



REPUBLIC OF ZAMBIA

# Consolidated Resource Mobilisation Strategy and Implementation Roadmap for the Zambia National Adaptation Plan (NAP) and Water Investment Programme (ZIP)




Consolidated Resource Mobilisation Strategy and Implementation Roadmap for the Zambia National Adaptation Plan and Water Investment Programme

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# Foreword

The Government of the Republic of Zambia is delighted to note that a key milestone in resource mobilisation efforts for the implementation of both the National Adaptation Plan (NAP) and the Zambia Water Investment Programme (ZIP) has been reached. This milestone is the completion of the resource mobilisation strategy (RMS) for climate-resilient, low-carbon development in Zambia and the roadmap for implementation of the NAP and the ZIP. Resources mobilised under this strategy will also spread to and impact related priority sectoral plans such as the National Green Growth Strategy.

The journey to develop this RMS and implementation roadmap commenced about a year ago. It was developed with the full support of cooperating partners, civil society organisations and other key stakeholders active in the water and sanitation, climate and environmental sectors in Zambia. It was only possible for the milestone recorded here to be achieved with this support and by working together.

The resource requirement, by 2023, for the implementation of the NAP is estimated at US\$ 34.7 billion and US\$ 5.8 billion for the ZIP. The strategic directions and interventions outlined in the NAP and the ZIP are expected to result in a more water-secure and resilient country that is firmly placed on a green growth trajectory. Some of the expected benefits in this regard include the creation of socially inclusive sustainable employment and economic opportunities for ordinary citizens, improved adaptive capacity of communities, and overall accelerated national social economic development.

The approach to combine the RMSs of the NAP and the ZIP was necessitated by the fact that the resources for the implementation of both initiatives would be derived from more or less the same sources. Following the one government approach, it was considered prudent to have a combined RMS and implementation roadmap.

Given the many stakeholders involved, this was no easy task, but it is gratifying to note that we now have the desired outcome. It is expected that this approach will continue to apply in terms of the actual mobilisation of resources and implementation of interventions for the ultimate benefit of the people of Zambia.

Nevertheless, separate and more detailed resource mobilisation and implementation roadmap reports have also been published. These will ensure easy access to the necessary information to effectively guide resource mobilisation efforts. Accompanying these additional reports is the report on the proposed financing mechanism and implementation framework for low-carbon development in Zambia. This recommends a delivery mechanism for mobilising the required resources and implementing both the NAP and the ZIP.



**Hon. Eng. Collins Nzovu, MP**

Minister of Water Development and Sanitation



**Hon. Mike E. Mposha, MP**

Minister of Green Economy and Environment

# Acknowledgements

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The formulation of this resource mobilisation strategy and implementation roadmap could not have been possible without the support of various key stakeholders. These include the cooperating partners and civil society organisations active in the climate, environment and water and sanitation sectors. Notable among these are the World Bank Group, the African Development Bank and the German Development Cooperation. Others include the Dutch Water Operators, Water Aid, the Global Water Partnership Southern Africa and UNICEF Zambia.

This list is far from exhaustive. We acknowledge all those who supported the achievement of this milestone. Please know that every effort to support this initiative is recognised and appreciated.



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**Eng. Romas Kamanga**  
Permanent Secretary  
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**Douty Chibamba (PhD)**  
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# Acronyms

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<b>AIP</b>	Continental Africa Water Investment Programme
<b>CSO</b>	Civil society organisation
<b>FBO</b>	Faith-based organisation
<b>IWRM</b>	Integrated water resources management
<b>M&amp;E</b>	Monitoring and evaluation
<b>MELR</b>	Monitoring, evaluation, learning and reporting
<b>NAP</b>	National Adaptation Plan
<b>P2P</b>	Peer-to-peer
<b>PPP</b>	Public-private partnership
<b>RMS</b>	Resource mobilisation strategy
<b>ZIP</b>	Zambia Water Investment Programme



# 1. Background

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## 1.1 The Assignment

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This consolidated resource mobilisation strategy (RMS) and implementation roadmap for the Zambia National Adaptation Plan (NAP) and Water Investment Programme (ZIP) is purposeful. The consolidated strategy was a requirement in the terms of reference for this report. The assignment was clearly outlined:

*The purpose of the assignment is to develop a resource mobilisation strategy (RMS) and implementation roadmap for the Zambia Water Investment Programme (ZIP) as part of an overall strategy for the overarching National Adaptation Plan (NAP). The assignment will produce one holistic RMS and implementation roadmap for the ZIP which will further be synthesised in annexes or supporting documents structured around two parts, these being:*

*Part 1: RMS for the Zambia National Adaptation Plan (NAP); and*

*Part 2: RMS and Implementation Roadmap for the Zambia Water Investment Programme (ZIP).*

A lengthier extract from the terms of reference can be found in Appendix 1.

## 1.2 The Context

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On the one hand, the Zambia NAP aims to strengthen the country's resilience to the impacts of climate change. It strives to integrate adaptation into development planning and budgeting to protect the climate system for the benefit of present and future

generations. On the other hand, the ZIP's primary goal is to enable the mobilisation of water security investments to advance economic transformation and job creation. This enhanced human and social development must be realised in climate-resilient ways. As a result of their aligned objectives, the initiatives have overlaps in terms of planned activities and potential funding sources.

Combining the RMSs of the NAP and ZIP is advisable. This optimises resource mobilisation efforts by avoiding duplication and increasing the efficiency and utilisation of the available resource mobilisation capacities. This strategy provides a way to leverage the inherent synergies between the two strategies by combining them under one national framework.

## 1.3 Purpose

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The purpose of this consolidated report is to provide a framework for ensuring that, while the mobilisation and implementation efforts of the NAP and the ZIP ('the plans') are independent and can be undertaken as stand-alone activities, the activities that overlap are reconciled. Any monitoring and evaluation framework must take full account of the activities undertaken in each separate plan and how those activities contribute to the achievement of the objectives of the other.

Since the RMSs of the plans require similar capacities and cohesive frameworks, this strategy further presents the actions required to create the necessary conditions to implement the resource mobilisation activities of these plans.

## 2. The Actions, Measures and Costs

### 2.1 The NAP

Based on the 229 measures and 309 key performance indicators across 10 sectors identified in the NAP, its implementation will cost US\$ 34.7 billion from 2023 to 2035 (see Table 1). This means an average budget of US\$ 2.7 billion per year for the period.

For a full list of measures, the underlying costs related to these measures, as well as their performance indicators, see Appendix 3.

### 2.2 The ZIP

Based on its 61 priority actions across nine components and three focus areas, as well as associated management costs, the cost of implementing the ZIP is US\$ 5.83 billion from 2024 to 2030 (see Table 2). This means an average of US\$ 0.83 billion per year for the period.

**Table 1: NAP Implementation Cost (US\$ million)**

Sector	Medium			Long term											
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	Total	
Agriculture	\$843.52	\$843.52	\$843.52	\$282.39	\$282.39	\$282.39	\$282.39	\$282.39	\$282.39	\$282.39	\$282.39	\$282.39	\$282.39	\$282.39	\$5,354.43
Energy	\$114.53	\$114.53	\$114.53	\$110.38	\$110.38	\$110.38	\$110.38	\$110.38	\$110.38	\$110.38	\$110.38	\$110.38	\$110.38	\$110.38	\$1,447.39
Fisheries	\$37.59	\$37.59	\$37.59	\$0.68	\$0.68	\$0.68	\$0.68	\$0.68	\$0.68	\$0.68	\$0.68	\$0.68	\$0.68	\$0.68	\$119.55
Forestry	\$159.82	\$159.82	\$159.82	\$93.64	\$93.64	\$93.64	\$93.64	\$93.64	\$93.64	\$93.64	\$93.64	\$93.64	\$93.64	\$93.64	\$1,415.87
Health	\$311.15	\$311.15	\$311.15	\$52.22	\$52.22	\$52.22	\$52.22	\$52.22	\$52.22	\$52.22	\$52.22	\$52.22	\$52.22	\$52.22	\$1,455.68
Mining	\$631.00	\$631.00	\$631.00	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$25.58	\$2,148.75
Tourism	\$469.15	\$469.15	\$469.15	\$405.59	\$405.59	\$405.59	\$405.59	\$405.59	\$405.59	\$405.59	\$405.59	\$405.59	\$405.59	\$405.59	\$5,463.34
Transport	\$531.14	\$531.14	\$531.14	\$950.40	\$950.40	\$950.40	\$950.40	\$950.40	\$950.40	\$950.40	\$950.40	\$950.40	\$950.40	\$950.40	\$11,097.41
Water and hydrology	\$1,330.65	\$1,330.65	\$1,330.65	\$172.88	\$172.88	\$172.88	\$172.88	\$172.88	\$172.88	\$172.88	\$172.88	\$172.88	\$172.88	\$172.88	\$5,720.73
Wildlife	\$97.78	\$97.78	\$97.78	\$19.28	\$19.28	\$19.28	\$19.28	\$19.28	\$19.28	\$19.28	\$19.28	\$19.28	\$19.28	\$19.28	\$486.15
<b>Grand total</b>	<b>\$4,526.35</b>	<b>\$4,526.35</b>	<b>\$4,526.35</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$2,113.02</b>	<b>\$34,709.30</b>

**Table 2: ZIP Implementation Cost**

Focus Areas and Components	Cost
<b>0. ZIP management</b>	<b>\$2,330,000</b>
0.1 Preliminary activities	\$790,000
0.2 Operational activities	\$1,540,000
<b>1. Water investments to support economic transformation</b>	<b>\$2,877,720,000</b>
1.1 Water investments for productive use and economic growth	\$301,830,000
1.2 Enhancing sustainable water resources management	\$2,575,890,000
<b>2. Resilience building through water</b>	<b>\$2,013,890,000</b>
2.1 Water supply and sanitation	\$1,354,740,000
2.2 Building climate resilience	\$329,870,000
2.3 Enhancing environmental sustainability	\$159,430,000
2.4 Gender and social inclusion	\$169,850,000
<b>3. Water governance and institutional strengthening</b>	<b>\$908,890,000</b>
3.1 Institutional and human capacity building	\$314,950,000
3.2 Financing water investments and resource mobilisation	\$216,600,000
3.3 Strengthening PPPs and international cooperation in water investments	\$377,340,000
<b>Grand Total</b>	<b>\$5,802,830,000</b>

Table 3 presents how the above ZIP expenditure will be scheduled from 2024 to 2030.

