

CHAPTER 2

AN ALIGNED & INTEGRATED PLANNING FRAMEWORK



2.1 Introduction

Recent developments in transport at national, provincial and local level, as well as the new strategic objective of the current administration, are significant. The greatest challenge faced in the NATMAP 2050 is to support significant growth in ways that respect and improve South Africa's diverse heritage while delivering the current administration and the NDP 2030 vision towards sustainability and an equitable society. This will involve the sensitive intensification of development in locations that are, or will be, well served by appropriate transport infrastructure and services through the transport Strategic Integrated Projects (SIPs), along with spatial expansion provided for within the Spatial Planning and Land Use Management Act (16 of 2013) (SPLUMA) and the NDP 2030. Indeed, spatial strategies cannot be considered in isolation from their links to existing and proposed transport accessibility and capacity. Building on this interrelationship is a key part of the NATMAP 2050 philosophy.

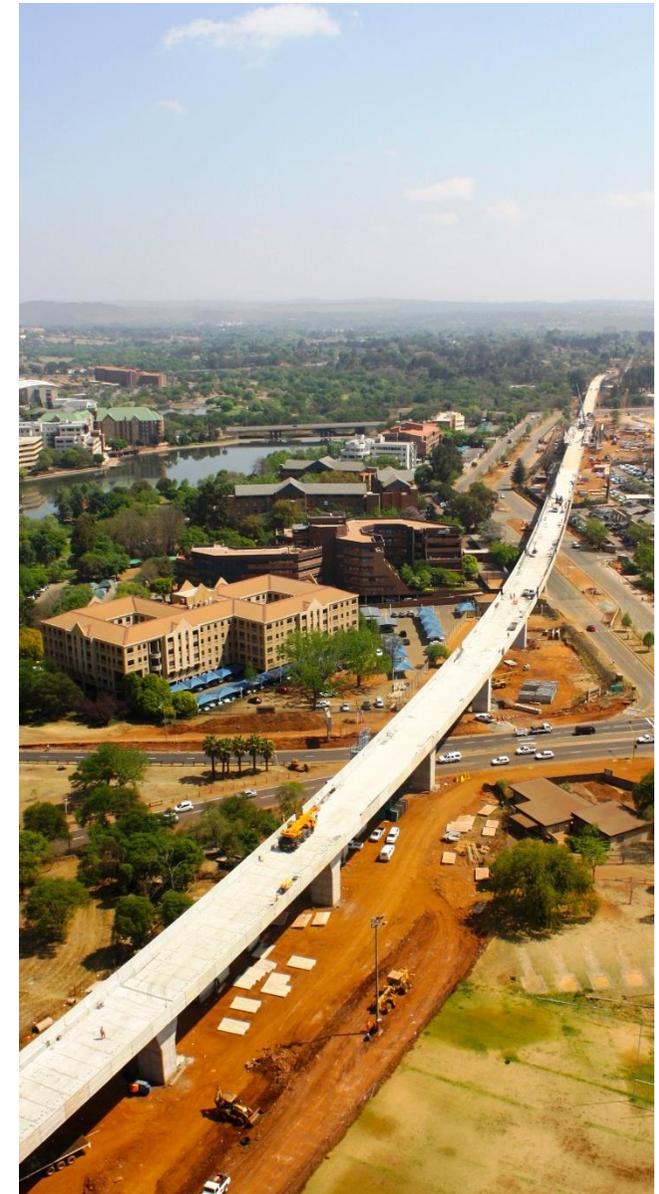
Where growth and development is experienced it also influences the travel choices people have. If we are to promote economic growth and transformation, it is essential that we do transport and land use planning in an integrated and coordinated way and consider the implications for travel as a result of development and regeneration proposals at an early stage. A good transport system is a vital factor in building strong and sustainable local communities and a successful economy.

