

**The Transport Sector We Want**



**REPUBLIC OF MALAWI**

**COMPREHENSIVE MEDIUM-TERM  
IMPLEMENTATION FRAMEWORK**

**2020-2025**

**Ministry of Transport and Public Works  
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Special recognition should go to the former Minister of Transport and Public Works, Honourable Mohammed Sidik Mia, for his leadership and commitment to the work of the Ministry and the development of the CMTIF. In the same vein, the Ministry is very grateful to the Deputy Minister of Transport and Public Works, Honourable Nancy Chaola Mdooko, MP, for her unwavering commitment and spearheading the development process of CMTIF.

The Ministry is grateful for the full support from all of its departments and agencies during the development process of the framework. Special mention goes to the Directors of Marine, Roads, Rail, Civil Aviation, Road Traffic, Administration, Plant and Vehicle Hire and Engineering Services, Buildings, as well as Chief Executive Officers of Roads Authority, National Construction Industry Council (NCIC), Airport Developments Limited (ADL), Lilongwe Handling Company (LIHACO), Air Cargo Ltd and Roads Fund Administration for their contributions. The Ministry also appreciates the effort by the Director of Planning and her team for coordinating all the processes leading to the final development of the framework.

The Ministry also appreciates the continued support and collaboration from the Office of the President and Cabinet, Ministry of Finance, and Ministry of Economic Planning and Development and Public Sector Reforms.

## **EXECUTIVE SUMMARY**

The Ministry of Transport and Public Works has developed a five - year Comprehensive Medium-Term Implementation Framework (CMTIF) aimed at spearheading methodical implementation of development projects as informed by the National Transport Master Plan (NTMP). This is against a backdrop of national priorities as outlined in both international commitments and national strategic plans such as the Malawi Growth and Development Strategy III (MGDS III) and NTMP.

The CMTIF has therefore been developed as an implementation framework for all programmes and projects necessary to achieve the goals and operational objectives of the NTMP. Given a limited sector resource envelope, the programmes and projects have been prioritised to ensure maximised sector contribution to the overall development agenda.

In the CMTIF, the reduction of transport cost through facilitation of modal shift from road to rail and inland water transport, a key goal of the NTMP, will mainly involve the rehabilitation and reconstruction of the 130km Sena Corridor rail line costing about MK217 billion and construction and rehabilitation of key ports on Lake Malawi namely Nkhata Bay, Chipoka, Chilumba and Likoma costing about MK36.5 billion.

For roads, the CMTIF has used a scientific prioritisation criterion to come up with a categorical list of prioritised roads for preservation, upgrading and improvement. The priority list will determine the order of implementation of road projects as funds become available. The total cost of road interventions in the framework is MK2.3 trillion. The framework has identified key programmes that advance digitisation and e-enforcement to ensure efficiency and accountability in road traffic services in addition to road safety awareness and civic education.



Marred by numerous challenges including poor infrastructure and hence performance, the on-going operationalisation of Civil Aviation Authority (CAA) has been prioritised and is expected to be key at implementing programmes and projects aimed at improving critical air transport safety, security and efficiency as well as improving the air transport infrastructure in the country.

Against an increasingly private dominated construction industry, as well as poorly developed buildings sector, the framework has prioritised the recapitalisation of the Plant and Vehicle Hire and Engineering Services (PVHES) as well as enhancing the service delivery of the Buildings Department and capacitating local construction industry. This is also expected to improve the image of the Buildings department.

Regarding resource mobilisation, the Ministry has identified alternative funding mechanisms and implementation arrangements including reviews of concessions agreements, increased sub-sector funds retention, exploration of bond financing as well as engagement of private financiers through Public Private Partnership (PPP) to bridge the critical finance gap.

Furthermore, the Ministry further recognises that the implementation of the framework demands enhancing human resource capacity. Therefore, the Ministry intends to recruit and train staff, as well as procure key equipment, to ensure smooth implementation.

# FOREWORD

## **The Transport and Public Works Sectors We Want:**

The transport sector we want in the next five years is one that is efficient, reduces time and cost for businesses and travelling passengers, and is the hub of socio-economic development of our country. The transport sector we want is a good public transport system which is easy and convenient to use, fast, safe, clean and affordable. A transportation sector which provides job to millions, opening up new opportunities of employment, not only in the transport sector, but the rest of the economy.

We want a road network which reduces distances between people, markets, services and fosters economic growth. Today, Malawi's road network coverage is not only insufficient, but also in poor condition and impassable during the rainy season. As a result, households, especially those in remote areas, experience difficulties in transporting their goods and travelling from one point to another. We want a road network which is strong, and resilient to climate change. We want urban roads which define the character of our cities and our country, roads which are a magnet to attract foreign investments and tourism.

We want a railway system which is efficient, dependable and fast. A railway system which links freight and passengers to our major cities and towns at low cost and on regular schedules. A railway system which is all weather and environmentally friendly. A railway network which will help in reducing congestions on our roads by shifting freight and passengers from roads to rail. A rail system which will promote and create business centers along the line in rural areas.

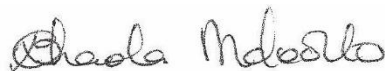
We want an air transport sector which links Malawi and other international destinations in the most efficient and cost-effective manner. One that is safe and comply with the international Civil Aviation Organization standards and regulations. An efficient system which promotes fast business transactions.

The Inland transport sector we want is one which is efficient, safe, dependable and cost effective for freight and passenger services. One that connects our major ports and harbors, on regular schedules, with a view to promoting businesses and tourism along Lake Malawi. One which is interlinked with other modes of transport like railway and roads to improve connectivity.

We want a construction sector that empowers local firms technically and financially. A construction sector that increases the market share of local firms without compromising on quality of works. One that is supported by modern construction equipment and technology.

The building sector we want is one which is well regulated. One that will ensure orderly, stronger, safer and resilient buildings. A sector that will promote high quality city and town buildings that are aesthetic. One that will ensure that low cost dwelling houses for the rural masses are resilient to storms. A sector that promotes use of environmentally friendly building materials.

This Comprehensive Medium Term Implementation Framework has been developed to deliver the Transport Sector We Want.



Hon. Nancy Chaola Mdooko, MP

**Deputy Minister of Transport and Public Works**

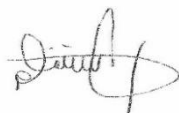
## PREFACE

The Comprehensive Medium-Term Implementation Framework sets out an ambitious and compelling long-term approach to the implementation of transport sector activities contained in the National Transport Master Plan, the National Buildings Policy and the third Malawi Growth and Development Strategy (MGDS III). This framework builds on major reforms already underway in the transport sector and will contribute towards Government's vision to develop efficient, reliable, affordable and environmentally friendly transport networks and built environment.

To help achieve the vision, the framework sets out six strategic goals for the transport and buildings sectors. In addition, and in order to ensure that all the goals are achieved, the framework's interventions have measurable results linked to their respective aspirations and that each of the goals identifies the priority areas to be implemented at a national level.

Central to the successful delivery of this framework will be the availability of funding for the projects herein outlined. The framework also presents a comprehensive financial analysis on resource availability for the sector which shall help us gain a much clearer understanding of the sector's financial requirements and possible opportunities for resource mobilisation.

This framework will guide and co-ordinate the sustainable development of the sector and help ensure that our policy interventions not only meet the challenges of today, but are also ready for the needs of the future.



Patrick Zimpita

**Secretary for Transport and Public Works**

## **1. INTRODUCTION**

### **1.1. Background**

The Ministry of Transport and Public Works has a broad mandate of being the steward of the country's transport and buildings sectors, and ensures that they contribute to the national development agenda. It carries out this role through policy, legislation, strategic planning, programming, regulation, and monitoring and evaluation.

#### **1.1.1. Transport Sector**

Malawi's transport sector is heavily underfunded and has experienced unequal development and improvement across the four modes of transport. Over the years, some modes have been getting priority negating the others. Moreover, such priorities, have regrettably emanated largely from political alignments and prevailing Government strategic plans such as the Malawi Growth and Development Strategy (MGDS), Transport Sector Investment Plan (TSIP), Public Sector Investment Plan (PSIP), and the National Transport Policy. The National Transport Master Plan (NTMP) will likely have the same fate if deliberate action is not taken.

In the past five years, a total of 287 kilometres of road has been constructed against a target of 490 kilometres. Maintenance of existing road networks has been neglected in favour of new roads resulting in quick dilapidation of existing roads throughout the country. During the same period, the rail network system has had 172 kilometres rehabilitated. The entire network of 933km is not connected due to flood wash away in the lower Shire and damaged or dilapidated sections of the network. Inland water is the least invested sub-sector but yet important. The whole perceived advantage of investing in railway and maritime as one project to reduce transport costs and decongest the roads, has been wiped out overtime. Key ports of Chilumba and Chipoka are derelict and no longer in use for major cargo handling. There is no landing infrastructure at Nkhotakota while

jetty construction is underway at Likoma. Though the port in Nkhata-Bay is usable, the infrastructure is in poor state putting the safety of passengers and vessels at risk. This negatively affects the well-being of the people and intra-trade activity. On the other hand, the air transport sub-sector is the most expensive of the four modes of transport on account of low traffic volumes and lack of critical investments in our airports. Both Kamuzu and Chileka International airports are not certified by IATA and are perceived not to be of international standard.

Improvements in the transport sector, through institutional reforms, have been minimal due to absence of clear development prioritisation. This has led to the sector becoming inefficient, unreliable, increasingly costly and contributing less to economic development. However, an opportunity exists to address the problem and achieve equitable development across all four transport modes in accordance with existing strategic plans. The NTMP is a prioritised time-bound plan of infrastructure investment proposals, development of policy and regulatory measures, institutional and organisational reforms and capacity building across all four modes of transport. The Master Plan covers freight and passenger networks and services, and identifies multi-modal proposals for integrating the transport modes.

### **1.1.2. Buildings Sector**

The Department of Buildings is responsible for providing oversight in the buildings sub-sector in collaboration with other institutions such as the Ministry responsible for Housing, local authorities and the National Construction Industry Council. The sector is, however, currently operating without a guiding policy document that expounds Government intentions in the sector. Moreover, the sector has a fragmented legislative framework which has led to disjointed operations as stakeholders do not have a document that guides focused actions.

## **1.2. Comprehensive Medium-Term Implementation Framework**

The Ministry has developed a Comprehensive Medium-Term Implementation Framework (CMTIF) to ensure that annual budgets and work plans are aligned with the NTMP and to spearhead methodical implementation of development projects. The CMTIF will be a vehicle to implement the NTMP, the National Buildings Policy and the MGDS III. It will also form the basis for the development of a Joint Sector Strategy for the Infrastructure Sector Working Group. Furthermore, it will guide on projects to be included in the Public Sector Investment Plan (PSIP). It is a five-year operational framework aligned with the new Administration's term of office.

The CMTIF has been developed with a Result Based Matrix as a tool for monitoring and results measurement. The Matrix identifies priority areas, measurable input and outcomes, and risks the plan might encounter. It is attached as **Annex I**.

## **1.3. Vision**

The vision for the sector is to develop efficient, reliable, affordable and environmentally friendly transport networks and built environment as defined in the 20-year National Transport Master Plan (NTMP) and other policy documents.

## **1.4. Goal and Objectives**

The objective of the framework is to re-focus and re-prioritize Government policy and strategy for the sector in line with the following strategic goals:

- a) Reduce transport costs;
- b) Improve the safety of transport infrastructure and services;
- c) Improve the capacity of the local construction industry;
- d) Improve regulation of the construction industry;
- e) Improve regulation, management and oversight of Government fleet: plant and vehicles; and

- f) Construct functional, stronger, aesthetics and resilient buildings.

The operational objectives include;

- a) Facilitate modal shift from road to rail and inland water transport;
- b) Enhance the connectivity of rural areas to support growth of key economic sectors;
- c) Enhance regional connectivity;
- d) Decongest traffic in cities;
- e) Strengthen regulation of transport services;
- f) Improve capacity in road traffic and safety management;
- g) Improve infrastructure protection;
- h) Improve certification of construction materials at Central Materials Laboratory (CML);
- i) Enhance aviation safety and security;
- j) Improve safety in operations of passengers and freight services on water;
- k) Restructure and recapitalise PVHES;
- l) Enhance and sustain Government fleet management;
- m) Support growth of the local construction industry;
- n) Strengthen construction industry regulatory frameworks;
- o) Strengthen regulation in the buildings sector; and
- p) Provide technical support services on building construction projects.

Given the limited resources available to the sector, the CMTIF will ensure that resource allocation is prioritised to key projects. The Ministry will also pay particular attention to implementation of institutional reforms that will improve efficiency in the operations of the transport and buildings sectors.

#### **1.5. The purpose for developing the five-year Framework is to:**

- a) Identify priority areas, set specific targets, define strategies and policy measures required to the NTMP, MGDS III and other policy documents;



- b) Bring to fruition the flagship programs and initiatives outlined in the NTMP and the new administration's manifestos for sustained growth and social transformation;
- c) Provide information to all key stakeholders on the expected results/outcomes for the first five years of the NTMP and assign responsibilities in its implementation, monitoring and evaluation;
- d) Outline the strategies required for resource mobilisation; and
- e) Ensure that NTMP and National Buildings Policy have measurable results which are linked to their respective aspirations and goals and that each of the goals identifies the priority areas to be implemented at a national level.

### **1.6. The Flagship Projects /Programs of the Framework**

The flagship projects of the framework refer to key programmes and initiatives which have been identified as important to accelerating the transport infrastructure development for economic growth.

### **1.7. Common Framework for Transport and Buildings Sectors**

The Ministry is in the process of operationalising the Public Infrastructure Sector Working Group (SWG) which will spearhead the implementation of regional, national and sectoral development strategies and policies. The SWG will, therefore serve as the Steering Committee to oversee the implementation of the CMTIF.

## **2. PLANNING AND STRATEGY FOR THE SUB-SECTORS**

### **2.1. TRANSPORT MODES**

#### **2.1.1. Roads**

Road is the dominant mode of transport in Malawi facilitating 99 percent of all passenger services, 70 percent of domestic freight and 90 percent of international

freight<sup>1</sup>. Therefore, investment into road transport infrastructure remains essential and commands a lion's share of resources within the master plan.

The entire classified public road network is 15,451km. At the moment, the road infrastructure demand for preservation and upgrading is 1,797km and 1,423km respectively in the next five years (2021 – 2025). However, due to limited resources and technical capacity, the entire 3,200 km identified in the CMTIF is unlikely to be completed in the next five years. Therefore, prioritisation of road projects for inclusion into the Comprehensive Medium-Term Implementation Framework (CMTIF) is necessary. In the next five-year period, projects will be implemented based on priority and funding availability.

#### **2.1.1.1. Rationale**

The proposed interventions in road infrastructure are intended to contribute to achieving the goal of reducing transport costs by addressing the following challenges highlighted in the NTMP:

- An infrastructure deficit coupled with a sizeable proportion of existing infrastructure insufficiently maintained;
- Relatively poor regional integration in terms of transport infrastructure of key corridor roads;
- Rapid traffic growth in urban areas and associated congestion;
- Limited diversification of the economy and a heavy reliance on agricultural sector with numerous and dispersed production areas located across the country; and
- Vulnerability to extreme weather conditions, such as drought and flooding.

The plan, if implemented, will lead to enhanced connectivity of rural areas to support growth of key economic sectors such as agriculture, mining and tourism;

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<sup>1</sup> NTMP, 2017

improved regional connectivity, increased capacity of urban roads, and safe, sustainable and resilient transport infrastructure. Optimal investment in the transport infrastructure is prerequisite to economic growth.

#### **2.1.1.2. Prioritisation of Road Infrastructure Projects**

Procedurally, prioritisation of road project financing should observe the 60/40 principle with 60% of the total funding allocated to road preservation (routine maintenance and periodic maintenance) while 40% to road upgrading. The Ministry will, therefore, follow this principle in preparation of Annual National Roads Programme (ANRP).