**Table 3: Schedule of ZIP Expenditure 2024-2030 (US\$ million)**

Phases and Components	2024	2025	2026	2027	2028	2029	2030	Grand Total
<b>1. Start-up Phase</b>	<b>\$135.52</b>	<b>\$135.07</b>						<b>\$270.59</b>
0.1 Preliminary activities	\$0.52	\$0.07						\$0.59
1.2 Enhancing sustainable water resources management	\$2.50	\$2.50						\$5.00
2.2 Building climate resilience	\$20.00	\$20.00						\$40.00
2.4 Gender and social inclusion	\$12.50	\$12.50						\$25.00
3.1 Institutional and human capacity building	\$25.00	\$25.00						\$50.00
3.2 Financing water investments and resource mobilisation	\$25.00	\$25.00						\$50.00
3.3 Strengthening PPPs and international cooperation in water investments	\$50.00	\$50.00						\$100.00
<b>2. Operational Phase</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$5,532.24</b>
0.1 Preliminary activities	\$0.05	\$0.05	\$0.05	\$0.05				\$0.20
0.2 Operational activities	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$0.22	\$1.54

Phases and Components	2024	2025	2026	2027	2028	2029	2030	Grand Total
1.1 Water investments for productive use and economic growth	\$47.94	\$47.94	\$47.94	\$47.94	\$36.69	\$36.69	\$36.69	\$301.83
1.2 Enhancing sustainable water resources management	\$367.27	\$367.27	\$367.27	\$367.27	\$367.27	\$367.27	\$367.27	\$2,570.89
2.1 Water supply and sanitation	\$194.07	\$194.07	\$194.07	\$194.07	\$192.82	\$192.82	\$192.82	\$1,354.74
2.2 Building climate resilience	\$41.41	\$41.41	\$41.41	\$41.41	\$41.41	\$41.41	\$41.41	\$289.87
2.3 Enhancing environmental sustainability	\$25.63	\$25.63	\$25.63	\$25.63	\$18.97	\$18.97	\$18.97	\$159.43
2.4 Gender and social inclusion	\$22.12	\$22.12	\$22.12	\$22.12	\$18.79	\$18.79	\$18.79	\$144.85
3.1 Institutional and human capacity building	\$37.85	\$37.85	\$37.85	\$37.85	\$37.85	\$37.85	\$37.85	\$264.95
3.2 Financing water investments and resource mobilisation	\$23.80	\$23.80	\$23.80	\$23.80	\$23.80	\$23.80	\$23.80	\$166.60
3.3 Strengthening PPPs and international cooperation in water investments	\$39.62	\$39.62	\$39.62	\$39.62	\$39.62	\$39.62	\$39.62	\$277.34
<b>Grand Total</b>	<b>\$935.50</b>	<b>\$935.05</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$5,802.83</b>

The costs associated with the 61 priority actions and programme implementation of the ZIP can be found in Appendix 4.

## 3. Rationalising the Actions, Measures and Costs

### 3.1 Overlaps

A review of the 229 NAP measures and 61 ZIP priority actions shows that 19 address similar issues. The overlapping measures and priority actions are presented in Appendix 5.

This review of measures and actions shows that overlapping actions between the plans are linked to NAP costs of US\$ 1.5 billion and ZIP costs of US\$ 1.3 billion.

### 3.2 Generating a Consolidated Pyramid

Given the different lifespans of the two plans, on an annualised basis, there is a US\$ 125 million overlap in required resources (see Appendix 5 for the calculations). Taking the overlap, as well as the individual NAP and ZIP annual resource mobilisation pyramids into account, results in a consolidated annual resource requirement of US\$ 3.4 billion for the two plans as shown in Table 4.

**Table 4: NAP and ZIP Consolidated Annual Resource Requirements (US\$ million)**

Source	NAP		ZIP		Consolidated		Overlap	Aligned Consolidated	
Domestic	12.5%	\$337.50	34.0%	\$282.20	17.6%	\$619.70		\$619.70	18.2%
Foreign	12.5%	\$337.50	30.0%	\$249.00	16.6%	\$586.50		\$586.50	17.2%
Climate Funds	75.0%	\$2,025.00	36.0%	\$298.80	65.8%	\$2,323.80	\$125.00	\$2,198.80	64.6%
<b>Total</b>	<b>100.0%</b>	<b>\$2,700.00</b>	<b>100.0%</b>	<b>\$830.00</b>	<b>100.0%</b>	<b>\$3,530.00</b>	<b>\$125.00</b>	<b>\$3,405.00</b>	<b>100.0%</b>

Given the average annual NAP requirement of US\$ 2.7 billion and the average annual ZIP requirement of US \$0.83 billion, less the average annual overlap of US\$ 0.125 billion between the two plans, the consolidated resource requirement comes to **approximately US\$ 3.4 billion per year.**

Table 5 presents a consolidated list of funding sources and Figure 1 on page 6 presents a revised consolidated NAP and ZIP resource mobilisation pyramid.

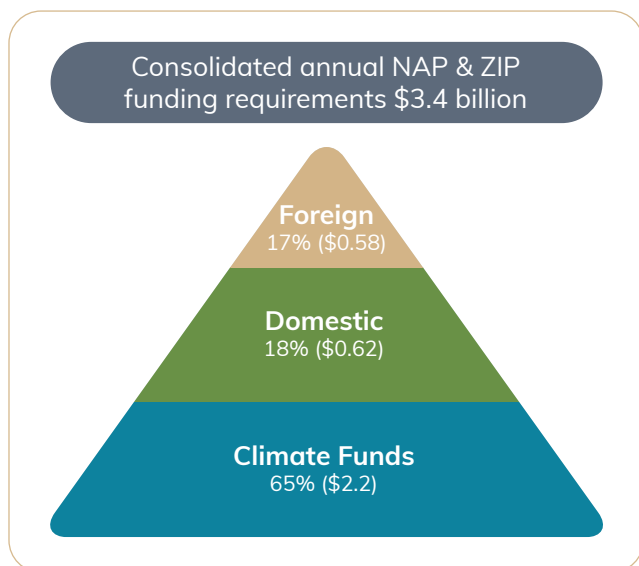
**Table 5: NAP and ZIP Consolidated Funding Sources (US\$ million)**

Source	NAP	ZIP	Total
<b>Foreign</b>			
Bilateral/multilateral	\$284		\$334
Institutional investors		\$50	\$75
Multilateral		\$100	\$100
Philanthropic and crowdfunding (P2P)	\$50		\$50
Philanthropy (international)		\$20	\$20
<b>Foreign Total</b>	<b>\$334</b>	<b>\$245</b>	<b>\$579</b>
<b>Domestic</b>			
Civil society (CSOs) and faith-based organisations (FBOs)	\$92		\$92
CSOs/ CBOs/ FBOs		\$5	\$5

Source	NAP	ZIP	Total
Philanthropic and crowdfunding (P2P)	\$3		\$3
Private (national)	\$13		\$13
Private (transnational)	\$67		\$67
Private (national and transnational entities in Zambia)		\$25	\$25
Efficiency (new assets)		\$5	\$5
Efficiency (old assets)		\$10	\$10
Industry water valuations		\$5	\$5
National banks and local authorities		\$10	\$10
Domestic taxes	\$110	\$75	\$185
Government	\$50	\$150	\$200
<b>Domestic Total</b>	<b>\$335</b>	<b>\$285</b>	<b>\$620</b>
<b>Climate Funds</b>			
Climate funds	\$1,902	\$300	\$2,202
<b>Climate Funds Total</b>	<b>\$1,902</b>	<b>\$300</b>	<b>\$2,202</b>
<b>Grand Total</b>	<b>\$2,571</b>	<b>\$830</b>	<b>\$3,401</b>

### 3.3 Rationale for this Report

**FIGURE 1: NAP AND ZIP RESOURCE MOBILISATION PYRAMID**



In addition to their overlapping activities, to date the average annual identified resources mobilised for climate change and the water sector are US\$ 55 million and US\$ 100 million respectively. However, the annual consolidated and rationalised average resource requirements of the plans are US\$ 3.4 billion, about 20x more than yields to date. It is highly unlikely that continuing to mobilise resources on a business-as-usual basis is going to yield anywhere near what is required to implement the plans.

This report provides, in one place, the list of activities that need to be undertaken in the short term (< two years) so as to provide the foundation for implementing the two plans.

# 4. Dismantling Resource Mobilisation Constraints

## 4.1 Key Resource Mobilisation Constraints

The 'International High-Level Panel on Water Investments for Africa Investment Action Plan' (2023) identifies five areas where action needs to be taken to unlock investments for water and climate change:

- 1) Develop a viable investment pipeline:** The lack of viable programmes and project pipelines tailored to different lending opportunities is one of the major bottlenecks identified. While governments will play a key coordinating role, a range of investors and supporters is needed. This will bring a wide array of ideas and expertise to the table, build capacity and generate a pipeline of projects that are relevant to the main investor groups.
- 2) Create an enabling environment:** African governments, bilateral donors, foundations and development finance institutions must invest in strengthening the enabling environment. This includes ensuring updated and robust national policies and strategies, institutional capacity building, costed water investment programmes, monitoring and reporting, financial management systems, legal frameworks, clear regulations and efficient service providers.
- 3) Implement robust monitoring and reporting systems:** Enhanced monitoring and reporting systems, compliance frameworks and legal and regulatory instruments related to water usage for industrial and agricultural enterprises (and increasingly for digital companies) are necessary.
- 4) Enable access to cheap finance:** Sovereign debt ceilings and the cost of capital prevent access to many sources of finance. If the public sector cannot access concessional capital because it is too expensive, there will also be limited access to private finance.

