a lack of employment opportunities, which results in urban migration.

**Modal integration** – Although integrated rapid public transport networks (IRPTNs) or other plans and policies that support the integration of modes have been introduced, transport hub development has been very slow.

**Institutional governance** – The many layers of governance (across national, provincial and municipal spheres) are not conducive to integrated planning and implementation.

**Regulation** – There is a general lack of implementation of existing regulations and policies, with regulatory funding not being spent where it is required. Regulation that currently exists in the freight sector is limited in dealing with the challenges being faced.

**Funding** – No transport system can function and be maintained without adequate funding. The transport sector is facing significant funding needs that cannot be met from the fiscus alone.

### 1.7 Stakeholder Consultation

Extensive bottom-up consultation formed the basis of the development of the NATMAP 2050. During the plan’s development, the following initial committees were established at national and provincial level to facilitate stakeholder participation:

- **Technical and Finance Committees**: Consists of officials and advisors of the DoT, the NATMAP 2050 development teams, coordinators, representatives from governmental departments, parastatal organisations, and transport associations. This committee met on a monthly basis and discussed and made recommendations on all technical and financial issues related to the NATMAP 2050.

- **Steering Committee**: Consists of senior transport sector representatives such as Heads of Department (HODs), Directors and Chief Executives of Government departments, parastatal and transport organisations. This Committee met bi-monthly to attend to matters including:
  - Approval of the work by the project teams
  - Review and dissemination of reports, documents and drawings
  - Presentation and discussion of reports, documents and drawings.

During the Synopsis Update, the following engagements took place:

- **DOT Steering Committee (SteerCom)**
- **National Transport Forum (NTF)** – made up of national, provincial and local government representatives
- **National Treasury** (focused on funding)
- **Academia** – based on their availability
- **Department Public Enterprises (DPE)**
- **Presidential Infrastructure Coordinating Commission (PICC)**

- **The NATMAP 2050 Synopsis Update Colloquium** – held on 30 October 2015.
- **The Director General’s Economic Sectors Employment and Infrastructure Development (ESEID) cluster.**
1.8 The NATMAP 2050 Development Methodology

To address challenges and issues and respond to current realities in transport, the NATMAP 2050 was developed in 4 phases:

- **Phase 1: Status Quo** – establishing an overview of current transportation systems and of how they are being utilised, and observing trends over the past decade. Phase 1 ultimately aims to establish “where we are coming from, and where are we now”

- **Phase 2: Analysis** – projecting the future demographic, socio-economic and land use characteristics of South Africa and, thereby, determining future travel demand scenarios. An analysis of current infrastructure supply and demand was completed to identify possible future constraints and priorities and where investment should be made. The primary question in this phase was “where are we going and how shall we get there?”

- **Phase 3: Forward Planning and Projections** – evaluating in detail the impact of future land use in relation to economic and demographic scenarios in the South African infrastructure network. By considering future demand requirements, planning criteria were developed and future projections were made, which, in turn, influenced priorities and the development of critical transport interventions. The key question in this phase was, therefore, “how are we going to get there?”, or what ought to be and was concluded with the development of interventions and projects.

- **Phase 4: Prioritisation Agenda** – providing a prioritisation agenda and implementation strategy for the NATMAP 2050.

As a response to the cabinet resolution of 2013, the following additional phase was developed with the intention of updating Phase 4:

- **Phase 5: Review and Alignment with MTSF Action Agenda** – The planning team representing all spheres of government and government agencies (represented by the National Transport Forum) reviews projects identified by the NATMAP 2050 process over the entire planning horizon. Short-term projects were identified by applying a relevant scoring and prioritisation model to be implemented within the next MTSF cycle.
1.9 The NATMAP 2050 Strategic Priorities

In reinforcing the vision and supporting objectives of transport, the following key national strategic priorities for transport have been identified. The priorities have been categorised as short-term (for immediate action) and medium- to long-term priorities (up to 2050). Medium- to long-term priorities are not immediate critical priorities but are necessary to provide direction and meaning to the direction of travel in transport in South Africa over the next few decades, given our current realities. The priorities are:

1.9.1 Short-term priorities

- Funding policies, strategies and reallocation
- Transport/road safety
- Urban transport and land use and transport integration
- Eradicating inefficient planning to enable better decision-making and positive outcomes
- Institutional reform to enhance intergovernmental relations and coordination and to strengthen institutional and organisational planning structures and processes
- Refocusing public transport (including scholar transport) initiatives to be demand- and developmentally responsive, customer-focused and within the context of integrated land use and transport
- Providing opportunities for empowerment in public transport provision
- Country-wide land transport infrastructure improvements (road and rail)
- Rural transport – improving rural mobility and accessibility to economic opportunities
- Examining the operational hours of heavy goods vehicles on public roads in support of road safety objectives.
- Tourism and transport integration.

- Science, technology and innovation in transport.
- Supporting the green economy strategy.
- Economy.

1.9.2 Medium- to long-term priorities

- Urban densification
- Preparing regulations on universally accessible transport
- National travel demand management strategy and a traffic congestion management plan
- Ensuring that national freight transport operations across all modes work together to supply services to meet pit-to-port demands
- Supporting the green economy strategy
- Developing a national transit-orientated development strategy and guidelines for cities
- Investing in a mobility strategy and its implementation in rural areas, providing access to transport opportunities.

Disclaimer: Interventions or projects identified in this Synopsis Update do not imply finance and funding commitment by the Department of Transport in seeking implementation. Rather the interventions or projects identified in support of delivering the vision, objectives and priorities of the NATMAP 2050, requires further investigation, as appropriate, to ensure technical, feasible and financial viability along with defining finance and funding requirements.

“The infrastructure programme continues to expand transport networks and to improve roads, which augur well for economic growth.”

President Jacob Zuma
2015 State of the Nation Address