THE REPUBLIC OF ZAMBIA

MINISTRY OF GREEN ECONOMY AND ENVIRONMENT

# NDC IMPLEMENTATION FRAMEWORK FOR ZAMBIA 2023 - 2030

# FOREWORD

The Sixth Assessment Report (IPCC 6AR) published by the Intergovernmental Panel on Climate Change in early 2023, has reaffirmed the unequivocal threats posed by climate change. Climate change is happening all around us as noticed in the rising global temperature which has exceeded 1.09 degree Celsius above normal. The report has further stated that even a small amount of additional warming threatens food production and food security due to more severe and frequent heat waves, droughts and floods along with sea level rise.

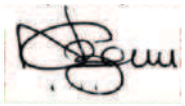
Studies indicate that temperature increases in Zambia are projected to reach 1.9 degrees Celsius and 2.3 degrees Celsius by 2050 and 2100, respectively. In addition, extreme seasonal floods and droughts have increased in frequency, intensity and magnitude as a result of climate change, costing the nation an estimated 0.4% in annual economic growth. This global challenge including our own experience dealing with floods and droughts that have had economic consequences provided strong impetus for Zambia to not only integrate climate change across sectors of the 8th National Development Plan but also to dedicate a chapter in the Plan on Environmental Sustainability. By this action, Government has recognised the need to strengthen adaptation and mitigation measures including disaster risk reduction efforts in its pursuit for economic development.

The NDC Implementation Framework will serve as an important instrument for Zambia to take action on climate change. It will also serve as a dashboard highlighting priority sectors, outcomes and output areas including key performance indicators. Specific milestones and targets including their associated implementation costs are also on highlighted in the Framework. In this way, Government has provided clear guidance to the people of Zambia, the nature of actions needed for the nation to reduce greenhouse gases and to adapt to the impacts of climate change over the next eight (8) years. A unique feature in this Framework is the inclusion of the Banking and Finance Sector

whose aim is to strengthen resource mobilisation to ensure availability of adequate financial resources for addressing the negative effects of climate change.

The elaborated Implementation Framework is the Government of the Republic of Zambia's call for investments in the priority sectors that have been highlighted. Zambia requires US$17.2 billion between 2023 and 2030 to effectively contribute to the implementation of commitments under the Paris Agreement. Approximately 75% of the total investments are needed in the energy-based sectors such as renewable energy, transport and Industry at a cost of US$12.8 billion in the next eight (8) years. On average, Zambia's climate budget is estimated at US$2.1 billion annually, this demonstrates the huge deficit we face and the need for external support.

Therefore, through this NDC Implementation Framework, it is clear to see that Zambia is open for business and investments. I urge all stakeholders, most especially the private sector and our Cooperating Partners to work with Government and utilise this NDC Implementation Framework as an invitation to invest and to support Zambia's green agenda to fight climate change.



Hon. Eng. Collins Nzovu, MP.

**MINISTER OF GREEN ECONOMY AND ENVIRONMENT**

## ACKNOWLEDGEMENTS

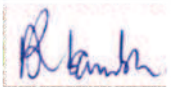
This Nationally Determined Contribution (NDC) Implementation Framework is a demonstration of commitment by the Government of the Republic of Zambia to take concrete actions on climate change across key sectors of the economy. It is also a demonstration of the importance of a multi-sectoral collaboration across a wide spectrum of our society to establish a pathway for achieving a low carbon and climate resilient development. This Implementation Framework is a product of concerted efforts by many officials from public, civil society and private sector institutions. In particular, inputs to the Framework were received from the departments within the Ministry of Green Economy and Environment; Zambia Environmental Management Agency (ZEMA), Ministry of Water Development and Sanitation, Ministry of Finance and National Planning, Bank of Zambia, Securities and Exchange Commission, Ministry of Agriculture, Ministry of Fisheries and Livestock, Ministry of Energy, Ministry of Transport and Logistics and the Disaster Management and Mitigation Unit (DMMU) in the Office of the Vice President.

During the preparation process, stakeholder consultations were conducted through virtual sessions, in-person meetings and validation workshops which comprised representatives from Government Ministries, Statutory Bodies, Civil Society Organisations (CSOs), Non-Governmental Organizations (NGOs) and Academia. As such data collection processes ensured transparency, ownership, consensus building and the integration of policy, programme and project documents, for enhancing the quality and accuracy of the Framework.

I wish to express my gratitude to NDC Partnership Support Unit who through its partners provided financial and technical support towards the preparation and subsequent quality control of the Framework. I also wish to extend Government's gratitude to all the Cooperating Partners that contributed towards the NDC Implementation Framework preparation process. Special thanks go to the technical team within the Ministry of Green Economy and

Environment which included the Green Economy and Climate Change and the Zambia Environmental Management Agency that spearheaded the drafting and subsequent validation of the Framework. The collaborative and complimentary efforts across departments to achieve common objectives are commendable.

Implementing the actions identified in the NDC Implementation Framework requires resources from both domestic and international sources. This is both a challenge and an opportunity to develop solutions on one hand and strengthen resource mobilization capacities on the other. Raising awareness about the prospects for a low carbon and climate resilient economy is a natural response for Government and stakeholders. Let us rise up to the occasion and respond appropriately to the challenge with solutions as guided in this important document over the next eight (8) years.



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## LIST OF ACRONYMS

| | |
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| 8NDP | 8th National Development Plan |
| AFOLU | Agriculture Forest and other Land Uses |
| BAU | Business-As-Usual |
| BOZ | Bank of Zambia |
| ccGAP | Climate Change Gender Action Plan |
| CFM | Community Forest Management |
| CFL | Compact Fluorescent Lamp |
| CO2 | Carbon Dioxide |
| CSA | Climate Smart Agriculture |
| EWS | Early Warning Systems |
| GCF | Green Climate Fund |
| GDP | Gross Domestic Product |
| $GgCO_{2eq}$ | Giga grams of Carbon Dioxide equivalent |
| GHG | Greenhouse Gas |
| IAPRI | Indaba Agriculture Policy Research Institute |
| IPCC | Intergovernmental Panel on Climate Change |
| LEDS | Low Emission Development Strategies |
| MRV | Measuring Reporting and Verification |
| MW | Megawatts |
| NAMA | Nationally Appropriate Mitigation Action |
| NAP | National Adaptation Plan |
| NAPA | National Adaptation Programme of Action |
| NBSAP | National Biodiversity Strategy and Action Plan |
| NDC | Nationally Determined Contribution |
| NDP | National Development Plan |
| NPCC | National Policy on Climate Change |
| PIA | Pensions and Insurance Authority |
| REDD | Reducing Emissions from Deforestation and Forest Degradation |
| SEC | Securities Exchange Commission |
| SNAP | Second National Agriculture Policy |
| SDG | Sustainable Development Goals |
| SFM | Sustainable Forest Management |
| TORS | Terms of References |
| TNA | Technological Needs Assessment |
| TNC | Third National Communication |
| TWG | Technical Working Group |
| UNDP | United Nations Development Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |

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| ZEMA | Zambia Environmental Management Agency |
| ZMD | Zambia Meteorological Department |

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# Zambia

## Nationally Determined Contribution Implementation Framework

The NDC Implementation Framework Narrative summarizes the content and the context behind Zambia's NDC implementation developed by the Government of Zambia with support from the NDC Partnership. The Narrative follows the validation of the Framework by the Government of Zambia, and before Implementing and Development Partners respond with indications of support. The following information intends to help NDC Partnership members and non-members identify opportunities to engage early in the NDC implementation process. Partners interested in supporting a Framework component are invited to reach out to the Government and the Partnership for additional information.

## 1. CONTEXT AND DEVELOPMENT OUTCOMES

Zambia's Eighth National Development Plan (8NDP) has identified environmental sustainability as an important strategic area. Among the outcome areas of the 8NDP are strengthened climate change adaptation, strengthened climate change mitigation and enhanced disaster risk reduction and response. The Development Plan has further acknowledged the important role the Nationally Determined Contributions (NDC) will play in achieving environmental sustainability during the period of implementation. The NDC was developed with a conditional pledge of reducing Greenhouse Gas (GHG) emissions by 25% (20,000 Gg CO2 eq.) by 2030 against a base year of 2010 under the BAU scenario with levels of international support prevailing in 2015 or by 47% (38,000 Gg CO2 eq.) with substantial international

support. Therefore, the Government will utilize the NDC Implementation Framework as a tool to operationalize the aspirations of the 8NDP on environmental sustainability. This will be done by implementing the 11 clustered sectors and 18 outcome areas carefully selected and prioritized to guide the implementation of adaptation and mitigation actions. The sectors of interest include Banking and Finance – Fiscal Policy, Agriculture Forest and Land Use -AFOLU Multi-sector (Climate institutional Capacity, Information, Transparency, and Environmental Issues), Forest, Energy, Buildings and Infrastructure, Waste Management, Health, Water, Industry, and Transport. The NDC Implementation Framework has identified 135 measures and 158 key performance indicators. The estimated implementation cost of the Framework is US$17.2 billion covering the 8-year period of 2023 to 2030. Renewable Energy generation, Railway and expansion of social security system are the key cost drivers of the Framework.

## 1.1. Outcomes and Rationale for the Zambia NDC Implementation Framework

### 1.1.1. Banking & Finance- Fiscal Policy

**Fiscal Policies Improved to Foster Low-Carbon and Resilient Sustainable Development:** Zambia has adopted a two-pronged approach to financing its NDC through a business-as-usual unconditional scenario and new approach utilizing the conditional scenario. The business-as-usual approach includes domestic resources the country can mobilize and limited international support estimated at US$15 billion. The conditional scenario includes the mobilization of adequate international resources from bilateral and multilateral sources in the amount of US$35 billion for the period 2016 to 2030. To achieve this objective, the Ministry of Finance and National Planning intends to improve the fiscal regime and public finance management to foster low carbon and resilient sustainable development, enhance domestic resource mobilization, increase the efficiency of public expenditure, halt the accumulation of arrears and improve fiscal transparency. The Ministry will furthermore develop a resource mobilization strategy, create a climate change fund

and ensure key tools for mainstreaming climate change and budget tracking of budget allocations and expenditures are developed and deployed. During the Implementation period of this Framework, total financial resources amounting to US$17.2 billion from domestic and international sources would have been mobilized and expended towards achieving the outputs identified in the Framework. The improvement of fiscal policies to foster low carbon and resilient sustainable development alone is estimated to cost US$1.78 million by 2030.