Development finance partners have a responsibility to provide access to concessional finance and to participate in blended finance mechanisms that leverage larger funding streams.

The private sector will be attracted by improved financial sector regulation, innovative financial vehicles that reduce transaction costs and robust project proposals containing a breakdown of project components with different financing arrangements.

- 5) Enhance access to data and information:** Strengthen data and information systems so that progress can be monitored and evaluated.

## 4.2 Addressing the Constraints

To address the above constraints, a move away from business-as-usual approaches is needed. Activities that can help leverage resources from old and new sources will include the following:

### 4.2.1 Multi-stakeholder awareness-raising and capacity-building

The Continental Africa Water Investment Programme (AIP) recommends five actions to take in order to unlock investment. In line with these, a series of multi-stakeholder awareness-raising and capacity-building activities is proposed. These should cover integrated water resources management (IWRM), feasible finance sources and how to manage the processes of mobilising, utilising and reporting on these resources. This is a key step in unlocking and sustainably financing the sector.

In addition, these awareness-raising activities will also sensitise existing and new (domestic and foreign) funding sources to the government's strategic direction and priorities. This should enable them to better identify feasible ways they might contribute in terms of resources (financial, technical, technological, human etc.) and what conditions would be required to leverage these.

At the household level, the burdens of water collection and management are not gender-neutral. These burdens disproportionately fall, especially in vulnerable communities, on women and girls. Therefore, these activities should be planned with a gender lens.

#### **4.2.2 Accelerated development of fundable project concepts/proposals**

A key prerequisite to addressing constraints is accelerating the development of a targeted pipeline of concepts and investment-ready proposals. This must be followed by undertaking investment outreach activities to present these concepts and proposals to possible funders. One way to enable this is by creating a country platform focused on, and capable of, facilitating such activities.

Capacity building in this area will be required.

#### **4.2.3 Data and information systems**

To ensure optimal access and utilisation of resources, strong data and information systems are necessary. Financial data and information are key to the management of the NAP and the ZIP; their planning, mobilisation efforts, execution and reporting. Given the complexity and diversity of resource sources, as well as the requirements in terms of data validity, reporting frequency and reporting type, underlying data and information systems need to be improved.

#### **4.2.4 Monitoring, evaluation, learning and reporting**

Key to resource mobilisation is enhancing the monitoring, evaluation, learning and reporting (MELR) framework. This enhances transparency and accountability, mitigates fiduciary risk, tracks financing and costing and enables reporting. For the water supply and sanitation sub-component of the water sector, the MELR framework is available, but implementation requires improvement. Also, the AIP's Programme for Infrastructure Development in Africa-related indicators will need to be developed and included.

Transparency and accountability are key pillars of sustainable resource mobilisation and contribute to good governance. MELR will be critical in assessing the relevance of the NAP and the ZIP objectives, their efficiency in achieving those objectives at optimal costs, their effectiveness in achieving the required outputs and outcomes as well as their overall utility.

#### **4.2.5 Diversifying revenue sources**

Diversification of revenue sources is required. This can be achieved by creating inventories of local and international stakeholders, engaging them, assessing their ability to contribute resources (financial and technical) and developing and maintaining partnerships with them. Local revenue sources include all IWRM-relevant sources such as those linked to

the environment, forestry, water and land, funds like the Constituency Development Fund, national and transnational private sector companies, civil society and faith-based organisations. International revenue sources include multilateral, bilateral, and private sources, philanthropic trusts and foundations as well as crowdfunding and peer-to-peer (P2P) platforms that leverage ICT tools.

#### **4.2.6 Advocacy and communication**

To attract public and private sector support for adaptation investments at community, district, and national levels, it will be prudent to strengthen communication strategies to raise awareness about the importance of climate adaptation. This can be done in accordance with existing communications strategies such as the community-led total sanitation approach. This approach works through inspiring behaviour change, disseminating information and knowledge, ensuring inclusiveness and involvement and promoting transparency and accountability. Specific emphasis is placed on gender equity, equality and parity.

#### **4.2.7 Enhancing public-private partnerships**

Public-private partnerships (PPPs) can be enhanced in multiple ways. For one, by identifying sector-specific opportunities that lend themselves to different PPP types. They can also be enhanced by creating an enabling environment to fast-track opportunities. This can be done by providing risk-mitigating measures (such as those under the Zambia Credit Guarantee Schemes), especially for local small and medium-sized enterprises (SMEs). Lastly, PPPs can be enhanced by creating targeted value propositions, targeted by sector and by private partner business interests.

#### **4.2.8 Risk assessment and management**

There is a need to develop strong risk assessment and management strategies to address the uncertainties and threats associated with the ZIP areas of focus. This will entail developing proposals that explicitly take into account the economic value of water in different settings. For instance, the value of water and sanitation as a preventative health measure.

#### **4.2.9 Innovation and technology adoption**

Embracing and enhancing innovative technologies and approaches to improve the efficiency and effectiveness of adaptation projects can assist in dealing with resource constraints. This strategy will enable easier access to and deployment of resources as well as efficient use of resources.



## 5. Institutional Arrangements to Support Resource Mobilisation

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Given the variety of sources and requirements, the institutional framework for mobilising and deploying resources must be flexible enough to accommodate the required diversity. Key aspects of this include governance, management and the financing mechanism.

**1) Governance:** The governance structure should represent the key stakeholders, public entities, private entities and civil society organisations (CSOs) as equally as is feasible, with subnational structures to represent subnational interests at the subnational level.

**2) Management:** The diversity, magnitude and complexities of the resources to be mobilised, managed, deployed and adequately reported on requires strong management. This includes independent professional management reporting to a multi-sectoral, multi-partner governing board. These should facilitate the processes by which investor relations are maintained, the capacity of sector-implementing staff is built, proposals are developed and marketing and reporting are done.

**3) Financing mechanism:** A mechanism that allows for public, private, CSO and other funders to deploy, manage and account for funds when implementing the ZIP measures and objectives will be developed and used. The mechanism must provide for resource deployment windows to cater for different sectoral and intersectoral investment requirements. This includes investments in new infrastructure to extend services to cover identified gaps, in old infrastructure to increase performance efficiency, in multi-use facilities to provide economies of scale among and/or in implementing agencies such as local authorities, Commercial Utilities and community groups (among others) as options for disbursement windows. The report titled, "Report on the Proposed Financing Mechanism and Institutional Framework for Climate-Resilient Low-Carbon Development in Zambia 2024" addresses the operationalisation of this mechanism.

## 6. Implementing Activities

Implementing the resource mobilisation activities involves two components. On the one hand, collaborating and managing the current sources of finance, technical assistance, human and logistical support (domestic and foreign), in order to enhance these relationships and seek increased support. On the other hand, it involves finding feasible new sources (domestic or foreign) and putting in place

policies and procedures that support the resource mobilisation effort.

The thematic areas for the implementation activities to be undertaken are listed in the table below with provisional costs. The detailed activities and task assignment schedule is attached as Appendix 2.

**Table 6: Implementation Activity Thematic Area Costing (US\$ million)**

Activity	Amount
1. Multi-stakeholder awareness-raising and capacity-building	\$278
2. Accelerated development of fundable project concepts/proposals	\$266
3. Data and information systems	\$114
4. Monitoring, evaluation, learning and reporting	\$133
5. Diversifying revenue sources	\$169
6. Advocacy and communication	\$73
7. Enhancing public-private partnerships	\$263
8. Risk assessment and management	\$84
9. Innovation and technology adoption	\$160
10. Institutional arrangements to support resource mobilisation	\$258
<b>Grand Total</b>	<b>\$1,798</b>

The relevant stakeholders have yet to validate the activities and related. Similarly, the task assignments and timing must still be determined by the stakeholders.

All the activities can be done under the present institutional frameworks and therefore do not have to wait until a new institutional framework is in place.

# 7. Conclusion and Recommendations

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## 7.1 Conclusion

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### 7.1.1 The NAP and ZIP

Nineteen NAP measures (out of 229), overlap with 19 ZIP priority actions (out of 61), with annual overlaps in excess of US\$ 100 million. Some of the sources of funding are common to both plans. This makes a good case for creating a dedicated national framework for mobilising resources for both simultaneously. Mobilising more than US\$ 3 billion per year cannot be a part-time assignment, especially given that, while funding seems to be available, the ability to develop and present fundable proposals and to generate and maintain relationships with funding agencies are cited as key bottlenecks.

Recommendations on how to do this are detailed in the NAP and the ZIP resource mobilisation strategies. Implementation of those recommendations, including creating a collaboration platform, its steering board/committee and a dedicated proposal writing team, can start immediately, even before the institutional set-up is complete.

Concurrently, as part of the learning process, it may be useful to study the workings of similar platforms elsewhere, particularly the South African Just Energy Transition Partnership platform.

### 7.1.2 Implementing the consolidated strategies

The short-term activities itemised in the preceding chapter provide the required foundation upon which the NAP and the ZIP implementation will be based.

## 7.2 Recommended Next Steps

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The recommended immediate next steps are outlined below.

