

# NATIONAL TRANSPORT MASTER PLAN (NATMAP) 2050

**K MORAPEDI and M MAKHARI\***

Department of Transport, P O Box X 193, Pretoria, 0001

Tel: 012 309 3907; Email: Morapek@dot.gov.za.

\*Department of Transport, P O Box X 193, Pretoria, 0001

Tel: 012 309 3320; Email: MakhariM@dot.gov.za

## ABSTRACT

The government identified the need to develop a transport master plan for South Africa that is comprehensive, multi modal, integrated, and dynamic, and provides a sustainable framework not only for implementing transport but also for providing infrastructure and service. Most importantly, a Plan seeks to develop continuously and improve the efficiency and effectiveness of a multimodal transport system – a transport system that is well regulated and well managed within a multisectoral sphere of effective coordination within and cooperation between various government spheres, relevant private sectors, civil society partners and stakeholders up to 2050. The Plan was approved by Cabinet on the 19 October 2016.

## 1. BACKGROUND

The National Transport Master Plan 2050 (NATMAP 2050) was commissioned in 2005, developed from 2007 and finalised in 2010/11. The NATMAP 2050 Cabinet Synopsis was submitted to Cabinet in 2013 after a lengthy consultation process. Cabinet approved that the NATMAP 2050 Cabinet Synopsis be updated in consultation with the Presidential Infrastructure Coordinating Commission (PICC) to address key concerns that have been highlighted and ensure its alignment and integration with relevant strategies and policies, data and planning developments that have occurred since 2007. The Plan was approved by Cabinet on the 19 October 2016.

## 2. NATMAP 2050 VISION

The NATMAP 2050 Vision reinforces that transport is the heartbeat of the economy and the fabric of our country's socio-economic development as well as its alignment with key policy, legislation and planning frameworks recently developed. The NATMAP 2050, therefore, aims to achieve:

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

In line with this vision, the NATMAP 2050 has adopted a thematic approach centred on key strategic themes. Therefore, the NATMAP 2050 seeks to achieve a national transport system for South Africa that (Strategic Themes):

- a) Is well planned, integrated and aligned across sectors;
- b) Is responsive to growing passenger and freight customer needs;
- c) Supports an inclusive spatial vision;
- d) Is well maintained and preserved and further developed to address/overcome developmental challenges;
- e) Supports economic competitiveness through seamless multimodal trade corridors;
- f) Offers safe, affordable and accessible modal options for passengers;
- g) Preserves the environment;
- h) Is managed by strong institutions;
- i) Is supported through effective policy and regulation;
- j) Is innovative/adaptive and reflects emerging priorities;
- k) Is sustainably funded; and
- l) Is effectively implemented through accountable delivery mechanisms.

### **3. NATMAP 2050 OBJECTIVES**

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

- a) 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
- b) Greater mobility options, particularly for those who do not have cars
- c) Non-motorised transport network development
- d) 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
- e) 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
- f) 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
- g) 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
- h) A transport system that supports focused funding of transport priorities
- i) A transport system that has sufficient human capital to drive the vision of transport
- j) A transport system that enables and supports rural development.

#### 4. CURRENT REALITIES OF TRANSPORT IN SOUTH AFRICA

Outlined below is an overview of the main current realities and challenges the South African transport sector faces. This overview forms a basis to defining key strategic priorities and interventions:

- a) **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.
- b) **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.
- c) **Road safety** – South Africa has one of the world's poorest road safety records – ±31.9 fatalities/100 000 people while comparable developing countries have a much lower fatality rate
- d) **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.
- e) **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.
- f) **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.
- g) **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.

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

In reinforcing the vision and supporting objectives of transport, the following key National Strategic Priorities for transport have been identified by the NATMAP 2050:

## 5. SHORT-TERM PRIORITIES

Funding policies, strategies and reallocation; Transport/road safety; Urban transport and land use integration; The eradication of inefficient planning to enable better decision-making; Institutional reform to enhance intergovernmental relations and coordination; Refocus public transport initiatives to be demand and developmentally responsive; Provide opportunities for empowerment in public transport provision; Country-wide land transport infrastructure improvements; Improving rural mobility and accessibility to economic opportunities; Examine 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; and Supporting the green economy strategy.