The NATMAP 2050 specifies the outcomes and strategic priorities that link it to the NDP 2030, the DoT Strategy, SIPs, other provincial transport and spatial planning, wider strategies and plans at local level. Its objectives will be delivered by linking key proposals with broader national policy areas, the MTSF 2014–2019 and the NDP 2030 and provincial plans. **It is important to recognise that all informing reference material used to update the Synopsis was up until 2015, therefore the reflection of developments**

within the transportation fraternity might have changed between year-end of 2015 and October 2016.

The NATMAP 2050 is a crucial tool that helps us to plan for the longer term provision of adequate transport services and infrastructure, work with stakeholders, strengthen our place-shaping role and guide the delivery of services to our communities. In taking and implementing an integrated view, this plan enables us to:

- Help deliver the NATMAP 2050 Vision by identifying short- (to 2020) , medium- (to 2030) and long-term (to 2050) interventions
- Achieve the development and transformative approach of the current administration
- Support the delivery of the priorities for transport in South Africa
- Identify priorities for transport investment (both capital and revenue), placing transport improvements in their wider context
- Support funding bids to a variety of sources.



2.2 Alignment with the NDP 2030 and Existing Supporting Policy

Published in 2012 by the National Planning Commission, the NDP 2030 details the need for a new approach to eliminate poverty and reduce inequality in our country. The NDP 2030 signals a shift from social and economic exclusion towards a systematically inclusive approach. The NDP 2030 aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and reduction of inequality. The NDP 2030 makes a firm commitment to achieving a minimum standard of living and, therefore, provides a framework for the adoption of a minimum standard of living by society.

Figure 2-1 represents the core elements identified by the NDP 2030 to achieve a decent standard of living.

Whilst both the NDP 2030 and NATMAP 2050 are long-term plans, they have different planning horizons. However, both plans are evolving long-term plans that are subject to periodic review, which will ensure continued alignment between and the advancement of the associated goals and objectives that underpin each plan.

There is, however, a distinct difference between the two plans. The NDP 2030 is an all-inclusive and overarching government programme that incorporates a variety of transport programmes. The desired goal of the NDP 2030 is a country that is focused on the creation of jobs and the reduction of inequality, with the overall result being the elimination of poverty by 2030. In simplest terms – the NDP 2030 defines the “what” that needs to be addressed from a transport infrastructure and transformation perspective to eliminate poverty and reduce inequality.

As mentioned in Chapter 1, the NATMAP 2050 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 (i.e. by providing transport infrastructure in response to sufficient demand), but by using a developmental and