- 1) Validate activities and costs:** Undertake a stakeholder consultative and validation workshop. Include the Government of the Republic of Zambia (GRZ), Cooperating Partners (CPs), Civil Society Organisations (CSOs), Commercial Utilities (CUs) and local government representatives. Include short-term timelines (not exceeding two years), and activity budgets.
- 2) Engage stakeholders:** At the stakeholder workshop assign responsibilities for resourcing each of the activities and/or follow up on individual stakeholders to indicate which activity they can facilitate and timeline.
- 3) Temporary secretariat and M&E:** Assign responsibility for temporary secretariat duties and for monitoring and reporting on progress.
- 4) Plan activities:** Update activity timelines as required.
- 5) Undertake activities:** Undertake the listed activities.
- 6) Report quarterly:** Submit quarterly reports to stakeholders.
- 7) Interim platform/mechanism:** Create interim country platform/delivery mechanism.
- 8) Permanent platform/mechanism:** Establish permanent country platform/delivery mechanism.
- 9) Establish permanence:** Handover implementation to permanent country platform/delivery mechanism.

# Appendix 1: Extract from the Terms of Reference

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## 2. PURPOSE OF THE ASSIGNMENT

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The purpose of the assignment is to develop a resource mobilization strategy (RMS) and implementation roadmap for the Zambia Water Investment Programme (ZIP) as part of an overall strategy for the overarching National Adaptation Plan (NAP). The assignment will produce one holistic RMS and implementation roadmap for the ZIP which will further be synthesised in annexes or supporting documents structured around two parts, these being:

Part 1- RMS for the Zambia National Adaptation Plan (NAP); and

Part 2- RMS and Implementation Roadmap for the Zambia Water Investment Programme (ZIP).

The consultancy will be financed by GRZ in collaboration with the Green Climate Fund and the Community of Water Sector and Climate Change Cooperation.

The development process will include stakeholder consultations and engagements and work processes for both parts in collaboration with the Ministry of Green Economy and Environment (MGEE) and the Ministry of Water Development and Sanitation (MWDS).

## 3. SPECIFIC OBJECTIVES

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The specific objectives of the assignment are as follows:

- a) Develop a resource mobilisation strategy and implementation roadmap for the implementation of the ZIP and the Zambia National Adaptation Plan;
- b) Develop a methodology for prioritization of projects/ capacity building and selection of priority interventions from the Zambia Water Investment Programme based on multi-dimensional criteria which includes a focus on poverty reduction, gender equality, social inclusion and economic empowerment;
- c) Develop an innovative resource mobilisation approach that is responsive to the social economic space in Zambia and in line with the current Government position on debt contraction;
- d) Identify and analyse the potential/ available financiers (local and international, their different financing mechanisms, priority areas and requirements; and
- e) Formulate a fund management and disbursement framework (governance framework) that allows for diverse types of water security and sanitation investment projects and adaptation interventions using various financing instruments (e.g., grants, public-private partnerships, concessional financing, etc.) and meeting the highest standards of accountability, transparency and any other internationally acceptable fiduciary standards.

## 4. SCOPE OF WORK

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The scope of work for the assignment will comprise the following key elements:

### 4.1. PART 1: RMS FOR THE ZAMBIA NAP

- a) Review the priority climate change adaptation actions that are identified by the Zambia NAP for each sector and geographic area.
- b) Develop priority investment areas for the key sectors and geographic areas that are prioritized in the Zambia NAP (if possible costed investment areas).
- c) Establish relationships between the priority investment areas and priority climate change adaptation actions, including associated risks for implementing Zambia's NAP as part of the NDCs.
- d) Prioritize and develop integrated program/project ideas (at least 3 for each sector and geographic area) with the intention of blending funding for capital investments in (socio-economic) development with climate resilience.

- e) Carry out a scoping study on possible and innovative financing options (such as green bonds, blue bonds, public private partnerships, traditional financing, concessional financing, blended finance arrangements, etc) for the proposed investment areas and building on current existing financing initiatives by different cooperating partners.
- f) Review the current financing mechanisms and major financiers for development and for climate resilience in Zambia and identify financing opportunities for the program/project ideas.
- g) Develop a matchmaking between the program/project ideas and potential financing opportunities.
- h) Develop a resource mobilization plan that includes lead organizations for developing concept notes/funding proposals, potential financing options with timelines for the period 2024-2030 having an outlook of 15 years or more beyond 2030.
- i) Develop a capacity development plan for resource mobilization, including capacity for project preparation, from the various sources, strengthening institutional capacities.
- j) Review Zambia's national system and mechanisms for financing climate change actions; and
- k) Develop recommendations for strengthening the existing system for financing climate adaptation in the country.
- c) Identify potential financing sources (including unconventional sources) and their specific requirements. Match these financing sources with the clusters and intervention areas. Propose implementing agencies and/or projects based on sectoral needs, national priorities, potential for funding and existing/ongoing activities;
- d) Develop stakeholder map that includes typology of potential financiers including their priorities, terms and conditions, and financing time frames (i.e., time required to reach agreement on financing, duration of funding, payback period where applicable, etc.);
- e) Evaluate the social economic space for water investments taking into account obligations under the IMF programme and the developments related to debt relief; and
- f) Formulate a governance structure for ZIP (objective 2.1.e) that meets the requirements of the various stakeholders (GRZ, CUs, CPs, WARMA, ZESCO etc) and clearly identifies (and limits) the role of GRZ in capital projects.

## 4.2. PART 2: RMS AND IMPLEMENTATION ROADMAP FOR THE ZAMBIA WATER INVESTMENT PROGRAMME (ZIP)

### 4.2.1. Enabling Context

- a) Consult with the Zambian water sector and other key stakeholders on their needs and requirements related to the ZIP. Identify needs for capital investment (clustering/categorization/prioritization) and required (government and non-government) support for the identification, development, implementation and evaluation of capital projects. Evaluate the investment clusters against the 61 intervention areas identified in the ZIP.
- b) Develop a methodology (e.g., multi-dimensional criteria evaluation) and process for selection and prioritization of interventions under the ZIP. The interventions include capital and non-capital projects/programs.

### 4.2.2. Implementation Roadmap

- a) Formulate the roadmap for implementation of the ZIP which will include terms of reference (TORs) for the establishment of a delivery mechanisms and coordination arrangement including recommendations on delivery mechanisms to lead overall sector wide coordination and lead implementation of the ZIP with roles and responsibilities of key partners, sector ministries ICPs, Cabinet office, Presidential Delivery Unit (PDU); to ensure the effective ZIP implementation.
- b) Identify and evaluate for ZIP international best practices in portfolio management and make recommendations on the management of a project portfolio under ZIP.
- c) Formulate a resource mobilization plan containing the following elements:
  - Resource mobilization targets;
  - Roles and responsibilities of stakeholders within the water sector coordination framework. If necessary, improvements to the water sector coordination framework can be suggested and roles and responsibilities based on the suggested improvements; and

- d) Formulate a Water and Sanitation Sector Financing Framework which defines the opportunities/possibilities of local, regional, and international potential sources of funding to the fullest extent possible; and Overview of fund management practices by various Cooperating Partners and Financing Institutions and a blended fund management and disbursement framework for operationalizing the strategy. This should also consider traditional and concessional financing sources and build on existing financing initiatives by different cooperating partners and water supply and sanitation utilities.

#### 4.2.3. Financing Sources, M&E and Assignment Management

- a) Develop the potential financing sources pyramid (See Annex 1 of the AIP pyramid) for the RMS and for each of the two RMS parts 1 and 2, clearing out common sources targeting same/overlapping interventions.
- b) Develop a monitoring and evaluation framework for resource mobilization. This should include the elements already contained in the Africa Water Investment Scorecard and linked with existing metrics such as those under the Water Supply and Sanitation Sub-Sector annual benchmarking reports and the Natural Capital Accounting (NCA) for Water Technical Reports. Further, the M & E framework should be linked to disbursement of future funds based on performance in order to ensure that funding can be maintained and even increased to interventions/ projects that perform as expected or predicted;
- c) Prepare detailed methodology outlining how the assignment will be undertaken including the tools and approaches for data collection and analysis, and stakeholder engagements;
- d) Facilitate and report on stakeholder engagement/validations workshops as necessary; and
- e) Consolidate the outputs from Part 1 and Part 2 into a single resource mobilization strategy for climate-resilient development in Zambia.

## 5. DELIVERABLES AND TIMELINES

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The main deliverables under this assignment are as follows:

- a) Inception report detailing the methodology, timelines and budget for how the assignment will be undertaken;
- b) The Resource Mobilisation Strategy for the Zambia NAP;
- c) The Resource Mobilisation Strategy and Implementation Roadmap for the Zambia Water Investment Programme;
- d) Policy briefs, technical briefs and other knowledge products related to the assignment as appropriate;
- e) Reports on stakeholder engagements/validations workshops as necessary; and
- f) Final report consolidating the outputs from Part 1 and Part 2 into a single resource mobilization strategy.

The specific details that should be covered under the main deliverables are outlined below:

<b>5.1. PART 1: RMS for the Zambia NAP</b>
<b>SPECIFIC DETAIL</b>
1. Priority investment areas for sectors and geographic areas
2. Financing opportunities for priority investment areas
3. Possible and innovative financing options (e.g., green bonds, blue bonds, public-private- partnerships, etc.)
4. Recommendations for improving the national systems and/or mechanisms for financing climate change adaptation
5. Resource Mobilization Plan
<b>5.2. PART 2: RMS and implementation roadmap for the Zambia Water Investment Programme</b>
<b>SPECIFIC DETAIL</b>
<b>Enabling Context</b>
1. Needs and requirements related to the ZIP based on consultations with the Zambian Water Sector Stakeholders
2. Methodology and process recommendations for selection and prioritization of interventions under the ZIP
3. Identification of potential financing sources and their specific requirements
4. Stakeholder map that includes typology of potential financiers
5. Evaluation of the social economic space for water investments in Zambia
6. Governance structure for ZIP that meets the requirements of the various stakeholders
<b>Implementation Roadmap</b>
7. Roadmap for implementation of the ZIP including TORs for a delivery unit to coordinate and lead implementation its implementation
8. Report on International Best Practices on Portfolio Management for the ZIP
9. Resource mobilization plan for the ZIP
10. Water and Sanitation Sector Financing Framework
<b>Monitoring and Evaluation</b>
11. Monitoring and evaluation framework for resource mobilization

## 6. DURATION

This assignment is very important and has a lot of pressure. Thus, the consultancy assignment is expected to take around 6 months, to be delivered between July 2023 and December 2023. The Consultant will be expected to remain available for 3 months for follow-ups and questions after the end of the assignment.

