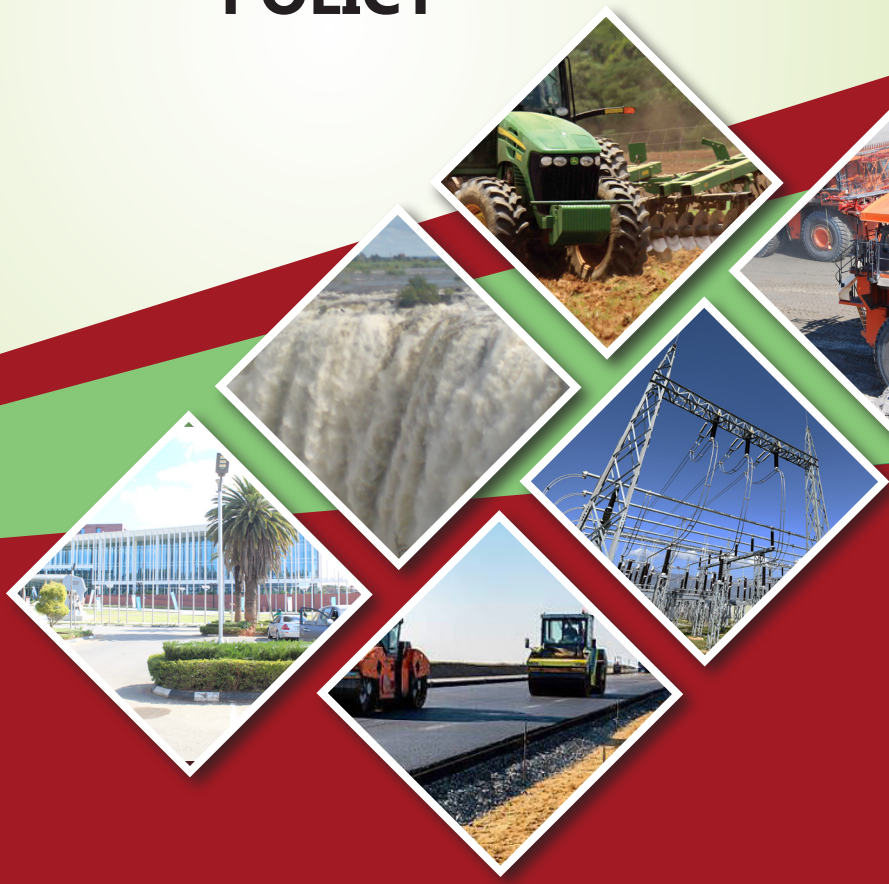
REPUBLIC OF ZAMBIA

NATIONAL INFRASTRUCTURE POLICY






REPUBLIC OF ZAMBIA

NATIONAL INFRASTRUCTURE POLICY

June 2023

Foreword

The National Infrastructure Policy defines the strategic path for coordinated planning and implementation of infrastructure in the Country. The policy has been formulated in recognition of the catalytic role of infrastructure to socio-economic development. The Policy has been guided by the National Development Agenda and International Commitments to address the country's infrastructure needs. It responds to national aspirations and international development trends in the provision of inclusive and quality infrastructure.

Zambia faces unprecedented economic, demographic, social and environmental challenges that require the development of appropriate infrastructure to support economic development and social transformation. The attainment of the country's vision 2030 requires modern, efficient and reliable infrastructure. The Government through the 8th National Development Plan seeks to develop climate resilient infrastructure for sustainable development.

The National Infrastructure Policy aims to provide adequate, affordable, climate resilient and quality infrastructure for sustained socio-economic development of the country. The specific objectives are: to develop adequate infrastructure in social and economic sectors; to maintain and manage infrastructure in a sustainable manner; to develop infrastructure that is climate resilient; to attain international

best practices and standards in infrastructure development; to develop research and development in infrastructure; and to mainstream cross-cutting issues of gender, youth, and other vulnerable groups in infrastructure development.

To achieve these objectives, Government shall ensure infrastructure projects are delivered at the right price, quality, and quantity and within the prescribed time frame. Government shall also enhance collaboration with all stakeholders including Cooperating Partners, the Private Sector, Traditional Leaders and Non-Governmental Organisations.

In attaining the objectives of this policy, Government shall endeavour to use Public - Private Partnership as one of the models of financing commercially viable infrastructure so as to enhance private sector participation in the delivery of the objectives of this policy.

I, therefore, take this opportunity to invite all stakeholders to be part of the implementation of this important policy to guide and support the coordinated and integrated development of infrastructure in Zambia. Together, we can deliver quality and value-for-money infrastructure in support of vision 2030 and for the benefit of the Zambian people.

Hon. Eng. Charles L. Milupi MP

Minister of Infrastructure, Housing and Urban Development

June, 2023

Acknowledgments

The preparation of this first ever National Infrastructure Policy involved wide consultations with key stakeholders to achieve a Policy which is responsive to the needs and aspirations of the nation. I wish to acknowledge and appreciate the support of all the stakeholders for their contribution.

I would like to specifically acknowledge the financial, logistical, and technical support from our partners. Special thanks go to the Deutsche Gesellschaft für Internationale Zusamm enarbeit (GIZ) GmbH in partnership with the Southern African Development Community (SADC) Secretariat, the German Federal Ministry for Economic Cooperation and Development (BMZ) and European Union (EU).