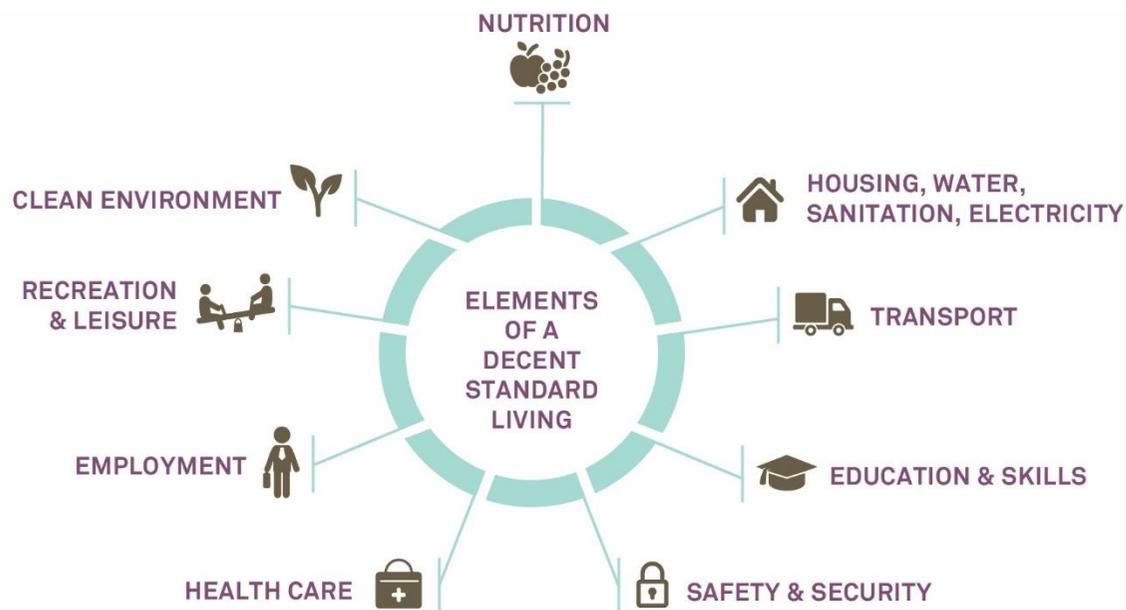


FIGURE 2-1: ELEMENTS OF A DECENT STANDARD OF LIVING (Source: NDP 2030)

transformative approach. This approach is secured by joining the “how” and “when” of the interventions defined in the NATMAP 2050 to the developmental and transformative approach in the NDP 2030 (the “what”). This also implies providing supply ahead of demand and sometimes providing development social infrastructure (e.g. public transport services in rural areas) based on needs. This is important, for, if we do not adopt this approach, we limit parts of the population in respect of access opportunities, jobs, services and participation in the economy. The aims of the approach are job creation, economic growth and the reduction of income inequality the NDP 2030 aspires to.

The desired result of the NATMAP 2050 is a country that undergoes spatial growth in appropriate areas, demographic expansion and economic transformation, and that improves

its transport system gradually towards 2050 to meet freight and passenger mobility and accessibility needs and to ensure that the people of the country participate in the implementation of the supporting infrastructure and services necessary to support the entire integrated system.

For the NATMAP 2050 to be fully aligned to the NDP 2030, the NATMAP 2050 recommends the “what” defined by the NDP 2030 for implementation and has aligned fully its vision and objectives with the NDP 2030. In essence: whilst the two plans are independent, they are inseparable programmes that need to be rolled out in parallel.

2.3 Common Areas of Interest Between the NATMAP 2050 and the NDP 2030

In further strengthening the inferences made above, it is important to identify common areas of interest between the NATMAP 2050 and the NDP 2030.

The NDP 2030 gives a clear mandate to the DoT to put in place effective measures to facilitate **“Transport Planning, led by central government to formulate credible evidence based long term plans for transport that synchronizes with spatial planning and aligns downward and upward the infrastructure investment activities of provincial and local government and clearly communicates the state’s transport vision to the private sector”**.

The development of the NATMAP 2050 is grounded in analyses and findings of socio-economic and demographic trends as they relate to transport (e.g. StatsSA, NHTS 2003 and 2013). Similarly, the NDP 2030 addresses this important area by highlighting that **“Movements into and within municipalities have significant implications for planning, budgeting and the provision of services”**.

The NDP 2030 supports the NATMAP 2050 by confirming that, although South Africa has relatively good economic infrastructure, the South African economy is constrained by inadequate investment and the ineffective operation and maintenance of existing infrastructure. The NDP 2030 visualises that transport investments will, **“bridge geographic distances affordably, foster reliability and safety so that all South Africans can access previously inaccessible economic opportunities, social spaces and services; support economic development by allowing the transport of goods from pit to port where they are consumed. This will also facilitate regional and international trade; and promote a low-carbon economy by offering transport alternatives that minimize environmental harm”**.

“Government will have the responsibility to oversee a transport system that takes into consideration the realities of transport in South Africa and strives to serve the interest of society. It will provide basic infrastructure where needed. Where the services would best meet transport needs”

National Development Plan 2030

The NATMAP 2050 proposes the deployment of transport modes on strategic and supporting networks to capture the best possible economies of scale to meet customer needs, and create an environment in which customers are empowered and transport service providers are enabled to improve efficiency, productivity and competitiveness.