## Appendix 2: Resource Mobilisation Activity Schedule (US\$ millions)

Activity	Amount	By Whom	By When
<b>1. Multi-stakeholder awareness-raising and capacity-building</b>			
1.1. Create inventory of stakeholders and roles	\$20		
1.2. Conduct stakeholder awareness campaigns	\$62		
1.3. Undertake needs assessments	\$64		
1.4. Develop and implement capacity-building activities	\$52		
1.5. Engage current resource sources	\$15		
1.6. Identify feasible resource sources (domestic and foreign)	\$15		
1.7. Engage feasible resource sources (domestic and foreign)	\$50		
<b>Total (Multi-stakeholder awareness-raising and capacity-building)</b>	<b>\$278</b>		
<b>2. Accelerated development of fundable project concepts/proposals</b>			
2.1. Conduct a capacity needs assessment	\$31		
2.2. Develop sector-wide water use case templates	\$37		
2.3. Develop proposal writing modules	\$42		
2.4. Identify trainers of trainers	\$28		
2.5. Train the trainers	\$31		
2.6. Train sectoral implementing agencies	\$22		
2.7. Develop and market proposals	\$75		
<b>Total (Accelerated development of fundable project concepts/proposals)</b>	<b>\$266</b>		
<b>3. Data and information systems</b>			
3.1. Determine baseline data and information gaps	\$64		
3.2. Develop and deploy data collection protocols	\$12		
3.3. Develop and implement reporting systems	\$38		
<b>Total (data and information systems)</b>	<b>\$114</b>		
<b>4. Monitoring, evaluation, learning and reporting</b>			
4.1. Develop MELR plan	\$68		
4.2. Monitor implementation of MELR plan	\$65		
<b>Total (Monitoring, evaluation, learning and reporting)</b>	<b>\$133</b>		
<b>5. Diversifying revenue sources</b>			
5.1. Create inventory of feasible sources	\$23		
5.2. Undertake investor outreach	\$60		
5.3. Develop investor-targeted proposals	\$66		
5.4. Market targeted proposals	\$20		
<b>Total (Diversifying revenue sources)</b>	<b>\$169</b>		



Activity	Amount	By Whom	By When
<b>6. Advocacy and communication</b>			
6.1. Develop targeted stakeholder communication strategies	\$18		
6.2. Implement communication strategies (visibility and contact)	\$55		
<b>Total (Advocacy and communication)</b>	<b>\$73</b>		
<b>7. Enhancing public-private partnerships</b>			
7.1. Review time taken to implement PPPs	\$25		
7.2. Develop means of reducing implementation time	\$62		
7.3. Enhance governance of PPPs	\$62		
7.4. Identify opportunities and feasible types of PPPs by sector	\$32		
7.5. Identify possible partners	\$68		
7.6. Develop offers and undertake investor outreach	\$14		
<b>Total (Enhancing public-private partnerships)</b>	<b>\$263</b>		
<b>8. Risk assessment and management</b>			
8.1. Identify risks and mitigation measures in ZIP and NAP focus areas	\$46		
8.2. Implement mitigation measures	\$38		
<b>Total (Risk assessment and management)</b>	<b>\$84</b>		
<b>9. Innovation and technology adoption</b>			
9.1. Identify innovation and technology opportunities by sector	\$43		
9.2. Implement technology migration measures	\$67		
9.3. Leverage AI tools	\$50		
<b>Total (Innovation and technology adoption)</b>	<b>\$160</b>		
<b>10. Institutional arrangements to support resource mobilisation</b>			
10.1. Design the platform (functions, governance, collaboration, frameworks, management, procedures and processes)	\$57		
10.2. Seek approval from stakeholders	\$37		
10.3. Draft bill	\$11		
10.4. Present bill for consideration	\$41		
10.5. Appoint governing board	\$39		
10.6. Appoint staff	\$33		
10.7. Operationalise	\$40		
<b>Total (Institutional arrangements to support resource mobilisation)</b>	<b>\$258</b>		
<b>Grand Total</b>	<b>\$1,798</b>		

## Appendix 3: NAP Measures and Costs (US\$ millions)

Sector	2023 - 2025	2026 - 2035	Total
<b>Agriculture</b>	<b>\$3,059.51</b>	<b>\$2,294.92</b>	<b>\$5,354.43</b>
Access to mechanisation	\$437.75	\$1,313.26	\$1,751.01
Agriculture insurance	\$3.60	\$0.00	\$3.60
Agro-processing and value addition	\$290.00	\$0.00	\$290.00
Child feeding, health and nutrition in schools	\$3.12	\$9.36	\$12.49
Diversification in agriculture	\$0.01	\$0.00	\$0.01
Diversify foods and enhance diet supplements	\$1.90	\$0.00	\$1.90
Crop diversification to drought-tolerant crops and varieties	\$1.10	\$0.00	\$1.10
Precision agriculture and the use of ICTs	\$4.81	\$0.00	\$4.81
Enhance food production and post-harvest preservation techniques	\$196.35	\$0.00	\$196.35
Promotion and adoption of alternative agricultural livelihoods	\$81.35	\$244.05	\$325.40
Enhance market linkages for produce	\$2.20	\$0.00	\$2.20
Improve storage facilities for produce at the national level	\$0.00	\$3.00	\$3.00
Income diversification	\$92.32	\$0.00	\$92.32
Increase extension services	\$3.08	\$0.00	\$3.08
Infant and child feeding at under-five clinics and schools	\$0.44	\$0.00	\$0.44
Introduce climate-resilient and drought-tolerant crop types and varieties	\$0.00	\$346.03	\$346.03
Construct and/or rehabilitate irrigation infrastructure	\$2.83	\$8.48	\$11.30
Operationalise irrigation schemes	\$56.91	\$0.00	\$56.91
New irrigation farming	\$0.35	\$1.06	\$1.42
Plant trees and allow vegetation (grass included) to regenerate in areas that are not utilised	\$92.32	\$0.00	\$92.32
Plant grass and trees as hedges and windbreaks	\$92.32	\$0.00	\$92.32
Plant trees and vegetation to minimise dust	\$92.32	\$0.00	\$92.32
<b>Agroforestry</b>	<b>\$17.32</b>	<b>\$0.00</b>	<b>\$17.32</b>
Apply climate-smart, climate-resilient codes in road development (including roads in national parks and game management areas and in high-potential agricultural areas)	\$0.00	\$347.88	\$347.88
Cultivate fortified food crops (orange-fleshed sweet potatoes and maize)	\$6.00	\$0.00	\$6.00
Food fortification	\$2.85	\$0.00	\$2.85
Health education on how to prepare and use available foods	\$98.96	\$0.00	\$98.96
Integrated pest management (IPM)	\$52.50	\$0.00	\$52.50
Seed conservation of indigenous crop varieties	\$1.60	\$0.00	\$1.60
Supplementation of feed for wildlife during drought periods	\$92.32	\$0.00	\$92.32

Sector	2023 - 2025	2026 - 2035	Total
Planting trees	\$92.32	\$0.00	\$92.32
Food preparation and preservation	\$92.32	\$0.00	\$92.32
Preservation of indigenous foods	\$33.25	\$0.00	\$33.25
Promote climate-smart agriculture	\$994.32	\$0.00	\$994.32
Promote diversified, drought-tolerant, indigenous crop varieties	\$0.04	\$0.12	\$0.16
Promote irrigation and efficient use of water resources.	\$0.98	\$2.93	\$3.90
Production of crops enhancing balanced diets	\$92.32	\$0.00	\$92.32
Climate-smart agriculture	\$6.25	\$18.75	\$25.00
Financial incentives to the agriculture sector	\$17.57	\$0.00	\$17.57
Strengthen research in climate change and windstorm-based climate indices	\$0.04	\$0.00	\$0.04
Strengthen soil and water conservation technologies	\$1.50	\$0.00	\$1.50
Strengthen disease surveillance and control activities	\$1.50	\$0.00	\$1.50
Up-scale the dissemination of climate services	\$0.50	\$0.00	\$0.50
<b>Energy</b>	<b>\$406.95</b>	<b>\$1,040.44</b>	<b>\$1,447.39</b>
Augment processes for transitioning to renewable energy technologies	\$20.10	\$60.31	\$80.41
Conduct research and produce an atlas of Zambia's renewable energy hot spots	\$11.15	\$0.00	\$11.15
Increase the use of alternative energy	\$41.00	\$0.00	\$41.00
Increase the use of alternative energy	\$80.41	\$0.00	\$80.41
Install and utilise alternative power sources	\$18.75	\$56.25	\$75.00
Invest in exploring alternative energy sources (e.g. solar, thermal and nuclear)	\$0.00	\$12.47	\$12.47
Promote efficient use of alternative energy	\$0.00	\$204.55	\$204.55
Off-grid power supply for households so that more energy is diverted to mineral production	\$0.00	\$0.15	\$0.15
Install and utilise alternative power sources	\$0.05	\$0.15	\$0.20
Promote off-grid renewable energy solutions	\$63.88	\$191.65	\$255.54
Diversify the renewable energy mix	\$151.50	\$454.50	\$606.00
Use clean power alternatives that are locally accessible (e.g. setting up a solar power plant).	\$20.10	\$60.31	\$80.41
<b>Fisheries</b>	<b>\$115.49</b>	<b>\$4.06</b>	<b>\$119.55</b>
Adoption of alternative livelihoods by households in fish-dependent communities	\$1.06	\$0.00	\$1.06
Alternative livelihoods such as rice farming, beekeeping etc.	\$4.78	\$0.00	\$4.78
Conserve habitats to support healthy fish stocks	\$4.78	\$0.00	\$4.78
Control the spread of fish disease to other natural water bodies	\$9.56	\$0.00	\$9.56
Engage communities in alternative income-generating activities outside of crop farming	\$4.78	\$0.00	\$4.78
Improve pond site selection and design processes	\$0.71	\$0.00	\$0.71
Promote aquaculture development and other forms of alternative livelihood in fishing communities (e.g. utilisation of fish cages and pens)	\$4.80	\$0.06	\$4.86