I wish to further extend my appreciation to the Technical Working Group, composed of sector experts from various Ministries, Private Sector and other Institutions for the role played during the development of the Policy.

I am confident that this policy shall be implemented for the full benefit of the Zambian people.

Prof. Albert Malama
Permanent Secretary
Ministry of Infrastructure, Housing and Urban Development
June, 2023

Contents

ACRONYMS

ACEZ	-	Association of Consulting Engineers of Zambia
Covid-19	-	Corona Virus Disease 2019
CP	-	Cooperating Partners
CRN	-	Core Road Network
8th NDP	-	Eighth National Development Plan
EIZ	-	Engineering Institution of Zambia
ERB	-	Energy Regulation Board
FDI	-	Foreign Direct Investment
FISP	-	Farmer Input Support Programme
GDP	-	Gross Domestic Product
GRZ	-	Government of the Republic of Zambia
IBA	-	Independent Broadcasting Authority
ICT	-	Information and Communications Technology
KKIA	-	Kenneth Kaunda International Airport
M&E	-	Monitoring and Evaluation
MIHUD	-	Ministry of Infrastructure, Housing and Urban Development
MLGRD	-	Ministry of Local Government and Rural Development
MoE	-	Ministry of Energy
MoFNP	-	Ministry of Finance and National Planning
MoGE	-	Ministry of General Education
MoH	-	Ministry of Health
MoHAIS	-	Ministry of Home Affairs and Internal Security
MoTSHE	-	Ministry of Technology and Science
MoT	-	Ministry of Tourism
MPSAs	-	Ministries, Provinces and Spending Agencies
MTCL	-	Ministry of Transport and Logistics
MW	-	Mega Watt
MGE	-	Ministry of Green Economy and Environment
NCC	-	National Council for Construction

NHA	-	National Housing Authority
NHP	-	National Housing Policy
NIP	-	National Infrastructure Policy
NRFA	-	National Road Fund Agency
NTP	-	National Transport Policy
NWASCO	-	National Water Supply and Sanitation Council
NWSSP	-	National Water Supply and Sanitation Policy
OPPPI	-	Office for Promoting Private Power Investment
PIMS	-	Public Investment Management System
PPP	-	Public Private Partnerships
R&D	-	Research and Development
RDA	-	Road Development Agency
REA	-	Rural Electrification Authority
RISDP	-	Regional Indicative Strategic Development Plan
SADC	-	Southern Africa Development Community
SFR	-	Secondary Feeder Road
SOEs	-	State Owned Enterprises
TAZAMA	-	Tanzania Zambia Mafuta
TAZARA	-	Tanzania Zambia Railway Authority
TFR	-	Tertiary Feeder Road
TMD	-	Trunk Main District Road
WARMA	-	Water Resource Management Authority
WSS	-	Water Supply and Sanitation
ZAMTEL	-	Zambia Telecommunications Limited
ZDHS	-	Zambia Demographic and Health Survey
ZEMA	-	Zambia Environmental Management Agency
ZICTA	-	Zambia Information and Communications Technology Authority
ZPPA	-	Zambia Public Procurement Authority
ZRA	-	Zambezi River Authority
ZRL	-	Zambia Railways Limited

Working Definitions

Accountability: refers to the obligation to demonstrate that work has been conducted in compliance with agreed rules and standards or to report fairly and accurately on performance results vis-a-vis mandated roles and/or plans. It's a process in which partners hold each other accountable to the commitments they made

Capacity building: refers to the process by which individuals, organizations, institutions, and societies develop their abilities individually and collectively to perform functions, solve problems, and set and achieve objectives.

Civil Society Organizations: refers to associations around which society voluntarily organizes itself with some power to influence outcomes. They represent a wide range of interests and ties and may include community-based organizations, local peoples' or citizens' organizations and Non-Government Organizations

Climate resilience: refers to the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances related to climate. It involves assessing how climate change will create new, or alter current, climate-related risks, and taking steps to better cope with these risks.

Coordination: refers to the process of ensuring the integration of infrastructure development with Zambia's infrastructure development priorities, strategies and delivery systems. It involves specific mechanisms and arrangements agreed among stakeholders to improve their effectiveness as partners in the infrastructure development process.

Construction Industry: is defined as the broad aggregation of industries in various sectors of the economy which participate in construction works.

refers to assets that form part of an immovable system or network required for society to function that include roads networks, bridges, rail lines, airports, schools, hospitals, power lines, power generating plants, dams, water channels, pipes and wires that enable people, commodities, water, energy and information to move about efficiently.

Monitoring and Evaluation: refers to a continuous, systematic and objective collection of data and assessment of specified indicators to provide management and the main stakeholders of an ongoing development intervention. Monitroing and evaluation gives an indication of the extent of progress and achievement of objectives and progress in the use of allocated funds.

Public Debt: refers to financial, material and other resources including guarantees acquired or borrowed by a public body in the interest of the Republic.