## 6. MEDIUM- TO LONG-TERM PRIORITIES

Urban densification; Preparation of regulations on universally accessible transport; National Travel Demand Management Strategy and a Traffic Congestion Management Plan; National freight transport operations across all modes must work together to supply services to meet pit-to-port demands; Supporting the green economy strategy; Develop a national transit-orientated development strategy and guidelines for cities; and Investment in a mobility strategy and its implementation in rural areas, providing access to transport opportunities.

## 7. STAKEHOLDER ENGAGEMENT PROCESS

During the initial development of the Plan, the bottom up stakeholder engagement approach (Municipalities to Provinces and then National) was adopted and followed. Each and every Province had their own round table discussions which included municipalities

whereby the Provincial issues were tabled and consolidated. That process produced Provincial chapters in 2010. The consolidated report that was produced in September 2011, was a product of Provincial chapters and it was then presented to the National Transport Indaba whereby all the stakeholders endorsed the contents of that report and recommended that it be submitted to Cabinet.

After the recommendations of Cabinet to update the Synopsis of the Plan in September 2013, the stakeholder's engagement programme was customised targeting particular critical entities. The motive was driven by the fact that it was not a total review of the Plan. Critical entities included the National Treasury, Presidential Infrastructure Coordinating Commission (PICC), and Academia among others. In addition to that, the established National Transport Forum was utilised with the understanding that majority if not all of key stakeholders within the fraternity are represented at that structure. These processes played a pivotal role on the determination of the vision and priorities of NATMAP 2050.

Key elements emphasised by stakeholders throughout the process includes the challenge of capacity by the lower spheres of government to undertake transport functions, insufficient funding to kickstart projects among others. Some institutions such as PRASA and Transnet were more interested on the future of the current rail (gauge) system.

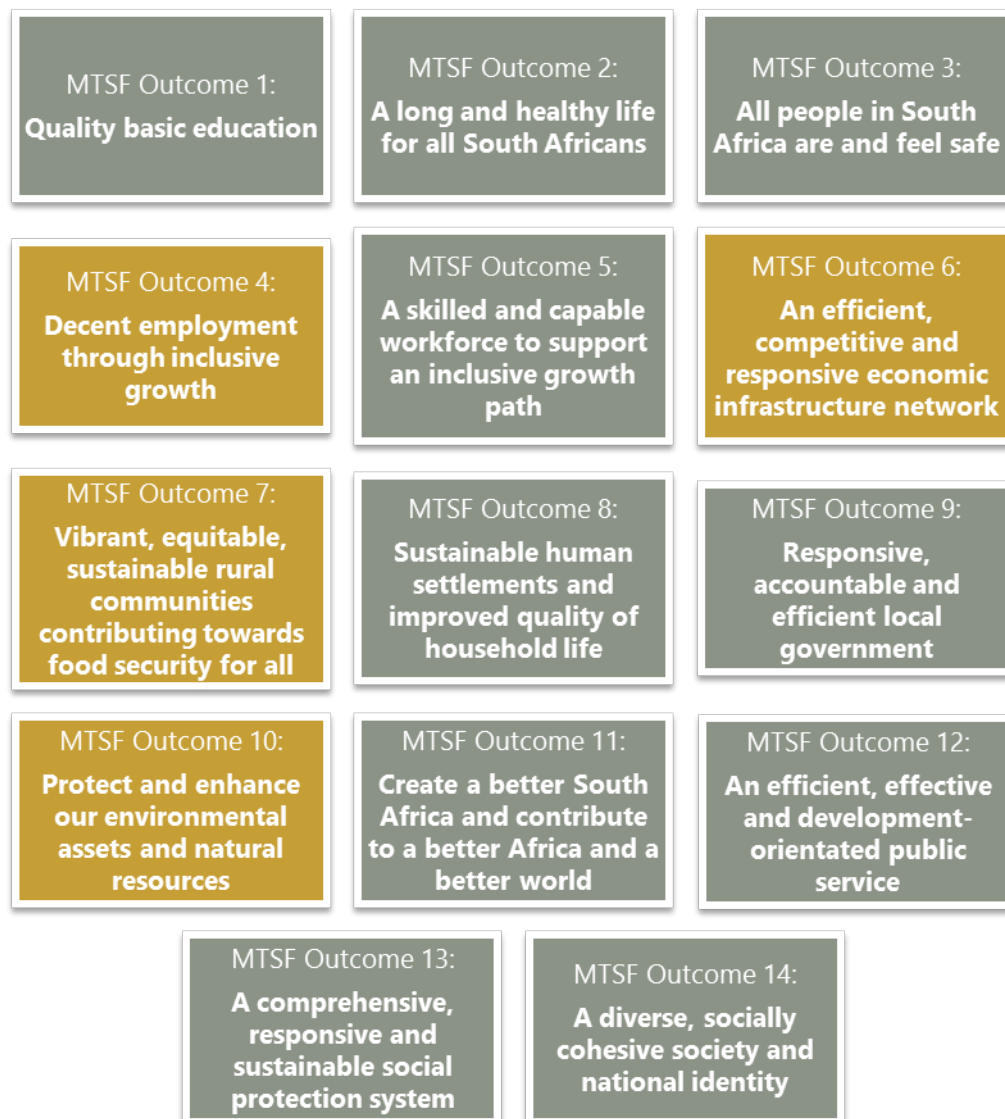
Due to the fact that transport is a complex discipline, it took the Department a period of four years (2007-2011) to finalise the first version of NATMAP 2050. After its completion, there was a delay within the Department to present it to the Cabinet and eventually that took place in 2013. During that time, it was not aligned to the National Development Plan (NDP) 2030 and other key government strategic plans and policies such as National Infrastructure Plan (NIP). In addition to that, data was already outdated (from 2007 to 2013) and also the Plan had number of costed projects countrywide. Therefore, the scope of updating the synopsis was to address the above mentions elements. The plan ended up being an intervention based Plan aligned to key transport focus areas such as passenger transport, freight, transport versus environment, rural transport and safety rather that project based plan.