Sector	2023 - 2025	2026 - 2035	Total
Promote the utilisation of fishponds and fish cages	\$9.75	\$0.00	\$9.75
Protect and restore critical habitats (fish breeding areas)	\$50.00	\$0.00	\$50.00
Rehabilitate aquatic environments around river mouths	\$0.00	\$4.00	\$4.00
Sensitise communities towards sustainable fish farming practices	\$1.13	\$0.00	\$1.13
Strengthen aquaculture regulations	\$4.78	\$0.00	\$4.78
Strengthen community sensitisation to, and enforcement of, fisheries regulations (including fish bans)	\$1.98	\$0.00	\$1.98
Strengthen monitoring among fishers and fish farmers	\$3.04	\$0.00	\$3.04
Strengthen early flood warning systems and preparedness	\$4.78	\$0.00	\$4.78
Strengthen research in the fisheries sector	\$4.78	\$0.00	\$4.78
Sustainable fisheries management	\$4.78	\$0.00	\$4.78
<b>Forestry</b>	<b>\$476.34</b>	<b>\$939.54</b>	<b>\$1,415.87</b>
Creation of awareness on the importance of forest conservation	\$3.50	\$0.00	\$3.50
Develop and implement participatory forest management plans	\$6.48	\$0.00	\$6.48
Develop fire-risk maps that specify high and low-risk areas	\$0.04	\$0.00	\$0.04
Early burning of forests and rangelands	\$8.85	\$26.55	\$35.40
Establish fire management infrastructure in and around protected forest areas	\$5.85	\$17.56	\$23.41
Establish a forest fire early warning and rapid response system	\$5.86	\$17.57	\$23.43
Manage species and habitats to protect ecosystem functions	\$1.32	\$3.95	\$5.26
Promote afforestation and reforestation	\$15.91	\$47.72	\$63.63
Promote alternative livelihood sources for forest-dependent communities	\$2.13	\$0.00	\$2.13
Promote assisted natural regeneration in indigenous forests and restoration of degraded areas	\$39.57	\$118.70	\$158.27
Promote forest management anchored on ecosystem and/or landscape approaches	\$119.50	\$358.50	\$478.01
Promote participatory forestry management	\$151.00	\$0.00	\$151.00
Promote the development and implementation of forest fire management (plans) in protected forest areas and open forests	\$81.37	\$244.10	\$325.46
Promote tree planting to increase tree cover, hedges and windbreaks	\$1.79	\$5.38	\$7.17
Promote utilisation of alternative non-wood fuel sources of energy	\$3.62	\$10.87	\$14.50
Protect water catchments located in forests	\$1.00	\$3.00	\$4.00
Reduce deforestation and forest degradation	\$1.18	\$3.54	\$4.72
Reforestation along river channels	\$1.25	\$3.75	\$5.00
Sustainable forest management	\$22.23	\$66.68	\$88.91
Undertake regular, periodic forest inventories to assess species composition, stocking levels and distribution	\$3.89	\$11.66	\$15.54
<b>Health</b>	<b>\$927.68</b>	<b>\$527.99</b>	<b>\$1,455.68</b>
Design and construct climate-proof infrastructure for health services	\$131.75	\$395.26	\$527.01
Provide domestic (household) water purification in hotspots	\$20.69	\$0.00	\$20.69
Healthcare waste management	\$35.46	\$106.38	\$141.84

Sector	2023 - 2025	2026 - 2035	Total
Implement health promotion activities	\$128.02	\$0.00	\$128.02
Integrate health services and protection measures into climate vulnerability assessments	\$0.01	\$0.03	\$0.04
Malaria control activities (e.g. vector control – insecticide-treated nets and indoor residual spraying)	\$321.26	\$0.00	\$321.26
Plan for curative services	\$0.20	\$0.00	\$0.20
Promote health insurance	\$18.61	\$0.00	\$18.61
Promote the production of crops enhancing balanced diets	\$1.50	\$4.50	\$6.00
Conduct research on climate-sensitive diseases	\$2.71	\$5.66	\$8.37
Strengthen the implementation of mitigation and adaptation measures	\$3.74	\$11.21	\$14.94
Strengthen at-source surveillance of water quality	\$2.86	\$4.97	\$7.83
Strengthen surveillance activities (e.g. tracking of diseases and trends related to climate change)	\$132.66	\$0.00	\$132.66
Strengthen public health emergency preparedness and response for climate-sensitive diseases	\$128.02	\$0.00	\$128.02
Surveillance of malaria incidence	\$0.10	\$0.00	\$0.10
Surveillance of non-pneumonia disease incidence	\$0.10	\$0.00	\$0.10
<b>Mining</b>	<b>\$543.00</b>	<b>\$1,605.75</b>	<b>\$2,148.75</b>
Design of climate-resilient tailings dumps (e.g. flood-responsive dewatering)	\$4.00	\$0.00	\$4.00
Redesign tailings storage facilities in response to the threat of windstorms	\$6.25	\$18.75	\$25.00
Formulate a disaster management framework to be used in the mines during flooding events to mitigate loss of life and damage to equipment	\$3.75	\$0.00	\$3.75
Improve pollution control around tailings storage facilities	\$325.00	\$975.00	\$1,300.00
Install adequate and energy-efficient cooling facilities underground to protect the health and safety of workers	\$15.63	\$46.88	\$62.50
Install and utilise alternative power sources	\$37.50	\$112.50	\$150.00
Install pumps that can adequately pump out water from pits during flooding events	\$125.00	\$375.00	\$500.00
Neutralise tailings in all tailings dumps to avoid bleaching/breaching in the case of floods	\$3.00	\$9.00	\$12.00
Locate new tailings storage facilities far from any human activity	\$0.25	\$0.75	\$1.00
Plant trees and allow vegetation to regenerate in areas that are not utilised	\$0.13	\$0.38	\$0.50
Practice water recycling to minimise the pumping of water	\$2.50	\$7.50	\$10.00
Promote safety and health measures against climate effects	\$5.00	\$15.00	\$20.00
Undertake regular dust suppression measures	\$12.50	\$37.50	\$50.00
Use water-efficient mining and mineral processes	\$2.50	\$7.50	\$10.00
<b>Tourism</b>	<b>\$1,367.34</b>	<b>\$4,096.01</b>	<b>\$5,463.34</b>
Build flood protection structures in tourist areas and ecosystems	\$2.50	\$7.50	\$10.00
Develop new innovative tourism products to promote indoor and non-water-based tourist activities	\$165.19	\$495.57	\$660.77

Sector	2023 - 2025	2026 - 2035	Total
Develop tourism activities at waterfalls in high-rainfall areas	\$1.38	\$4.13	\$5.50
Increase investment in new climate-resilient infrastructure (e.g. roads, residential houses, water, lodges, etc.)	\$960.00	\$2,880.00	\$3,840.00
Enhance fishing angling products for tourism	\$6.00	\$18.00	\$24.00
Install fire control measures infrastructure in tourism sites	\$8.38	\$25.13	\$33.50
Plant trees around tourist camps and facilities	\$4.37	\$13.11	\$17.48
Application of climate-smart, climate-resilient codes in road development (including roads in national parks and game management areas and in high-potential agricultural areas)	\$105.28	\$315.83	\$421.10
Promote insurance of infrastructure and buildings	\$0.38	\$1.13	\$1.50
Promote insurance of property against loss to fires and other climatic hazards	\$2.00	\$0.00	\$2.00
Provision of climate-smart cooling facilities	\$1.50	\$4.50	\$6.00
Provision of early warning information and accurate weather information	\$2.50	\$7.50	\$10.00
Provision of water points in water-stressed national parks and game management areas (weirs, dams, reservoirs)	\$71.25	\$213.75	\$285.00
Restock depleted national parks	\$30.00	\$90.00	\$120.00
Strengthen early flood warning systems and preparedness	\$2.50	\$7.50	\$10.00
Supplementary feeding and water provision for wildlife	\$3.75	\$11.25	\$15.00
Undertake training for climate-proofing of infrastructure	\$0.38	\$1.13	\$1.50
<b>Transport</b>	<b>\$3,568.92</b>	<b>\$7,528.49</b>	<b>\$11,097.41</b>
Build capacity by training stakeholders on the principles of green and climate-resilient building design	\$0.00	\$0.00	\$0.01
Construct climate-smart infrastructure	\$67.67	\$203.00	\$270.67
Design and construct climate-proof infrastructure for health services	\$67.67	\$203.00	\$270.67
Design climate-proof infrastructure	\$270.67	\$0.00	\$270.67
Develop access roads to social amenities (e.g. clinics and schools) based on climate-resilient infrastructure codes and standards	\$67.67	\$203.00	\$270.67
Develop a maintenance schedule for all infrastructure	\$541.34	\$0.00	\$541.34
Develop and implement enhanced windstorm-resilient standards and building codes	\$0.00	\$270.67	\$270.67
Develop alternative transport infrastructure e.g. airports and railways based on climate-resilient infrastructure codes and standards	\$112.50	\$587.50	\$700.00
Develop fire-risk maps that specify high and low-risk areas	\$270.67	\$0.00	\$270.67
Enforce building codes	\$0.01	\$0.03	\$0.04
Enforce construction codes	\$0.39	\$1.17	\$1.56
Enhance climate-proofing of water infrastructure	\$67.67	\$203.00	\$270.67
Enhance the frequency of revision of building codes and standards	\$67.67	\$203.00	\$270.67
Increase investment in new climate-resilient infrastructure (e.g. roads, residential houses, water, lodges, etc.)	\$289.90	\$1,394.71	\$1,684.60
Enhance verification and enforcement of revised road codes and standards	\$67.67	\$203.00	\$270.67
Establish fire management infrastructure in and around protected forest areas	\$67.67	\$203.00	\$270.67