Public Private Partnership:	Government investment through private sector participation in an infrastructure project or infrastructure facility.
Project Appraisal:	refers to a systematic assessment of a project's viability/ability to meet its objective through an examination of its financial, economic, social, environmental, technical and other requisite aspects, as provided for in the Planning and Budgeting Act of 2020.
Stakeholders:	refers to individuals, agencies or organizations with an interest and/or role in the objectives and/or implementation of an infrastructure project. Stakeholders may include target groups, direct beneficiaries, those responsible for ensuring that the results are produced as planned, and those who are accountable for the resources provided to that project.
Value for Money:	refers to the carrying out of the institutional function of a contracting authority or the use of State property by a concessionaire, in terms of an agreement, which results in a net benefit to the contracting authority or consumer, defined in terms of cost, price, quality, quantity, risk transfer or a combination thereof.
Works:	refers to all work associated with the construction, reconstruction, demolition, repair, maintenance or renovation of a building, road, structure or works, such as site preparation, excavation, erection, building, installation of equipment or materials, decoration and finishing, and includes services incidental to construction provided in a contract, where the value of those services does not exceed that of the works.

Section One:
Introduction

Infrastructure forms the foundation for economic activity and serves as an intermediate input in many sectors of the economy, including health, education, transport, communication, agriculture, tourism, among others. Infrastructure is considered the bedrock of the economy and a fundamental requirement for attaining short, medium and long term national and regional development. Access to quality infrastructure and associated services is critical in creating socio-economic opportunities for citizens, and plays a vital role in the smooth functioning of an economy through boosting productivity and competitiveness.

Since independence, Zambia has witnessed substantial investment in infrastructure development meant to enhance socio-economic activities, thereby contributing towards the attainment of national and regional development. However, investment in infrastructure has not been matched with population growth, changing demographics and economic demands. This has manifested itself in inadequate access to housing, health and educational facilities, inefficient transport services, and power outages, for example. In addition, most of the existing infrastructure is old, ill maintained and some is obsolete.

The un co-ordinated infrastructure development across government institutions, has created fiscal challenges for the treasury, resulting in many stalled and incomplete works and projects countrywide. The lack of a coherent policy to support a coordinated and integrated planning and execution of works and infrastructure projects has contributed to failure to attain value-for-money as meagre resources are spread too thinly across many works and projects. There has been low investment in construction of critical infrastructure due to lack of resources. There has also been inadequate and unplanned/unco-ordinated maintenance of existing infrastructure leading to reduced life span and serviceability

of the infrastructure. In addition to the foregoing, the quality of some infrastructure has been unsatisfactory due to inadequate designs and standards, quality assurance and control measures.

This National Infrastructure Policy (NIP) provides strategic direction and guidance on the development and maintenance of economic and social infrastructure in a coordinated and sustainable manner. The policy also seeks to facilitate the alignment of the country's infrastructure development agenda with the Southern Africa Development Community (SADC) Regional Infrastructure Development Master Plan (RIDMP)-2012 to 2027 and COMESA Infrastructure support initiatives aimed at strengthening regional partnerships for infrastructure development. The Policy is in line with the aspirations of the 8NDP which is aligned to the SADC Regional Indicative Strategic Development Plan-2020-2030 (RISDP) of infrastructure development aimed at enhancing intra-regional trade and economic growth at national, regional and global levels. It is envisaged that the NIP would help place the infrastructure industry in a stronger position to contribute to Zambia's Vision 2030 significantly.

The National Infrastructure Policy (NIP) is divided into five sections. Section one introduces the purpose of the Policy. Section two is an analysis of the current situation regarding the development and status of infrastructure. Section three outlines the vision, rationale and guiding principles for the policy. Section four presents the policy objectives and measures. Section five contains the Implementation Framework which outlines the institutional arrangements, legal framework, resource mobilization and the monitoring and evaluation framework.

Section Two:
Situation Analysis

2.1 Macroeconomic and Fiscal Context

The global economic growth rates for 2010 to 2020 slowed down on account of the global economic crisis of 2008 and subsequently deteriorated (to -3.3%) in 2019/20. The negative growth in 2019/20 was mainly due to the impact of the Chinese-American trade war and uncertainty surrounding the implementation of Brexit. The advanced economies experienced the worst decline from 2.3 percent in 2018 to -4.7 percent in 2020. In emerging countries, growth fell from 4.5 percent in 2018 to -2.2% in 2020 partially due to weak and declining global demand for commodities among advanced and emerging economies. These factors were compounded by the Covid-19 pandemic.

In 2021 the global growth improved markedly to 5.5 percent but is expected slowdown to 3.6 percent in 2022 (**Table 2.1**). These economic gains and mild growth prospects in 2022 are however, being hit by a potentially global supply shock and push up inflation. The war in Ukraine and economic sanctions on Russia have negative impact on the global economy. The detrimental effects is not just likely to come from higher fuel prices, but higher prices for food, metals, and intermediate inputs to manufacturing, and weak economic growth as consumers pull back spending.

Table 2.10: Overview of the Global Economic Growth for selected years (2010 - 2022)

	2010	2012	2014	2015	2018	2019	2020	2021	2022
World	4.5	3.2	2.6	2.4	3.7	2.8	-3.3	5.5	3.6
Advanced Countries	3	1.5	1.7	1.9	2.3	1.7	-4.7	2.3	3.3
USA	2.4	2.8	2.4	2.4	2.2	2.2	-3.5	3.5	3.7
EU	2	-0.6	1.4	1.9	2.4	1.3	-6.6	5.1	4.2
Emerging and Developing countries	7.4	4.9	4.2	3.8	4.5	3.7	-2.2	6.8	3.8
Africa	5.3	4.9	3.4	3.7	2.9	3.2	-1.9	6.1	3.9
East South Asia	9.5	6.4	6.1	5.7	6.5	5.5	-3.4	7.1	3.9
Latin America and the Caribbean	6.2	2.9	1	-0.5	1.3	0.0	-7	6.8	2.5

Source: IMF World Economic Outlook reports 2010, 2012 to 2022

In Zambia real GDP growth rate declined from 2.9 percent in 2015 to 1.7 in 2019 before registering a negative growth of 2.8 percent in 2020 on account of declining global commodity prices and unstable policy environment especially in the mining sector and the negative impact of Covid-19 pandemic. However, the economy rebound and grew by 3.3 percent in 2021 due to an increase in commodity prices and easing of the COVID-19 restrictions. Annual inflation doubled from an average of 7.2 percent between 2016 and 2018 to a high of 16.4 percent in December, 2021. At the same time the Kwacha depreciated against the US dollar from K9.50 per US dollar in 2018 to an average of K18.88 per dollar in December, 2021.