In keeping with the 60/40 principle, the prioritisation criteria which is used to identify the road projects, included coefficients of the following variables:

- Classification of the road section (main, secondary, tertiary, district and urban);
- Road forming part of an international corridor or not;
- Traffic volume (measured as average daily traffic);
- Road condition (Measured as International Roughness Index);
- Linkage to the National Transport Master Plan; and
- Time elapsed since last major Intervention.

#### ***Proposed Annual National Roads Program (ANRP) in the Next 5 Years***

In the Table 1 (also refer to Annex I), road projects that have been CODED green have resources available and are funded by development partners. However, road projects that are funded by Government have been CODED yellow. The Government funded road projects (in yellow) have been allocated funding in the 2020-21 financial year. Even though such is the case, the certainty of the availability of resources for the projects in successive years is not guaranteed. Experience has shown that funding of road projects by Government is not

consistent. For instance, the entire public road network is planned for routine maintenance on a yearly basis<sup>2</sup>. However, the actual routine maintenance works does not cover the entire public road network due to limited availability of resources and technical capacity.

The Mzimba-Kenyatta Street (8.3km) and the dualisation of Blantyre - Lilongwe M1 road are CODED orange because their funding processes are currently on-going.

In case of new resources being available, whether from increased budget allocation and policy changes on levies and fees, more prioritized roads will be added to the ANRP.

Table 1: Prioritised Road Projects

Activity		Name of Project	Start and Completion Date	Estimated Cost (MK' Million)	Funding	CODE
Routine Maintenance	1	Entire public road network (15,451km)	2020-2025	120,000.00	Govt	
Road Preservation	1	Kasungu - KIA T/Off (102km)	2021-2023	67,566.75	Donors	
	2	Jenda - Mzimba T/Off (46.7)	2021-2023	12,510.96	Donors	
	3	Kasungu - Jenda (85.5km)	2021-2023	29,913.00	Donors	
	4	Chiweta - Kacheche (66.5km)	2021-2023	38,200.50	Donors	
	5	Chingeni - Liwonde (36km)	2021-2023	20,250.00	Donors	
	6	Nsipe Chingeni (19km)	2021-2022	10,687.50	Donors	
Road Upgrading	1	Nsanje - Marka (25km)	2020-2021	17,812.50	Govt	

<sup>2</sup> Ideally the entire public road network of 15,451Km is supposed to be subjected to routine maintenance at an estimated cost of MK56 billion annually. Unfortunately, Government manages to allocate less than 40% of the funding requirement for the works thus failing to maintain the entire public road network.

Activity	Name of Project		Start and Completion Date	Estimated Cost (MK' Million)	Funding	CODE
	2	Mbobo - Nkhotakota game reserve east boundary (33km)	2020-2021	23,512.50	Govt	
	3	Chitanga: Junction M009 - Rumphiboma (20km)	2020-2021	14,250.00	Govt	
	4	Ntcheu - Tsangano - Neno - Mwanza (132km)	2020-2025	94,050.00	Govt	
	5	Machinga - Chingale - Lirangwe (62km)	2020-2023	44,175.00	Govt	
	6	Chinzama - Seven (33km)	2020-2021	23,512.50	Govt	
	7	Livingstonia - Njakwa (53km)	2020-2022	37,762.50	Govt	
	8	Mzimba: Junction M009 - Majighasawa: Junction M001 (17km)	2020-2021	12,112.50	Govt	
Urban Road Improvement	1	Junction with Paul Kagame to Junction with Lubani (3km)	2021-2024	30,000.00	Japan	
	2	Kanengo to Crossroads (10km)	2021-2023	17,100.00	China	
	3	Mzimba-Kenyatta Street (8.3km)	2020 - 2022	41,250.00	Govt	
	4	Blantyre - Lilongwe Dualisation	2022 - 2025	142,500.00	Govt	

Source: Roads Authority

### 2.1.1.3. Risks

The following risks have been identified to successful implementation of the proposed projects:

- Limited funding available for the road programmes prioritised in the framework;
- Unreadiness of the local authorities to assume the devolved road management functions; and
- Lack of cooperation from other stakeholders during the implementation of road programmes.

### **2.1.2. Railway Transport**

The development of rail sub-sector is critical to reduction of transportation costs in the country. The railway network in Malawi consists of 933 km of mainline single cape gauge of which 201km is currently non-operational. Today, the network is limited to the central and southern region of Malawi. The network transports an average of 300,000 passengers annually. The rail also forms part of the Nacala and Beira Corridors, which offer access to sea ports in Mozambique, and the Northern Corridor through inland lake transport to connect with TAZARA railway line in Mbeya, Tanzania, to Dar es Salaam.

The Ministry intends to reconstruct and upgrade 130km of railway line between Marka and Sandama which was washed away by floods. It further plans to expand the railway line north of Lilongwe. The 72km rail section between Limbe and Sandama is currently being reconstructed by the concessionaire, Central East African Railways (CEAR). Government will thereafter upgrade it from 15 to 20.5 tonne axle load as part of the phased rehabilitation and upgrading of the Limbe – Marka railway section. Other projects include the construction of shelter facilities along Sandama – Balaka – Nayuchi railway section and reactivation of Malawi Railways 1994 Ltd which will also facilitate the re-establishment of Railway Training Centre. The MR 1994 Ltd is expected to spearhead development of rail infrastructure in the country.

#### **2.1.2.1. Rationale**

The NTMP identifies rail transport as a critical sub-sector to support and facilitate the modal shift of cargo from road with the intention of reducing transport costs. The existing rail network is disjointed such that it does not fully support the transport services for local and regional connectivity. Additionally, other supporting infrastructure such as shelters, station premises and warehouses are either lacking or dilapidated.

There is need for increased investment to attain the aspirations of rail transport in order to improve operations and infrastructure for enhanced efficiency in freight and passenger services. In addition, increased use of rail will ultimately reduce the burden and cost of road maintenance.

#### **2.1.2.2. Prioritisation of Railway Projects**

The Ministry intends to raise funding through local or international bonds with longer tenors. Repayment will be through concessional fees from CEAR. Furthermore, it will attract more Public Private Partnerships investments in the sector. The objective is to enhance railway operational efficiency and strengthen regulation of the sector.

Table 2 below provides the list of key prioritised projects for rail, where the colour code orange, represents projects whose funding processes are on-going and green represents projects whose funding is currently available.

Table 2: Prioritised Rail Projects

Activity	Name of Project		Start and Completion Date	Estimated Cost (MK million)	Funding	CODE
Reconstruction and upgrading of 201km of railway line	1	Marka - Bangula (72km)	2020 - 2023	70,000.00	CEAR, Govt, PFI	
	2	Bangula - Makhanga (8.7km)	2022 - 2023	62,500.00	CEAR, Govt, PFI	
	3	Makhanga - Sandama (49km)	2023 - 2025	77,500.00	CEAR, Govt, PFI	
	4	Sandama - Limbe (72km)	2024-2025	70,000.00	CEAR, Govt, PFI	
	5	Construction of the Ruo Bridge (175m)	2019-2021	7,000.00	CEAR, Govt, PFI	
Construction of shelters	1	Construction of Shelter facilities along the Sandama-Balaka-Nayuchi Railway Section	2021 - 2022	560.00	CEAR, Govt, PFI	
Resuscitation of railway services and operations	1	MR (94) Reactivation	2021 - 2022	140.00	CEAR, Govt, PFI	
	2	Establishment of Railway Training Centre	2021 - 2022	391.00	CEAR, Govt, PFI	
	3	Review of the Railway Act	2020 - 2021	21.00	Govt	

Source: Railways Department

The National Transport Master Plan (NTMP) identified the Beira route, which serves as the shortest route to the sea for Malawian exports and imports, to be the key focus of Government on rail infrastructure development. It should be noted, however, that utilization of the Nacala corridor to full capacity may equally bring dividends to the country.



### **2.1.2.3. Risks**

The implementation of the projects might face the following risks;

- Inconsistent financing of the projects could result in extension of project implementation period
- The cost of rehabilitating the networks is substantial compared to existing traffic volumes and revenues;
- Capacity constraints, lack of supporting systems and equipment could impact negatively on the performance of the Railway Services Department in terms of service delivery; and
- Business influence to block railway development.

### **2.1.3. Inland Water Transport**

Inland water transport is predominantly based on Lake Malawi. The lake has four main ports of Chilumba, Nkhata Bay, Chipoka and Monkey Bay. Currently, all ports are in poor condition. Currently, Government is constructing a fifth port at Likoma. The sub-sector potentially links the country to important sea ports of Mtwara, Dar es Salaam and Nacala.

The projects outlined in the framework involve rehabilitation of the four major ports as part of enhancing capacity of Northern Transport Corridor. There are also plans to construct new landing facilities in selected areas along the Lake of Malawi, and rehabilitate the shipyard and Marine Training College at Monkey Bay. The water transport and safety regulations will also be reviewed to strengthen the regulatory framework.

The implementation of the outlined projects will enhance regulatory oversight in water transport, enhance efficiency in passenger and freight services, improve operations in inland water transport services and increase number of trained seafarers.

### **2.1.3.1. Rationale**

The inland water transportation has poorly performed due to the following challenges:

- Lack of integration with other modes of transport, and as a result Lake Malawi is not being used to its full capacity;
- Outdated regulatory framework which has gaps such as the absence of an independent safety regulator;
- Lack of maintenance of vessels and port infrastructure resulting in high operational inefficiency and increased safety concerns;
- Inadequate institutional capacity for efficient operation and management of the infrastructure; and
- Unsuccessful participation of private sector investors.

Investments in inland water transport are important to achieve the goal of reducing transport costs through shifting of cargo from road to inland water which is the cheapest mode of transportation.

### **2.1.3.2. Prioritisation**

Considering the limited financial resources, the Ministry has prioritised the construction of Likoma Jetty which already has committed funding. The sub-sector will make rehabilitation and upgrading of Chipoka Port as a second priority. The port is critical in promoting intermodal transport as it is the only port in the country which serves three modes of transport (water, rail and road). The port is also linked to the three regional corridors of North-South, Mtwara and Nacala.

It is also important to develop Chilumba and Nkhata Bay Ports which will complement Chipoka Port and would be integral in reducing transport costs by facilitating modal shift from road to both inland water and rail transport. Nkhata Bay Port will facilitate regional trade through connection with Mtwara Corridor.

Table 3 (also refer to Annex I) below provides the list of key prioritised projects for marine, where the colour code red, represents projects with no funding and green represents projects whose funding is currently available.

Table 3: Prioritised Inland Water Transport Projects

Activity	Name of Project		Start and Completion Date	Estimated Cost (MK' Million)	Funding	CODE
Construction and rehabilitation of ports and supporting facilities	1	Likoma Port	2019 - 2021	10,000.00	Govt	
	2	Chipoka Port	2020 - 2025	10,000.00	Govt	
	3	Chilumba port	2020 - 2023	1,500.00	Govt	
	5	Nkhata Bay Port	2022 - 2025	15,000.00	Mw/Tz/Za	

Source: Marine Services Department

### 2.1.3.3. Risks

The associated risks to the successful implementation of these interventions include:

- Lack of financing;
- Negative effects of climate change affecting the ports: and
- Business influence to block inland water development.

### 2.1.4. Air Transport

The movement of passengers and freight through air transport is considerably low and has been in decline since the year 2015. Statistics indicate an all-time high of 457,590 passengers in the year 2014 and a record low of 171,458 passengers in the year 2002. Similarly, statistics indicate that freight transported through air has averaged 5,900 tons over the five-year period between the years 2015 and 2019 indicating neither growth nor shrinkage. Malawi has 33 aerodromes including Kamuzu International Airport, Chileka International Airport and Mzuzu Airport.

The growth and development of the sector is hindered by numerous factors including low traffic as a destination, stiff competition in the industry, high transport costs resulting from numerous and high taxes, high costs of Jet A1 fuel, vandalism of infrastructure, encroachment into airport premises, and a monopolistic environment of service provision in aircraft handling, air cargo services and provision of aircraft fuel resulting in higher service charges.

In the CMTIF, the sub-sector has identified a number of projects that aim at making a positive impact towards the development of the air transport industry. The provision of improved infrastructure as well as the enhancement of safety and security in air transport services have been prioritised. To achieve this, the following projects have been planned:

- i. Operationalisation of Civil Aviation Authority;
- ii. Airports and Air Navigation Infrastructure Improvement;
- iii. Enhancement of KIA Infrastructure, Operations, Procedures and Training;
- iv. Essential Aviation Safety and Security; and
- v. Strengthen and improve service provision through promotion of competition and establishment of new service providers.

#### **2.1.4.1. Rationale**

Following an audit of Malawi civil aviation sector by the International Civil Aviation Organisation (ICAO) in 2013 and the recent European Aviation Safety Agency study, a series of recommendations were made to enable the country to align with international best recommended practices and standards in the aviation sector and the regional aviation strategies in response to the *2012 Abuja Conference on Safety*<sup>3</sup>. The two studies identified a number of key issues including:

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<sup>3</sup> Reduce rate of incidents and accidents, establish Civil Aviation Authorities, Resolve Significant Safety Concerns, International aerodromes certified by 2022

- Lack of funds to carry out proper maintenance of infrastructure, leading to deterioration of infrastructure. This has resulted in occasional disruption of air services;
- Inadequate provision of safety standards; and
- Limited provision of communications, navigation and surveillance at the two primary international airports.

Successful implementation of the projects is expected to significantly improve the air transport environment by addressing the critical safety, security and efficiency issues.

#### **2.1.4.2. Prioritisation**

The projects in the air transport subsector are drawn from the International Civil Aviation Organisation (ICAO) audit of 2013, which identified numerous gaps in Malawi's civil aviation industry and its capability to provide effective safety oversight and adequate aviation infrastructure. Amongst the gaps were:

- Absence of an autonomous regulatory body, being the Civil Aviation Authority (CAA);
- Poor condition of aviation infrastructure posing a safety and security risk to air transport operations;
- Un-licensed service providers resulting in unchecked aviation business activities, processes and procedures which could lead to undesirable and catastrophic incidents/accidents; and
- Uncertified international airport, restricting potential direct flights from Asia, Europe, Middle East and USA as the airport's Standards don't meet the requirements of an international airport.

Table 4 below (also refer to Annex I) provides the list of key prioritised projects for air transport; whose funding is currently available (colour CODED green).

Table 4: Prioritised Air Transport Projects

Activity	Name of Project		Start and Completion Date	Estimated Cost (MK' Million)	Funding	CODE
Establishment of Civil Aviation Authority (CAA)	1	Establishment of Civil Aviation Authority (CAA)	2020-2023	750	Govt	
Enhancement of essential Aviation Safety and Security	2	Essential Aviation Safety and Security Project	2020 - 2022	18800	Govt/EIB	

Source: Civil Aviation Department

These projects have been prioritised to address the challenges outlined above. The operationalisation of the CAA is expected to play a key role in addressing the challenges highlighted in the ICAO audit and shall result in Malawi's safety and security outlook to immensely improve in the global aviation industry. Protection of existing airports and its infrastructure shall reduce vandalism of critical and expensive equipment and also stop encroachment. Overall, there will be improvement in local and regional connectivity with prospects of tourism and trade.

#### 2.1.4.3. Risks

The risks that may hinder the successful implementation of these projects include;

- Limited financing;
- Resultant policy changes in travel protocols due to COVID-19 pandemic; and
- The rapid technological advancement in the aviation.