Sector	2023 - 2025	2026 - 2035	Total
Increase funding for regular maintenance of existing road infrastructure and buildings	\$375.00	\$1,125.00	\$1,500.00
Increase investment in the construction of climate-smart buildings	\$67.67	\$203.00	\$270.67
Increase investment in the development of new climate-resilient infrastructure (e.g. roads, bridges, etc.)	\$67.67	\$1,703.00	\$1,770.67
Install fire control measures infrastructure in tourism sites	\$270.67	\$0.00	\$270.67
Invest in climate-resilient water infrastructure	\$67.67	\$203.00	\$270.67
Promote insurance for agriculture, infrastructure and buildings	\$270.67	\$0.00	\$270.67
Promote insurance of property against loss to fires and other climatic hazards	\$67.67	\$203.00	\$270.67
Promote best practices in waste management	\$270.67	\$0.00	\$270.67
Promote climate-resilient infrastructure	\$0.03	\$0.08	\$0.11
Regular maintenance of existing road infrastructure	\$67.67	\$203.00	\$270.67
Revise building codes and standards	\$12.76	\$0.00	\$12.76
Revise building codes and standards to include provision for fire-resistant materials	\$0.04	\$0.00	\$0.04
Shift to more cost-effective measures to power buildings (e.g. green energies)	\$3.44	\$10.31	\$13.75
Undertake training for climate-proofing of infrastructure	\$0.50	\$0.00	\$0.50
Utilise alternative forms of transport (such as rail and air) in accordance with climate-smart codes	\$67.67	\$203.00	\$270.67
<b>Water and Hydrology</b>	<b>\$1,138.48</b>	<b>\$4,582.25</b>	<b>\$5,720.73</b>
Capacity-building for climate-resilient water security	\$0.15	\$0.00	\$0.15
Climate-smart wastewater recycling system	\$164.72	\$494.15	\$658.86
Construct artificial groundwater recharge infrastructure	\$0.88	\$2.63	\$3.50
Construct new, and rehabilitate existing dams, in accordance with climate-smart codes and standards	\$10.95	\$32.85	\$43.80
Develop climate-smart codes and standards for water and sanitation infrastructure	\$0.15	\$0.00	\$0.15
Develop groundwater resource utilisation and promote efficient use for different sectors	\$0.01	\$0.03	\$0.04
Develop well fields	\$0.00	\$30.43	\$30.43
Enhance water catchment management and protection	\$0.07	\$0.21	\$0.28
Harmonise transboundary water diplomacy and benefit-sharing	\$0.40	\$0.00	\$0.40
Improve domestic water supply by utility companies	\$782.50	\$2,347.50	\$3,130.00
Improve resource management around water points and boreholes	\$0.45	\$1.35	\$1.80
Improve international water cooperation	\$0.06	\$0.18	\$0.24
Improve water allocation systems	\$0.07	\$0.00	\$0.07
Improve water harvesting techniques	\$0.04	\$0.11	\$0.15
Increase the volume of surface water impounded	\$0.00	\$1,148.00	\$1,148.00
Invest in climate-resilient water infrastructure	\$157.50	\$472.50	\$630.00
Invest in climate-resilient water infrastructure	\$0.50	\$1.50	\$2.00
Map and assess available groundwater resources	\$0.15	\$0.00	\$0.15

Sector	2023 - 2025	2026 - 2035	Total
Monitoring and management of water resources	\$0.69	\$2.06	\$2.74
Enhance natural capital accounting for water	\$0.08	\$0.23	\$0.30
Promote artificial groundwater recharge	\$0.01	\$0.03	\$0.04
Promote climate-proofing of water infrastructure	\$2.55	\$7.65	\$10.20
Promote ecological sanitation that uses less water	\$2.50	\$7.50	\$10.00
Promote rainwater harvesting	\$0.10	\$0.00	\$0.10
Protect groundwater recharge zones	\$0.01	\$0.03	\$0.04
Protect wetlands and wetland resources based on the ecosystem-based adaptation approach	\$0.00	\$3.50	\$3.50
Sensitise and educate on efficient water utilisation	\$3.25	\$9.75	\$13.00
Strengthen compliance with environmental water flows	\$3.78	\$11.33	\$15.10
Strengthen regulations for borehole drilling	\$4.32	\$0.00	\$4.32
Water catchment protection and conservation	\$0.00	\$0.90	\$0.90
Water quality monitoring and control	\$2.62	\$7.85	\$10.46
<b>Wildlife</b>	<b>\$74.66</b>	<b>\$411.48</b>	<b>\$486.15</b>
Adoption of alternative livelihoods by households that are dependent on natural resources	\$0.45	\$1.35	\$1.80
Create community wildlife ranches and reserves as additional conservation efforts for endangered species as well as biodiversity enhancement	\$0.00	\$187.50	\$187.50
Develop and implement fire management plans for national parks and game management areas	\$0.01	\$0.03	\$0.04
Develop participatory village land use plans	\$0.17	\$0.50	\$0.67
Encourage a participatory approach to rangeland management involving communities living in or around wildlife-protected areas and those who depend on rangeland resources for their livelihoods	\$0.09	\$0.27	\$0.36
Enforce equitable benefit-sharing arrangements among government, communities and the private sector in the management of wildlife resources	\$0.05	\$0.15	\$0.20
Enhance the conservation of habitats to support wildlife in protected and open areas	\$3.50	\$10.50	\$14.00
Establish a mechanism for surveillance of the well-being of wildlife	\$0.05	\$0.15	\$0.20
Establish community game ranches or community parks for the conservation of wildlife species	\$3.75	\$11.25	\$15.00
Improve planning and management of wildlife estates	\$0.30	\$0.90	\$1.20
Promote non-water-based tourism products and packages	\$0.23	\$0.68	\$0.90
Promote public-private community partnerships in the sustainable management of wildlife resources	\$0.06	\$0.19	\$0.25
Promote the development and implementation of forest fire management (plans) in protected forest areas and open forests	\$0.01	\$0.03	\$0.04
Protect wildlife breeding grounds	\$0.08	\$0.23	\$0.30
Protect wildlife habitats and corridors	\$1.25	\$3.75	\$5.00
Provision of water points in national parks	\$0.03	\$0.08	\$0.10
Provision of water points in water-stressed National Parks and game management areas (weirs, dams, reservoirs)	\$52.50	\$157.50	\$210.00



Sector	2023 - 2025	2026 - 2035	Total
Relocate humans from wildlife corridors	\$8.75	\$26.25	\$35.00
Strengthen the operational capacity and climate-related knowledge of community resource boards	\$0.16	\$0.47	\$0.63
Strengthen disease surveillance and control activities	\$1.48	\$4.43	\$5.90
Strengthen research on climate-sensitive diseases	\$0.12	\$0.36	\$0.48
Supplementary feeding and water provision for wildlife	\$1.50	\$4.50	\$6.00
Train community members to scare animals from human settlements	\$0.14	\$0.41	\$0.54
Understand the adaptative behaviour of animals and how to interact with wildlife	\$0.01	\$0.03	\$0.04
<b>Grand Total</b>	<b>\$11,678.37</b>	<b>\$23,030.93</b>	<b>\$34,709.30</b>

## Appendix 4: ZIP Priority Actions and Costing Schedule (US\$ millions)

Note: The numbering in the table below aligns to ZIP interventions are scheduled to be implemented according to phase of execution and not according to their logical numbering sequence in the ZIP document.

Phases, Components and Actions	2024	2025	2026	2027	2028	2029	2030	Grand Total
<b>1. Start-up Phase</b>	<b>\$135.52</b>	<b>\$135.07</b>						<b>\$270.59</b>
<b>0.1 Preliminary activities</b>	<b>\$0.52</b>	<b>\$0.07</b>						<b>\$0.59</b>
0.1.1 Institutional design	\$0.20							\$0.20
0.1.2 Old sources inventory	\$0.10							\$0.10
0.1.3 New sources inventory	\$0.10							\$0.10
0.1.4 Targeting strategy	\$0.05							\$0.05
0.1.5 M&E system development	\$0.07	\$0.07						\$0.14
<b>1.2 Enhancing sustainable water resources management</b>	<b>\$2.50</b>	<b>\$2.50</b>						<b>\$5.00</b>
1.2.3 Strengthen water information systems to support decision-making	\$2.50	\$2.50						\$5.00
<b>2.2 Building climate resilience</b>	<b>\$20.00</b>	<b>\$20.00</b>						<b>\$40.00</b>
2.2.3 Formulate a long-term NAP on water	\$20.00	\$20.00						\$40.00
<b>2.4 Gender and social inclusion</b>	<b>\$12.50</b>	<b>\$12.50</b>						<b>\$25.00</b>
2.4.2 Conduct gender analyses on investments for water security and climate-resilient buildings	\$2.50	\$2.50						\$5.00
2.4.2 (d) Establish tools/guidelines for conducting gender analysis	\$7.50	\$7.50						\$15.00
2.4.3 (b) Develop gender action plans	\$2.50	\$2.50						\$5.00
<b>3.1 Institutional and human capacity building</b>	<b>\$25.00</b>	<b>\$25.00</b>						<b>\$50.00</b>
3.1.2 Strengthen existing policy, legal and institutional frameworks	\$25.00	\$25.00						\$50.00
<b>3.2 Financing water investments and resource mobilisation</b>	<b>\$25.00</b>	<b>\$25.00</b>						<b>\$50.00</b>
3.2.2 Develop a resource mobilisation strategy for implementing the ZIP	\$25.00	\$25.00						\$50.00
<b>3.3 Strengthening PPPs and international cooperation in water investments</b>	<b>\$50.00</b>	<b>\$50.00</b>						<b>\$100.00</b>
3.3.1 Identify opportunities for economic, multipurpose water and sanitation investments	\$10.00	\$10.00						\$20.00