The fiscal deficit continued to widen from 5.7% in 2016 to 11.7% of GDP in 2020 fuelled by the financing pressures to meet expenditures in infrastructure (mainly energy and road construction sectors). This deficit was financed by domestic and external resources and resulted in the increase in external debt stock from US$7.33 billion in 2014 to US$12.91 billion in 2021. The domestic debt increased to US$7.1 billion in 2020 from US$ 5.3 billion in 2016. The debt, which is mainly commercial has become unsustainable and the country has had challenges meeting both domestic and external debt servicing obligations. This economic environment will, in the short to medium term, continue to constrain further expenditure on infrastructure and social sectors. In this regard, government will explore cost effective and innovative ways of financing infrastructure development.

2.2 State of Infrastructure

Infrastructure development remains a major challenge to growth, economic diversification, and human development in Zambia. Areas for development in this sector include investment in health, education, and water and sanitation; improving and expanding the rail network to reduce the burden placed on road infrastructure; and constructing additional inter-provincial and inter-district roads to open up the

country. The policy is focusing on two types of infrastructure namely Economic and Social infrastructure.

2.2.1 Economic Infrastructure

Economic infrastructure covered in this policy include agriculture and livestock, transport, water and sanitation, waste management and tourism as well as Information Communication Technology assets. However, the policy does not cover the energy sector, as it requires special attention.

2.2.1.1 Agriculture and Livestock Infrastructure

Agriculture and Livestock infrastructure includes offices, farm structures, market structures, dams and irrigation facilities and businesses that support the farms within a given area.

Zambia has an agricultural and livestock organization structure represented at national, provincial, district block and camp level, which require various forms of infrastructure to support agricultural production and productivity. Challenges of infrastructure comprise inadequate, old and in most cases, lack of office buildings, camp houses, farm water facilities, market facilities, livestock facilities, energy, transport and communication facilities.

2.2.1.2 Transport Infrastructure

Transport infrastructure comprises road, air, railway, maritime (inland water ways) and intermodal transport infrastructure.

(a) Road Infrastructure

Zambia's road network stretches to about 67,671km. Of this network, about 40,554 km constitutes the Core Road Network (CRN) that

comprising of Trunk, Main and District (TMD), Urban, and Primary Feeder roads. The Non-Core Road Network of 27,217 km comprises Secondary Feeder Roads (SFR), Tertiary Feeder Roads (TFR), Park Roads, and Community Roads.

Overall, only 25 percent of the CRN is paved. It is estimated that 85 percent of the paved network is in good condition compared 49 per percent of the urban roads, and only 12 percent of unpaved roads and 10 percent of rural roads. This situation is mainly due to low investment coupled with inadequate and irregular maintenance and rehabilitation.

The country, in the recent past, has witnessed increased investment in the road sector, a number of roads have been constructed, rehabilitated while others have undergone routine and periodic maintenance. Between 2014 and 2021, a total of 575.20km new roads were constructed to bituminous standard, while another 1844.50km was rehabilitated (**Table 2.2**). Further, a total of 2062.50km and 89199.84km went through periodic and routine maintenance, respectively.

Table 2.2: Investment in the Road Sector (2014 – 2021)

Year	Constructed (km)	Rehabilitated (km)	Periodic Maintenance (km)	Routine Maintenance (km)
2014	184	404	142	5,352
2015	250	450	659	17,912.
2016	38	242	104	11,992
2017	42	146	47	6,198
2018	36	36	667	8,119
2019	14	191	428	8,119
2020	1.5	191	8.5	15,970
2021	9.7	184.5	7	15,537.84
Total	**575.2**	**1,844.5**	**2,062.5**	**89,199.84**

Source: 2021 RDA Annual Report

However, there are challenges with domestic connectivity both in rural and urban areas. Further, despite being land linked, the country suffers from inadequate cross border connectivity. There is, therefore, need to expand the road infrastructure to enhance connectivity especially between human settlements, economic growth poles, production centres and markets within the country and with neighbouring countries.

(b) Air Transport Infrastructure

Zambia has 4 international airports, 7 domestic airports, 10 aerodromes and 43 airstrips spread across the country in provincial centres and tourism sites. Three of these international airports have been refurbished and expanded. These are Kenneth Kaunda International Airport (KKIA), Harry Mwaanga Nkumbula International Airport and Mfuwe International Airport. In addition, a new airport has been constructed on the Copperbelt Province and named as the Simon Mwansa Kapwepwe International Airport. Most of the infrastructure such as runways and buildings at domestic air ports are in a deplorable state. At the same time, most of the airstrips and aerodromes do not have all weather runways due to inadequate maintenance. There is need to expand and maintain the air transport infrastructure.