The NDP 2030 provides the broad strategic framework to guide key decisions and actions to create jobs and reduce poverty, whereas the NATMAP 2050 is the transportation system plan that provides an enabling environment to achieve the aspirations of the NDP 2030.

The strategic drivers defined in the NDP 2030 are job creation, poverty alleviation, and reduced inequality. Therefore, the need to improve access to employment, education, leisure, and efficient movement of goods and services, to minimise the negative impact of transport on the environment, and to promote social inclusion is key to the developmental end state of South Africa that is supported by the NATMAP 2050 Vision.

The NATMAP 2050 ensures that appropriate institutional change is brought about to enable the devolution of functions that the NDP 2030 seeks.

The NATMAP 2050 will enable the DoT to plan for the future in a systematic manner that adequately addresses the issues and challenges faced by transport today. In securing alignment between the two plans, action will be taken to propel South Africa in the right direction.

Both the NATMAP 2050 and the NDP 2030 aim to achieve their respective visions through promoting and providing:

- **Comprehensive multidisciplinary strategies**
- **Multimodal solutions for passenger and freight transport**
- **An integrated approach to transport network and system planning.**

2.4 National Infrastructure Plan

The government adopted a National Infrastructure Plan in 2012 that is meant to transform our economic landscape while simultaneously creating significant numbers of new jobs and strengthening the delivery of basic services. The plan also supports the integration of African economies.

The Presidential Infrastructure Coordinating Commission (PICC) identified infrastructure gaps through their analysis of future population growth, projected economic growth and areas of the country that are not served with water, electricity, roads, sanitation and communication. Based on this work, 18 SIPs have been developed and approved to support economic development and address service delivery in the poorest provinces.

The SIPs cover social and economic infrastructure across all 9 provinces (with an emphasis on lagging and distressed regions). The SIPs cover catalytic projects to fast-track development and growth and support developmentally led transformation. Work is being aligned with key cross-cutting areas: human settlement planning and skills development.

The NATMAP 2050 supports the implementation of these 18 SIPs through its various transport interventions. Where additional gaps in the provision of infrastructure have been identified, Chapter 6 unpacks and proposes interventions to address gaps. The subsections below summarise the aims of the 18 SIPs.

2.4.1 Geographically focussed SIPs

SIP 1: UNLOCKING THE NORTHERN MINERAL BELT WITH WATERBERG AS CATALYST

- Unlocking of rich mineral resources of northern mineral belt
- Development of rail, water pipelines, energy generation and transmission infrastructure
- Unlocking of thousands of direct jobs in the area

- First major post-apartheid new urban development at Lephalale – developed as a green and sustainable urban centre
- Expansion of rail capacity between Mpumalanga and Richards Bay
- Modal shift of freight from road to rail in Mpumalanga
- Development of logistics corridor to connect Mpumalanga and Gauteng.

SIP 2: DURBAN–FREE STATE–GAUTENG LOGISTICS AND INDUSTRIAL CORRIDOR

- Strengthening of the logistics and transport corridor between SA's main industrial hubs, Gauteng and Durban
- Improvement of local and regional access to Durban's export and import facilities
- Integration of Free State industrial strategy activities into the corridor
- Development of new port in Durban
- Aerotropolis development around OR Tambo International Airport.

SIP 3: SOUTH-EASTERN NODE & CORRIDOR DEVELOPMENT

- New dam at Mzimvubu with irrigation systems
- N2–Wild Coast Highway to improve access to KwaZulu-Natal and national supply chains
- Strengthening of economic development in Port Elizabeth through an upgraded manganese rail capacity from the Northern Cape
- Increased mineral beneficiation through a manganese sinter (in the Northern Cape) and manganese smelter (in the Eastern Cape)

- Development of Mthombo refinery at Coega, and pipeline to Gauteng
- Positioning of Ngqura as transshipment hub to improve industrial capacity and performance of the automotive sector.