### 1.1.2. Banking & Finance – Financial Sector

**Financial Stability and Supervisory Policy and Procedures Improved to Foster Low-Carbon and Resilient Sustainable Development:** The Intergovernmental Panel on Climate Change (IPCC), in the latest Sixth Assessment report, has cited the importance of awareness raising by investors, central banks, and financial regulators for climate policy development and subsequent implementation. As a critical action point, during the implementation of the 8NDP and the NDC Implementation Framework, monetary and financial sector policies will aim to maintain price and financial system stability to promote sustainable growth. As an important financial stability and supervisory measure, the tripartite green finance working group comprising the Bank of Zambia (BOZ), the Securities Exchange Commission (SEC) and the Pensions and Insurance Authority (PIA) will target the improvement of policies and procedures to foster low-carbon and resilient sustainable development. Specific outputs include the development of green finance and green loans guidelines and the development of climate taxonomy including incentives for green bonds and associated market. The estimated budget for all the outputs is US$450,000 with a target delivery date of June 2024.

### 1.1.3. AFOLU- Agriculture

**Strengthened climate resilience of agricultural production and agriculture productivity:** Agriculture is central to Zambia's efforts to respond to climate change and economic growth. The vision of the second national agriculture policy launched

in 2016 is an efficient, competitive and sustainable agricultural sector, which assures food and nutrition security, increased employment opportunities and incomes. As highlighted in the 8NDP, the agriculture sector provides livelihoods to more than 70% of Zambia's population. The Revised NDC has projected emission reduction in the agriculture sector to reach 1,232GgCO2 eq. through sustainable agricultural production practices. As such, in the NDC Implementation Framework, the Government has prioritized the strengthening of climate resilience of agricultural production and productivity through the promotion of irrigation and efficient use of water resources targeting 80,000 households[1] by 2026. Other measures include increasing the use of technologies for soil fertility improvement and moisture storage (including soil conservation measures) targeting 700,000 farming households while 750,000 additional farming households will increase the use of indigenous and scientific knowledge on drought tolerant crop types. Additional actions include upscaling to social cash transfer by the vulnerable farmers to 1,500,000, increased access of farming households to insurance against climate-induced risks related to agriculture and infrastructure targeting 1,100,000, accelerated implementation of food security packs, conservation and commercialization of indigenous crop varieties and implementation of gender-sensitive agriculture technologies. The estimated cost of implementing the priority activities is approximately US$2.5 billion by 2030.

### 1.1.4. Multi-Sector- Climate Information

**Enhanced Early Warning Systems with a Focus on Agriculture, Livestock and Fisheries Implemented:** As the frequency and intensity of climate-related shocks in Zambia increase, there is an urgent need for the country to enhance its Early Warning Systems (EWSs) as one way to strengthen adaptation to a changing climate. The Government of Zambia has prioritized the improvement of early warning systems in the agriculture, livestock and fisheries sector for installing critical technologies and developing the necessary systems to integrate climate change-related information into

[1] This is roughly 400,000 people at an average of 5 people per household. Zambia's population is currently estimated at 19.5 million people in 2022.

decision-making processes. To enhance disaster risk management, the Government will strengthen disaster risk reduction measures and enhance early warning systems for timely action including promoting disaster preparedness for effective response to build back better in recovery, rehabilitation and reconstruction. Further, the Government will expand and modernize weather and climate observations infrastructure by 500 units for ground stations, 2400 rainfall stations and 5 upper air Monitoring systems. Through the Zambia Meteorological Department, the Government will increase awareness and information about climate change risks and early warning in key sectors. The total estimated budget of the actions highlighted above is US$29.7 million by 2030.

### 1.1.5. AFOLU-Forestry 1

**Reduced vulnerability and strengthened resilience of livelihoods among forest communities:** Forest lands represent the lifeline of rural economies and daily subsistence, with the sector currently contributing about 5.2% to the nation's GDP and providing formal and informal employment to about 1.1 million people. From 2001 to 2017, Zambia lost 2.5 million hectares or about 6% of the tree cover across the country. In line with the provisions of the 8NDP and the Revised NDC 2021, the NDC Implementation Framework will focus on programmes aimed at reversing the growing threats to natural resources ranging from habitat transformation, encroachment, uncontrolled wildfires and invasive species. Key interventions include enhance community participation in natural resource management with the resulting strengthening of the committees responsible for the management of natural resources, game management areas, forests and water. Furthermore, the Government will promote the quantification and valuation of natural resources and ecosystem services and operationalization of conservation plans for critical wetlands. The forest sector is projected to contribute 28,812GgCO2 eq. in emission reductions by 2030. The actions outlined above are estimated to cost an estimated US$301.5 million by 2030.

### 1.1.6. AFOLU-Forestry 2

**Increased Gender Equity and Inclusiveness for Women and Men in Community Forest Management Groups (CFMG):** Deforestation is estimated at 172,000 hectares per annum in 2021, placing Zambia among the top 10 countries in Africa with the highest deforestation rates in the world. The National Gender Policy indicates that women have shown to be influential leaders within their communities in addressing deforestation trends. Furthermore, where women help devise early warning systems and reconstruction efforts, communities fare largely better in climate-related natural disasters. Areas of intervention identified in the NDC Implementation Framework include enhancement of rural forest communities and women's livelihood opportunities in non-wood forest products (NWFP), scaling up forest conservation initiatives, development of a policy paper on gender, climate change and forests, women and men participating in the development of local climate change adaptation plans for the forestry sector and increased participation of women in community forest management. With the implementation of various actions in community forest management, it is expected that the deforestation rate will reduce to 120,000 hectares per annum by 2026 from 172,000 hectares of deforestation rate per annum in 2021. The interventions proposed are estimated to cost US$324,114 by 2030.

### 1.1.7. Energy

**Increased Share of Renewable Energies in the National GRID and Increased Energy Efficiency Upscaled:** The IPCC Sixth Assessment report has noted that the low adoption of low carbon technologies in most developing countries particularly least developed countries is due in part to weaker enabling conditions including limited finance, technology development and transfer and capacity. As a proactive measure, the 8NDP has prioritized enhancement of generation, transmission and distribution of electricity during the plan period 2022 to 2026. Increased investment in the sector will result in an increase in electricity generation capacity to 4,457 megawatts (MW) by 2026 from 3,307.43 MW in 2021. The percentage of renewable energy in the national installed electricity capacity, excluding large hydroelectricity

generation, is expected to increase to 10 percent from 3 percent over the same period. This will, in part, be supported by fifteen renewable energy off-grid projects that will be developed by 2026, in addition to the seven developed in 2021. The NDC Implementation Framework has projected that by December 2030, Government will increase solar energy contribution to the national installed electricity generation capacity by 720MW, add low carbon-based hydro-electricity supplied into the grid by 1400MW while 300MW of wind electricity will be supplied into the grid in addition to generation of geothermal electricity equivalent to 17.7MW. Other renewable solutions include biomass-based electricity amounting to 100MW generated and supplied into the grid, increased generation in renewable energy for off-grid supply of 200MW, production of 100,000 improved cook-stoves and 3,500,000 Incandescent bulbs replaced with LED/CFL across the country. The estimated cost of investments in the outcome areas is US$6 billion by 2030. An estimated 8,370.77GgC02 eq. in emission reductions from renewable energy sources is anticipated by 2030.

### 1.1.8. Building & Infrastructure

**Enhanced Adaptive Capacity and Strengthened Resilience of Infrastructure to Climate Shocks:** The Sixth Assessment Report by the Intergovernmental Panel on Climate Change (IPCC) has concluded that if existing buildings, and buildings yet to be built are retrofitted, the sector is projected to approach net-zero GHG emissions in 2050. The achievement of this aspiration entails implementing policy packages, which combine ambitious, sufficiency, efficiency, and renewable energy measures effectively implemented and barriers to de-carbonization removed. The NDC implementation Framework will aim to strengthen systems and tools for climate resilience and low-carbon investments in the infrastructure sector. The tools to be deployed by the Government include the revised national construction codes and standards and climate sensitive land use planning guidelines spearheaded by the Ministry of Infrastructure and Housing and Urban Development. Other measures include the demonstration of climate resilience housing in urban and rural areas. The estimated cost of this undertaking is US$831.6 million by 2030.

### 1.1.9. Waste

**Enhanced Solid Waste Management and Resource Recovery:** The Government of Zambia has identified improvement of sanitation services across the country by strengthening sewerage and solid waste management systems. This will be achieved through enhancing financing to address the constraint of inadequate solid waste management infrastructure. In addition, the Government will promote sustainable sanitation practices, including personal hygiene promotion and solid waste disposal among others. With these interventions, the proportion of households with access to improved sanitation is expected to improve from 37.2% and 77.7% in 2018 to 55% and 90% in 2026 in rural and urban areas, respectively. Specific programmes include infrastructure development and maintenance, solid waste management through biogas digesters, sanitation and hygiene and investment promotion in waste to energy projects. The Zambia NDC Implementation Framework will facilitate the development of guidelines on waste disposal, raise awareness and build in low-carbon infrastructure such as anaerobic biogas digester systems for enhancing waste management and attainment of low-carbon investments in the sector. The activities listed above will cost an estimated US$379.3 million by 2030.