(c) Railway Infrastructure

The Country has two major railway lines: The Zambia Railways (ZR) line whose construction was completed in 1907 and the Tanzania-Zambia Railway Authority (TAZARA) whose construction was completed in 1975. Zambia Railways line runs from Livingstone in Southern Province, via Lusaka, to Chililabombwe in the Copperbelt Province and TAZARA runs from Kapiri Mposhi in Central Province to Dar es Salaam in Tanzania. TAZARA and ZR cover approximately 1,900 km and 1000 km, respectively, compared to, for instance, the United Kingdom (UK) which in 2020 had a track length of 31218KM. The UK is one third of the size of Zambia.

The country also has the Livingstone-Mulobezi cover approximately 166 km and Mchinji-Chipata railway lines approximately 27km. In the past, the country had Njanji Commuter line which operated in Lusaka City. The current railway infrastructure has not been expanded to meet the emerging demands in the country and across the borders.

The railway infrastructure has challenges that include poor state of the track, sidings and train control equipment all of which has negatively affected the traffic and speed on the rail. This situation has led to the shift of passenger and bulky cargo transportation from the railway to the road, causing damage to the road infrastructure. The poor state of this infrastructure is mainly due to limited investment and inadequate maintenance of the track. There is an urgent need to expand the railway infrastructure to new economic areas and maintain the existing one in good condition.

(d) Maritime (Inland Water Ways) Infrastructure

Zambia has an extensive network of in-land waterways (WW) that include lakes, rivers, canals, and swamps. Some of the maritime infrastructure assets include vessels, pontoons (about 27), canals, harbours, and navigation systems. Among the key harbours and ports are Mpulungu on Lake Tanganyika, Mulamba on Zambezi River, Siavonga on Lake Kariba, Nchelenge on Lake Mweru and Samfya on Lake Bangweulu. The Port of Mpulungu is the largest harbour in the Country and connects the Country to the Great Lakes Region. Despite the Country having abundant navigable lakes and rivers, the water transport infrastructure which include the piers, landing bays and support infrastructure is not fully developed due to inadequate investment and maintenance.

2.2.1.3 Water and Sanitation

The country has made progress towards increasing access to safe drinking water. Access to safe drinking water improved from 65% in 2013 to 72% in 2018. Coverage for sanitation improved from 25 percent to 54 percent. Open defecation decreased from 15% in 2017 to 10 percent in 2018. However, supply of coverage remains low in rural areas at 58% compared to 92% in urban areas. This is mainly due to inadequate and the poor state of existing water treatment plants. Additionally, the sector lacks the technologies necessary to meet the socio-economic and environmental needs of the country. There is need to improve water supply and sanitation infrastructure.

2.2.1.4 Waste Management

Waste management is the collection, transportation, process, recycling or disposal of waste. The term usually relates to materials produced by human activity and generally undertaken to reduce their effect on human health, the environment or aesthetics.

Waste management encompasses programmes and activities in the waste hierarchy, constituting recycling, reuse, composting, incineration and final disposal. Waste can further be classified as hazardous or non-hazardous. The growth of the Zambian urban population and the growth in economic activity in most sectors have resulted in an accumulation of domestic solid waste as well as commercial and industrial waste in urban areas. At national level, waste collection stands slightly at 25% capacity due to high rate of urbanisation and unplanned settlements. Only Lusaka has a landfill, whereas all other cities, towns and provinces do not have landfills, at best through dump sites, posing a health hazard.

Waste management challenges include lack of infrastructure for waste disposal, inadequate capacity among service providers and outdated sanitation facilities and management programmes. Furthermore, the sector has inadequate machinery and lacks new technology coupled with low levels of capital investment and maintenance. Most of the recycling is undertaken manually. Solid waste has been competing with other municipal services and often comes at the bottom of priorities. It is critical that waste management is given priority to conserves resources and energy, reduce water and air pollution, and save landfill space.

2.2. 1.5 Tourism Infrastructure

Zambia has over 1,172 establishments (hotels and lodges) with 43,119 rooms. The Country further has 20 national parks and 34 game management areas in the tourism sector. The specific tourism infrastructure includes, museums, national monuments, cultural villages, exhibition centres, hotels, lodges, conference centres, markets, national heritage and shopping malls. However, there is need to invest in modernization of existing infrastructure, provision of all-weather access roads into the game parks and game reserves in order to boost the sector.

2.2.1.6 Information and Communications Technology (ICT)

The ICT subsector in Zambia has four main categories namely, Telecommunications, Information Technology, hardware and Postal Services. The ICT infrastructure has improved over the years leading to a coverage of 98 percent of the population. The sector is faced with challenges that include inadequate coverage, inequitable distribution of ICT infrastructure between rural and urban areas and non-inclusivity of ICT plans and designs in infrastructure development. This is mainly due to relatively high cost of set up and operating ICT infrastructure.

2.2.2 Social Infrastructure

Social infrastructure refers to facilities that support social services such as housing, education , health and recreation.

2.2.2.1 Housing

Zambia's housing stock is estimated at 2.5 million units with an annual housing production of approximately 73,000 units which is below the expected annual production of 222,000 units. This has resulted into an estimated housing deficit of 1.5 million and is expected to more than double by 2030. Rural areas feed most of this housing deficit, accounting for 60 percent of the housing deficiency. The key constraints to housing development in Zambia is driven by rapid population growth and high urbanization. There is need to explore innovative and affordable financial, materials and technology to reduce the housing deficit.