SIP 4: UNLOCKING THE ECONOMIC OPPORTUNITIES IN THE NORTH WEST

- Acceleration of investments in road, rail, bulk water, water treatment and transmission infrastructure
- Enabling of reliable supply and basic service delivery
- Facilitation of the development of mining and agricultural activities and tourism opportunities
- Opening up of beneficiation opportunities in the North West province
- Establishment of Special Economic Zones (SEZs) to stimulate economic development.

SIP 5: SALDANHA–NORTHERN CAPE DEVELOPMENT CORRIDOR

- Integrated rail and port expansion
- Expansion of back-of-port industrial capacity (including a SEZ)
- Strengthening of maritime support capacity for oil and gas along the west coast of Africa
- Expansion of iron ore mining production and beneficiation.

2.4.2 Energy SIPs

SIP 8: GREEN ENERGY IN SUPPORT OF THE SOUTH AFRICAN ECONOMY

- Support of sustainable green energy initiatives on a national scale through a diverse range of clean energy options as envisaged in the Integrated Resource Plan (IRP 2010)
- Support of bio-fuel production facilities.

SIP 9: ELECTRICITY GENERATION TO SUPPORT SOCIO-ECONOMIC DEVELOPMENT

- Acceleration of the construction of new electricity generation capacity in accordance with the IRP 2010 to meet the needs of the economy and address historical imbalances
- Monitoring of the implementation of major projects such as new power stations: Medupi, Kusile and Ingula.

SIP 10: ELECTRICITY TRANSMISSION AND DISTRIBUTION FOR ALL

- Expansion of the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development
- Alignment of the 10-year transmission plan, the services backlog, the national broadband roll-out and the freight rail line development to leverage off regulatory approvals, supply chain and project development capacity.

2.4.3 Spatial SIPs

SIP 6: INTEGRATED MUNICIPAL INFRASTRUCTURE PROJECT

- Development of national capacity to assist the 23 districts with the fewest resources (19 million people) to address all the maintenance backlogs and upgrades required in water, electricity and sanitation bulk infrastructure

- Implementation of road maintenance programme to enhance service delivery capacity and, thereby, to impact positively on the population.

SIP 7: INTEGRATED URBAN SPACE AND PUBLIC TRANSPORT PROGRAMME

- Coordination of planning and implementation of public transport, human settlement, economic and social infrastructure and location decisions into sustainable urban settlements connected by densified transport corridors.
- Focus on the 12 largest urban centres of the country, including all the metros in South Africa. Significant work is underway on urban transport integration.

SIP 11: AGRI-LOGISTICS AND RURAL INFRASTRUCTURE

Improvement of investment in agricultural and rural infrastructure that supports the expansion of production and employment, small-scale farming and rural development, including:

- facilities for storage (silos, fresh-produce facilities, packing houses)
- transport links to main networks (rural roads, branch railway-lines, ports)
- fencing of farms
- irrigation schemes to poor areas
- improved R&D on rural issues (including expansion of agricultural colleges)
- processing facilities (abattoirs, dairy infrastructure)
- aquaculture incubation schemes
- rural tourism infrastructure implementation of the Agri-Park initiative.

2.4.4 Social infrastructure SIPs

SIP 12: REVITALISATION OF PUBLIC HOSPITALS AND OTHER HEALTH FACILITIES

- Building and refurbishment of hospitals, other public health facilities and revamping of 122 nursing colleges. The SIP contains major constructs for six hospitals
- Extensive capital expenditure to prepare the public healthcare system to meet the requirements of the National Health Insurance (NHI) system.

SIP 13: NATIONAL SCHOOL BUILD PROGRAMME

- A national school build programme driven by uniformity in planning, procurement, contract management and the provision of basic services
- Replacement of inappropriate school structures and addressing of basic service backlog and provision of basic services under the Accelerated School Infrastructure Delivery Initiative (ASIDI)
- Addressing of national backlogs in classrooms, libraries, computer laboratories and administration buildings.