### 1.1.10. Water

**Water security of all Zambians is promoted and protected, via gender-responsive and climate-smart water infrastructure:** In the 8NDP, the Government has prioritized the provision of clean and safe water across the country, especially in districts, constituencies and wards where there have been water deficiencies also considering the challenges women face in accessing water. Key measures to be implemented will include the development and maintenance of water supply infrastructure, water quality monitoring and protection of aquifers and other water sources. A key indicator of the role of men and women will include the number of beneficiaries trained on the use of climate-resilient water technologies disaggregated by gender. The implementation of these measures is expected to lead to an increase in access to clean and safe water to 67 percent by 2026 from 58% in 2018 for rural

areas and to 98% by 2026 from 91.8% in 2018 for urban areas. Under the water sector outcome, the NDC Implementation Framework will deploy climate-proofing measures to achieve the desired adaptive outcomes during the implementation period. The Government will undertake investments in 38 small dams to increase climate-resilient water sources infrastructure by December 2026. An estimated 41 groundwater aquifer resources will be mapped and protected, 1650 exploratory boreholes drilled and 41 well fields identified. These measures are expected to cost an estimated US$464.2 million by 2030.

### 1.1.11. AFOLU-Livestock

**Farmers able to cope with Climate change through the Adoption of Improved Practices that Enhance Livelihoods, Sustainable Systems for Improved Smallholder Livestock Production and Productivity Operational:** The Livestock sector, viewed as an important component of the government's plan to increase agriculture production and productivity, will aim at strengthening farmers' abilities to cope with climate change impacts through adoption of improved practices that enhance livelihoods. Alongside the agriculture component, this outcome is expected to contribute to an agricultural growth rate of at least 10% per annum over the 8NDP period including to agricultural exports expected to increase to above US$2 billion by 2026 from US$756.2 million in 2021. During the NDC Implementation Framework period, the Government will empower 10,000 farmers with capacities to utilize breeds that are resilient to climate change. Investments in water harvesting systems for livestock management across the country at community level. Furthermore, a countrywide Indexed Based Livestock Insurance (IBLI) and a Livestock early Warning Information Systems targeting livestock farmers will be deployed and made operational. Other output areas will include restoration of graded pastures and vegetation cover with different drought tolerant perennial seeds targeting 45,100 hectares. A sustainable forage seed production programme with private sector participation also targeting 900,000 additional farmers will be developed. Diversification of livelihoods and sources of incomes through skin and hides for over

26,000 livestock farmers is another key target area of action. This is in addition to the development of technical and business capacities for construction of 5,000 biogas plants for 19,900 livestock farmers. The estimated cost of undertaking the proposed interventions above is US$50.3 million by 2030.

### 1.1.12. Industry

**Sustainable Industrial Products and Product Use:** The promotion of low carbon technologies and in particular the use of low carbon and energy efficient intensity sources responds to government commitments under the Paris Agreement and the attainment of aspirations contained in the 8NDP on achieving environmental sustainability. As part of Zambia's contribution to reducing emissions under the Kigali Amendments, which sets out an Hydrofluorocarbons (HFC) phasedown that reduces consumption by 85% in CO2 tons equivalent (with some variations), the government has identified reduction of clinker content in cement production and reduction in the use of fluorinated greenhouse gas substances. The sector aims at reducing the clinker content in cement production by 20% and the fluorinated gas by 80% by 2030. These measures will cost an estimated US$32.4 million. Furthermore, an estimated 7,196GgCO2 emission reductions will be achieved by 2030.

### 1.1.13. Transport

**Sustainable Transportation Infrastructure:** The Government has targeted modernizing the transport infrastructure and in particular taking deliberate steps to ensure that at least 30% of bulk cargo is moved off the roads to the railway line through improvements and modernization of the rail infrastructure. The ambition requires using already proved energy efficient systems such as tramway systems in highly populated cities such as Lusaka, Kitwe and Ndola among cities with high population density. Additionally, the deployment of electrified modern railway systems will support the attainment of both the economic and low carbon development goals contained in the Revised NDC and the 8NDP. The NDC Implementation Framework has responded to the aspirations of the 8NDP through

outputs targeting the construction of 50km of the Lusaka Tramway System and the rehabilitation of a total of 2132km railway transport infrastructure. This will include electrification of 30% of total railway systems in the country. The measures outlined above will cost an estimated US$6.5 billion by 2030. The transport is project to contribute 1,973GgCO2 eq. towards emission reductions by 2030.

### 1.1.14. Multi-Sector–Institutional Capacity, Transparency & Environmental Issues

**Strengthened Institutional Capacity for Coordination Climate Change Projects and Programmes in Zambia, Enhanced Transparency for Efficient GHG Accounting and Climate Reporting in place and Enhanced Environmental Sustainability:** The Government has strengthened the coordination of climate change projects and programmes through the creation of the Ministry of Green Economy and Environment. The new Ministry was established through a consolidation of departments dealing with environment, climate change, meteorological and biosafety. Among many functions, the Ministry is mandated to develop policies on climate change and to coordinate the implementation of projects and programmes on climate change across the country. Key to the delivery of actions contained in the NDC Implementation Framework is the strengthening of institutional capacities for coordinating climate change projects and programmes through the revision of the National Policy on Climate Change, enactment of the climate change bill, development of the National Green Growth Strategy, NDC Communication Strategy and the NDC Investment Strategy and Financial Plan. The Ministry will further strengthen the capacity of District level staff to conduct climate risk screening at District and constituency levels. Other key multi-sectoral measures include producing biennial transparency reports and the 4th National Communication report for submission to the United Nations Framework Convention on Climate Change (UNFCCC). The Government will also operationalize an MRV Portal for reporting actions on adaptation and mitigation arising from implementing activities contained in the NDC Implementation Framework and the National Adaptation Plan. The

estimated implementation cost of this multi-sectoral section is US$39.6 million by 2030.

### 1.1.15. Health

**Increased resilience of the health sector to climate change**: The Government of Zambia has, in the 8NDP, placed emphasis on strengthening public health, increasing access to quality health care through health infrastructure development, provision of health insurance, enhanced food security and nutrition and strengthening integrated health information system. The NDC Implementation Framework has identified measures on climate change to support the implementation of the 8NDP. These include strengthening policies and institutional capacities to manage climate change risks in the health sector, the development of the Environmental Health policy that clearly defines the strategies that include climate change for the Ministry of Health, and the development of surveillance tools for early warning against climate variability and extreme weather events with a focus on the health sector. The Government will also ensure that climate change is mainstreamed across programmes to enhance resilience of the health sector. The estimate cost for interventions towards the achievement of key performance indicators is US$128.7 million by 2030.

## 2. CLIMATE AND SUSTAINABLE DEVELOPMENT LINKAGES

### 2.1. Alignment with National and Sectoral Development Policies, Plans and Budgets

The NDC Implementation Framework is being complemented by various national and sectoral policies that also aim to achieve climate resilient and low carbon objectives. The Framework will substantially contribute to the success of the Vision 2030, the 8NDP, the Revised and Updated NDC and the National Policy on Climate Change when priority adaptation and mitigation projects are effectively implemented. Through the resource mobilization efforts that will anchor the delivery of priority actions contained in the Framework, budget execution will also be strengthened during the implementation period. The table below provides a comprehensive list of policies, laws

and strategies and describes the areas of alignment with the NDC Implementation Framework.

*Table 1: Sectoral Development Policies, Plans and Strategies*

| Name | Year | Description |
|---|---|---|
| Nationally Determined Contribution (NDC) | 2021 | Zambia's revised and updated NDC sets the climate targets for both mitigation and adaptation |
| Third National Communication (NC) | 2020 | Highlights the country's anthropogenic Greenhouse Gas (GHG) emission sources and sinks for the years 2005 and 2010, emission drivers, and measures to abate GHG emissions. |
| National Policy on Transport (NPT) | 2019 | Promotes private sector involvement in infrastructure development and service provision under a regulated environment. |
| National Energy Policy (NEP) | 2019 | Seeks to achieve optimal energy resource utilization to meet Zambia's domestic and non-domestic needs at the lowest total economic, financial, social, environmental, and opportunity cost to establish Zambia as a net exporter of energy. |
| Energy Regulation Act No. 12 of 2019 | 2019 | Establishes the Energy Regulation Board, as a body corporate, whose primary role is to license entities that intend to produce energy. |
| Electricity Act No. 11 of 2019 | 2019 | Provides for the regulation of the generation, transmission, distribution, and supply of electricity. |

| Name | Year | Description |
|---|---|---|
| 8th National Development Plan (8NDP) | 2022 | Promotes socioeconomic transformation for improved livelihoods through Economic Transformation and Job Creation, Human and Social Development, Environmental Sustainability, and Good Governance Environment. |
| Climate Change Gender Action Plan (CCGAP) | 2017 | Ensures gender consideration in the implementation of climate change mitigation and adaptation programs and projects. |
| Second National Agriculture Policy 2016 (SNAP) | 2016 | Provides a framework to promote sustainable agricultural diversification, agricultural commercialization, private sector participation, and inclusive agricultural growth. |
| National Policy on Climate Change (NPCC) | 2016 | Provides for a low-carbon and climate-resilient development pathway. |
| The National Forestry Policy (NFP) | 2015 | Provides an environmental policy framework, monitor, evaluate and co-ordinate its implementation, to ensure the protection of the environment and sustainable development, management, and utilization of natural resources for the benefit of the present and future generations. |
| Forest Act. No. 4 of 2015 | 2015 | Provides for forest protection and conservation including guidelines for carbon trade. |
| Second National Biodiversity Strategy and Action Plan (NBSAP) | 2015 | Provides for biodiversity conservation focus points and incorporates climate change |

| Name | Year | Description |
|---|---|---|
| | | resilience principles in biodiversity conservation. |
| National Strategy for Reducing Emissions from Deforestation and Forest Degradation (REDD) | 2015 | Provides a framework to address drivers of forest loss to reduce emissions from deforestation and forest degradation. |
| Nationally Appropriate Mitigation Actions (NAMA) | 2014 | Outlines concrete programs and projects in the Energy, Agriculture, Transport, Forestry, and Waste Management sectors that will assist the country to transition into a low-carbon development trajectory. |

## 2.2. Green Recovery

The Zambian economy experienced a decline by 2.8% in 2020, with most sectors recording negative growth mainly because of the COVID-19 Pandemic. The exceptions were the agriculture, health, and information and communications technology sectors which registered positive growth. Growth in 2021 was rebounded to positive levels at 3.3%, driven by a recovery and subsequent expected good performance in mining, wholesale and trade, and electricity generation. The Government employed various measures to respond to the effects of the COVID-19 pandemic on livelihoods and the economy. These measures included allocations of an estimated US3.2 million to the Epidemic Preparedness Fund and US$36.6 million equivalent to the COVID-19 Contingency and Response Plan. The Government further established a US$6 million three to five years Targeted Medium-Term Refinancing Facility (TMTRF) to eligible financial service providers for on-lending to priority sectors at attractive rates. To alleviate economic pressure associated with the COVID-19 and reduce liquidity challenges, the Government issued the US$450 million COVID-19 Mitigation Bond for economic stimulus packages aimed at dismantling arrears, VAT refunds and outstanding arrears owed to retirees. Some of the resources from the bond were

earmarked for grain purchases for National Food Reserves and for the Constituency Development Fund as a way of ensuring that community projects were implemented. The Government was further able to respond to the call by the Green Climate Fund (GCF) COVID-19 Readiness and Recovery Support to enhance the recovery of climate impacted communities also facing the effects of the COVID-19 pandemic.