## **2.2. TRANSPORT AND CONSTRUCTION SERVICES**

### **2.2.1 Road Traffic and Safety Services**

The Directorate of Road Traffic and Safety Services (DRTSS) was established through the Road Traffic Act (1997). It is mandated to administer the regulatory provisions pertaining to vehicle weight limit controls; vehicle registration, vehicle inspection, infrastructure inspection and licensing; driver testing and licensing; issuance of appropriate permits for both freight and passenger operations; and enforcement of traffic law and civic education to all road users.

The department plans to implement projects which aim at enhancing road traffic law enforcement, road safety awareness and civic education, improving the road accident database, decongesting the road traffic stations, and reduce vehicle overloading.

#### **2.2.1.1. Rationale**

Over the years, there has been an increased number of road accidents and associated fatalities. Furthermore, limited capacity of systems and human resources have resulted in inefficient delivery of critical services such as registration, inspection and licensing of vehicles. Mechanisms for protecting road infrastructure are neither adequate nor strategically located.

To address the challenges, the DRTSS will acquire additional ICT and other equipment, construct and maintain Vehicle Testing Stations, digitise most road traffic and safety services, construct weighbridges, and colour code public service vehicles (minibuses, taxis and buses). The colour coding can be easily achieved with minimum resources and is expected to bring sanity to the public transport service.

The Directorate has adopted digital transaction services such as e-payment and has introduced mobile and online MaltIS services, and upgrade Road Safety Database. These services will significantly reduce congestion, improve efficiency

and transparency in revenue collection as well as eliminate hotspots for corruption.

#### **2.2.1.2. Prioritisation of Road Traffic and Safety Services Projects**

In prioritizing the projects, the Ministry considered the impact of the project, whether it is ongoing and the urgency to implement the project.

#### **2.2.1.3. Risks**

The following risks and challenges were identified that could hinder successful implementation of the projects:

- Unstable economic environment which would hinder smooth flow of operations hence revenue collection;
- Covid-19 pandemic which resulted in restrictions to travel;
- High vacancy rates particularly in the technical sections;
- High maintenance costs of some items under the projects; and
- Revenue retention by the Treasury which could have been re-invested in the sub-sector.

#### **2.2.2. Buildings**

The building sector involves planning, designing, procurement, construction/production, alteration, repairing, maintenance and demolition of various physical infrastructures. The Buildings Department plays a regulatory role and gives policy direction on building design and construction. The department is further responsible for developing and enforcing building standards. It is also responsible for design, supervision and commissioning of all public buildings; construction and maintenance of government buildings; and works in collaboration with the construction industry.

In the CMTIF, the Buildings Department plans to finalise the formulation of buildings regulatory framework which includes National Buildings Policy, Buildings Act and Buildings Regulations. The Department further plans to develop Buildings



Information Modelling System which is expected to improve management of public buildings projects.

The Buildings Department has also planned to implement interventions that will improve its image and bring back confidence to its clients. The interventions include implementation of a functional review, engagement of stakeholders on the role of DOB in procurement of civil works and develop professional ethics code for architects and quantity surveyors through the Board of Architects and Quantity Surveyors.

#### **2.2.2.1. Rationale**

The building sector has been poorly regulated over the years due to lack of overarching regulatory framework to support the promotion and upholding of building standards in the built environment. The sector is currently regulated through by-laws set mainly by local authorities.

The management and supervision of public building projects by the department faces a number of challenges such as inadequate human capacity and lack of centralised information management system, leading to complaints of poor service delivery from clients. This has largely contributed to the bad image of the Buildings Department.

The implementation of institutional, regulatory and legislative reforms will, therefore, strengthen good governance, provide timely and adequate technical support services to building construction projects for functional, stronger, aesthetic and resilient buildings. The enacting of the Buildings Bill will create a Building Authority which will be responsible for enforcement of building regulations thereby separating the regulatory and enforcement functions.

#### **2.2.2.2. Prioritisation**

In the CMTIF, the buildings sector has prioritised institutional, regulatory and legislative areas for reforms in order to improve standards of buildings. The

formulation of buildings legislation has been considered as a key priority which will address other subsequent intervention areas.

### **2.2.2.3. Risks**

The associated risks for the successful implementation of these intervention include:

- Inability of the Buildings Department to retain its technical staff; and
- Limited resources to implement planned interventions.

### **2.2.3. Plant and Vehicle Hire and Engineering Services**

The Department of Plant and Vehicle Hire and Engineering Services (PVHES) was established under the Public Finance Management (Plant and Vehicle Hire and Engineering Services Fund) Order of 2013 to provide plant and vehicle hire and allied engineering services to both the public and private sectors on a commercial basis.

In the CMTIF, the department has prioritised institutional reforms aimed at enhancing operational efficiency, business profitability and image. The department, therefore, has prioritised the finalisation of its strategic and business plans and implementation of the functional review to address existing capacity gaps. The institutional reforms also include introduction of a computerised invoicing, billing and revenue collection system, which will enhance transparency and accountability. This is key in addressing image issues of the department. Notably, the recapitalisation of the PVHES is important in resuscitating the business aspect of the department. This reform involves acquisition of new plant and equipment as well as recruitment of new personnel and management.

#### **2.2.3.1. Rationale**

Most of the plant and equipment owned by PVHES throughout the country are either out of service or obsolete. In addition, the department is facing stiff

competition from the private sector in providing plant and vehicle hiring services. The department, however, is critical in supporting the local construction industry through hiring out of plant and equipment. PVHES is critical to the provision and development of small and medium enterprises who cannot afford expensive equipment as start-up businesses. Today, it is only foreign contractors with financing and heavy equipment that get jobs in the transport sector.

PVHES has lagged behind in adapting to technology advancement in the industry which has also led to inefficiencies and ultimately loss of business. In this regard, PVHES plans to review its fleet management policy and systems to address the challenges.

#### **2.2.3.2. Prioritisation**

In the CMTIF, the PVHES has prioritised the implementation of institutional reforms that are business oriented and would make the institution competitive on the market.

#### **2.2.3.3 Risks**

The following risks can potentially affect the successful implementation of PVHES projects:

- Lack of financing to implement the functional review;
- Failure to recapitalise or identify a strategic business partner; and
- Retention of revenue by the Treasury which is critical to re-investment of PVHES.

### **3. FINANCING THE FRAMEWORK**

This section analyses funding gaps in relation to demand for transport infrastructure. It looks at available resources and the extent to which the sectors can take in new projects over the next five years. It suggests some policy shifts to raise additional funding for more projects. Furthermore, as a policy, it advises on implementation of projects only when adequate funding has been identified to

avoid accumulation of arrears, as is the case now, and discourage implementation of projects in bits and pieces which takes a long time for projects to complete. Finally, it develops an annual expenditure (finance) plan for the next five-years to guide the implementation. The Finance Plan is attached as **Annex II**.

### **3.1.TRANSPORT MODES**

#### **3.1.1. Roads**

##### **3.1.1.1. Financial Analysis and Funding Strategies**

The road network is financed by fuel levy, administered by the Road Fund Administration (RFA), the Development Budget and donors. The fuel and budget have been grossly inadequate to maintain, let alone construct new roads. Funding from donors has also been selective, preferring corridor projects, while at the same time declining since the creation of Roads Authority (RA) and RFA. Meanwhile, the push for construction of new roads has been increasing.

The total road infrastructure investment demand identified in the CMTIF for preservation and upgrading under different road classes is 3,220 km. This consists 1,920 km of main roads, 887 km of secondary roads, 361km of tertiary roads, 27 km of district roads and 25 km of urban roads.

However, only about 746 km (23%) has secured funding as of the 2020/21 financial year.

Table 5: Road Infrastructure gap for CMTIF projects

ROAD CLASSIFICATION	TYPE OF PAVEMENT					
	PAVED (Km)			UNPAVED (Km)		
	PLANNED	FUNDED	GAP	PLANNED	FUNDED	GAP
Main	1,756	369	1,387	164	97	67
Secondary	16	0	16	871	148	723
Tertiary	0	0	0	361	132	229
District	0	0	0	27	0	27
Urban	25	0	25	0	0	0
<b>Total</b>	<b>1,797</b>	369	1,428	<b>1,423</b>	377	1,046

Source: Roads Authority

The total investment demand for road preservation and upgrading is MK2.3 trillion. Of this amount, MK1.3 trillion is required for main roads; MK620.7 billion for secondary roads, MK256.7 billion for tertiary roads, MK19.5 billion for districts roads, and MK64.5 billion for urban road projects. There is currently MK493.4 billion (22%) available for all road projects in the CMTIF. There is therefore a budget deficit of MK1.8 trillion (78%) to meet the total investment demand for both paved and unpaved road projects.

However, due to lack of funding, roads with available funding or with resources identified are planned to be implemented in the next five years under the CMTIF. As more funds become available, more roads will be included for implementation.

Table 6: Road funding gap for CMTIF projects

ROAD CLASSIFICATION	TYPE OF PAVEMENT					
	PAVED (MK' Million)			UNPAVED (MK' Million)		
	ESTIMATED COST	FUNDED	GAP	ESTIMATED COST	FUNDED	GAP
Main	1,214,564	226,229	988,335	116,850	67,688	49,162
Secondary	13,500	0	13,500	607,159	105,450	501,709
Tertiary	0	0	0	256,714	94,050	162,664
District	0	0	0	19,266	0	19,266
Urban	64,500	0	64,500	0	0	0
<b>Total</b>	<b>1,292,564</b>	<b>226,229</b>	<b>1,066,335</b>	<b>999,989</b>	<b>267,188</b>	<b>732,801</b>

Source: Roads Authority

### 3.1.1.2. Road Infrastructure Funding Trend

The following graph depicts the funding trends for road infrastructure projects for the past five years. The annual funding figures consist of Fuel Levy and Road User Charges, Development Part I and Development Part II for approved and revised budgets. The graph further shows the trend of the amount certified for payment towards completed works.

The approved and revised budget were almost the same from 2015/16 financial year to 2017/18 financial year with minor deviations observed in the 2018/19 financial year where the approved budget was slightly higher than the revised budget and vice versa in the 2019/20 financial year. In general, the average approved budget was MK72.8 billion per year and revised budget was MK74.1 billion per year. The amounts of money payable for certified measured works rose sharply from 2015/16 to 2018/19 financial years and declined between 2018/19 and 2019/20 financial years. In the years 2015/16 to 2017/18 these amounts were below both the approved and revised budgets. However, the trend reversed in the years 2018/19 and 2019/20.

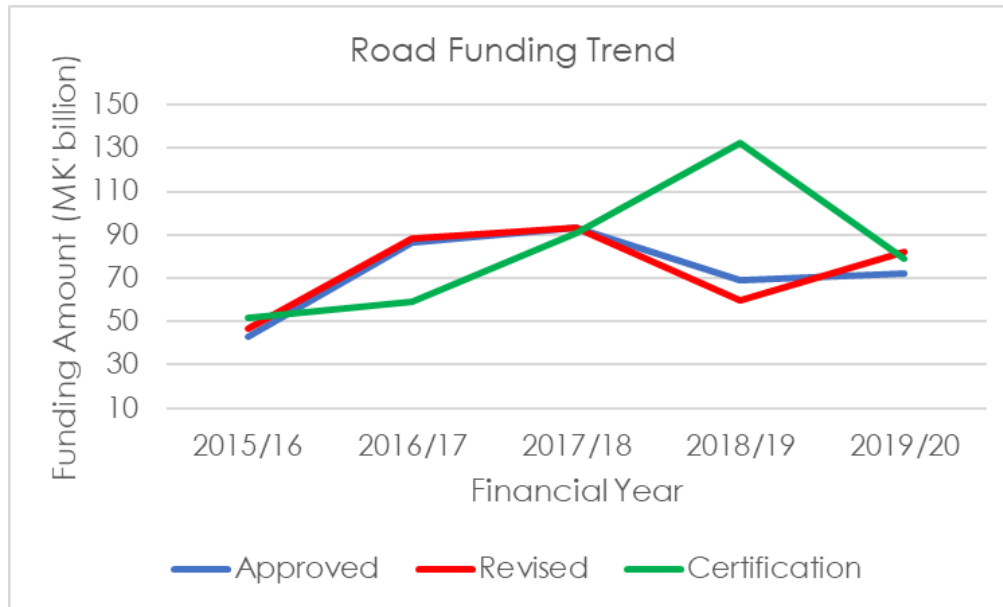


Figure 1: Approved, Revised and Certification Funding Trends for Road Infrastructure Projects.

The funding trends, therefore, shows that on average, for the past five years, both approved and revised budget figures have been lower than the amount of money payable for certified measured works. This is attributed to haphazard introduction of unplanned projects within a financial year and the year-on increment of accumulated arrears exacerbated by interests charged on delayed payments.

The following table provides a trend of arrears on road projects accumulated over the past ten years:

Table 7: Road Projects Arrears

YEAR	ACCUMULATED ARREARS (MK' billions)
2010/11	11.5
2011/12	11.0
2012/13	8.5
2013/14	27.2
2014/15	44.2
2015/16	61.9
2016/17	58.3
2017/18	49.2
2018/19	80.2
2019/20	71.9

Source: Roads Authority

### 3.1.1.3. Policy Changes for Additional Funding for Roads

Considering resource inadequacy from the main funding sources for roads i.e. consolidated fund, fuel levy and Development Partners (DP), there is need to explore additional sources of financing. CMTIF proposes adjustments in the fuel levy, introduction of toll fees, issuance of long-term bonds, an increase in allocation of development budget and retention of funds generated by Treasury Funds in the sector.

#### (a) Fuel Levy

Currently the fuel levy at 11% generates an estimated MK39.3 billion annually. This excludes an amount of MK15 per litre included in the fuel levy which goes directly to Government's Consolidated Account. Adjusting the fuel levy rate to a maximum of 16%, fuel revenue would increase to MK57.2 billion realizing an additional of MK17.9 billion. The ceiling for increasing the levy in the fuel cost structure is 16 percent.



The following table summarises the different scenarios of fuel levy rate adjustment:

Table 8: Projected Income from Fuel Levy Adjustment

<b>FUEL LEVY RATE (%)</b>	<b>INCOME RECEIVABLE (MK' billion)</b>	<b>ADDITIONAL INCOME (MK' billion)</b>
11	39.3	0
12	42.9	3.6
13	46.5	7.2
14	50.1	10.7
15	53.6	14.4
16	57.2	17.9

Source: Roads Fund Administration

### **(b) Toll Fees**

Introduction of toll fees from 2021/22 would generate MK8 billion according to studies. As a matter of principle, toll fees will be used to improve the road condition of the road on which the tolls are collected.

### **(c) Bonds**

Bonds are becoming important means of project financing. Recently, Government raised K17 billion to finance dual carriage road from Kaunda Road to City Centre with an interchange at Area 18. With many local banks and sovereign wealth funds opening up to public investment, the loan terms are favourable including tenors. Currently Government is in a process of raising a bond of about K40 billion for construction of a six-lane road between Kenyatta Drive and Mzimba Drive.

### **(d) Increased Budget Allocation**

Government uses Part I and Part II funding for project financing. However, as seen in the figure above, the funding has been diminishing since year 2018. The CMTIF

assumes the 2018 funding levels to start to close the infrastructure gap. Taking these assumptions together, the sector can generate an additional **MK66.9 billion per annum**.

### 3.1.2. Railway Transport

#### 3.1.2.1. Financial Analysis and Funding Strategies

Currently, processes are underway of sourcing funds to resuscitate the Sena Corridor which will involve the rehabilitation of railway sections from Marka to Limbe at an estimated cost of MK290 billion. The first phase will involve reconstruction of the Marka – Bangula section at an estimated cost of MK70 billion. Second phase of Bangula – Makhanga is estimated at MK62.5 billion. The third phase of Makhanga – Sandama is estimated to cost MK77.5 billion while the fourth phase of Sandama – Limbe is estimated to cost MK70 billion. The financing of the projects is expected to come from concession fees, bonds, private financing institutions and private sector partners.