SIP 14: HIGHER EDUCATION INFRASTRUCTURE

- Infrastructure development for higher education, focusing on lecture rooms, student accommodation, libraries and laboratories, as well as ICT connectivity
- Development of university towns with a combination of facilities from residence, retail to recreation and transport
- Potential to ensure shared infrastructure such as libraries by universities, FETs and other educational institutions
- Two new universities will be built – one in the Northern Cape and one in Mpumalanga.

2.4.5 Knowledge SIPs

SIP 15: EXPANDING ACCESS TO COMMUNICATION TECHNOLOGY

Provision for broadband coverage to all households by 2020 by:

- establishing core points of presence (POPs) in district municipalities
- extending new Infracore fibre networks across provinces, linking districts
- establishing POPs and fibre connectivity at local level
- further penetrating the network into deep rural areas.

While the private sector will invest in ICT infrastructure for urban and corporate networks, the government will co-invest for township and rural access, as well as for e-government, school and health connectivity.

The school roll-out focus is initially on the 125 Dinaledi (science- and mathematics-focused) schools and 1 525 district schools.

Part of digital access to all South Africans includes television migration nationally from analogue to digital broadcasting.

SIP 16: SKA & MEERKAT

SKA is a global mega-science project, building an advanced radio-telescope facility linked to research infrastructure and high-speed ICT capacity and provides an opportunity for Africa and South Africa to contribute towards global advanced science projects.

2.4.6 Regional integration SIP

SIP 17: REGIONAL INTEGRATION FOR AFRICAN COOPERATION AND DEVELOPMENT

- Participation in mutually beneficial infrastructure projects to unlock long-term socio-economic benefits by partnering with fast-growing African economies with projected growth rates of between 3% and 10%
- The projects involving transport, water and energy also provide competitively priced, diversified, short- and medium- to long-term options for the South African economy. For example, electricity transmission in Mozambique (Cesul) could assist in providing cheap, clean power in the short-term, whilst Grand Inga in the Democratic Republic of Congo (DRC) is long-term.
- All these projects complement the COMESA-EAC-SADC Free Trade Area (FTA) discussions to create a market of 600 million people in South, Central and East Africa.

2.4.7 Water and sanitation SIP

SIP 18: WATER AND SANITATION INFRASTRUCTURE

- A 10-year plan to address the estimated backlog of adequate water to supply 1.4 m households and 2.1 m households to basic sanitation. The project will involve the provision of a sustainable supply of water to meet social needs and support economic growth.
- Projects will provide for new infrastructure and the rehabilitation and upgrading of existing infrastructure, as well as improve the management of water infrastructure.

2.5 Ocean Economy: Operation Phakisa Programme

Following a state visit to Malaysia in August 2013, the Operation Phakisa Programme initiative was born designed to answer fundamental implementation questions and find solutions as the country tries to address highlighted issues such as poverty, inequality and unemployment as stipulated in the NDP 2030. The Operation Phakisa Programme, therefore, aims to accelerate the execution of the NDP 2030.

The Operation Phakisa Programme is a results-driven initiative designed to fast-track the implementation of solutions on critical delivery issues highlighted by the NDP 2030. Through Operation Phakisa Programme, the government intends to implement priority programmes better, faster and more effectively.

The programme's approach involves setting clear plans and targets, monitoring progress on an on-going basis and making these results public-orientated. The methodology entails 8 sequential steps. The initiative will initially be implemented in 2 sectors, the maritime sector (ocean economy - through unlocking the economic potential of South Africa's ocean economy) and the health sector.