# 3. SUMMARY OF PROCESS

## 3.1. Key Consultations

The compilation of the NDC Implementation Framework commenced in early 2020 and was preceded by a scoping mission conducted by the NDC Partnership Support Unit on 29 September to 4 October 2019. Stakeholder engagements in the subsequent months were hindered by the outbreak of the COVID-19 Pandemic which also slowed the progression in the collection of information between March 2020 and December 2022. Lockdown measures imposed to reduce the spread of the disease also constrained in-person meetings thereby limiting access to information required to update the Implementation Framework. Following the removal of COVID-19 restrictions, five stakeholder workshops were held in Kabwe and Lusaka leading to the production of the draft NDC Implementation Framework at the end of December 2022. The Government conducted additional stakeholder consultations to refine the key performance indicators and the cost estimates between January and April 2023. During the whole period, the Government relied on technical assistance provided by the NDC Partnership through an individual consultant, a firm and the NDC In-Country Facilitator. Cooperating Partners based in Zambia also provided information through a project matrix administered by Government to collection information on support provided during the period of the country's NDC.

## 3.2. Stakeholder Engagement

Zambia joined the NDC Partnership in 2016 with the aim of accelerating the implementation of mitigation and adaptation actions aspired for in the country's National Development Plans and strategies. Three Focal Point Institutions - Ministry

of Lands and Natural Resources, Ministry of Finance and Ministry of National Development Planning - were nominated. Following the merging of the Ministry of Finance and the Ministry of National Development Planning and the creation of the Ministry of Green Economy and Environment, two focal point Ministries were assigned to the NDC Partnership. These include the Ministry of Green Economy and the Ministry of Finance and National Planning.

Several consultations were undertaken with representatives from key sectors such as Ministries of Agriculture, Fisheries and Livestock, Finance, Bank of Zambia, Pensions and Insurance Authority, Securities Exchange Commission, Zambia Meteorological Department, Zambia Environmental Management Agency, Ministry of Health, Ministry of Green Economy and Environment-Forest Department and Green Economy and Climate Change Department, Ministry of Energy, Ministry of Water Development and Sanitation, Office of the President-Gender Division, Ministry of Local Government and Housing and Ministry of Commerce, Trade and Industry. Private Sector Institutions such as the Indaba for Agriculture Policy Research Institute (IAPRI) and the Zambia Chamber of Commerce and Industry also participated. Other key stakeholder included Non-Governmental Organizations and the Cooperating Partners who also provide inputs into the development of the Framework.

# 4. IMPLEMENTATION FRAMEWORK

## 4.1. Coordination Mechanisms (Government Structure for Climate Change)

The NDC Implementation Framework will be coordinated in line with the provisions of the National Policy on Climate Change 2016. The Policy mandates the Council of Ministers as the supreme decision-making body for overseeing climate change interventions. The Chairperson of the Council is the Vice President, while the Secretariat is the newly created Ministry of Green Economy and Environment which is responsible for coordinating the implementation of climate change projects and programmes across the country. The Ministry of Green Economy and Environment

also chairs the Steering Committee of Permanent Secretaries. The Steering Committee is the principal advisory body to the Council of Ministers on policy and programme coordination and implementation. The Secretariat to the Steering Committee is currently the Green Economy and Climate Change Department. The Technical Committee on Climate Change, chaired by the Director of Green Economy and Climate Change, also provides technical advisory services to the Steering Committee of Permanent Secretaries chaired by the Permanent Secretary - Ministry of Green Economy and Environment. At technical committee level representatives of government ministries, civil society organizations and private sector participate in technical discussions and provide inputs into recommendations for consideration by Permanent Secretaries and subsequently the Committee of Ministers. The implementation of initiatives contained in the NDC Implementation Framework will be subject to the governance arrangements described above.

## 4.2. Financing and Resource Mobilization

The NDC Implementation Framework is estimated to cost the country US$17.2 billion covering 11 clustered sectors, 18 outcome areas 135 measures and 158 key performance indicators (KPIs) between 2023 and 2030. While Government has devised mechanisms for financing of the 8NDP which will be done through traditional and non-traditional sources of finance, the NDC Investment Strategy and Financial Plan propose ways to ensure effective resource mobilization. These approaches include (i) increased awareness, knowledge and capacities to accelerate the mobilization of funding sources and mechanisms and (ii) the NDC achieving high-level political recognition and alignment from international cooperation and private sector engagement to fulfil its mandate and (iii) achieving a diversified national portfolio of financial sources and mechanisms to meet the targets set to bridge the NDC Financial gap by 2030. Traditional sources identified include domestic revenue, grants, donations and concessional loans that will also form the primary source of financing adaptation and mitigation projects. Non-traditional sources of finance will include alternative sources that will have low or no interest payments or guarantee

commitments from the Government, such as public-private partnerships (PPPs) and impact capital. As observed in the 8NDP, some programmes and projects in the Plan will not be financed from the national budget but from resources coming through private sector and other cooperating and development partners. The table provides a breakdown of financing needs per sector, the number of measures identified in the framework, the number of key performance indicators and the implementation cost estimates. The table below highlights sectors, number if measures and key performance indicators in the framework the cost estimates of actions in each sector.

*Table 2: Sectors, Measures, Key Performance Indicators and Implementation Costs*

| Sector | # of Measures in the Framework | # of KPIs | Implementation Cost (US$) |
|---|---|---|---|
| Banking & Finance | 16 | 22 | 2,227,868 |
| Agriculture & Livestock | 18 | 19 | 2,503,333,089 |
| Multi-sector | 34 | 40 | 39,617,986 |
| Forestry | 16 | 16 | 301,849,061 |
| Energy | 16 | 17 | 5,985,964,860 |
| Buildings & Infrastructure | 10 | 10 | 831,604,013 |
| Waste | 9 | 11 | 379,284,421 |
| Health | 4 | 5 | 128,744,093 |

| | | | |
|---|---|---|---|
| Water | 6 | 12 | 464,181,973 |
| Industry | 2 | 2 | 32,385,539 |
| Transport | 4 | 4 | 6,524,896,777 |
| **Total** | **135** | **158** | **17,194,089,680** |

## 4.3. Tracking Implementation Progress

Tracking the progress of NDC implementation will employ a three-prong approach to reporting which include: (i) the NDC Online Partnership Plan tool (ii) the Measuring, Verification and Reporting web-based system and (iii) NDC Country Engagement quarterly reports. A climate-related MRV system has been developed by the Zambia Environmental Agency through a consultative process and integrated into a web-based system to enhance transparency in reporting and access to information by the general public. Furthermore, the Ministry of Green Economy and Environment will work closely with the Ministry of Finance and National Planning to operationalize the budgeting tracking tool to further improve the country's tracking of resources allocated and expended towards climate actions identified in the NDC Implementation Framework.

# Annex I: Linkages with 8th National Development Plan and Sustainable Development Goals

| Implementation Framework Outcomes | 8th National Development Plan | | SDG Outcome Areas |
|---|---|---|---|
| | Development Outcome Areas | Development Outcome Description | |
| **Fiscal Policies Improved to Foster Low-carbon and Resilient sustainable Development** | 5.6, 7.4, 7.5 | • Competitive Private Sector<br>• Enhanced mitigation and Adaptation to climate change<br>• Sustainable & Natural Resources Management | 7, 13, 17 |
| **Financial Stability and Supervisory Policy and Procedures Improved to Foster Low-carbon and Resilient Sustainable Development** | 5.6, 7.4, 7.5 | • Competitive Private Sctor<br>• Enhanced Mitigation and Adaptation to Climate Change<br>• Sustainable & Natural Resources Management | 7 , 13, 17 |
| **Strengthened Climate Resilience of Agricultural Production and Productivity** | 5.4, 5.5, 6.4, 6.5. 6.6, 7.4, 7.5 | • An Industrialised and Diversified Economy<br>• Enhanced Citizenry Participation in the Economy<br>• Improved Health, Food and Nutrition | 1, 2, 3, 10, 12, 13 |

| | | | |
|---|---|---|---|
| | | • Improved Water Supply and Sanitation<br>• Reduced Poverty, Vulnerability and Inequality<br>• Environmental Sustainability | |
| **Enhanced Early Warning Systems with a focus on Agriculture, Livestock and Fisheries Implemented** | 7.4, 7.5, 8.4 | • Reduced Poverty, Vulnerability and Inequality<br>• Environmental Sustainability<br>• Improved Policy and Governance Environment | 13, 14, 15 |
| **Reduced Vulnerability and Strengthened Resilience of Livelihoods among Forest Communities** | 6.7, 7.4, 7.5 | • Enhancing human development<br>• Environmental Sustainability<br>• Sustainable environment & Natural Resources Management | 1, 2, 13 |
| **Increased Gender Equity and Inclusiveness for both women and men in Community Forest Management Groups (CFMG)** | 5.5, 6.4, 6.7, 7.4, 7.5 | • Enhance citizens participation in the economy<br>• Human and Social Development | 5, 13, 17 |