Table 4 below provides annual revenues generated by the Department of Railway Services in concession fees between 2016 and 2019:

Table 9: Railway Services Concession Fees Trend

YEAR	TOTAL CONCESSION FEES (MK' billions)
2016	2.4
2017	6.2
2018	7.5
2019	6.6

Source: Railways Services Department

From the table above, it is clear that rail concession fees increased substantially between 2016 and 2017. The concession fees have remained stable between 2017 and 2019 averaging MK6.7 billion per year. Out of the total annual concession fees, only 68.95 percent is allocated to rail development projects. The

remaining 31.05 percent is shared between the Roads Fund Administration, the regulator and Government consolidated account. The Government should consider revising the retention percentage to secure more funds for rail development projects.

The annual rail concession fees are based on an annual tonnage of 14 million. These are calculated from gross revenue at a rate of 6% for Central East African Railways (CEAR) and 4.5% for VALE Logistics Limited. The rehabilitated rail infrastructure is expected to increase the tonnage to 18 million which will generate MK8.3 billion.

### **3.1.3. Inland Water Transport**

#### **3.1.3.1. Financial Analysis and Funding Strategies**

The total estimated financial resources for inland water transport projects are MK45 billion. Of this amount, only MK10.1 billion has been committed by the Government for construction of Likoma Port and review of water transport regulations. This leaves a financial gap of MK34.9 billion (78%).

#### **3.1.3.2. Additional Funding Sources**

Government should engage development partners to finance the inland water transport projects. The African Development Bank has shown interest to support Mtwara Corridor development which includes rehabilitation of Nkhata Bay Port. Another avenue of supporting the initiatives in Marine could be revision of existing marine concessions by making maintenance and investment in infrastructure, a shared responsibility with the concessionaires, just like in rail transport. Furthermore, private sector investment should be promoted.

### **3.1.4. Air Transport**

#### **3.1.4.1. Financial Analysis and Funding Strategies**

The total budget requirement for the planned projects is amounting to MWK53.6 billion. Presently, Government has committed MK750 million in the 2020/21 FY

budget while the European Investment Bank have committed MK18.8 billion towards the ongoing project on Essential Upgrade of Aviation Safety and Security Equipment. Some projects have also drawn keen financing interest from the domestic banking sector. The financial gap for the planned projects is MK34.1 billion (65%).

The table below provides annual revenues generated by the Department of Civil Aviation between the FY 2014/15 and FY 2019/20:

Table 10: Annual Revenue

YEAR	ANNUAL REVENUES (MK' billions)
2014/15	2.3
2015/16	4.1
2016/17	3.5
2017/18	4.1
2018/19	4.9
2019/20	3.0

Source: Civil Aviation Department

#### **3.1.4.2. Additional Funding Sources for Air Transport**

Government should consider allowing the subsector to retain a percentage of revenue specifically for project and institutional development. The ministry will also explore means of allowing more private sector participation just like it is in other countries.

In 2011 The Ministry requested an approval to include a security levy on all air tickets. This money was meant to improve safety and security at the airport. The ministry has however failed to access the resources due to restrictions. The Government should ensure the resources are applied to intended purposes.

## **3.2. TRANSPORT AND CONSTRUCTION SERVICES**

### **3.2.1. Road traffic and safety services**

#### **3.2.1.1. Financial Analysis and Funding Strategies**

As a Treasury Fund, the Directorate uses the revenue it collects with an agreed amount remitted to the Consolidated Fund. The yearly average development budget for the Directorate is MK3.7 billion. Some road infrastructure protection and road safety activities are supported by the Road Fund Administration. The Directorate has also received support from various development partners such as the World bank to promote road safety.

Therefore, 62% of the earmarked projects in the CMTIF already have funding available. The Ministry will have to identify 38% of the resources to cover the deficit.

#### **3.2.1.2. Additional Funding Sources for Road Traffic and Safety Services**

The following table provides annual revenue collected by the Directorate of Road Traffic and Safety Services from 2014/15 FY to 2019/20 FY:

Table 11: DRTSS Annual Revenue Trend

<b>YEAR</b>	<b>ANNUAL REVENUES (MK' billions)</b>
2014/15	2.4
2015/16	4.7
2016/17	5.3
2017/18	6.0
2018/19	9.5
2019/20	12.1

Source: Directorate of Road Traffic and Safety Services

Part of the collected revenue is remitted to The Malawi Energy Regulatory Authority, Ministry of Finance and the Road Fund Administration. The remaining amount is used by the DRTSS for its recurrent and development activities upon

approval by the Government. As a way of raising additional funding for implementation of DRTSS planned programmes and projects in the CMTIF, the Ministry will re-negotiate the retention terms with Treasury for an increase. In addition, it will carry out a review of its functions for private sector participation.

### **3.2.2. Buildings**

#### **3.2.2.1. Financial Analysis and Funding Strategies**

The total estimated funding requirements is MK2.4 billion. Of this amount, about MK701 million (30%) is available while 49 percent is under negotiation. Thus, funding deficit is at 21%.

#### **3.2.2.2. Additional Funding Sources**

To ensure timely supervision and efficient management of public building projects, the Ministry is proposing that funds for supervision of projects should be managed by the Buildings Department and not the client MDAs implementing the projects. Once established, the Buildings Authority is expected to sustain its operations through fees to allow proper enforcement of regulations and standards within the sector.

### **3.2.3. Plant Vehicle Hire and Engineering Services**

#### **3.2.3.1. Financial Analysis and Funding Strategies**

The total estimated cost is MK5.4 billion most of which is for procurement of plant, vehicles and workshop tools and equipment. About 20 percent of the required financial resources are available, 68 percent is under negotiations. The projects are expected to be financed mainly by the Government while the recapitalisation may involve either the banks or private investors.

#### **3.2.3.2. Additional Funding Sources**

The Ministry may consider engaging private investors through a Public Private Partnership (PPP) arrangement.

## 4. RESOURCE REQUIREMENT PLAN

### 4.1. Staffing

Implementation of any plan requires resource capacity including staff and working capital. The Ministry has developed a human resource plan detailing capacity requirement for different sub-sectors. These have been costed, budgeted and included in the overall framework as Annex III.

At the moment, most of the departments are under staffed with an average vacancy rate of 61%. Out of all departments within the Ministry, Buildings, PVHES and Rail have the highest number of vacant posts.

To address the high vacancy rate challenge, the Ministry has planned for recruitment of staff, both at technical and support levels in order to fill the critical existing vacant positions. The Ministry has further planned for trainings and capacity building initiatives, which are aimed at enhancing the staff knowledge and skills, critical in the successful implementation of the CMTIF.

The following graph summarises the staffing levels for the Ministry:

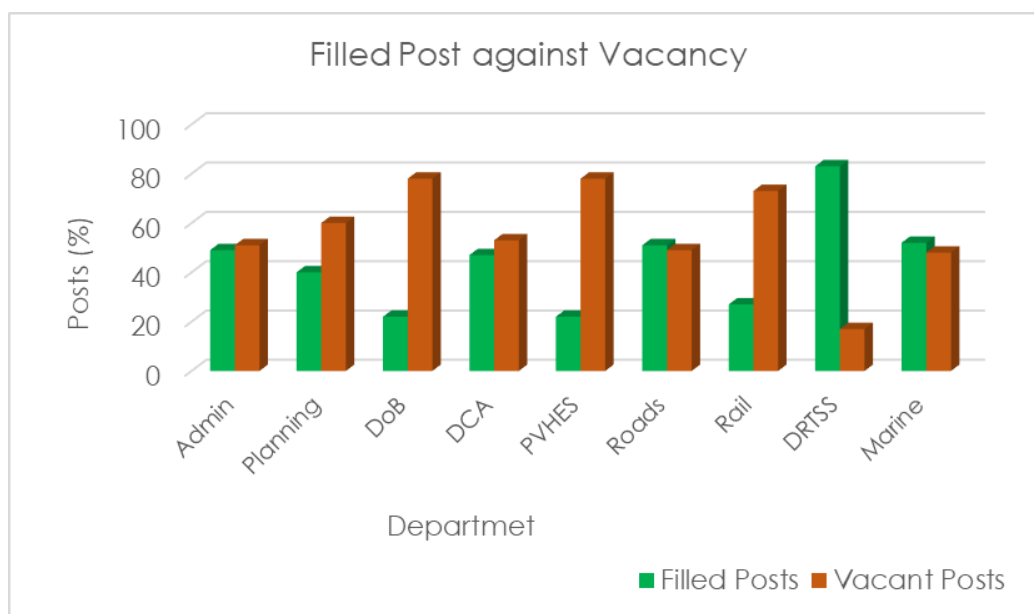


Figure 2: Staffing levels for the Ministry at department level

## **4.2. Equipment**

The Ministry has developed an equipment plan which makes provision for purchase of equipment necessary for the successful implementation of the CMTIF. The Equipment Plan is attached as **Annex IV**.

The Ministry lacks ICT equipment including computers (Laptops), multipurpose printers and video conferencing, office equipment such as furniture, measuring devices which are significant for operations in rail, and mechanical equipment including motor vehicles and motor cycles. The Ministry has thus planned and costed a procurement schedule of all necessary equipment which is critical in enabling operations and carrying out of activities in the implementation of the framework.

## **5. MONITORING AND EVALUATION**

The monitoring and evaluation framework for the CMTIF will use performance indicators set out in the measurement matrix in annex 1. Output indicators based on outputs on each project or programme will measure the achievement of all expected outputs. The attainment of these will be established through regular monitoring and periodic evaluation.

Outcome indicators, most importantly, will measure the extent to which one or more projects or programmes through outputs (activities) has achieved the expected outcomes. Different evaluation techniques including surveys among others will be used to establish the achievement of all the set outcomes for the projects and programmes.

The Department of Policy and Planning will supervise work in all four modes of transport, providing period monitoring reports to management. Since most projects will be under Government budget, the projects will be implemented under Public Sector Investment Program (PSIP). As such, the Ministry of Economic



Planning and Public Sector Reforms will be involved in monitoring and evaluation and production of reports.

All monitoring mechanisms will be subjected to regular supervision by the Department of Policy and Planning, together with the Ministry of Economic Planning and Public Sector Reforms through field missions, regular progress reports, and annual audit and financial statements. In addition, for donor funded projects, recourse will be made to the supervision reports prepared by them on components that they co-finance.

There will be a midterm evaluation of the program to permit corrections if deemed necessary.

## **6. OPPORTUNITIES**

The Ministry has already identified some opportunities for the successful implementation of the CMTIF as follows:

- Political will towards implementation of key programmes and projects.  
For example:
  - ✓ Development of the Mtwara Corridor;
  - ✓ Establishment of the CAA;
  - ✓ Reconstruction and rehabilitation of the Sena Corridor railway line; and
  - ✓ Urban roads improvement – construction of 6 lanes and dual carriage ways in cities to reduce congestion.
- Rehabilitation of the Mzuzu – Nkhata Bay (46km) road which is part of the Mtwara Corridor was completed;
- Available funding to some of the development programmes in the budget;

- Donor support has been secured and committed to some of the key programmes and projects e.g., development of Buildings legislation, essential aviation safety and security project and construction of key corridor road projects; and
- Presence of the contractor constructing Likoma Jetty who can be engaged for construction of the 10km road network at Likoma Island considering the high mobilisation costs.

## **7. CHALLENGES**

- Lack of capacity to undertake all projects identified in the framework
- Political will to adhere to plans; and
- Negative effects of climate change and Covid-19 pandemic.

## **8. CONCLUSION**

The Comprehensive Medium-Term Implementation Framework will go a long way in catalysing the attainment of goals in the transport and public works sectors as outlined in the National Transport Master Plan and other policy documents through implementation of prioritized projects. The CMTIF will also improve the monitoring and coordination of implementation of projects in the sector. The CMTIF shall bring about equitable allotment of investments across sub-sectors and eliminate the tendency of initiating projects outside sectorial and Government approved plans.

The CMTIF acknowledges that Government cannot have all the resources to implement all the projects in a specified period of time. As such, the CMTIF has emphasised that projects with secured resources should be prioritised for implementation. This will be followed by projects whose on-going funding processes get completed. The prioritised projects in the CMTIF have a great potential in improving the transport sector for Malawi and also support other

sectors of the economy, the impact of which is expected to have a great bearing on economic growth and the general wellbeing of the citizens of the nation.

It should be acknowledged that the implementation of the prioritized projects will require serious human and financial commitments. The level of investments that has been proposed in CMTIF cannot be shouldered by Government alone. Therefore, the need to explore for additional resources should be emphasised. Furthermore, there is need to induce the interest of development partners and the private sector to participate in this cause. Similarly, issues of human capacity and equipment requirements should be given special attention as they will provide an enabling environment for the successful implementation of the CMTIF. Most importantly, the CMTIF requires a strong political will throughout the period of its implementation. It is the expectation of the Ministry that the CMTIF meets all the necessary requirements for endorsement from all stakeholders beyond the Ministry.

Complete or adequate implementation of the framework gives Malawi a great chance of improving its transport sector, facilitating economic growth, and achieving national aspirations whilst also significantly contributing towards achievement of regional and global goals.

## KEY FOR ANNEX I & II

No.	Item	Area	Definition/Description	
1	Colour Coding Key	All Sectors		
				Funds Available
				Funding Processes on-going
		Roads		Prioritised but Funds not Available
				Ongoing and Government funded in 2020-21 FY

# ANNEX I: MAIN FRAMEWORK

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
Reduce transport costs	Facilitate modal shift from road to rail and inland water transport	RAIL	Enhanced efficiency in freight services	201km of railway line reconstructed and upgraded	1	Marka - Bangula (72km)	2020-2023	93.33	70,000.00	CEAR, Govt, PFI		The projects are bankable and expressed interest from banks and pensions funds as well Government commitment to finance the projects will be maintained
					2	Bangula - Makhanga (8.7km)	2022-2023	83.33	62,500.00	CEAR, Govt, PFI		
					3	Makhanga - Sandama (49km)	2023-2025	103.33	77,500.00	CEAR, Govt, PFI		
					4	Sandama - Limbe (72km)	2024-2025	93.33	70,000.00	CEAR, Govt, PFI		
					5	Construction of the Ruw Bridge (175m)	2019-2021	9.33	7,000.00	CEAR, Govt, PFI		The bridge will be able to withstand effects of climate change.
				Feasibility and design study for the expansion of the railway north of Lilongwe conducted.	6	Expansion of the railway north of Lilongwe.	2020-2022	1.35	1,010.00	CEAR, Govt, PFI		There is political will to expand the railway network.
				12 shelter facilities to support the passenger train service constructed	1	Construction of Shelter facilities along the Sandama-Balaka-Nayuchi Railway Section.	2021-2022	0.75	560.00	CEAR, Govt, PFI		There is adequate funding to carry out the project.
				Enhanced Railway operational efficiency and infrastructural services		Malawi Railways 1994 Limited (MR (94)) as a railway administrator reactivated	1	MR (94) Reactivation	2021-2025	2.00	1,500.00	CEAR, Govt, PFI

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												staff carried out within the specified period.
				Railway Training Centre to develop railway technical capacity.	2		2022-2024	0.52	391.00	CEAR, Govt, PFI		There will be enough technical capacity to sustain operations of the training center.
		INLAND WATER	Enhanced efficiency in passenger and freight services	Port facilities constructed, and Cargo Handling Equipment procured	1	Likoma Port	2019-2021	13.33	10,000.00	Govt		Government will continue to finance the project to completion stage.
				Port facilities rehabilitated, Capital dredging done, Navigation lights installed.	2	Chipoka Port	2020-2025	13.33	10,000.00	Govt		The project will be fully supported under the Public Infrastructure Investment Programme (PSIP).
				Landing facilities constructed at docking places at; Chizumulu, Senga Bay, Nkhotakota, Mangwina, Usisya, Makanjira and, Ruarwe, Tchalo, Mlowe.	4	Construction of landing facilities	2020-2025	2.00	1,500.00	Govt		Project funding will be identified soon (Currently there are no existing landing shelters at the docking areas).