The DoT plays a leading role in the Marine Transport and Manufacturing Delivery Unit, Economy, where identified outputs include the resuscitation of the shipbuilding industry through the fishing fleet renewal programme. It also plays a supporting role in the mining sector; the NDP 2030 recognises the important role mining can play in generating employment and contributing to the economy.

As a result, the Presidency has recently agreed for the Operation Phakisa Programme to also be applied to the mining sector in light of the government's efforts to enable growth in this sector. Transport's role in supporting the increase in mining output will be to ensure that the transport infrastructure and network are improved to meet increased demand.

Thus, all freight transport capacity planning should be integrated and in line with the sector's growth planning. Planning for the mining collaboration sessions (LAB) is underway and these sessions will be rolled out towards the end of 2015.



2.6 Other Planning Policies Considered

In addition to considering the NDP 2030 and the National Infrastructure Plan (2012), the NATMAP 2050, in its development and in terms of this Synopsis Update, also investigated the following policies, frameworks, and plans in developing suitably inclusive interventions and projects:

- White Paper on National Transport Policy (1996)
- Moving South Africa (1998)
- DoT Strategic Plan (2014–2019)
- National Freight Logistics Strategy (2005)
- National Land Transport Act (2009)
- PRASA National Strategic Plan (2012)
- Transnet Long Term Planning Framework (2012)
- Non-Motorised Transport (NMT) Policy (2012)
- Spatial Planning and Land Use Management Act (2013)
- Transport Action Plan (2010)
- Public Transport Strategy (2007)
- Public Transport Action Plan (2007–2010)
- Green Paper on National Rail Policy
- Public Transport Strategy and Action Plan (PTSAP)
- Implementation Strategy to Guide the Provision of Accessible Public Transport in South Africa (2009)
- National Spatial Development Perspective (2006)
- A Guide to the National Planning Framework (2009)
- Rural Transport Strategy of South Africa (RTSSA) (2007)
- Draft National Learner Transport Policy (2015)
- Road Infrastructure Strategic Framework for South Africa (2006)

2.7 How Can South Africa Measure Success?

- Green Paper: National Strategic Planning (2009)
- Gauteng Integrated Transport Master Plan 2025 (2013)
- National Airports Development Plan (currently in development)
- NATMAP 2050 Synopsis Draft Update – DoT ‘in-house’ Review Report (2014)
- New Growth Path (2009)
- Integrated Urban Development Framework 2014 (Draft)
- Provincial Land Transport Framework’s (PLTSF)
- National Land Transport Strategic Framework (NLTSF) 2006–2011.
- African Unions Africa Agenda 2063 articulates aspirations and action items for a United Africa, of which the following are aligned or are already expressed in the NDP 2030:
 - **Aspiration 1:** A Prosperous Africa Based on Inclusive Growth and Sustainable Development

The development of a Blue Economy as a major contributor to continental transformation and growth is in line with South Africa’s ocean economy initiative under Operation Phakisa.

Aspiration 2: An Integrated Continent, Politically United Based on the Ideals of Pan Africanism and the Vision of Africa’s Renaissance Development of high-speed railway networks, roads, shipping lines, sea and air transport, as well as well-developed ICT and digital economy.

Improved land use and transport integration, along with socio-economic progress and transformation, action/interventions and projects, will drive South Africa closer to the NATMAP 2050 vision.

However, how do we know whether we have been successful or not?

We believe the interventions outlined in this plan give us a way to ensure progress within a reasonable timescale. Extensive testing and the measurement of strategic outcomes using computerised transport models are not proposed.

We propose a more practical approach. The method must include proper monitoring and review so that, as we go along, we can see whether we are achieving our objectives and adjust our requirements as necessary. To do this, we need to select suitable indicators of performance. We have identified values that can measure this effectively and economically and that indicate key issues. Chapters 3 to 12 contain facts and trends, set out challenges and present some of the available evidence that we took into account in choosing the indicators. Chapter 13 outlines how we will measure the success and progress of the NATMAP 2050 using appropriate indicators.