## **8. NATMAP 2050 versus Government Strategic Plans and Priorities?**

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**). Of the 14 priority outcomes identified by the MTSF, the DoT is champion to 4 (refer to highlighted outcomes in **Figure 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.



**Figure 1: Mtsf 2014–2019: Fourteen (14) Priority Outcomes. Highlighted: The Dot To Champion**

## 9. FOCUS ON DELIVERY AND IMPLEMENTATION OF THE NATMAP 2050

Implementing the interventions and projects defined in the NATMAP 2050 is very important and, therefore, needs specific attention. It is the primary role of the DoT to ensure the delivery of the NATMAP 2050 with support from its partners when appropriate. The NATMAP 2050 is not a plan that has defined funded projects for delivery. It is the translation of the vision, objectives and priorities in transport into interventions to bring about a sustainable transport system by assessing a wide range of

projects with a variety of vertical and horizontal stakeholder implications. Essentially, everyone who has a part to play needs to make complementary and coordinated decisions when formulating and delivering their transport interventions and projects. The implication, therefore, is that those who deliver transport infrastructure and services to do so within the context of this plan.

At an operational level, **Figure 2** provides an example how to use the NATMAP 2050 in delivering interventions and projects. It is important to note that the steps highlighted in blue are the steps taken within the NATMAP 2050 process, whilst the remaining steps are ones that follow the NATMAP 2050's development. The figure also reflects alignment with the front-end loading process (FEL – 1 to 4).