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			Improved operations of inland water transport services	Monkey Bay Shipyard rehabilitated. Ship repair facilities available to all types of ships.	7	Monkey Bay Shipyard	2020-2025	6.70	5,024.00	Govt/PFI		Investors will be identified timely and the project will be funded adequately.
		INTERMODAL INTERGRATION	Intermodal integration improved	Feasibility studies for the establishment of Dry Ports in Lilongwe and Blantyre. Dry Ports established in Lilongwe and Blantyre		Construction of Dry Ports	2021-2025	30.00	22,500.00	PFI		The proposed PPP approach will be able to incentivise the private sector
	Enhance regional connectivity	INLAND WATER	Enhanced efficiency in operations of key ports	Capital dredging done, and Gantry Crane replaced	3	Chilumba port	2020-2023	2.00	1,500.00	Govt		The capital dredging will address the negative climate effects at the Port.
				Jetty, landing facility for Ro-Ro operation and office block constructed, and waiting shelter rehabilitated.	5	Nkhata Bay Port	2022-2025	20.00	15,000.00	Mw/Tz/Zambia		The project will draw commitment and financing at Regional level. (The Port is part the Mtwara Corridor, from the Port of Mtwara in Tanzania through Malawi to Zambia.)
		CORRIDORS	Enhanced efficiency in the operations of key corridors	Nacala Corridor Tripartite Committee operationalised.	1	Southern Africa Trade and Connectivity Project	2021-2025	2.20	1,650.00	World Bank		The World Bank are willing to finance some CMI but long-

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects	Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
											term sustainability may be a challenge.
				Corridor Performance Information System (CPM) under Dar es Salaam Corridor adopted	2	Southern Africa Trade and Transport Facilitation Project Phase I	2021-2025	1.00	750.00	World Bank	The World bank will grant project extension to accommodate the component.
	Enhance connectivity of rural areas to support growth of key economic sectors	ROADS	Domestic transport costs reduced	Routine Maintenance of the Public Road Network		Entire public road network (15,451km)	2020-2025	375.00	281,250.00	Govt	Adequate funding will be provided in the next five years to carry out the activity.
				1,602km of paved road network preserved	1	Kacheche - Mzuzu (50.2km)	2022-2024	37.65	28,237.50	Govt	Government will provide adequate funding.
					2	Mzuzu - Mzimba T/Off (96.5km)	2022-2025	72.38	54,281.25	Govt	Donor requirements are met.
					3	Kasungu - KIA T/Off (102km)	2021-2023	90.09	67,566.75	Donors	Government will provide adequate funding.
					4	Zalewa - Blantyre (30km)	2021-2023	22.50	16,875.00	Govt	Donor requirements are met.
					5	KIA T/Off - Kanengo (11km)	2022-2023	8.25	6,187.50	Govt	Government will provide adequate funding.
					6	Jenda - Mzimba T/Off (46.7)	2021-2023	16.68	12,510.96	Donors	Donor requirements are met.
					7	Kasungu - Jenda (85.5km)	2021-2023	39.88	29,913.00	Donors	Donor requirements are met.
					8	Chiweta - Kacheche (66.5km)	2021-2023	50.93	38,200.50	Donors	Government will provide adequate funding.
					9	Namitete - Lilongwe (45.7km)	2022-2024	34.28	25,706.25	Govt	Government will provide adequate funding.
					10	Nkhotakota - Kaphatenga (103km)	2022-2024	77.25	57,937.50	Govt	



Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions				
					11	Kaphatenga - M001 junction (149km)	2022-2025	111.75	83,812.50	Govt						
					12	Matawale - Liwonde (66km)	2021-2023	49.50	37,125.00	Govt						
					13	Mangochi - Chiponde (41km)	2021-2023	30.75	23,062.50	Govt						
					14	Zalewa - Mwanza (57km)	2022-2024	42.75	32,062.50	Govt						
					15	Mchinji - Namitete (72.6km)	2024-2025	54.45	40,837.50	Govt						
					16	Chingeni - Liwonde (36km)	2021-2023	27.00	20,250.00	Donors		Donor requirements are met.				
					17	Nsipe Chingeni (19km)	2021-2022	14.25	10,687.50	Donors						
					18	Dwangwa - Nkhotakota (56.5km)	2020-2022	42.38	31,781.25	Govt		Government will provide adequate funding.				
					19	Kanengo - Kaphatenga (84km)	2021-2023	63.00	47,250.00	Govt						
					20	Chikwawa - Ngabu (50.4km)	2024-2025	17.64	13,230.00	Govt						
					21	Lilongwe town hall - Likuni bridge (8km)	2021-2022	2.80	2,100.00	Govt						
					22	Golomoti - Mangoma (58km)	2022-2024	43.50	32,625.00	Govt						
					23	Chitipa - Karonga (99km)	2023-2025	74.25	55,687.50	Govt						
					24	Bunda - Dedza (82km)	2021-2023	61.50	46,125.00	Govt						
					25	Dedza - Nsipe (86km)	2023-2025	64.50	48,375.00	Govt						
					1,374km of unpaved roads upgraded											Government will provide adequate funding.
						1	Unga Bridge - Mangochi (58km)	2022-2024	55.10	41,325.00	Govt					
						2	Nsanje - Marka (25km)	2020-2021	23.75	17,812.50	Govt					
						3	Thete - Lobi (14km)	2021-2023	13.30	9,975.00	Govt					
						4	Likuni - Malingunde (18km)	2022-2023	17.10	12,825.00	Govt					
								5	Matutu - Bua - Nambuma (53km)	2022-2024	50.35	37,762.50	Govt			

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					6	Mbobo - Nkhotakota game reserve east boundary (33km)	2020-2021	31.35	23,512.50	Govt		
					7	Chitanga: Junction M009 - Rumphiboma (20km)	2020-2021	19.00	14,250.00	Govt		
					8	Mtwalo - Mtantha (32km)	2024-2025	30.40	22,800.00	Govt		
					9	Mwanza - Chikwawa (96km)	2021-2024	91.20	68,400.00	Govt		
					10	Mtantha - Junction M022 51.5km)	2020-2023	48.93	36,693.75	Govt		
					11	Marymount Sec School - Bula Usisya (56km)	2022-2024	53.20	39,900.00	Govt		
					12	Lifupa - M001 Jct (53.9km)	2023-2025	51.21	38,403.75	Govt		
					13	Nambuma - Chimwaza (38km)	2022-2024	36.10	27,075.00	Govt		
					14	Makanjira - Unga Bridge (38km)	2023-2025	36.10	27,075.00	Govt		
					15	Kasinje - Ntcheu (32km)	2021-2024	30.40	22,800.00	Govt		
					16	Ntcheu - Tsangano - Neno - Mwanza (132km)	2020-2025	125.40	94,050.00	Govt		
					17	Machinga - Chingale - Lirangwe (62km)	2020-2023	58.90	44,175.00	Govt		
					18	Thabwa - Seven (59km)	2021-2024	38.05	28,537.50	Govt		
					19	Chinzama - Seven (33km)	2020-2021	31.35	23,512.50	Govt		
					20	Livingstonia - Njakwa (53km)	2020-2022	50.35	37,762.50	Govt		
					21	Malomo - Ntchisi - Dzaleka (69km)	2021-2024	65.55	49,162.50	Govt		

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
					22	Mzimba: Junction M009 - Majighasawa: Junction M001 (17km)	2020-2021	16.15	12,112.50	Govt		
					23	Nsanama - Nayuchi (44km)	2021-2024	41.80	31,350.00	Govt		
					24	Cape Maclear - Nsandu (18km)	2021-2023	17.10	12,825.00	Govt		
					25	Mikolongwe - Chilemba (18km)	2021-2023	17.10	12,825.00	Govt		
					26	Mkanda - Kapiri (22km)	2021-2023	20.90	15,675.00	Govt		
					27	Chiringa - Muloza (50km)	2020-2023	47.50	35,625.00	Govt		
					28	Didi - Thunga (24km)	2021-2023	22.80	17,100.00	Govt		
					29	Makande: Junction M004/D345 - Luchenza (17km)	2021-2023	16.15	12,112.50	Govt		
					30	Likoma/Chizumulu island roads (10km)	2024-2025	9.50	7,125.00	Govt		
Improve the safety of transport infrastructure and services	Decongest traffic in cities		Travel time in urban areas reduced	(i) Capacity of selected urban roads improved, (ii) Bus Rapid Transit (BRT) introduced in Lilongwe	1	Kenyatta and Mzimba Street in Lilongwe (8.3km)	2020-2022	55.00	41,250.00	Govt		Government will provide adequate funding
				Capacity of selected urban roads improved (83km)	2	Junction with Paul kagame to Junction with Lubani (3km)	2021-2024	40.00	30,000.00	Japan		Donor requirements are met.
					3	Junction with Lubani to Junction with Chidzanja (2km)	2022-2023	4.05	3,035.25	Govt		Government will provide adequate funding
					4	Kanengo to Crossroads (10km)	2021-2023	22.80	17,100.00	China		Donor requirements are met.
					5	Kaunda and Chendawaka roads (13km)	2022-2024	31.00	23,250.00	Govt		Government will provide

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
					6	Crossroads to Junction with Paul Kagame (1km)	2022-2023	2.28	1,710.00	Govt		adequate funding.
					7	Junction with Chidzanja to Junction with S125 (6km)	2023-2025	10.83	8,122.50	Govt		
					8	Lunzu to Junction with M2 (Old kandodo Corner shop) (18km)	2023-2025	33.25	24,937.50	Govt		
					9	3 Miles to Matawale (10km)	2023-2025	19.00	14,250.00	Govt		
					10	Mzuzu University to Mchengautuwa (12km)	2023-2025	23.00	17,250.00	Govt		
					11	Kameza Round About to Chileka (8km)	2023-2025	15.20	11,400.00	Govt		
					Feasibility study		2021-2023	1.50	1,125.00	Govt		
					14	Lilongwe to Blantyre M1 (321km)	2023-2025	190.00	142,500.00	Govt		
						Blantyre bypass (97km)	2020-2025	92.15	69,112.50	Govt		
						Lilongwe east bypass (38km)	2023-2025	36.10	27,075.00	Govt		
						Lilongwe west bypass (Dzenza - M001 Jct) (12km)	2022-2023	11.40	8,550.00	Govt		
						Mzuzu bypass (30km)	2023-2025	28.50	21,375.00	Govt		
				Access for Non-Motorised Transport (NMT) improved	Urban and City roads with cycle lanes and pedestrian walkways.	Road Improvement Programme	2021-2025	50.00	37,500.00	Govt, Donors		New road construction projects will incorporate the proposed cycle lanes and pedestrian walkways.

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	Improve certification of construction materials at Central Materials Laboratory (CML).		Capacity of CML improved.	New offices and modern Laboratory building constructed.	1	Construction of CML Offices and Laboratory.	2022-2025	3.56	2,672.64	Govt		There will be Government commitment to finance the project.
				Field testing equipment.	1	Modern CML Laboratory equipment	2021-2025	1.90	1,425.40	Govt		Capacity constraints of CML will be addressed in the short to medium term.
				Soil and Rock mechanics advanced testing equipment.	1		2021-2022	0.48	356.35	Govt		
				Cement and concrete testing equipment	2		2022-2023	0.48	356.35	Govt		
				Asphalt testing equipment.	1		2021-2023	0.95	712.70	Govt		
	Reduce fatalities and injuries resulting from road traffic accidents	ROAD TRAFFIC	Enhanced road traffic law enforcement	Road Traffic Regulation (2000) reviewed	1	Road Traffic E-enforcement (DRTSS and MPS)	2020-2022	0.13	100.00	Govt		Political Will be secured to adopt the proposed changes
				Enforcement equipment (800 PDAs and Printers, 10 Speed Cameras, 4 Automatic Number Plate Reader (ANPR)			2020-2025	0.13	100.00	Govt, Donors		Timely approval of procurement processes
				8 unmanned speed cameras procured. System for unmanned cameras commissioned.			2021-2025	2.80	2,100.00	Govt		Capacity to operate the system will be sufficient and there will be timely approval of procurement processes
				4 towing vehicles, starting with 2 vehicles (BT & LL)	6		2020-2023	0.80	600.00	Govt		Capacity to manage the vehicles will be sufficient.

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				Colour Coding Programme for Public Service Vehicles enhanced (minibuses, taxis)	7	Colour Coding of Public Service Vehicles	2021-2023	0.01	7.00	Govt		Enough public and stakeholder awareness programs held before inception and implementation
			Enhanced road safety awareness and civic education	4 road safety mobile vehicles (2 for Blantyre and Lilongwe)	4	Road Safety Awareness	2020-2021	0.40	300.00	Govt		Timely approval of procurement processes.
				2 children road safety park constructed	7	Construction of Children Safety Park	2023-2025	2.67	2,000.00	Govt, Donors		Timely approval of procurement processes.
			Improved road accident database	Road Safety Database upgraded	2	MaltIS Upgrade	2021-2022	0.03	25.00	Govt, Donors		Upgrade of MaltIS will be completed timely and handed over to the Government of Malawi.
	Improve capacity in road traffic and safety management	Decongest the road traffic stations		Vehicle testing stations in Karonga, Mangochi and Ngabu constructed and offer some DRTSS services	1	Construction and maintenance of Vehicle Testing Stations	2020-2022	0.93	700.00	Govt		Support from all key institutions
				Vehicle testing stations in urban cities constructed.	3		2022-2023	1.33	1,000.00	Govt		Availability of land for the project
				Existing vehicle inspection stations maintained	2		2021-2022	0.12	90.00	Govt		travel restriction uplifted for the coming in of the consultant

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				7 mobile MaltIS equipment procured and roll-out the services.	1	Establishment of Mobile MaltIS solution	2020-2023	0.27	200.00	Govt		Availability of funds to procure all the units.
				4 Vehicles for mobile MaltIS operations procured.	2		2020-2024	0.47	350.00	Govt		
				4 mobile vehicle testing equipment procured.	3		2023-2024	0.67	500.00	Govt		
				4 driver testing yards constructed in urban areas (Zomba, Blantyre, Lilongwe and Mzuzu)	1	Construction of driver testing yards	2021-2025	8.00	6,000.00	Govt		Availability of funds and space for the project
				Online MaltIS software services procured and introduced.	5	Digitise Road Traffic and Safety Services	2021-2022	0.07	50.00	Govt		Digitised services will be adequately adopted.
			Improve management of road traffic and safety services	Road Traffic Authority established.	2	Establishment of Road Traffic Authority	2024-2025	0.13	100.00	Govt		Political will to establish another authority may be a challenge
				Functional Review		Review the Road Traffic and Safety Services Establishment.	2021-2023	0.03	25.00	Govt		Functional Review will be approved.
				Increase office space in all DRTSS Stations	1	Construction of DRTSS office parks	2020-2025	10.67	8,000.00	Govt, Donors		Availability of funds to have all the required sub-projects done.
				6 weighbridge stations constructed	2	Nkhotakota weighbridge station	2020-2022	0.53	400.00	Govt		Availability of funds to
	Improve infrastructure											