Urban Renewal/Regeneration and Upgrading of Unplanned Settlements

Over 80% of the housing stock in Zambia is substandard and are in either rural areas or in unplanned settlements in urban areas. The major constraint is provision of services and amenities to these areas. There is need to regenerate these urban areas and improve lives of people living in such locations.

Urban renewal and/or regeneration and upgrading of unplanned settlements would require the investment of public funds or private finance into areas in need of permanent improvement. Further, there is urgent need for additional investment in planning, and construction of new housing infrastructure in urban area, and improving the physical and environmental aspects, as well as the structures. This in turn would entail better utilisation of existing and proposed infrastructure, increased city productivity from the co-location of more intensive jobs and housing, the attraction of visitors and additional expenditure,

and new employment opportunities. The resultant change in the use or occupancy of urban land and structures would necessitate major consideration in aspects of urban change in the following sectors:

- economic transition and employment change;
- social and community issues;
- physical obsolescence and new land and property requirements; and
- environmental quality and sustainable development.

2.2.2.2 Education Infrastructure

Education infrastructure relates to early child education, primary, secondary and tertiary education facilities. The country has over the years made progress in the development of education infrastructure at various levels. However, there are still significant infrastructure deficit at all levels with secondary and tertiary education infrastructure being the hardest hit. Most of the existing infrastructure is dilapidated and has inadequate supporting facilities such as water, electricity, laboratories, libraries, workshops and staff houses. There is need to address the infrastructure deficit in the sector.

2.2.2.3 Health Infrastructure

Zambia's health sector is organized around a three-tier system comprising of primary, secondary and tertiary level of health care. There has been significant progress in the development of infrastructure at various levels. However, there is inadequate and inequitable distribution of health infrastructure at all levels of health care. In rural areas, 46 percent of families live outside a radius of 5 km from a health facility compared to 1 percent in urban areas. A number of existing health infrastructure is dilapidated and has inadequate supporting facilities such as mothers' shelters, water, electricity, laboratories, equipment and staff houses.

There is need to enhance the construction and distribution of health facilities in order to meet the growing demand for health services in the country.

2.2.2.4 Recreational Infrastructure

Recreation infrastructure provides facilities and services that help bring communities together through the use of shared public amenities in surrounding neighbourhoods. Recreation infrastructure projects include designing new facilities that communities can enjoy and maintaining existing structures, such as stadia, sports centres, parks, historical sites playgrounds and nature reserves.

There has been significant progress in the development of recreation infrastructure at various levels with the construction of the Olympic Youth Development centre, Levy Mwanawasa and National Heroes Stadia being good examples. However, there is inadequate and inequitable distribution of recreation infrastructure at all levels. In rural areas, recreation facilities such as stadia are non-existent. There are no parks, playground and natural reserves for the public to access and use.

There is need to enhance the construction and distribution of recreation facilities in order to meet the growing demand for recreation and sports activities in the Country

2.3. Coordination of Infrastructure Development

A number of institutions are responsible for planning, budgeting, implementation, monitoring and evaluation of infrastructure development. While this approach has been successful to some extent, there have been some challenges. These include inadequate prioritization of projects, a high number of infrastructure projects being started beyond the capacity of the treasury, a high number of uncompleted projects, fragmented and duplication of infrastructure

development, inadequate complementarity and integration of projects. This is mainly due to a weak coordination mechanism. There is need to strengthen the coordination mechanism and institutional arrangements.

2.4 Quality of Infrastructure

Over the years, the country has made strides in social and economic infrastructure development. However, this has not been without challenges, among them the quality of infrastructure relating to design codes and standards, specifications, durability and suitability of the infrastructure. This is worsened by inadequate supervision, quality of materials, inadequate specialised skills, inadequate monitoring and enforcement of standards and quality management requirements as well as poor work culture. The need to improve project planning, quality assurance and control can therefore not over emphasised.

2.5 Cross-Cutting Issues

2.5.1 Mainstreaming Gender, Youth and Disability

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The development of infrastructure has inherent and different impacts on both men and women, children, youth, elderly and the differently abled persons.. For instance, women, children and the youth are rarely represented in public participation processes for infrastructure projects that significantly impact on access to water, like dams and mines, and yet women are more likely to collect water for their families, with overarching interest in water quality. They remain under-represented across the infrastructure value chains that range from project scoping, assessment, approval, construction, and operationalization. This is mainly due to cultural and community stereotypes that exclude women, children, the youths and people living with disabilities in matters that affect them. There is need to enhance the participation of women, children, the youth and people living with disabilities in the infrastructure development and use value chain.

2.5.2 Climate Change and Infrastructure

Climate change has created a number of challenges at global and national levels, manifesting itself in the form of extreme weather changes, such as extreme droughts and floods, irregular weather patterns, and a mirage of cyclones affecting other countries. Zambia has been susceptible to these adverse weather conditions resulting in frequent loss of infrastructure such as bridges and schools. Infrastructure development efforts have not often taken into account the key elements of climate change. Infrastructure is susceptible to climate change and can also exert pressure on the environment and eventually climate itself if it is not mitigated. In this regard, the country should take into account the need for green and energy efficient infrastructure. There is need to mainstream climate resilience and adaptation in infrastructure development.

Section Three:
Vision, Rationale and Guiding Principles

3.1 Vision

A sustainable, adequate, well-coordinated and maintained public infrastructure for socio-economic transformation of Zambia.