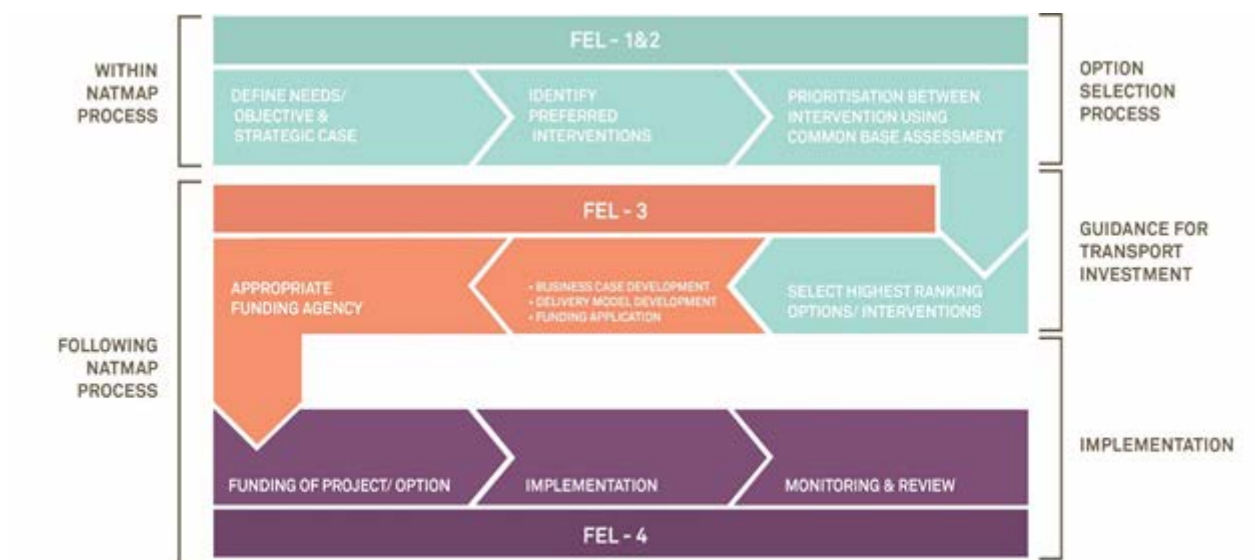


FIGURE 2: FRAMEWORK FOR USING NATMAP 2050

It is important to note that the framework for using the NATMAP 2050 outlined above serves as a guide to decision-making. There are no hard and fast rules when it comes to prioritisation. It is, however, important to adopt the logic presented by the framework to ensure that the starting point is always the identification of the problem and not a project or intervention. Otherwise, it will not be possible to ensure that the case for change is objective-led and there is a risk that projects are taken forward for the sake of these projects rather than for that of meeting objectives.

## 10. INTEGRATION AND ALIGNMENT DEFINED

There are many different interpretations and meanings attached to the alignment and an integrated approach in transportation, land use and built environment planning and delivery. A general description of the approach is a process by means of which people from different backgrounds, from different parts of government, and at all levels, are engaged to find the alternative development solution or alternative with the highest collective socio-economic impact at optimum cost. Integration, therefore, has to occur on

all levels – vertical integration, and across all disciplines – horizontal integration, when projects are planned and delivered (illustrated in **Figure 3**).