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	e protection		Vehicle overloading reduced			Dedza weighbridge station	2020-2024	1.20	900.00	Govt		have all stations constructed
						Bwengu weighbridge station	2022-2025	0.67	500.00	Govt		
						Karonga weighbridge station	2021-2024	1.20	900.00	Govt		
						Mwanza weighbridge station	2021-2025	1.20	900.00	Govt		
						Mangochi-Chiponde weighbridge station	2022-2025	1.20	900.00	Govt, Donors		
				4	Upgrading and expansion of Balaka station	2023-2024	0.11	80.00	Govt			
					Upgrading and expansion of Dedza station	2024-2025	0.11	80.00	Govt			
				3	Link all weighbridges to the MaltIS	Upgrading and expansion of vehicle load control services	2021-2022	0.13	100.00	Govt		MaltIS Upgrade will be finalised timely.
				1	Procure 10 portable scales		2020-2025	0.57	430.00	Govt		The portable scales will be durable for the specified period.
	Improve safety in operations of passengers and freight services on water.	INLAND WATER	Increased number of trained seafarers to meet demand on marine vessels	Lecture theatre, Classroom blocks, Cafeteria and Brick fence constructed.	6	Expansion of Marine Training College	2023-2025	2.00	1,500.00	Govt		The enrolment rates will respond to the expanded capacity of the training college.
Enhance aviation	AIR TRANSPORT	Airports and Air Navigation	(i) Geodetic survey conducted.	1	Air Navigation Infrastructure Improvement	2021-2024	3.00	2,250.00	Govt		Manufacturers and suppliers will	



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	safety and security		(Communications, Navigation, Surveillance) Infrastructure Improved	(ii) Area cover equipment installed (Extended VHF range) at Zomba peak station, Nyika station, and Mzuzu station.			2022-2023	0.07	50.00	Govt		be back to full capacity in operations following the Covid-19 pandemic
				(iii) Minor aerodromes such as security fences, terminal building and operational blocks rehabilitated.			2021-2023	0.40	300.00	Govt		Availability of finances in the required period.
				(iv) Chileka runway reconstructed by widening (30m to 45m) and lengthening (2.3km to 3km).			2020-2023	1.67	1,250.00	Govt/Donors		Project proposal receives approval from EIB.
			(i) Runway rehabilitated (ii) Apron reconstructed (iii) Airside visual aids established (iii) Airport Rescue and Firefighting Equipment procured (iv) Operational manuals established (v) Wildlife preservation measures established	2	Enhancement of KIA Infrastructure, Operations, Procedures and Training.	2021-2024	38.00	28,500.00	Govt		The project will address safety concerns at KIA airside and lead to certification of the Airport.	
	Upgraded essential aviation safety and security equipment	(i) Fire station at Chileka constructed, (ii) Security fence and perimeter road at CIA and KIA rehabilitated.	2	Essential Aviation Safety and Security Project	2020-2022	25.07	18,800.00	Govt/EIB		Continued support from EIB to ensure project completion.		
	Strengthen regulation of transport services	AIR TRANSPORT	Improved air transport regulation	(i) Orientation session for Board members (ii)Two Board meetings (iii) Transitional CAA operational	1	Establishment of Civil Aviation Authority	2020-2023	1.00	750.00	Govt		Funding levels will be consistent in line with the roadmap for establishment of the CAA.

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
				KIA Aerodrome certified in accordance to ICAO Safety and Security Standards.	2	Certification of KIA Aerodrome	2024-2025	0.13	100.00	Govt		The CAA is established to regulate operators and service providers.
				Air Cargo Malawi Ltd licenced as an all-cargo operator.	3	Certification of Air Transport Service Providers	2021-2023	0.40	300.00	Govt		
				LIHACO licensed as an approved ground handler.			2021-2022	0.13	100.00	Govt		
				Operator(s) for the management and operations of commercial service airports in Malawi established.			2020-2022	0.07	50.00	Govt		
				Study to inform the establishment of a new airline conducted (e.g., regional, low cost)	4	Establishment of a New National Airline	2021-2023	1.33	1,000.00	Govt		There is adequate domestic and international demand for passenger services
				Processes of establishing a new national airline facilitated			2023-2024	0.13	100.00	Govt		
		INLAND WATER	Enhanced regulatory oversight in water transport.	Consultations on the draft revised Inland Waters Shipping Act. Inland Waters Shipping Act concluded and Gazetted.	1	Review of Water Transport Safety Regulations	2021-2022	0.13	100.00	Govt		The revised regulation will address emerging safety issues in operations of passenger and freight services on water.

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
		RAIL	Enhanced regulation of the railway sub-sector in line with present day railway setting.	Consultations on the draft revised Railway Act concluded. The Revised Railway Act Gazetted.	1	Review of the Railway Act	2020-2021	0.03	21.00	Govt		Gaps identified by the Ministry of Justice and Constitutional Affairs addressed timely.
		RAIL & INLAND WATER	Enhanced regulatory oversight over passenger and freight services	Study conducted, Cabinet Paper towards establishment of Rail and Marine Regulatory Authority of Malawi (RAMRAM)		Establishment of RAMRAM	2022-2023	1.00	750.00	Govt, Donors		The study will recommend appropriate steps to establish RAMRAM.
				RAMRAM operationalised			2023-2025	1.25	937.50	Govt, Donors		There is interest from Development Partners to support the establishment of RAMRAM.
		INTERMODAL INTERGRATION	Enhanced regulation of rural transportation and improved transportation of agricultural produce to markets	Study on establishment of Rural Transport Authority (RTA) conducted		Transport Regulation Improvement Programme	2021-2023	1.00	750.00	Govt, Donors		Political Will to establish the RTA will be adequate.
				Key stakeholders identified			2023-2024	0.13	100.00	Govt, Donors		
			Enhanced regulation of urban transport systems	Study on establishment of Urban Areas Transport Authority (UATA) conducted			2021-2023	1.00	750.00	Govt, Donors		Political Will to establish the UATA will be adequate
				Key stakeholders identified			2023-2024	0.13	100	Govt, Donors		

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
Improve capacity of local construction industry	Restructure PVHES	PVHES	Improved implementation of PVHES plans, programmes and activities.	PVHES Strategic Plan finalised and approved	1	Review of PVHES Strategic and Business plans	2020-2021	0.03	20.00	Govt		The finalised strategic plan will be fully implemented
			Improved governance and operations of PVHES	Functional Review approved and implemented	2	Functional review implementation	2020-2022	0.30	225.00	Govt		The functional review recommendations approval by government.
				Monitoring and surveillance system installed								
				Automated invoicing, billing and revenue collection system established								
			Autonomous institution/PVHES Trust established		Review of institutional arrangements and legal mandate for the re-establishment of PVHES	2021-2023	0.53	400.00	Govt		PVHES Trust/autonomous authority establishment approval by government	
	Recapitalise PVHES		Enhanced business operations of PVHES in hiring and maintenance of plant, vehicles and equipment	PVHES workshops and equipment rehabilitated and maintained.	3	Rehabilitation of workshop infrastructure and maintenance of PVHES plant & vehicles	2020-2022	0.47	350.00	Govt		Timely assessment and disposal of obsolete plant and equipment.
				PVHES plant and vehicles maintained								
				New workshop tools and equipment procured for Karonga, Ngabu and Mangochi Vehicle Inspection Station (VIS).	4	VIS Project with DRTSS	2020-2021	0.57	425.00	Govt		All key players committed to the implementation process of the project. The project is being undertaken by
				Automated system								

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
												collaborative partners: PVHES, DRTSS, RFA and RA.
				Request for Proposal document for Public Private Partnership Investment developed.	6	Recapitalisation of PVHES	2020-2025	4.50	3,375.00	PPPI, Govt, Commercial banks		RFP will be approved timely
				New plant & vehicles purchased.								The business case which PVHES will develop will generate adequate interest from the private sector.
				Rehabilitated Infrastructure								
				New workshop tools and equipment procured.								
				Improved institutional and human capacity								
				Automated system for management of PVHES operations developed.	5	Development of PVHES Automated System	2019-2021	0.30	225.00	Govt		Government Funding will be secured to complete the project.
				New business portfolio developed.	10	Number Plate Embossing	2020-2021	0.10	75.00	Govt		PVHES will be competitive in the provision of the service against the mushrooming private service providers.
	Increase market share for the local	CONSTRUCTION	Technical capacity of local firms enhanced	Project Design for purpose built NCIC office and workshop Complex.	2	Construction of NCIC training institution and	2020-2022	0.17	129.00	NCIC		Annual revenue targets will be realised.

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects	Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
	construction firms			Tailor made, foremanship, Clerk of Works and demand driven training course facilitated		upgrading of training programmes					There is collaboration with key stakeholders for the training programmes.
			Financial capacity of local firms enhanced	Remission of retention funds to regulated fund manager enforced							
Improve regulation of the Construction Industry	Strengthen construction industry regulatory frameworks		Enhanced regulatory oversight in construction industry.	NCI Act and Regulations revised.	1	NCI Bill Amendment	2020-2023	0.01	10.00	NCIC	There is going to be political will to establish the Authority.
Improve regulation, management and oversight of Government fleet: plant and vehicles.	Enhance and sustain Government fleet management	PVHES	Improved standards and quality assurance								
			Enhanced management and control of Government fleet	Fleet Management Policy formulated	7	Development of fleet management policy and guidelines	2020-2022	0.10	75.00	Govt	Full Treasury (financial) and OPC support secured.
			Improved coordination of government fleet operations.	Fleet Management System established	8						
			Reduced capital and running costs for Govt fleet	Updated Asset Inventory	9	Development and implementation of fleet management system	2020-2022	0.30	225.00	Govt	Full Treasury (financial) and OPC support secured
Functional, stronger,	Strengthen regulation of the	BUILDINGS	1. Strengthened legal	National Buildings Policy formulated	1	Development of Buildings Legislation (DBL) Project	2020-2021	0.04	30.00	Govt, WB	Continued financial and technical

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
aesthetics and resilient buildings	Buildings sector.		mandate; 2. Improved quality functionality and resilience of buildings									support from the World Bank.
				National Building Bill enacted		2020-2021	0.07	51.00	Govt, WB		Continued financial and technical support from the World Bank.	
				Buildings Authority established		2020-2022	0.50	375.00	Govt, Donors		There is going to be political will to establish the Buildings Authority.	
				Board of Architect and Quantity Surveyors Act (BoAQS) reviewed.		2020-2021	0.06	48.00	Govt		Funds will be available within the specified timeline.	
	Enhanced professionalism in the building sector		Coordination with stakeholders strengthened	3	Sensitise stakeholders on matters of ethics	2020-2022	0.06	42.00	Govt		There will be cooperation with the stakeholders	
			Regulations and standards in the building sector adhered to	2	Develop professional ethics code for architects and quantity surveyors through the Board of Architects and Quantity Surveyors.	2020-2024	0.13	98.00	Govt		Stakeholders will comply with standards and regulations	
	Strengthen good governance in the Buildings sector		Improved service delivery in the Buildings sector.	Service charter implemented and employees and clients sensitised.	1	Review, analyse, finalise and implement service charter	2020-2022	0.05	39.00	Govt		The service charter will be developed and disseminated timely.
				Functional Review implemented	1	Carry out and implement a Functional Review	2020-2022	0.06	42.00	Govt		Compliance by the stakeholders

Strategic Goal	Prioritised Operational Objectives	Sub-Sector	Medium-Term Expected Outcomes	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	Assumptions
				Collaborative procurement processes promoted.	2	Engage Stakeholders on the role of DOB on procurement of civil works	2020-2025	0.05	39.00	Govt		Compliance by the stakeholders.
	Provide technical support services on building construction projects		Improved provision of buildings technical services	Buildings Information Modelling System implemented.	1	Buildings Information Modelling	2020-2022	0.67	500.00	Govt/D onors		The system will be adopted by the stakeholders
				Standard specifications on measurements developed.	1	Review, analyse and consolidate standard specifications and Malawi Method of Measurements	2020-2022	0.13	100.00	Govt/D onor		Collaboration with key stakeholders (NCIC, MBS and professional bodies)
				Building Cost Indices developed	3	Engage Consultants, finalise and roll out	2020-2025	0.13	100.00	Govt/D onor		Collaboration with key stakeholders
				Strengthen Decentralization of Building Services	3	Assess capacity of local assemblies; strengthen Regional Offices	2020-2024	0.26	200.00	Govt/D onor		Collaboration with key stakeholders
				VVIP support provided	4	Procurement of equipment, vehicles and demountable VVIP Platforms.	2020-2025	0.47	350.00	Govt		Availability of adequate and timely project funds by Treasury
				Landscape works provided	3	Capital Hill Landscape project.	2020-2025	0.50	360.00	Govt		Availability of adequate and timely project funds by Treasury



## ANNEX II: FINANCE PLAN

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
		No.											
RAIL	201 km of railway line reconstructed and upgraded.	1	Marka - Bangula (72km)	2020-2023	93.33	70,000.00	CEAR, Govt, PFI		11,000.00	30,000.00	29,000.00		
		2	Bangula - Makhanga (8.7km)	2022-2023	83.33	62,500.00	CEAR, Govt, PFI			10,500.00	26,000.00	26,000.00	
		3	Makhanga - Sandama (49km)	2023-2025	103.33	77,500.00	CEAR, Govt, PFI			8,500.00	19,000.00	25,000.00	25,000.00
		4	Sandama - Limbe (72km)	2023 - 2025	93.33	70,000.00	CEAR, Govt, PFI					35,000.00	35,000.00
		5	Construction of the Ruo Bridge (175m)	2019-2021	9.33	7,000.00	CEAR, Govt, PFI		2,000.00	5,000.00			
	Feasibility and design study for the expansion of the railway north of Lilongwe conducted.	6	Expansion of the railway north of Lilongwe	2020-2022	1.35	1,010.00	CEAR, Govt, PFI		210.00	400.00	400.00		
	12 shelter facilities to support the passenger train service constructed.	1	Construction of Shelter facilities along the Sandama-Balaka-Nayuchi Railway Section	2021 - 2022	0.75	560.00	CEAR, Govt, PFI		100.00	300.00	160.00		
	Malawi Railways 1994 Limited (MR (94)) as a railway administrator reactivated.	1	MR (94) Reactivation	2021 - 2025	2.00	1,500.00	CEAR, Govt, PFI			250.00	500.00	500.00	250.00

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	Railway Training Centre to develop railway technical capacity.			2022 - 2024	0.52	391.00	CEAR, Govt, PFI				195.00	196.00	
	Consultations on the draft revised Railway Act concluded. The Revised Railway Act Gazetted.	1	Review of the Railway Act	2020 - 2021	0.03	21.00	Govt		11.00	10.00			
RAIL & INLAND WATER	Study conducted, Cabinet Paper towards establishment of Rail and Marine Regulatory Authority of Malawi (RAMRAM)		Establishment of RAMRAM	2022-2023	1.00	750.00	Govt, Donors				750.00		
	RAMRAM operationalised			2023-2025	1.25	937.50	Govt, Donors					468.75	468.75
INLAND WATER	Port facilities constructed, and Cargo Handling Equipment procured	1	Likoma Port	2019 - 2021	13.33	10,000.00	Govt		2,597.00	2,598.00			
	Port facilities rehabilitated, Capital dredging done, Navigation lights installed.	2	Chipoka Port	2020 - 2025	13.33	10,000.00	Govt			300.00	1,700.00	5,000.00	3,000.00
	Landing facilities constructed at docking places at; Chizumulu, Senga Bay, Nkhotakota, Mangwina, Usisya, Makanjira and, Ruarwe,	4	Construction of landing facilities	2020 - 2025	2.00	1,500.00	Govt				500.00	500.00	500.00

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	Tchalo and Mlowe.												
	Monkey Bay Shipyard rehabilitated. Ship repair facilities available to all types of ships.	7	Monkey Bay Shipyard	2020 -2025	6.70	5,024.00	Govt/PFI		100.00	1,231.00	1,231.00	1,231.00	1,231.00
	Lecture theatre, Classroom blocks, Cafeteria and Brick fence constructed.	6	Expansion of Marine Training College	2023 - 2025	2.00	1,500.00	Govt					1,000.00	500.00
	Consultations on the draft revised Inland Waters Shipping Act. Inland Waters Shipping Act concluded and Gazetted.		Review of Water Transport Safety Regulations	2021 - 2022	0.13	100.00	Govt		100.00				
	Capital dredging done, and Gantry Crane replaced	3	Chilumba port	2020 - 2023	2.00	1,500.00	Govt			1,500.00			
	Jetty, landing facility for Ro-Ro operation and office block constructed, and waiting shelter rehabilitated.	5	Nkhata Bay Port	2022 - 2025	20.00	15,000.00	Mw/Tz/Za				5,000.00	5,000.00	5,000.00
INTERMODAL INTEGRATION	Feasibility studies for the establishment of Dry Ports in Lilongwe and		Construction of Dry Ports	2021 - 2025	30.00	22,500.00	PFI			5,500.00	5,700.00	5,700.00	5,600.00