3.2 Rationale

Zambia's infrastructure remains greatly inadequate to meet the country's developmental aspiration as enshrined in the vision 2030. This inadequacy continues to constrain the country's growth prospects and competitiveness. Much of the country's existing infrastructure is in the state of disrepair and cannot keep pace with economic activities and modern requirements. The Government has committed to continue investing in infrastructure to trigger growth by maintaining jobs in the short term and creating conditions for long-term sustainable development. While infrastructure investment needs are growing at a faster rate, the fiscal space has been declining, driven by inadequate revenue mobilization against fiscal demands and increasingly reduced fiscal space due to debt servicing obligations.

Despite the urgent need to address the infrastructure gap and the recent investments in infrastructure development, Zambia lacks an overarching policy to guide a coordinated and sustainable development of infrastructure. Most investments in infrastructure remain fragmented across sectors amidst the wide infrastructure gap. Effective infrastructure development requires an overarching policy and integrated investment strategies to ensure that the country maximizes available resources effectively contributes to the attainment of economic and social transformation of the country, as well as environmental sustainability.

Therefore, this Policy provides guidance to the realisation of adequate, quality, well sustained and timely delivery modern infrastructure.

3.3 Guiding Principles

The implementation of this Policy will be guided by the following principles.

(a) Value for Money: infrastructure development shall ensure that financial, physical material and human resources are used in the most economic efficient and effective manner to achieve quality infrastructure at the correct price and within prescribed time frames for the benefit of the people of Zambia.

(b) **Timeliness(time delivery):** Infrastructure development shall be delivered within stipulated time frame.

(c) **Sustainability:** infrastructure development shall take into account the needs of current populations in the country and within geographically determined locations, without compromising the infrastructure needs of future generations.

(d) **Climate Resilient:** infrastructure planning and designs shall take into account the possible adverse impact of climate change on infrastructure.

(e) **Local Knowledge and Technologies:** infrastructure planning, designs and implementation shall maximize the utilization of local knowledge, materials and technology.

(f) **Inclusivity:** all relevant stakeholders shall be involved in the identification, planning, designing and implementation of infrastructure development projects.

(g) **Partnerships:** Government shall strengthen partnerships in the development of infrastructure with all relevant stakeholders including the private sector, cooperating partners and beneficiary communities.

(h) **Equity:** infrastructure planning and development shall take into account the priority needs of different regions, socio-economic sectors and vulnerable groups to ensure fairness in the distribution of infrastructure development to support holistic national economic transformation.

Section Four:
Policy Objectives and Measures

4.0 Overall Objective

To provide adequate, affordable, and quality infrastructure in a timely manner for sustained socio-economic development of the country.

4.1 Specific Objectives

The following are the specific objectives:

(a) To develop adequate and all inclusive infrastructure in social and economic sectors;
(b) To maintain and manage infrastructure in a sustainable manner;
(c) To develop infrastructure that is climate resilient;
(d) To develop quality and sustainable infrastructure;
(e) To promote innovation, research and development in infrastructure: and
(f) To mainstream cross-cutting issues in infrastructure development.

4.3 Policy Objectives and Measures

4.3.1 To develop adequate infrastructure in social and economic sectors

The objective shall be achieved through the following measures:

(a) Promoting investment in social and economic infrastructure development;
(b) Enhancing coordination of infrastructure development;
(c) Promote private sector participation in social and economic infrastructure development;

(d) Promoting the utilisation of innovative financing models for infrastructure projects including Public Private Partnerships;
(e) Promote redevelopment of idle and wasting asset; and
(f) Enhance project appraisals and management in infrastructure development to ensure value for money.

4.3.2 To maintain and manage infrastructure in a sustainable manner

The objective shall be achieved through the following measures:

(a) Enhance maintenance and management of social and economic infrastructure; and
(b) Promote mind-set change on care and maintenance of public infrastructure.

4.3.3 To develop infrastructure that is climate resilient

The objective shall be achieved through the following measures:

(a) Promote development of energy and climate resilient infrastructure;
(b) Promote integration of infrastructure development in natural environments; and
(c) Strengthen infrastructure disaster risk mitigation and recovery mechanism.

4.3.4 To develop quality and sustainable infrastructure;

The objective shall be achieved through the following measures:

(a) Promote adherence to Standards and Specifications for infrastructure development;

(b) Enhancing management of infrastructure development; and
(c) Facilitate acquisition of plant and equipment.

4.3.5 To promote innovation, research and development in infrastructure

The objective shall be achieved through the following measures:

(a) Promote investment in research and development in the construction industry; and
(b) Promote use of environmentally friendly local materials and technologies.

4.3.6 To mainstream cross-cutting issues in infrastructure development.

The objective shall be achieved through the following measures:

(a) Promote the participation of women, youths, and other vulnerable groups in infrastructure development project cycle; and
(b) Promote equity in the allocation of infrastructure development across provinces, districts and any other vulnerable key populations.

Section Five:
Implementation Framework

5.0 Implementation Framework

The successful implementation of the NIP depends on establishing an appropriate institutional arrangement, legal and regulatory framework, resource mobilization and financing as well as monitoring and evaluation.

5.1 Institutional Arrangements

The implementation of this policy will be supported by the following institutional arrangements.