| | | | |
|---|---|---|---|
| | | • Reduced poverty, vulnerability and Inequality<br>• Environmental Sustainability<br>• Sustainable Environment & Natural Resources Management | |
| **Gender Responsive Increased share of Renewable Energies in the National GRID and Increased Energy Efficiency Upscaled** | 5.4, 5.5, 6.4, 6.7, 7.4, 7.5 | • An Industrialised and Diversified Economy<br>• A competitive private sector<br>• Human and Social Development<br>• Reduced poverty, vulnerability and Inequality<br>• Enhanced Mitigation and Adaptation<br>• Sustainable Environment & Natural Resources Management | 5, 7,10, 13 |
| **Enhanced Adaptive Capacity and Strengthened Resilience of Infrastructure to Climate Shocks** | 5.4, 7.4, 7.5 | • An Industrialised and Diversified Economy<br>• Enhanced mitigation and Adaptation to climate change | 9, 13 |

| | | | |
|---|---|---|---|
| | | • Sustainable Environment and Natural resources | |
| **Enhanced Solid Waste Management and Resource Recovery** | 6.6, 7.4, 7.5 | • Improved water supply and sanitation<br>• Enhanced mitigation and Adaptation to climate change<br>• Sustainable Environment and Natural resources | 6, 7,13 |
| **Livestock Farmers able to Cope with Climate Change through adoption of Improved Practices that Enhance Livelihoods** | 5.4, 5.5, 6.5, 6.7, 7.4 | • An Industrialised and Diversified Economy<br>• Enhanced Citizenry Participation in the Economy<br>• Improved Health, Food and Nutrition<br>• Reduced poverty, vulnerability and Inequality<br>• Enhanced Mitigation and Adaptation | 1, 2, 3, 5, 10, 13 |
| **Sustainable Systems for Improved Smallholder Livestock Production and Productivity Operational** | 5.4, 5.5, 6.5, 6.7, 7.4 | • An Industrialised and Diversified Economy<br>• Enhanced Citizenry Participation in the Economy | 1, 2, 3, 5, 10, 13 |

| | | | |
|---|---|---|---|
| | | • Improved Health, Food and Nutrition<br>• Reduced poverty, vulnerability and Inequality<br>• Enhanced Mitigation and Adaptation | |
| **Sustainable Industrial Products and Product Use** | 5.4, 5.6, 7.4, 7.5 | • An Industrialised and Diversified Economy<br>• A competitive Private Sector<br>• Enhanced Mitigation and Adaptation<br>• Sustainable Environment and Natural Resources | 7, 9, 11, 12, 13 |
| **Sustainable Transportation Infrastructure** | 5.4, 7.4, 7.5 | • An Industrialised and Diversified Economy<br>• Enhanced Mitigation and Adaptation<br>• Sustainable Environment and Natural Resources | 7, 9, 11, 13 |
| **Strengthened Institutional Capacity for Coordination Climate Change Projects and Programmes in Zambia** | 5.5, 5.6, 6.4 | • Enhanced citizenry Participation in the Economy<br>• A Competitive Private Sector | 5, 13, 16, 17 |

| | | | |
|---|---|---|---|
| | | • Human and Social Development | |
| **Enhanced Transparency for Efficient GHG Accounting and Climate Reporting in place** | 6.4, 7.4, 7.5, 8.4, 8.5 | • Human and Social Development<br>• Enhanced mitigation and Adaptation to Climate Change<br>• Sustainable Environment and Natural Resources Management<br>• Improved Policy and Governance Environment<br>• Rule of Law, Human Rights and Constitutionalism | 13, 16, 17 |
| **Enhanced Environmental Sustainability** | 6.4, 7.4, 7.5, 8.4, 8.5 | • Human and Social Development<br>• Enhanced mitigation and Adaptation to Climate Change<br>• Sustainable Environment and Natural Resources Management<br>• Improved Policy and Governance Environment | 13, 14, 15 |

| | | | |
|---|---|---|---|
| | | • Rule of Law, Human Rights and Constitutionalism | |
| **Increased resilience of the Health sector to climate change** | 6.4, 6.5, 7.4 | • Human and Social Development<br>• Improved Health, Food and Nutrition<br>• Enhanced mitigation and Adaptation | 3, 6, 12 |