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	Blantyre. Dry Ports established in Lilongwe and Blantyre												
	Study on establishment of Rural Transport Authority (RTA) conducted		Transport Regulation Improvement Programme	2021-2023	1.00	750.00	Govt, Donors			375.00	375.00		
	Key stakeholders identified			2023-2024	0.13	100.00	Govt, Donors					100.00	
	Study on establishment of Urban Areas Transport Authority (UATA) conducted			2021-2023	1.00	750.00	Govt, Donors			375.00	375.00		
	Key stakeholders identified			2023-2024	0.13	100.00	Govt, Donors					100	
CORRIDORS	Nacala Corridor Tripartite Committee operationalised.	1	Southern Africa Trade and Connectivity Project	2021 - 2025	2.20	1,650.00	World Bank		330.00	330.00	330.00	330.00	330.00
	Corridor Performance Information System (CPM) under Dar es Salaam Corridor adopted	2	Southern Africa Trade and Transport Facilitation Project Phase I	2021 - 2025	1.00	750.00	World Bank		150.00	150.00	150.00	150.00	150.00
ROADS	Routine Maintenance of the Public Road Network		Entire public road network (15,451km)	2020-2025	375.00	281,250.00	Govt		56,250.00	56,250.00	56,250.00	56,250.00	56,250.00
	1,602km of paved road network preserved	1	Kacheche - Mzuzu (50.2km)	2022-2024	37.65	28,237.50	Govt				14,062.50	14,175.00	
		2	Mzuzu - Mzimba T/Off (96.5km)	2022-2025	72.38	54,281.25	Govt				16,875.00	22,500.00	14,906.25
		3	Kasungu - KIA T/Off (102km)	2021-2023	90.09	67,566.75	Donors			33,120.96	34,445.79		
		4	Zalewa - Blantyre (30km)	2021-2023	22.50	16,875.00	Govt			8,437.50	8,437.50		

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
		5	KIA T/Off - Kanengo (11km)	2022-2023	8.25	6,187.50	Govt				6,187.50		
		6	Jenda - Mzimba T/Off (46.7)	2021-2023	16.68	12,510.96	Donors			7,985.72	4,525.24		
		7	Kasungu - Jenda (85.5km)	2021-2023	39.88	29,913.00	Donors			17,492.98	12,420.02		
		8	Chiweta - Kacheche (66.5km)	2021-2023	50.93	38,200.50	Donors			22,977.74	15,222.76		
		9	Namitete - Lilongwe (45.7km)	2022-2024	34.28	25,706.25	Govt				14,062.50	11,643.75	
		10	Nkhotakota - Kaphatenga (103km)	2022-2024	77.25	57,937.50	Govt				28,125.00	29,812.50	
		11	Kaphatenga - M001 junction (149km)	2022-2025	111.75	83,812.50	Govt				28,125.00	28,125.00	27,562.50
		12	Matawale - Liwonde (66km)	2021-2023	49.50	37,125.00	Govt			22,500.00	14,625.00		
		13	Mangochi - Chiponde (41km)	2021-2023	30.75	23,062.50	Govt			16,875.00	6,187.50		
		14	Zalewa - Mwanza (57km)	2022-2024	42.75	32,062.50	Govt				16,875.00	15,187.50	
		15	Mchinji - Namitete (72.6km)	2024-2025	54.45	40,837.50	Govt					22,500.00	18,337.50
		16	Chingeni - Liwonde (36km)	2021-2023	27.00	20,250.00	Donors			5,625.00	14,625.00		
		17	Nsipe Chingeni (19km)	2021-2022	14.25	10,687.50	Donors			10,687.50			
		18	Dwangwa - Nkhotakota (56.5km)	2020-2022	42.38	31,781.25	Govt		11,250.00	20,531.25			
		19	Kanengo - Kaphatenga (84km)	2021-2023	63.00	47,250.00	Govt			19,125.00	28,125.00		
		20	Chikwawa - Ngabu (50.4km)	2024-2025	17.64	13,230.00	Govt					7,875.00	5,355.00
		21	Lilongwe town hall - Likuni bridge (8km)	2021-2022	2.80	2,100.00	Govt			2,100.00			
		22	Golomoti - Mangoma (58km)	2022-2024	43.50	32,625.00	Govt				16,875.00	15,750.00	
		23	Chitipa - Karonga (99km)	2023-2025	74.25	55,687.50	Govt					28,125.00	27,562.50
		24	Bunda - Dedza (82km)	2021-2023	61.50	46,125.00	Govt			22,500.00	23,625.00		

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	1,374km of unpaved roads upgraded	25	Dedza - Nsipe (86km)	2023-2025	64.50	48,375.00	Govt					25,875.00	22,500.00
					0.00	0.00							
		1	Unga Bridge - Mangochi (58km)	2022-2024	55.10	41,325.00	Govt				21,375.00	19,950.00	
		2	Nsanje - Marka (25km)	2020-2021	23.75	17,812.50	Govt		17,812.50				
		3	Thete - Lobi (14km)	2021-2023	13.30	9,975.00	Govt			4,987.50	4,987.50		
		4	Likuni - Malingunde (18km)	2022-2023	17.10	12,825.00	Govt				12,825.00		
		5	Matutu - Bua - Nambuma (53km)	2022-2024	50.35	37,762.50	Govt				14,250.00	23,512.50	
		6	Mbobo - Nkhotakota game reserve east boundary (33km)	2020-2021	31.35	23,512.50	Govt		23,512.50				
		7	Chitanga: Junction M009 - Rumpi boma (20km)	2020-2021	19.00	14,250.00	Govt		14,250.00				
		8	Mtwalo - Mtanthe (32km)	2024-2025	30.40	22,800.00	Govt						22,800.00
		9	Mwanza - Chikwawa (96km)	2021-2024	91.20	68,400.00	Govt			7,125.00	30,637.50	30,637.50	
		10	Mtanthe - Junction M022 (51.5km)	2020-2023	48.93	36,693.75	Govt		3,562.50	21,375.00	11,756.25		
		11	Marymount Sec School - Bula Usisya (56km)	2022-2024	53.20	39,900.00	Govt				21,375.00	18,525.00	
		12	Lifupa - M001 Jct (53.9km)	2023-2025	51.21	38,403.75	Govt					21,375.00	17,028.75
		13	Nambuma - Chimwaza (38km)	2022-2024	36.10	27,075.00	Govt				14,250.00	12,825.00	
		14	Makanjira - Unga Bridge (38km)	2023-2025	36.10	27,075.00	Govt					7,125.00	19,950.00
		15	Kasinje - Ntcheu (32km)	2021-2024	30.40	22,800.00	Govt		4,275.00		9,262.50	9,262.50	
		16	Ntcheu - Tsangano - Neno - Mwanza (132km)	2020-2025	125.40	94,050.00	Govt		14,250.00	14,250.00	28,500.00	28,500.00	8,550.00

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
		17	Machinga - Chingale - Lirangwe (62km)	2020-2023	58.90	44,175.00	Govt		13,537.50	16,387.50	14,250.00		
		18	Thabwa - Seven (59km)	2021-2024	38.05	28,537.50	Govt			12,092.16	12,092.16	4,353.18	
		19	Chinzama - Seven (33km)	2020-2021	31.35	23,512.50	Govt		23,512.50				
		20	Livingstonia - Njakwa (53km)	2020-2022	50.35	37,762.50	Govt		28,500.00	9,262.50			
		21	Malomo - Ntchisi - Dzaleka (69km)	2021-2024	65.55	49,162.50	Govt			7,125.00	21,375.00	20,662.50	
		22	Mzimba: Junction M009 - Majighasawa: Junction M001 (17km)	2020-2021	16.15	12,112.50	Govt		12,112.50				
		23	Nsanama - Nayuchi (44km)	2021-2024	41.80	31,350.00	Govt			7,125.00	14,250.00	9,975.00	
		24	Cape Maclear - Nsandu (18km)	2021-2023	17.10	12,825.00	Govt			7,125.00	5,700.00		
		25	Mikolongwe - Chilemba (18km)	2021-2023	17.10	12,825.00	Govt			7,125.00	5,700.00		
		26	Mkanda - Kapiri (22km)	2021-2023	20.90	15,675.00	Govt			7,125.00	8,550.00		
		27	Chiringa - Muloza (50km)	2020-2023	47.50	35,625.00	Govt		7,125.00	14,250.00	14,250.00		
		28	Didi - Thunga (24km)	2021-2023	22.80	17,100.00	Govt			7,125.00	9,975.00		
		29	Makande: Junction M004/D345 - Luchenza (17km)	2021-2023	16.15	12,112.50	Govt			7,125.00	4,987.50		
		30	Likoma/Chizumulu island roads (10km)	2024-2025	9.50	7,125.00	Govt						7,125.00
	(i) Capacity of selected urban roads improved (95km (ii) Bus Rapid Transit (BRT) introduced in Lilongwe	1	Kenyatta and Mzimba Street in Lilongwe (8.3km)	2020-2022	55.00	41,250.00	Govt		6,875.00	34,375.00			

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	Capacity of selected urban roads improved (95km)	2	Junction with Paul kagame to Junction with Lubani (3km)	2021-2024	40.00	30,000.00	Japan			10,000.00	10,000.00	10,000.00	
		3	Junction with Lubani to Junction with Chidzanja (2km)	2022-2023	4.05	3,035.25	Govt				3,035.25		
		4	Kanengo to Crossroads (10km)	2021-2023	22.80	17,100.00	China			8,550.00	8,550.00		
		5	Kaunda and Chendawaka roads (13km)	2022-2024	31.00	23,250.00	Govt				10,730.77	12,519.23	
		6	Crossroads to Junction with Paul Kagame (1km)	2022-2023	2.28	1,710.00	Govt				1,710.00		
		7	Junction with Chidzanja to Junction with S125 (6km)	2023-2025	10.83	8,122.50	Govt					4,061.25	4,061.25
		8	Lunzu to Junction with M2 (Old kandodo Comer shop) (18km)	2023-2025	33.25	24,937.50	Govt					12,468.75	12,468.75
		9	3 Miles to Matawale (10km)	2023- 2025	19.00	14,250.00	Govt					7,125.00	7,125.00
		10	Mzuzu University to Mchengautuwa (12km)	2023-2025	23.00	17,250.00	Govt					8,625.00	8,625.00
		11	Kameza Round About to Chileka (8km)	2023-2025	15.20	11,400.00	Govt					5,700.00	5,700.00
	Feasibility study	14	Lilongwe to Blantyre M1 (321km)	2021-2023	1.50	1,125.00	Govt			500.00	625.00		
	Phase I: Lilongwe to Dedza (100km dual carriage)			2023-2025	190.00	142,500.00	Govt					62,500.00	80,000.00
	Construction of 176.8km by-pass roads												
			Blantyre bypass (97km)	2020-2025	92.15	69,112.50	Govt		7,125.00	15,675.00	15,675.00	15,675.00	14,962.50
			Lilongwe east bypass (38km)	2023-2025	36.10	27,075.00	Govt					14,250.00	12,825.00



Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
			Lilongwe west bypass (Dzenza - M001 Jct) (12km)	2022-2023	11.40	8,550.00	Govt				8,550.00		
			Mzuzu bypass (30km)	2023-2025	28.50	21,375.00	Govt					14,250.00	7,125.00
	Access for Non-Motorised Transport improved		Road Improvement Programme	2021 - 2025	50.00	37,500.00	Govt, Donors			4,500.00	11,000.00	11,000.00	11,000.00
	New offices and modern Laboratory building constructed.	1	Construction of CML Offices and Laboratory.	2022-2025	3.56	2,672.64	Govt				890.88	890.88	890.88
	Field testing equipment.	1	Morden CML Laboratory equipment	2021-2025	1.90	1,425.40	Govt			356.35	356.35	356.35	356.35
	Soil and Rock mechanics advanced testing equipment.	1		2021-2022	0.48	356.35	Govt			356.35			
	Cement and concrete testing equipment	2		2022-2023	0.48	356.35	Govt				356.35		
	Asphalt testing equipment.	1		2023 - 2025	0.95	712.70	Govt					356.35	356.35
ROAD TRAFFIC	Road Traffic Regulation (2000) reviewed	1	Road Traffic E-enforcement (DRTSS and MPS)	2020-2022	0.13	100.00	Govt		100.00				
	Enforcement equipment (800 PDAs and Printers, 10 Speed Cameras, 4 Automatic Number Plate Reader (ANPR)			2020-2025	0.13	100.00	Govt, Donors		20.00	20.00	20.00	20.00	20.00
	8 unmanned speed cameras procured. System for unmanned			2021-2025	2.80	2,100.00	Govt			400.00	600.00	500.00	600.00

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	cameras commissioned.												
	4 towing vehicles, starting with 2 vehicles (for Blantyre and Lilongwe)	6		2020-2023	0.80	600.00	Govt		300.00		300.00		
	Colour Coding Programme for Public Service Vehicles enhanced (minibuses and taxis)	7	Colour Coding of Public Service Vehicles	2021-2023	0.01	7.00	Govt			3.50	3.50		
	4 road safety mobile vehicles starting with 2 for Blantyre and Lilongwe.	4	Road Safety Awareness	2020-2021	0.40	300.00	Govt		300.00				
	2 children road safety park constructed	7	Construction of Children Safety Park	2023-2025	2.67	2,000.00	Govt, Donors					1,000.00	1,000.00
	Road Safety Database upgraded	2	MalTIS Upgrade	2021-2022	0.03	25.00	Govt, Donors		25.00				
	Vehicle testing stations in Karonga, Mangochi and Ngabu constructed and offer some DRTSS services	1	Construction and maintenance of Vehicle Testing Stations	2020-2022	0.93	700.00	Govt		350.00	350.00			
	Vehicle testing stations in urban cities constructed.	3		2022-2023	1.33	1,000.00	Govt				1,000.00		
	Existing vehicle inspection stations maintained	2		2021 - 2022	0.12	90.00	Govt			90.00			

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	7 mobile MaTIS equipment procured and roll-out the services.	1	Establishment of Mobile MaTIS solution	2020-2023	0.27	200.00	Govt		115.00	55.00	30.00		
	Vehicles for mobile MaTIS operations procured.	2		2020-2024	0.47	350.00	Govt		50.00	150.00		150.00	
	4 mobile vehicle testing equipment procured.	3		2023-2024	0.67	500.00	Govt					500.00	
	4 driver testing yards constructed in urban areas (Zomba, Blantyre, Lilongwe and Mzuzu)		Construction of driver testing yards	2021-2025	8.00	6,000.00	Govt			1,000.00	1,000.00	2,000.00	2,000.00
	Online MaTIS software services procured and introduced.		Digitise Road Traffic and Safety Services	2021-2022	0.07	50.00	Govt			50.00			
	Road Traffic Authority established.		Establishment of Road Traffic Authority	2024-2025	0.13	100.00	Govt						100.00
	Functional Review		Review the Road Traffic and Safety Services Establishment.	2021-2023	0.03	25.00	Govt			12.50	12.50		
	Lilongwe and Blantyre DRTSS office parks		Construction of DRTSS office parks	2020-2025	10.67	8,000.00	Govt		1,600.00	1,000.00	1,000.00	2,000.00	2,400.00
	6 weighbridge stations constructed	2	Nkhotakota weighbridge station	2020-2022	0.53	400.00	Govt		250.00	150.00			
			Dedza weighbridge station	2020-2024	1.20	900.00	Govt		200.00	300.00	300.00	100.00	
			Bwengu weighbridge station	2022-2025	0.67	500.00	Govt				200.00	200.00	100.00
			Karonga weighbridge station	2021-2024	1.20	900.00	Govt			300.00	300.00	300.00	