5.1.1 Council of Ministers

In an effort to strengthen coordination and oversight in the implementation of this policy, it is recommended that a Council of Ministers on infrastructure development be established. The Council shall be chaired by the Vice President and comprise Ministers responsible for Infrastructure, Transport, Local Government, Finance, Education, Health, Home Affairs and Defence. The Ministry responsible for infrastructure shall be the Secretariat.

5.1.2 Ministry responsible for Infrastructure, Housing and Urban Development

According to Gazette Notice Number 1123 of 2021, the statutory and portfolio functions for the Ministry of Infrastructure, Housing and Urban Development include public infrastructure development, building and construction industry policy, maintenance policy, public asset management policy, valuation of government property among others.

Therefore, in the implementation of the NIP, the Ministry responsible for infrastructure development shall be the lead institution in overseeing implementation of this policy and coordination in the development of public infrastructure. The Ministry will also act as Secretariat in the implementation of the policy.

5.1.3 Ministry responsible for Defence

In the implementation of this policy, the Ministry responsible for defence shall be responsible for Infrastructure Planning under its mandate.

5.1.4 Ministry responsible for Home Affairs and Internal Security

In the implementation of this policy, the Ministry responsible for home affairs shall be responsible for infrastructure planning under its mandate.

5.1.5 Ministry responsible for Finance and National Development

In the implementation of this policy, the Ministry responsible for finance shall be responsible for resource mobilization for infrastructure development.

5.1.6 Ministry responsible for Agriculture and Livestock

In the implementation of this policy, the Ministry responsible for agriculture and livestock shall be responsible for Infrastructure Planning under its mandate.

5.1.7 Ministry Responsible for Commerce, Trade and Industry

In the implementation of this policy, the Ministry responsible for Commerce, Trade and Industry shall identify and prioritise the development of infrastructure for enhancing commerce and trade.

5.1.8 Ministry responsible for Mines and Minerals Development

In the implementation of this policy, the Ministry responsible for Mines and Minerals shall be responsible for Infrastructure Planning under its mandate.

5.1.9 Ministry responsible for Energy

In the implementation of this policy, the Ministry responsible for energy shall be responsible for Infrastructure Planning and Development under its mandate.

5.1.10 Ministry responsible for Tourism

In the implementation of this policy, the Ministry responsible for tourism shall be responsible for tourism infrastructure planning.

5.1.11 Ministry responsible for Transport and Logistics

In the implementation of this policy, the Ministry responsible for Transport shall be responsible for transport infrastructure planning.

5.1.12 Ministry responsible for Land

In the implementation of this policy, the Ministry responsible for land shall be responsible for Infrastructure Planning under its mandate.

5.1.13 Ministry responsible for Water Development and Sanitation

In the implementation of this policy, the Ministry responsible for water development and sanitation shall be responsible for Infrastructure Planning under its mandate.

5.1.14 Ministry responsible Green Economy and Environment

In the implementation of this policy, the Ministry responsible for environment shall be responsible for ensuring complete adherence to environmental regulations and standards.

5.1.15 Ministry responsible for Health

In the implementation of this policy, the Ministry responsible for Health shall be responsible for health infrastructure planning and development.

5.1.16 Ministry responsible for Education

In the implementation of this policy, the Ministry responsible for Education shall be responsible for education infrastructure planning and development.

5.1.17 Ministry responsible for Technology and Science

In the implementation of this policy, the Ministry responsible for Technology and Science shall be responsible for Infrastructure Planning and Development under its mandate.

5.1.18 Ministry responsible for Local Government and Rural Development

In the implementation of this policy, the Ministry responsible for Local Government shall be responsible for land use planning.

5.1.19 Ministry responsible for Youth, Sports and Arts

In the implementation of this policy, the Ministry responsible for Youth, Sports and Arts shall be responsible for Infrastructure Planning under its mandate.

5.1.20 Private Sector

Private Sector Associations and players shall compliment and support government efforts in infrastructure development through Public Private Partnerships.

5.1.21 Civil Society Organizations

Civil Society Organizations shall compliment government efforts in governance, accountability and monitoring performance in the implementation of infrastructure development.

5.1.22 Cooperating Partners

Cooperating partners at bilateral, regional and multilateral levels shall provide both technical and financial support.

5.1.23 Academia and Research Institutions

Academia and research institutions shall provide support, capacity building, research and development.

5.2 Legal Framework

The infrastructure sector has a number of pieces of legislation that supports its operations. However, to strengthen implementation of this policy, there is need to review and streamline the pieces of legislation to accommodate the policy intentions espoused in the policy. The pieces of legislation that may be reviewed, among others, include the following:

- National Housing Authority Act, Cap 195;
- Public Roads Act, No.12 of 2002;
- Zambia Institutes of Architects Act, Cap 442;
- Quantity Surveyors Act, Cap 438; and
- Engineering Institution of Zambia Act, No.17 of 2010

5.3 Resource Mobilization

Implementation of this policy requires sustainable financing to successfully achieve its objectives. The Government of the Republic of Zambia will mobilize financial and technical resources through the annual budget and support from cooperating partners and the private sector.

5.4 Monitoring and Evaluation

The implementation of this policy shall be monitored and evaluated by the ministry responsible for infrastructure in collaboration with other line ministries and relevant stakeholders. The ministry will develop an implementation plan and M&E Framework that will facilitate tracking and reporting of progress during the implementation of this Policy. A mid-term evaluation will be carried out as part of the process to determine progress achieved and to keep abreast with emerging trends in the sector.