# Annex II
# Implementation Framework Sectors

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Sector** | **Contribution to National and/or Sectoral Plans and Strategies** | **Outcomes** | **Output** | **Focus** | **Key Performance Indicators** | **Baseline** | **Milestones** | **Target** | **Sources of Verification** | **Primary Government Agency / Institution** | **Cost estimate** |
| 2 | **Banking & Finance - Fiscal Policy** | **8th NDP, Public Finance Act No. 15 of 2004, National Policy on Climate Change 2016, National Planning and Budgeting Act 1. 2020** | **1. Fiscal policies improved to foster low-carbon and resilient sustainable development** | 1.1. Climate Finance Resource Mobilization Strategy developed | Cross cutting | 1.1.1. Climate Finance Resource mobilization Strategy developed | (i) A Strategic Planning Committee constituted in 2021;<br>(ii) The 8th National Development Plan 2022-2026 launched; and<br>(iii) A draft strategic plan for MoFNP for the period 2022 to 2025 has been prepared which incorporates a Climate Finance Resource Mobilisation Strategy | Climate Finance Resource Mobilization Strategy Draft by September of 2023 | The MoFNP Strategic Plan approved and launched by December of 2023 | Ministry of Green Economy and Environment Website<br>Ministry of Finance and National Planning Reports | Ministry of Finance and National Planning | $67,500 |
| 3 | | | | 1.2. Climate change Fund established and launched | Cross cutting | 1.2.1. Climate change bill to establish and pass the fund | (i) Draft Bill in Place and circulated to stakeholders for comments in 2022<br>(ii) Council of Ministers approved the draft bill in 2022<br>(iii) Draft is with Ministry of Justice for legal drafting | Presentation to Parliament by July of 2023 | Climate Change Bill to establish Fund passed by the Parliament by December of 2023 | Statutory instruments | Ministry of Finance and National Planning | $978,236 |
| 4 | | | | 1.3. Climate change mainstreamed into socio-economic planning, budgeting and public financial management | Cross cutting | 1.3.1. Guidelines for assessing integration of climate adaptation and mitigation in macroeconomic and microeconomic policies | (i) Existing Macro economic policies which lack integration of climate change mitigation and adaptation.<br>(ii) Implementation of the climate tagging tool to the Budget Process | Draft Screening Guidelines developed by January of 2024 | Final Guidelines produced by March of 2024 | Ministry of Finance and National Planning Reports | Ministry of Finance and National Planning | $226,457 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | | | | 1.4. Climate Change Public Expenditure Reviews conducted | Cross cutting | 1.4.1 Comprehensive climate change public expenditure and budget reviews conducted | Reconciliation activities on what was funded versus budgeted | Climate Change Public Expenditure Reviews Draft Report by December of 2023 | Climate Change Public Expenditure Reviews final report by December of 2024 | Ministry of Finance and National Development Planning-Annual Economic Reports | Ministry of Finance and National Planning | $135,305 |
| 6 | | | | 1.5. Budget Tracking Tool for climate change investments strengthened | Cross cutting | 1.5.1. Functional climate change budget Tracking System and Tools in place | Budget tracking reports for 2014 and 2018 | Budget tracking system and tools tested by December of 2023 | Budget Tracking System is operational by December of 2024 | Budget Tracking Reports | Ministry of Finance and National Planning | $50,165 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | | | | 1.6. Climate proofing manual for public financial management policies developed and is operational | Cross cutting | 1.6.1. Climate proofing final manual for integrating climate change into Public Financial Management policies developed and | Template-Climate proofing manual for Livestock | Draft Climate Proofing Manual by April of 2023 | Climate Proofing final Manual by December of 2023 | Ministry of Finance and National Planning Reports / Website | Ministry of Finance and National Planning | $33,772 |
| 8 | | | | 1.7. Capacity Building for national and sector working groups conducted | Cross cutting | 1.7.1 National and sector working groups trained in mainstream climate into sectoral and national development plans | Climate Change mainstreaming tool study report | 50% sector working groups trained by July of 2024 | 100% sector working groups trained by December of 2025 | Ministry of Finance and National Planning Reports | Ministry of Finance and National Planning | $100,145 |
| 9 | | | | 1.8. Private Public Partnership Infrastructure on Adaptation and Mitigation Projects promoted and implemented | Cross cutting | 1.8.1 Private Public Partnership infrastructure projects implemented | PPP Ministerial Committee constituted supported by the PPP Secretariat in the Ministry of Finance and National Planning | Project pipeline developed by December of 2025 | TBC projects under implementation phase by December of 2030 | Ministry of Finance and National Planning Reports | Ministry of Finance and National Planning | $186,288 |
| 10 | | | | 2.1 Green Finance Guidelines and Green Loans Guidelines developed by the Bank of Zambia reviewed and strengthened | Cross cutting | 2.1.1 Green Finance Guidelines developed | BoZ Green Finance Technical Working Group (TWG) established in 2017; (ii) Produced 2 knowledge products on green finance; (iii) TA obtained from Ministry of Lands and Natural Resources, Alliance for Financial Inclusion, World Bank and Toronto Centre | Concept Note developed by June of 2023 | Green Finance Guidelines Gazetted by April of 2024 | Bank of Zambia annual reports | Bank of Zambia | $60,000 |
| 11 | | | | | | 2.1.2 Green Loans Guidelines developed | | Concept Note developed by June of 2023 | Green Loans Guidelines Gazetted by April of 2024 | Bank of Zambia annual reports | Bank of Zambia | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | | | | 2.2 Capacity building program and virtual peer exchange for BoZ staff, selected Government officials, and financial institutions on green finance and the operationalization of the guidelines (covering TCFD, TNFD, and Basel recommendations on sustainable finance) | Cross cutting | 2.2.1 Manual updated and trainings delivered by April 2024 | (i) BoZ Green Finance Technical Working Group (TWG) established in 2017; and (ii) trainings conducted by Toronto Centre; Alliance for Financial Inclusion; Deutche Bundesbank; Bank of England & Bank of Ghana; IMF/Africa South; Bank of England & Reserve Bank of South Africa | Consultancy contract awarded under the TA from MGEE and NDC Partnership by June of 2023 | 100% examiners/inspectors at BoZ, PIA and SEC trained; and 50% of the Financial Sector Policies and Management Unit at Ministry of Finance and National Planning by April of 2024 | Annual reports from Bank of Zambia, Pensions and Insurance Authority (PIA), and Securities and Exchange Commission (SEC) | Bank of Zambia | $60,000 |
| 13 | | | | 2.3 Regulatory and supervisory instruments to operationalize the guidelines (in line with the country context and international best practices such as TCFD, TNFD, and the Basel recommendations on sustainable finance) | Cross cutting | 2.3.1 Regulatory and supervisory instruments developed by April 2024 | (i) BoZ Green Finance Technical Working Group (TWG) established in 2017; (ii) the Tripartite (BoZ, PIA, SEC) Green Finance Mainstreaming Working Group established in January 2021 and partnerships for TA established with Ministry of Lands & Natural Resources, Ministry of Green Economy & Environment, Ministry of Finance & National Planning, UN Biofin Zambia Initiative, World Wide Fund (WWF) Zambia | Consultancy contract awarded under the TA from MGEE and NDC Partnership by April of 2023 | Regulatory and supervisory instruments for greening the banking sector developed (as guided by the consultant) by April of 2024 | Bank of Zambia annual reports | Bank of Zambia | $80,000 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 34 | | | | 2.4. Climate Taxonomy for the financial sector developed | Cross cutting | 2.4.1. Green Finance taxonomy for Zambia developed by December 2024 | (i) BoZ Green Finance Technical Working Group (TWG) established in 2017; (ii) the Tripartite (BoZ, PIA, SEC) Green Finance Mainstreaming Working Group established in January 2021 and partnerships for TA established with Ministry of Lands & Natural Resources, Ministry of Green Economy & Environment, Ministry of Finance & National Planning, UN Biofin Zambia Initiative, World Wide Fund (WWF) Zambia | Consultancy contract awarded by April of 2023 | Green finance taxonomy developed by December of 2024 | Bank of Zambia annual reports | Bank of Zambia | $50,000 |
| 35 | | | | 2.5 Incentives for Green Bonds developed | Cross cutting | 2.5.1 Tax incentives provided for green bonds | (i) SEC issued regulations for green bonds ; (ii) The Tripartite (BoZ, PIA, SEC) Green Finance Mainstreaming Working Group established in January 2021 with partnerships for TA from Ministry of Lands & Natural Resources, Ministry of Green Economy & Environment, Ministry of Finance & National Planning, UN Biofin Zambia Initiative, World Wide Fund (WWF) Zambia | N/A by N/A | Submission for incentives for green bonds made to Parliamentary Review Committee, and subsequently, the 2023 National Budget included a waiver on the 15% WHT on interest earned on green bonds by January of 2023 | SEC Website / Annual Reports | SEC | $50,000 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | **Banking & Finance - Financial sector** | **8th National Development Plan 2022-2026**<br><br>**National Climate Change Policy 2016** | **2.Financial stability and supervisory policy and procedures improved to foster low-carbon and resilient sustainable development** | 2.6 Green Bond Market Development | Cross cutting | 2.6.1 A Sectoral Green Bond Taxonomy for Zambia developed | (i) SEC issued regulations for green bonds ; (ii) The Tripartite (BoZ, PIA, SEC) Green Finance Mainstreaming Working Group established in January 2021 with partnerships for TA from Ministry of Lands & Natural Resources, Ministry of Green Economy & Environment, Ministry of Finance & National Planning, UN Biofin Zambia Initiative, World Wide Fund (WWF) Zambia | N/A by N/A | Green Bonds Guidelines reviewing by December of 2023 | SEC Website / Annual Reports | SEC | $50,000 |
| 17 | | | | | | 2.6.2 An online Green Bond Investment Portal (for pipeline projects) for Zambia developed | | N/A by N/A | Green Bond Investment online portal development by December of 2023 | SEC Website / Annual Reports | SEC | |
| 18 | | | | | | 2.6.3 Technical Assistance services for potential green bond issuers, including capacity building | | Procurement of consultants by June of 2023 | Establishing a pipeline for bond issuers by December of 2023 | SEC Website / Annual Reports | SEC | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 19 | | | | 2.7 Green Finance Policy and Implementation Plan for Zambia's financial sector | Cross cutting | 2.7.1 A Green Finance Policy for Zambia's financial sector developed | The Tripartite (BoZ, PIA, SEC) Green Finance Mainstreaming Working Group established in January 2021 with partnerships for TA from Ministry of Lands & Natural Resources, Ministry of Green Economy & Environment, Ministry of Finance & National Planning, UN Biofin Zambia Initiative, World Wide Fund (WWF) Zambia | Procurement of consultants by June of 2023 | GFP Enacted by June of 2024 | The Green Finance Mainstreaming Working Group secretariat; Annual reports of financial sector regulators | BoZ/SEC | $50,000 |
| 20 | | | | | | 2.7.2 An Implementation Plan for the Green Finance Policy for the financial sector. | | Procurement of consultants by June of 2023 | GFP Implementation Plan developed by June of 2024 | The Green Finance Mainstreaming Working Group secretariat; Annual reports of financial sector regulators | BoZ/SEC | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 21 | | | | 2.8 Green Finance Tagging and Reporting System (to report on financial flows related to climate change, biodiversity conservation and green finance) for Zambia's financial sector | Cross cutting | 2.8.1 A green finance tagging/reporting system under the BoZ regulatory framework | The Tripartite (BoZ, PIA, SEC) Green Finance Mainstreaming Working Group established in January 2021 with partnerships for TA from Ministry of Lands & Natural Resources, Ministry of Green Economy & Environment, Ministry of Finance & National Planning, UN Biofin Zambia Initiative, World Wide Fund (WWF) Zambia | Procurement of consultants by June of 2023 | Green finance tagging / reporting system developed under BoZ regulatory framework by June of 2024 | The Green Finance Mainstreaming Working Group secretariat; Annual reports of financial sector regulators | Bank of Zambia | $50,000 |
| 22 | | | | | | 2.8.2 A green finance tagging/reporting system under the PIA regulatory framework | | Procurement of consultants by June of 2023 | Green finance tagging / reporting system developed under PIA regulatory framework by June of 2024 | The Green Finance Mainstreaming Working Group secretariat; Annual reports of financial sector regulators | Bank of Zambia | |
| 23 | | | | | | 2.8.3 A green finance tagging/reporting system under the SEC regulatory framework | | Procurement of consultants by June of 2023 | Green finance tagging / reporting system developed under SEC regulatory framework by June of 2024 | The Green Finance Mainstreaming Working Group secretariat; Annual reports of financial sector regulators | Bank of Zambia | |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | | | | 3.1. Promotion of irrigation and efficient use of water resources. | Adaptation | 3.1.1. Number of farming households surveyed using efficient irrigation system disaggregated by gender & age | 50,000 farmers. | 60,000 farming households adopting efficient irrigation technologies by December of 2024 | 80,000 farmers. by December of 2026 | Zamstats(Crop Forecast survey & Post Harvest survey report | MoA | $61,209,800 |
| 25 | | | | 3.2. Increase the use of technologies for soil fertility improvement and moisture storage (including soil conservation measures). | Adaptation | 3.2.1 Number of farming households surveyed adopting technologies for fertility improvement and moisture storage disaggregated by gender and age | 100,000 farmers. | 300,000 farmers adopting technologies for fertility improvement and moisture storage per annum by December of 2024 | 700,000 farming households by December of 2026 | Zamstats(Crop Forecast survey & Post Harvest survey report | MoA | $78,507,486 |
| 26 | | | | 3.3. Increased use of indigenous and scientific knowledge on drought tolerant crop types | Adaptation | 3.3.1 Number of farming households surveyed adopting drought resilient crops disaggregated by gender and age | 1.15million households representing about 72% of agricultural households. (Source RALS19) | 500,000 farming households adopting drought resilient crops annually by December of 2024 | 750, 000 additional farming households adopting drought resilient crops by December of 2026 | Zamstats(Crop Forecast survey & Post Harvest survey report IAPRI RALS | MoA | $173,765,470 |
| 27 | | | | 3.4. Upscaled access to social cash transfer by the vulnerable farmers. | Adaptation | 3.4.1 Number of male and female headed HH of vulnerable farmers covered by social cash transfer schemes | 1,3 million households (MCDSS Factsheet 2022). | 1,400,000 beneficiaries covered by December of 2024 | 1,500,000 vulnerable farmers segregated by gender by December of 2026 | Ministry of Community Development Department of Agriculture | MoA | $877,765,023 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | AFOLU - Agriculture | **Second National Agricultural Policy, 8NDP, Vision 2030** | **3. Strengthened climate resilience of Agricultural production and productivity** | 3.5. Increased access of farming households to insurance against climate-induced risks related to agriculture and infrastructure | Adaptation | 3.5.1 Number of farmers (by season) under weather indexed insurance | In the 2021/2022 agriculture season, FISP will target a total of 1,024,434 farmers across the country. All beneficiaries of the programme each contribute K400 to be eligible to receive inputs, and from this contribution, K100 will be paid as a premium towards the weather index insurance. | 1050000 by December of 2024 | 1100000 by December of 2026 | MoA Annual Report IAPRI | MoA | $103,008,759 |
| 29 | | | | 3.6. Accelerated implementation of Food Security Pack Programme | Adaptation | 3.6.1 Number of beneficiaries segregated by age and gender receiving food security packs | 280,000 (2022/2023, according to Ministry of Community Development) | 1002000 by December of 2024 | 1570000 by December of 2026 | Ministry of Community Development Department of Agriculture | MoA | $975,659,927 |
| 30 | | | | 3.7. Value addition in agriculture production and productivity promoted | Adaptation | 3.7.1 Number of enterprises involved in agro - processing and value addition | 55 Enterprises | 35 enterprises reported practicing agro value addition annually by December of 2023 | 150 enterprises by December of 2024 | Zambia Small & Medium Sized Enterprise Survey Report | MoA | $347,616 |
| 31 | | | | 3.8. Conservation and commercialization of indigenous crop varieties | Adaptation | 3.8.1 Number of community seed banks established | N/A | 40 community seed banks established by December of 2024 | 160 community seed banks established by December of 2026 | SCCI & ZARI reports IAPRI RALS | MoA | $6,184,514 |
| 32 | | | | 3.9.Gender sensitive agriculture technologies implemented | Adaptation | 3.9.1 Number of female farmers trained in gender sensitive agricultural technologies | 650,000 households adopting improved technologies by 2014 according to IAPRI | 200000 by December of 2024 | 400000 by December of 2026 | MoA Annual Report | MoA | $29,154,171 |