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
			Mwanza weighbridge station	2021-2025	1.20	900.00	Govt			300.00	300.00	200.00	100.00
			Mangochi-Chiponde weighbridge station	2022-2025	1.20	900.00	Donors				500.00	200.00	200.00
	Balaka and Dedza weigh-in-motion stations established	4	Upgrading and expansion of Balaka station	2023-2024	0.11	80.00	Govt					80.00	
			Upgrading and expansion of Dedza station	2024-2025	0.11	80.00	Govt						80.00
	Link all weighbridges to the MaltIS	3	Upgrading and expansion of vehicle load control services	2021-2022	0.13	100.00	Govt			100.00			
	Procure 10 portable scales	1		2020-2025	0.57	430.00	Govt		97.50	57.50	57.50	100.00	117.50
AIR TRANSPORT	(i) Geodetic survey conducted.	1	Air Navigation Infrastructure improvement	2021-2023	3.00	2,250.00	Govt			1,500.00	500.00	250.00	
	(ii) Area cover equipment installed (Extended VHF range) at Zomba peak station, Nyika station, and Mzuzu station.			2022 - 2023	0.07	50.00	Govt				50.00		
	(iii) Minor aerodromes such as security fences, terminal building and operational blocks rehabilitated.			2021 - 2023	0.40	300.00	Govt			150.00	150.00		
	(iv) Chileka runway reconstructed by widening (30m to 45m) and			2020 - 2023	1.67	1,250.00	Govt/Donors		250.00	500.00	500.00		

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	lengthening (2.3km to 3km).												
	(i) Runway rehabilitated (ii) Apron reconstructed (iii) Airside visual aids established (iii) Airport Rescue and Firefighting Equipment procured (iv) Operational manuals established (v) Wildlife preservation measures established		Enhancement of KIA Infrastructure, Operations, Procedures and Training.	2021-2024	38.00	28,500.00	Govt			9,500.00	9,500.00	9,500.00	
	(i) Fire station at Chileka constructed, (ii) Security fence and perimeter road at CIA and KIA rehabilitated.	2	Essential Aviation Safety and Security Project	2020 - 2022	25.07	18,800.00	Govt/EIB		9,400.00	9,400.00			
	(i) Orientation session for Board members (ii) Two Board meetings (iii) Transitional CAA operational	1	Establishment of Civil Aviation Authority (CAA)	2020-2023	1.00	750.00	Govt		150.00	300.00	300.00		
	KIA Aerodrome certified in accordance to ICAO Safety and Security Standards.	2	Certification of KIA Aerodrome	2024 - 2025	0.13	100.00	Govt			100.00			

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	Air Cargo Malawi Ltd licenced as an all-cargo operator.	3	Certification of Air Transport Service Providers	2021 - 2023	0.40	300.00	Govt			150.00	150.00		
	LIHACO licensed as an approved ground handler.			2021 - 2022	0.13	100.00	Govt			100.00			
	Operator(s) for the management and operations of commercial service airports in Malawi established.			2020 - 2022	0.07	50.00	Govt		25.00	25.00			
	Study to inform the establishment of a new airline conducted (e.g., regional, low cost)	4	Establishment of a New National Airline	2021 - 2023	1.33	1,000.00	Govt			500.00	500.00		
	Processes of certifying a new national airline facilitated			2023 - 2024	0.13	100.00	Govt					100.00	
PVHES	PVHES Strategic Plan finalised and approved	1	Review of PVHES Strategic and Business Plans	2020-21	0.03	20.00	Govt		20.00				
	Functional Review approved and implemented	2	Functional review implementation	2020-22	0.30	225.00	Govt		112.50	112.50			
	Monitoring and surveillance system installed												
	Automated invoicing, billing and revenue												

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	collection system established												
	Autonomous institution/PVHES Trust established		Review of institutional arrangements and legal mandate for the re-establishment of PVHES	2021-23	0.53	400.00	Govt			200.00	200.00		
	PVHES workshops and equipment rehabilitated and maintained.	3	Rehabilitation of workshop infrastructure and maintenance of PVHES plant & vehicles	2020-22	0.47	350.00	Govt		50.00	250.00	50.00		
	PVHES plant and vehicles maintained												
	New workshop tools and equipment procured for Karonga, Ngabu and Mangochi Vehicle Inspection Station (VIS).	4	VIS Project with DRTSS	2020-21	0.57	425.00	Govt		425.00				
	Automated system												
	Request for Proposal document for Public Private Partnership Investment developed.	6	Recapitalisation of PVHES	2020-25	4.50	3,375.00	PPPI, Govt, Commercial banks		20.00	700.00	900.00	900.00	855.00
	New plant & vehicles purchased.												
	Rehabilitated Infrastructure												
	New workshop tools and												

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	equipment procured.												
	Improved institutional and human capacity												
	Automated system for management of PVHES operations developed.	5	Development of PVHES Automated System	2019-2021	0.30	225.00	Govt		100.00	125.00			
	New business portfolio developed.	10	Number Plate Embossing	2020-2021	0.10	75.00	Govt		75.00				
	Fleet Management Policy formulated	7	Development of fleet management policy and guidelines	2020-2022	0.10	75.00	Govt		25.00	50.00			
	Fleet Management System established	8	Development and implementation of fleet management system	2020-2022	0.30	225.00	Govt		25.00	200.00			
	Updated Asset Inventory	9											
BUILDINGS	National Buildings Policy formulated	1	Development of Buildings Legislation (DBL) Project	2020-2021	0.04	30.00	Govt, WB		30.00				
	National Building Bill enacted			2020-2021	0.07	51.00	Govt, WB		51.00				
	Buildings Authority established			2020-2022	0.50	375.00	Govt, Donors				200.00	175.00	
	Board of Architect and Quantity Surveyors Act (BoAQS) reviewed.			2020-2021	0.06	48.00	Govt		48.00				



Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	Coordination with stakeholders strengthened		Sensitise stakeholders on matters of ethics	2020-2022	0.06	42.00	Govt		18.00	24.00			
	Regulations and standards in the building sector adhered to		Develop professional ethics code for architects and quantity surveyors through the Board of architects and Quantity surveyors.	2020-2024	0.13	98.00	Govt		24.50	24.50	24.50	24.50	
	Service charter implemented and employees and clients sensitised.		Review, analyse, finalise and implement service charter	2020-2022	0.05	39.00	Govt		19.50	19.50			
	Functional Review implemented		Carry out and implement a Functional Review	2020-2022	0.06	42.00	Govt		21.00	21.00			
	Collaborative procurement processes promoted.		Engage Stakeholders on procurement role for DOB on procurement of civil works.	2020-2025	0.05	39.00	Govt		19.50	19.50			
	Buildings Information Modelling System implemented.	2	Buildings Information Modelling	2020-2022	0.67	500.00	Govt/Donors		250.00	250.00			
	Standard specifications on measurements developed.		Review, analyse and consolidate standard specifications and Malawi Method of Measurements.	2020-2022	0.13	100.00	Govt/Donor		50.00	50.00			
	Building Cost Indices developed		Engage Consultants, finalise and roll out	2020-2025	0.13	100.00	Govt/Donor		20.00	20.00	20.00	20.00	20.00

Sector	Medium-Term Expected Outputs	Prioritised Programmes/Projects		Implementation Period	Estimated Cost (US\$ million)	Estimated Cost (MK million)	Source of Funds	Status of Funding	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25
	Strengthen Decentralization of Building Services		Assess capacity of local assemblies; strengthen Regional Offices	2020-2024	0.27	200.00	Govt/Donor		50.00	50.00	50.00	50.00	
	VVIP support provided		Procurement of equipment, vehicles and demountable VVIP Platforms.	2020-2025	0.47	350.00	Govt		70.00	70.00	70.00	70.00	70.00
	Landscape works provided	3	Capital Hill Landscape project	2020-2025	0.48	360.00	Govt		72.00	72.00	72.00	72.00	72.00
CONSTRUCTION	Project Design for purpose built NCIC office and workshop Complex.	2	Construction of NCIC training institution and upgrading of training programmes	2020-2022	0.17	129.00	NCIC		129.00				
	Tailor made, foremanship, Clerk of Works and demand driven training course facilitated												
	Remission of retention funds to regulated fund manager enforced	1	NCI Bill Amendment	2020-2023	0.01	10.00	NCIC		10.00				
	NCI Act revised												
	Total Estimated Costs					3,967.46	2,975,592.15			275,415.50	586,366.51	821,730.32	789,086.99

## ANNEX III: HUMAN RESOURCE PLAN

SECTOR	NEEDS	DESCRIPTION	Functional Area		No. of people	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Estimated Cost (MK Million)
Buildings	Technical Capacity needs	Train personnel to meet the requisite professional requirements	Technical staff	Professional training	45	8	15	12	10	0	45.00
				Continuous Professional Development (CPDs)	50	50	50	50	50	50	62.50
				Short term training	50	10	10	10	10	10	175.00
				Long term training	10	2	2	2	2	2	60.00
			Support staff	Professional training	2	-	1	1	0	0	5.00
				Short term training	25	5	5	5	5	5	87.50
				Long term training	5	-	2	1	1	1	30.00
	Recruitment	Recruit personnel to fill vacant positions	technical staff		40	19	21	0	0	0	90.00
			support staff		55	35	20	0	0	0	60.00
Air Transport	Technical Capacity Needs	Train personnel of technical and operations background	Aviation safety		200		50	50	50	50	800.00
			Aviation security		200		50	50	50	50	

SECTOR	NEEDS	DESCRIPTION	Functional Area	No. of people	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Estimated Cost (MK Million)
		from the various air transport service providers.								
	Recruitment	Recruit key personnel (Grades F to I) to fill vacant positions in the Department of Civil Aviation.	All	33		10	10	13		90.00
<b>PVHES</b>	Technical Capacity Needs	Train personnel in modern engineering technologies.	Maintenance & operations	19		10	5	4		40.00
	Recruitment	Recruit engineers and technicians to fill vacant positions.	Maintenance & operations	67		20	30	10	7	120.00
<b>DRTSS</b>	Technical Capacity	Train technical personnel in Road Transport Management (Safety)	Key technical Staff	230		100	50	50		30.00

SECTOR	NEEDS	DESCRIPTION	Functional Area	No. of people	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Estimated Cost (MK Million)
		Train personnel in Customer Care Management	All	535	100	100	50	150	100	35.00
	Recruitment	Recruit technical and support staff into to fill vacant posts on permanent basis	Key support and technical staff	200		30	30	20	20	100.00
<b>ROADS</b>	Technical Capacity	Train personnel in supervising construction and laboratory technology	Supervising and laboratory	53		14	13	13	13	50.00
	Recruitment	Recruit Engineers and Technicians to fill vacant positions	Supervising and laboratory	62		15	25	12	10	100.00
<b>Railway</b>	Technical Capacity	Train technical personnel in Railway Engineering	Railway Infrastructure, Operations and Rolling Stock	75	15	15	15	15	15	80.00

SECTOR	NEEDS	DESCRIPTION	Functional Area	No. of people	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Estimated Cost (MK Million)
		Train technical personnel in contracts and project Management	Project Management	10	2	2	2	2	2	25.00
		Train non-technical personnel to meet the requisite professional requirements	Human Resources Management, Administration, Workplace Health and Safety	4		1	1	1	1	20.00
	Recruitment	Recruit personnel to fill vacant positions	Engineers, Safety Health and Environmental personnel, Social personnel, Drivers	12		4	2	4	2	50.00
Marine	Technical Capacity	Train technical staff in engineering	Surveying, Examining, Lecturing and Port Management	10	2	2	2	2	2	50.00
		Train technical staff in navigation	Surveying, Examining, Lecturing and Port Management	10	2	2	2	2	2	50
	Recruitment	Train non-technical personnel to meet the requisite professional requirements	Human Resources Management, Administration, Customer Care	6	2	1	1	1	1	25

SECTOR	NEEDS	DESCRIPTION	Functional Area	No. of people	FY 2020/21	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	Estimated Cost (MK Million)
		Recruit Marine Engineers, Marine Navigators and Support Staff to fill vacant positions.	Engineering/Navigation Surveyors, Engineering/Navigation Lectures, Engineering/Navigation Examiners, Engineering/Navigation Port Personnel and Support Services.	30	5	5	8	6	6	40
<b>TOTAL</b>										<b>2,320.00</b>

## ANNEX IV: EQUIPMENT PLAN

Equip	Item	Quantity required per department									Total Qty	Unit Cost (MK'000)	Total Amount (MK'000)
		ADMIN	PLAN	ROADS	DRTSS	RAIL	DMS	DCA	PVHES	DoB			
ICT	Desktop Computers	20		6	60		8	3		18	115	1,000	115,000.00
	All in One Desktop Computers		6		20						26	1,950	50,700.00
	Projector	5		1	3	1	3	1		5	19	450	8,550.00
	Laptops	20	3	4	15	15	11	3		22	93	850	79,050.00
	Touch Screen				30						30	1,500	45,000.00
	Uninterruptible Power Supply (UPS)	20		5	20		8	3		18	74	15,000	1,110,000.00
	Heavy Duty Multifunctional Printer (colour)	1	1	4	5	1	4	1		4	21	1,750.00	36,750.00
	Officer Printer	13			30			3			46	500.00	23,000.00
	Heavy Duty Photocopying machine									2	2	5,500.00	11,000.00
	Heavy duty plotter (colour)							1			1	3,500.00	3,500.00
	Card Printers and Laminators				30			2			32	9,917.00	317,344.00
	Barcode reader				40						40	571.00	22,840.00
	Document Scanners			3	50						53	600.00	31,800.00



Equip	Item	Quantity required per department									Total Qty	Unit Cost (MK'000)	Total Amount (MK'000)
		ADMIN	PLAN	ROADS	DRTSS	RAIL	DMS	DCA	PVHES	DoB			
	Fingerprint Scanners				30						30	193.00	5,790.00
	Signature Pad				8			2			10	563.00	5,630.00
	Digital Camera				3	3		2			8	2,700.00	21,600.00
	Internet Connection					1					1	6,000.00	6,000.00
	External Hard Drive				10						10	65.00	650.00
Office Equip	Air conditioners		2	3	5		15	5			30	1,255.00	37,650.00
	<b>Sub-Total</b>	<b>79</b>	<b>12</b>	<b>26</b>	<b>359</b>	<b>21</b>	<b>49</b>	<b>26</b>		<b>69</b>	<b>641</b>		<b>1,931,854.00</b>
Measuring Devices	Handheld GPS devices					1					1	300.00	300.00
	Railway gauge					2					2	3,000.00	6,000.00
	Electronic Hand-Pushed Trolley - Amber					1					1	40,000.00	40,000.00
	<b>Sub-Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>8</b>		<b>46,300.00</b>
Mech	Off-road vehicle			4	8	4	3	3	10		32	75,000.00	2,400,000.00
	Saloon vehicle				2			2			4	45,000.00	180,000.00
	Minibus					1			3		4	68,000.00	272,000.00
	Lorry				10						10	87,000.00	870,000.00
	Motorcycles				4						4	350.00	1,400.00
	<b>Sub-Total</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>24</b>	<b>5</b>	<b>3</b>	<b>5</b>	<b>13</b>	<b>0</b>	<b>54</b>		<b>3,723,400.00</b>
<b>GRAND TOTAL</b>													<b>5,701,554.00</b>