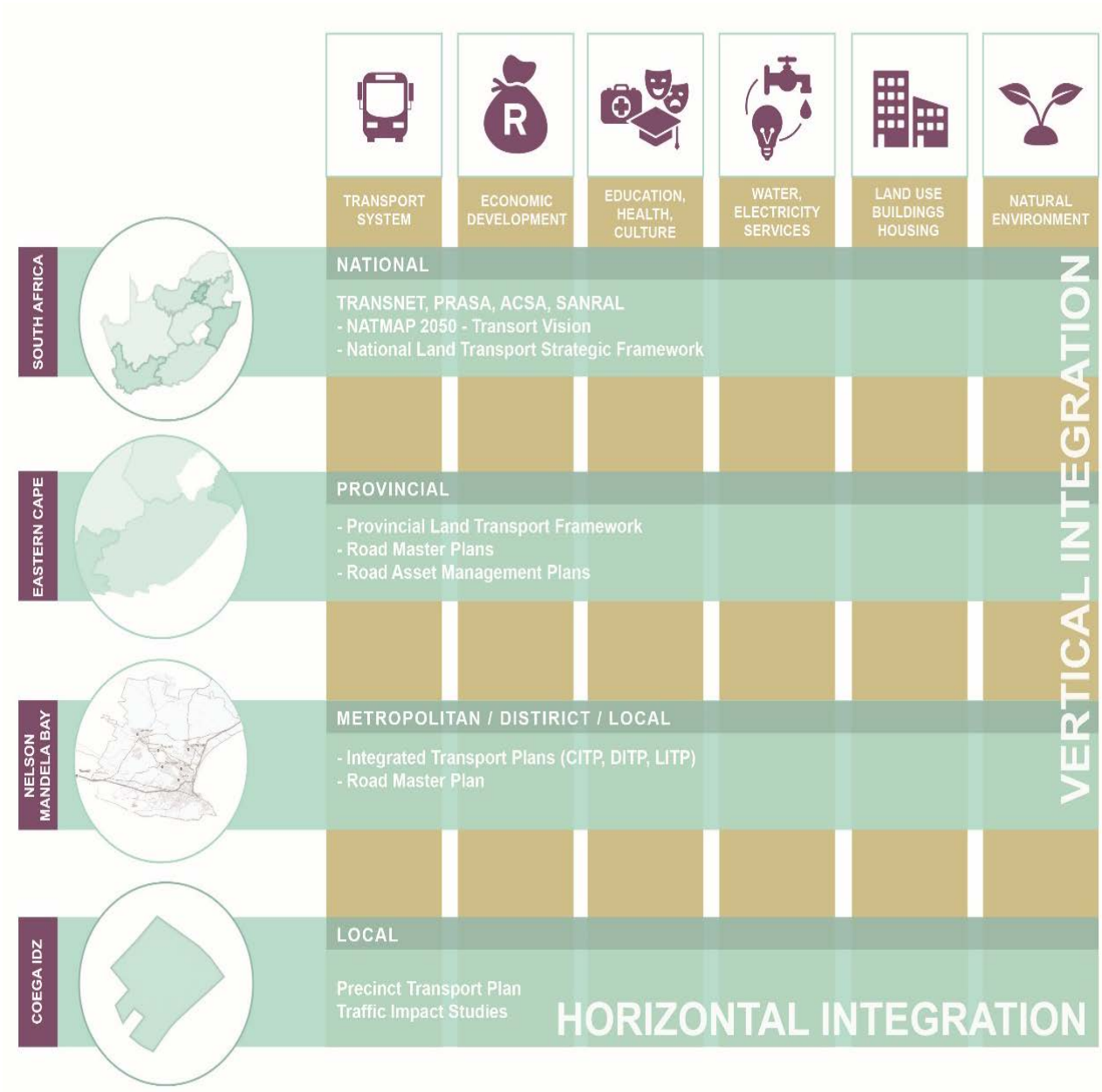
- Vertical integration:
  - Vertical integration is about bringing policies, vision and intent from different levels of government together to provide a vision and to ensure that projects align and are integrated from national to local levels.
  - To this end, the vision provided in the NATMAP 2050 for transport in South Africa guides the development of solutions and technology, which, in turn, are implemented by provinces and local authorities.
  - However, a bottom-up approach is also required to adapt the vision and strategy based on changes in the local context. During the development of the NATMAP 2050, both the bottom-up and top-down approaches were followed to develop the vision and strategies. These need to be revised periodically to ensure that the vision aligns with changes on the ground.
- Horizontal integration:
  - Horizontal integration is about organising and coordinating disciplines required to deliver a specific project or projects in a specific area and normally refers to all the actors or service delivery agents operating at that level, even if some of them may be the delivery function of at national, provincial or district level.

## **11. NATIONAL INTEGRATION**

The government adopted a national infrastructure plan in 2012 that intends to transform our economic landscape while simultaneously creating significant numbers of new jobs, and to strengthen the delivery of basic services. The plan also supports the integration of African economies.

The NATMAP 2050 supports the implementation of the 18 strategic integrated projects (SIPs) in the NIP and NDP 2030 through its various transport interventions





**Figure 3: Vertical And Horizontal Integration Concept**

**12. CONCLUSION**

In order of ensuring that implementation takes place, the Department together with implementing agents (Provinces, Municipalities and State Owned Entities) has developed the implementation programme and prioritised ten priority pilot projects that will be undertaken and monitored until 2019. The intention is to demonstrate at least ten projects undertaken by 2019 which is the end of the current MTSF as a result of the Plan. The Department will work together with implementing agents to ensure that the desired outcomes of the Plan are achieved. The NATMAP 2050 is subject to periodic review after each and every five years without necessarily reviewing the broader vision and objectives.

### **13. BIBLIOGRAPHY**

**NB:** This is a customized version of National Transport master plan as Approved by Cabinet on the 19 October 2016.