| | A | B | C | D | E | F | G | H | I | J | K | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 33 | | | | 4.1. Strengthening of Legal Framework for Meteorological Services | Adaptation | 4.1.1. Enactment of Meteorology Bill | N/A | Scoping Report of current laws by December of 2023 | Bill enactment by Parliament by December of 2025 | Act of Parliament. | ZMD | $120,208 |
| 34 | | | | | Adaptation | 4.1.2. Meteorological Policy | N/A | Consultancy awarded by December of 2024 | Meteorological Policy launched by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | |
| 35 | | | | 4.2. Increased awareness and information about climate change risks and early warning systems | Adaptation | 4.2.1 Climate Information Products and Services tailored to each sector by year | General Product | N/A by N/A | One product by sector (Water & Energy, DRM, Health & AFOLU) by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | $1,770,841 |
| 36 | | | | | Adaptation | 4.2.2 Crops covered with climate and weather information services | 1, maize | 3 by December of 2024 | 7 by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | |
| 37 | | | | 4.3. Strengthened coordination and information exchange processes to optimize and potentiate climate actions and build community resilience | Adaptation | 4.3.1 Number of technical meetings with stakeholders on the impacts of weather, climate, climate variability and climate change with each sector annually | Technical Committee meetings on rainfall season forecast<br>3 meetings with Agricultural sector | At least two meetings with each sector covered during rainy season by December of 2024 | Monthly meeting by sector during rainy season by December of 2025 | DMMU<br>Zambia Meteorological Department Annual Reports | DMMU/ZMD | $0 |
| 38 | | | | 4.4. Internet bandwidth expanded | Adaptation | 4.3.2 Internet bandwidth expanded | 10 Mbps 2023 | 12Mbps by December of 2023 | 30Mbps by December of 2025 | ZMD Internal records | ZMD | $113,383 |

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| 39 | **Multi-sector - Climate Information** | **8th National Development Plan 2022-2026**<br><br>**National Climate Change Policy 2016** | **4. Enhanced early warning systems with a focus on agriculture, livestock and fisheries implemented** | 4.5. Applications for accessing weather and climate products developed | Adaptation | 4.5.1. Digital Platforms for accessing weather and climate products tailored at the sectoral level developed | 26 innovations in digital agriculture in 2022 | N/A by N/A | One platform per sector (Water & Energy, DRM, Health & AFOLU) by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | $211,636 |
| 40 | | | | 4.6. Paper records digitised | Adaptation | 4.6.1. Number of hard copy records digitized | 3,000,000 on paper in 2022 | 750,000 hard copy records digitized annually by December of 2023 | 2,250,000 hard copy records digitized by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | $4,018,727 |
| 41 | | | | 4.7. Access to modernised computing infrastructure | Adaptation | 4.7.1. Number of computing infrastructure for weather and climate modelling acquired | 3 high-performance computers 22 Tb & 512 Gb of Memory RAM | N/A by N/A | 116 computers by December of 2024 | Zambia Meteorological Department Annual Reports | ZMD | $349,200 |
| 42 | | | | | | 4.7.2. TB of Cloud based Storage and processing | | N/A by N/A | 25 TB of Cloud based Storage and processing by December of 2024 | Zambia Meteorological Department Annual Reports | | |
| 43 | | | | 4.8. Linkages with radio stations established and operational | Adaptation | 4.8.1. number of linkages with community radio stations | 17 community radio stations (total of 78 radio stations) Reached in 2022 | 29 linkages established with CRS by December of 2023 | 100 by December of 2025 | Zambia Meteorological Department Annual Reports<br>Independent Broadcasting Authority | ZMD | $207,701 |
| 44 | | | | 4.9. Oriented stakeholders on the development of a user-oriented weather and climate services trained. | Adaptation | 4.9.1 Number of agricultural extension officers trained in the development of user-oriented weather and climate services | 125 | 250 agricultural extension officers trained by December of 2024 | 450 agricultural extension officers trained by December of 2025 | Zambia Meteorological Department Annual Reports<br>Ministry of Agriculture | ZMD | $130,228 |
| 45 | | | | 4.10. Mapping of sectors and locations specific areas receiving weather and climate products, services and early warning conducted. | Adaptation | 4.10.1 Mapping report of sectors and locations specific areas generating data and receiving weather and climate products, services and early warning produced | 0 | N/A by N/A | Report produced by December of 2024 | Zambia Meteorological Department | ZMD | $59,825 |

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| 46 | | | | 4.11. Socio-economic value of meteorological services documented | Adaptation | 4.11.1 Assessment report on the importance of meteorological services for society and the economy made | Draft | Assessment report commissioned by June of 2023 | Assessment report launched by December of 2023 | Zambia Meteorological Department Annual Reports | ZMD | |
| 47 | | | | 4.12. Demonstration of the value of weather and climate services implemented. | Adaptation | 4.12.1. One pilot project per priority sector enhancing provision of weather and climate services implemented | 0 | Project concept notes developed by December of 2023 | 4 pilot projects under implementation by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | $2,672,060 |
| 48 | | | | 4.13. Community-based workshops to enhance awareness and participation in voluntary rainfall observation established, | Adaptation | 4.13.1. District-based workshops to enhance awareness and willingness to participate in voluntary rainfall observation conducted annually | 0 | 52 by December of 2024 | 116 by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | $706,345 |

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| 49 | | | | 4.14. Research collaborations with learning institutions locally established. | Adaptation | 4.14.1. Number of MoU's with research and higher learning institutions established | UNZA, CBU, Columbia University, IAPRI | 2 by December of 2023 | 10 by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | $80,363 |
| 50 | | | | 4.15. Joint international Resource Mobilization and implementation projects promoted | Adaptation | 4.15.1. Number of projects undertaken to enhance meteorological service provision | 0 | 3 by December of 2023 | 6 by December of 2024 | Zambia Meteorological Department Annual Reports | ZMD | $3,967,830 |
| 51 | | | | 4.16. Staff trained in project writing and resource mobilization | Adaptation | 4.16.1. Number of staff trained to synthesize and feature weather and climate information in sectoral project reports | 0 | 15 by December of 2023 | 25 by December of 2024 | Zambia Meteorological Department Annual Reports | ZMD | $17,032 |
| 52 | | | | 4.17. Expansion and Modernisation of weather and climate observation infrastructure | Adaptation | 4.17.1 Items procured for the expansion and modernisation of weather and climate observation infrastructure | Ground station 210<br>Rainfall station 461<br>Upper Air Monitoring Systems 0 by 2023 | Ground station 250<br>Rainfall station 1200<br>Upper Air Monitoring Systems 2 by December of 2024 | Ground station 500<br>Rainfall station 2400<br>Upper Air Monitoring Systems 5 by December of 2025 | Zambia Meteorological Department Annual Reports | ZMD | $15,297,548 |
| 53 | | | | 5.1. Forest under the management of communities | Cross-cutting | 5.1.1. Hectares of forest put under community forest management (additional to baseline) | 2,000,000 | 700000 Ha by December of 2024 | 2100000 Ha by December of 2026 | National forest Monitoring System (NFMS) Data originated by CSO and forestry dep. branches | Forestry Department | $103,364,438 |
| 54 | | | | 5.2. Increased natural forest regeneration | Cross-cutting | 5.2.1. Hectares of forest put under assisted natural regeneration interventions in degraded forest ecosystems | N/A | 200000 Ha by December of 2025 | 600000 Ha by December of 2030 | National forest Monitoring System (NFMS) Data originated by CSO and forestry dep. branches | Forestry Department | $174,401,315 |

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| 55 | | | | 5.3.Tree planting upscaled | Cross-cutting | 5.3.1. Hectares of trees planting using suitable tree species | N/A | 2500 Ha by December of 2024 | 7500 Ha by December of 2026 | National forest Monitoring System (NFMS) Data originated by CSO and forestry dep. branches | Forestry Department | $10,795,612 |
| 56 | | | | 5.4. Increased capacities of forest professionals to enhance their ability in responding to climate change. | Cross-cutting | 5.4.1. Number of forestry professionals trained on climate change response disaggregated by gender | 0 | 580 by December of 2024 | 1160 by December of 2026 | Annual reports Forestry Department | Forestry Department | $3,017,387 |
| 57 | | | | 5.5. Fire Management Training conducted | Cross-cutting | 5.5.1. Trainings in fire management delivered to CF Management Groups | District level fire departments in operation and with fire fighting expertise | 90 by December of 2024 | 185 by December of 2025 | Annual reports Forestry Department | Forestry Department | $1,821,837 |
| 58 | | | | 5.6. Early forest burning clearing practice promoted. | Cross-cutting | 5.6.1. Hectares of forest burnt early | Ongoing early fire burning countrywide | 250,000 Ha by December of 2024 | 750000 Ha by December of 2026 | National Forest Monitoring System (NFMS) Data originated by Forestry Department branches | Forestry Department | Same as E5.5 |
| 59 | | | | 5.7. Alternative Sources of Livelihoods at Household level in forested areas promoted | Cross-cutting | 5.7.1. % of households reporting taking up alternative livelihoods in forest areas (disaggregated by gender) | N/A | 40% households report taking up alternative livelihoods in forest areas by December of 2024 | 60% households report taking up alternative livelihoods in forest areas by December of 2026 | Annual reports Forestry Department CF Management Groups (responsible for data collection) | Forestry Department | $2,169,566 |

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| 60 | AFOLU - Forestry | **Zambia Integrated Forest Landscape Programme (Pillars I, II and III of 7NDP)**<br><br>**National Investment Plan to Reduce Deforestation and Forest Degradation** | **5. Reduced vulnerability and strengthened resilience of livelihoods among forest communities** | 5.8. Awareness campaigns on impacts of climate change on forests conducted | Cross-cutting | 5.8.1. CFMG community awareness campaigns on the impacts of climate change on forests (disaggregated by gender) | 0 | 90 by December of 2024 | 185 by December of 2025 | Annual reports Forestry Department | Forestry Department | $454,121 |
| 61 | | | | 5.9. Improved forest fire management at national and subnational levels | Cross-cutting | 5.9.1. Forest fire management plans developed (CFMG) | 0 | 30 by December of 2023 | 90 by December of 2025 | Annual reports Forestry Department CF Management Groups | Forestry Department | Same as E5.5 |
| 62 | | | | 5.10. Forest Early warning and rapid response systems for fire using electronic channels established | Cross-cutting | 5.10.1. Forest early-warning and rapid-response systems for fire using electronic channels established | 0 | N/A by N/A | 1 by December of 2025 | Annual reports Forestry Department | Forestry Department | $4,767,876 |
| 63 | | | | 5.11. Research on vulnerable forest ecosystems in Zambia conducted | Cross-cutting | 5.11.1. Research reports on vulnerable forest ecosystems in Zambia conducted | 1 | 5 by December of 2023 | 10 by December of 2025 | Ministry of Green Economy and Environment Website Annual reports Forestry Department | Forestry Department | $263,794 |

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| 64 | | | | 5.12. Law enforcement operations conducted in gazetted forest and protected areas | Cross-cutting | 5.12.1. Number of law enforcement operations conducted in gazetted forests and protected areas | N/A | 7500 law enforcement operations conducted in gazetted forests and protected areas by December of 2024 | 15000 law enforcement operations conducted in gazetted forests and protected areas by December of 2026 | Annual reports Forestry Department | Forestry Department | $469,003 |
| 65 | | | **6. Increased gender equity and inclusiveness for both women and men in Community Forest Management Groups (CFMG)** | 6.1. Policy Paper on gender, climate change and forestry developed and disseminated | Cross-cutting | 6.1.1. Development of policy paper, including sector baseline diagnostic, on gender, climate change and Forestry developed and disseminated | CGAP Report, Gender mainstreaming guidelines, Gender Policy | Scoping report on gender integration in policy documents by December of 2023 | Policy Paper on gender, climate change and Forestry developed and disseminated by December of 2024 | Forestry Department Website | Forestry Department | $114,816 |
| 66 | | | | 6.2.Database on participation in forest management established | Cross-cutting | 6.3.1. Database of disaggregated information with respect to gender, forest and climate change issues developed | UN REDD database, MRV Systems (ZEMA) | Database development technical assistance commissioned by December of 2023 | Database disaggregated by gender established by December of 2024 | Annual reports Forestry Department Forestry Department Website | Forestry Department | $109,949 |
| 67 | | | | 6.3. Increased participation of women in Community Forest Management Groups | Cross-cutting | 6.4.1. Female representatives trained in Community Forest Management Groups (CFMG) | 0 | 200 annually trained female representatives by December of 2024 | 100 additional annually trained female representatives by December of 2025 | Annual reports Forestry Department CFMG data | Forestry Department | $48,037 |

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| 68 | | | | 6.4. Lesson learnt materials produced and published | Cross-cutting | 6.6.1. Materials on lessons learned developed | 0 | 10 Materials on lessons learned developed by December of 2023 | 25 Materials on lessons learned developed by December of 2025 | Annual reports Forestry Department CFMG data | Forestry Department | $51,312 |
| 69 | | | | 7.1. Increased solar energy contribution to the national installed electricity generation | Mitigation | 7.1.1. Megawatts of solar electricity supplied in the grid | 89MW (Ngonye, Bangweulu) | Additional 120 MW of generation by December of 2024 | Additional 720 MW under construction or commissioned by December of 2030 | Energy sector report-Energy Regulations Board | Department of Energy | $923,599,661 |
| 70 | | | | 7.2. Low carbon based hydro-electricity supplied into the grid | Mitigation | 7.2.1. Megawatts of hydroelectricity supplied | 2354 MW(2019) Large Hydro 43.8MW(2021), Initial Batoka Gorge Feasibility study completed in 1993, another update in 2005 and current 2018 | 1163 MW under construction by December of 2025 | Additional 1400 MW of power generation by December of 2030 | Energy sector report-Energy Regulations Board | Department of Energy | $3,426,902,997 |
| 71 | | | | 7.3. Wind Electricity supplied into the grid | Mitigation | 7.3.1. Megawatts of wind electricity supplied into the grid | 0MW | 130MW under construction by December of 2025 | 300MW of power generation by December of 2030 | Energy sector report-Energy Regulations Board | Department of Energy | $494,327,586 |

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| 72 | **Energy** | | | 7.4. Geothermal electricity generate and supplied into the grid | Mitigation | 7.4.1. Megawatts of geothermal electricity generated and supplied into the grid | 0MW | 15 MW under construction by December of 2024 | 17.7MW of power generation by December of 2030 | Energy sector report-Energy Regulations Board | Department of Energy | $66,576,087 |
| 73 | | | | 7.5. Biomass based electricity generated and supplied into the grid | Mitigation | 7.5.1 Megawatts of electricity generated through biomass and supplied into the grid | 40MW(2019) – at Nakambala sugar plant and | 36MW under construction by December of 2025 | 100MW of power generation by December of 2030 | Energy sector report-Energy Regulations Board | Department of Energy | $307,071,125 |
| 74 | | | | 7.6. Nuclear based electricity assessed as future source of energy | Mitigation | 7.6.1. Feasibility study for nuclear power development | ZESCO Energy Mix Strategic Plan launched (10 year rolling) | Feasibility study commissioned by December of 2024 | Feasibility study concluded by December of 2026 | Energy sector report-Energy Regulations Board | Department of Energy | $5,278,690 |
| 75 | | | | 7.7. Increased generation in renewable energy for Off-grid supply | Mitigation | 7.7.1. 15 RE off-grid projects | Fifteen additional renewable energy off-grid projects will be developed by 2026 in addition to the 7 in 2021 (8 NDP) | N/A by N/A | 15 by December of 2026 | Energy sector report-Energy Regulations Board | Department of Energy | $3,604,698 |
| 76 | | **8th NDP, Public Finance Act No. 15 of 2004, National Policy on Climate Change 2016, National Planning and Budgeting Act 1. 2020** | **7. Increased share of Renewable Energies in the national grid and increased Energy Efficiency upscaled** | 7.8. Increased number of businesses connected to mini grids | Mitigation | 7.8.1. Businesses connected to mini grids | 14,711 businesses connected | 40000 by December of 2024 | 77299 by December of 2026 | ZESCO website / reports | Department of Energy | $740,892,423 |
| 77 | | | | 7.9. Public and Private Entities connected to mini grids | Mitigation | 7.9.1. Public and private institutions connected to mini grids | ZESCO Energy Mix Strategic Plan launched (10 year rolling) | 500 by December of 2024 | 1217 by December of 2026 | ZESCO website / reports | Department of Energy | |
| 78 | | | | 7.10. Energy efficiency and conservation promotion | Mitigation | 7.10.1. % of surveyed household using alternative cooking solution | 92% of households using charcoal in 2021 | 0.45 by December of 2025 | 0.25 by December of 2030 | Living Conditions Monitoring Survey or Alternative Energy household level survey | Department of Energy | $7,645,601 |
| 79 | | | | 7.11. Improved cook stoves produced and distributed across the country | Mitigation | 7.11.1. Improved cookstoves distributed | Strategic and Action Plan launched. | 50000 by December of 2025 | 100000 by December of 2027 | ERB, MoE reports | Department of Energy | |

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| 80 | | | | 7.12. Incandescent bulbs replaced with LED/CFL | Mitigation | 7.12.1. Number of incandescent bulbs replaced with LED/CFL | 5,000,000 bulbs in 2017 | 1,000,000 new replacements by December of 2023 | 3,500,000 LEDs distributed by December of 2027 | Ministry of Energy reports | Department of Energy | $9,425,644 |
| 81 | | | | 7.13. Legal framework in renewable energy and energy efficiency updated | Mitigation | 7.13.1 Legal framework for renewable energy amendment | Mini-grid Regulatory framework developed | Draft bill for Renewable Energy by December of 2025 | Renewable Energy Act updated by December of 2026 | Energy Regulations Board website | Department of Energy | $168,954 |
| 82 | | | | | Mitigation | 7.13.2 Legal and implementation framework for renewable energy developed | Mini-grid Regulatory framework developed | Draft bill for Energy Efficiency by December of 2025 | Energy Efficiency Act updated by December of 2026 | Energy Regulations Board website | | |
| 83 | | | | 7.14. Stakeholders in the energy efficiency and renewable energy sub-sector (province & district) mapped | Mitigation | 7.14.1 Sub-sector energy efficiency stakeholder mapping report done | Stakeholders identified in 2015 | Sub-sector energy efficiency stakeholder mapping draft report by December of 2025 | Sub-sector energy efficiency stakeholder mapping full report by December of 2026 | Ministry of Energy reports | Department of Energy | $99,027 |
| 84 | | | | 7.15. Training of personnel in data capture in energy efficiency and renewable energy technologies | Mitigation | 7.15.1. Institutions/persons trained in data capturing in energy efficiency and renewable energy | MRV Focal Points in sectors identified | 150 GRZ by December of 2024 | 300 GRZ by December of 2026 | MRV portal and website | Department of Energy | $372,368 |
| 85 | | | | 7.16. Data capturing hardware and software tools in energy efficiency and renewable energy procured and adopted | Mitigation | 7.16.1. Functional focal points with data capturing hardware and software tools in energy efficiency and renewable | MRV Web-based systems operational | 10 focal point data by December of 2024 | 20 focal point data by December of 2026 | MRV portal and website Ministry of Energy reports | Department of Energy | |


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