Phases, Components and Actions	2024	2025	2026	2027	2028	2029	2030	Grand Total
3.3.11 Create a capacity development strategy and plan for private sector participation in water and sanitation investments	\$12.50	\$12.50						\$25.00
3.3.4 Identify risks and barriers regarding economic, multipurpose water resource development investment	\$2.50	\$2.50						\$5.00
3.3.5 Develop a strategy for the promotion of the cooperative and SME approaches to economic, multipurpose water and sanitation investment	\$25.00	\$25.00						\$50.00
<b>2. Operational Phase</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$5,532.24</b>
<b>0.1 Preliminary activities</b>	<b>\$0.05</b>	<b>\$0.05</b>	<b>\$0.05</b>	<b>\$0.05</b>				<b>\$0.20</b>
0.1.6 Legal review of pollution tax	\$0.05	\$0.05	\$0.05	\$0.05				\$0.20
<b>1.1 Water investments for productive use and economic growth</b>	<b>\$47.94</b>	<b>\$47.94</b>	<b>\$47.94</b>	<b>\$47.94</b>	<b>\$36.69</b>	<b>\$36.69</b>	<b>\$36.69</b>	<b>\$301.83</b>
1.1.1 Enhance irrigated agriculture systems	\$17.85	\$17.85	\$17.85	\$17.85	\$17.85	\$17.85	\$17.85	\$124.95
1.1.2 Develop and strengthen fisheries and aquaculture systems	\$17.14	\$17.14	\$17.14	\$17.14	\$17.14	\$17.14	\$17.14	\$119.98
1.1.3 Develop climate-resilient energy	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.98
1.1.4 Water infrastructure for tourism development	\$0.78	\$0.78	\$0.78	\$0.78	\$0.78	\$0.78	\$0.78	\$5.46
1.1.5 Provide support for dewatering for small-scale artisanal mining	\$0.57	\$0.57	\$0.57	\$0.57	\$0.57	\$0.57	\$0.57	\$3.99
1.1.6 Develop and implement strategies for sustainable dewatering and tailing disposal targeted at small-scale artisanal mining	\$0.21	\$0.21	\$0.21	\$0.21	\$0.21	\$0.21	\$0.21	\$1.47
1.1.7 Provide water supply for mineral beneficiation and value addition	\$1.25	\$1.25	\$1.25	\$1.25				\$5.00
1.1.8 Provide water for navigation	\$6.25	\$6.25	\$6.25	\$6.25				\$25.00
1.1.9 Inland waterways development and maintenance	\$3.75	\$3.75	\$3.75	\$3.75				\$15.00
<b>1.2 Enhancing sustainable water resources management</b>	<b>\$367.27</b>	<b>\$367.27</b>	<b>\$367.27</b>	<b>\$367.27</b>	<b>\$367.27</b>	<b>\$367.27</b>	<b>\$367.27</b>	<b>\$2,570.89</b>
1.2.1 International water cooperation and transboundary water resources management	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.14	\$0.98
1.2.2 National programme on water resources development and management	\$214.28	\$214.28	\$214.28	\$214.28	\$214.28	\$214.28	\$214.28	\$1,499.96
1.2.4 Inter- and intra-basin water transfer schemes	\$142.85	\$142.85	\$142.85	\$142.85	\$142.85	\$142.85	\$142.85	\$999.95
1.2.5 Countrywide development of wellfields for multipurpose, economic/ productive utilisation of water resources	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$10.00	\$70.00
<b>2.1 Water supply and sanitation</b>	<b>\$194.07</b>	<b>\$194.07</b>	<b>\$194.07</b>	<b>\$194.07</b>	<b>\$192.82</b>	<b>\$192.82</b>	<b>\$192.82</b>	<b>\$1,354.74</b>
2.1.1 Strengthen water quality systems in urban areas	\$1.25	\$1.25	\$1.25	\$1.25				\$5.00
2.1.2 Improve cross-border water supply and sanitation	\$35.71	\$35.71	\$35.71	\$35.71	\$35.71	\$35.71	\$35.71	\$249.97

Phases, Components and Actions	2024	2025	2026	2027	2028	2029	2030	Grand Total
2.1.3 Improve water supply services in urban areas through rehabilitation and construction of climate-resilient water supply infrastructure	\$42.85	\$42.85	\$42.85	\$42.85	\$42.85	\$42.85	\$42.85	\$299.95
2.1.4 Improve sanitation services and hygiene promotion in urban areas through rehabilitation and construction of climate-resilient sanitation infrastructure	\$28.57	\$28.57	\$28.57	\$28.57	\$28.57	\$28.57	\$28.57	\$199.99
2.1.5 Improve sanitation services in rural areas	\$28.57	\$28.57	\$28.57	\$28.57	\$28.57	\$28.57	\$28.57	\$199.99
2.1.6 Improve water supply in rural areas through rehabilitation and construction of climate-smart water supply infrastructure	\$21.42	\$21.42	\$21.42	\$21.42	\$21.42	\$21.42	\$21.42	\$149.94
2.1.7 Improve hygiene practices in households and communities in rural areas	\$24.99	\$24.99	\$24.99	\$24.99	\$24.99	\$24.99	\$24.99	\$174.93
2.1.8 Promote efficiency in the provision/ supply of water and sanitation services in rural areas	\$10.71	\$10.71	\$10.71	\$10.71	\$10.71	\$10.71	\$10.71	\$74.97
<b>2.2 Building climate resilience</b>	<b>\$41.41</b>	<b>\$41.41</b>	<b>\$41.41</b>	<b>\$41.41</b>	<b>\$41.41</b>	<b>\$41.41</b>	<b>\$41.41</b>	<b>\$289.87</b>
2.2.1 Water technologies for saving, recycling, irrigation and sustainable management for household, agriculture and industrial purposes	\$17.14	\$17.14	\$17.14	\$17.14	\$17.14	\$17.14	\$17.14	\$119.98
2.2.2 Improve water storage through artificial recharge	\$2.85	\$2.85	\$2.85	\$2.85	\$2.85	\$2.85	\$2.85	\$19.95
2.2.4 Promote carbon-neutral sanitation	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$49.98
2.2.6 National programme for climate-proofing water and sanitation infrastructure	\$14.28	\$14.28	\$14.28	\$14.28	\$14.28	\$14.28	\$14.28	\$99.96
<b>2.3 Enhancing environmental sustainability</b>	<b>\$25.63</b>	<b>\$25.63</b>	<b>\$25.63</b>	<b>\$25.63</b>	<b>\$18.97</b>	<b>\$18.97</b>	<b>\$18.97</b>	<b>\$159.43</b>
2.3.1 Preservation and conservation of wetlands and related ecosystems	\$9.28	\$9.28	\$9.28	\$9.28	\$9.28	\$9.28	\$9.28	\$64.96
2.3.2 Protection and conservation of water catchment areas	\$1.85	\$1.85	\$1.85	\$1.85	\$1.85	\$1.85	\$1.85	\$12.95
2.3.3 Natural capital accounting for water	\$2.14	\$2.14	\$2.14	\$2.14	\$2.14	\$2.14	\$2.14	\$14.98
2.3.4 Water pollution prevention and control	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$24.99
2.3.5 Sustainable land, forest and water management	\$1.42	\$1.42	\$1.42	\$1.42	\$1.42	\$1.42	\$1.42	\$9.94
2.3.6 Strengthen community participation in sustainable land, forest and water management	\$6.66	\$6.66	\$6.66	\$6.66				\$26.64
2.3.7 Catchment management water resources planning and policy formulation	\$0.71	\$0.71	\$0.71	\$0.71	\$0.71	\$0.71	\$0.71	\$4.97
<b>2.4 Gender and social inclusion</b>	<b>\$22.12</b>	<b>\$22.12</b>	<b>\$22.12</b>	<b>\$22.12</b>	<b>\$18.79</b>	<b>\$18.79</b>	<b>\$18.79</b>	<b>\$144.85</b>
2.4.1 Strengthen capacity for gender equality in water and climate	\$1.42	\$1.42	\$1.42	\$1.42	\$1.42	\$1.42	\$1.42	\$9.94
2.4.2 (e) Train staff on gender inequality issues relating to water security and climate resilience	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$12.50	\$87.50
2.4.3 (c) Implement gender action plans	\$4.16	\$4.16	\$4.16	\$4.16	\$4.16	\$4.16	\$4.16	\$29.12

Phases, Components and Actions	2024	2025	2026	2027	2028	2029	2030	Grand Total
2.4.4 (a) Business and career pathways and vocational options for youths related to water security	\$3.33	\$3.33	\$3.33	\$3.33				\$13.32
2.4.5 Ensure child-sensitive and inclusive policies, planning and interventions in water security and sanitation investments	\$0.71	\$0.71	\$0.71	\$0.71	\$0.71	\$0.71	\$0.71	\$4.97
<b>3.1 Institutional and human capacity building</b>	<b>\$37.85</b>	<b>\$37.85</b>	<b>\$37.85</b>	<b>\$37.85</b>	<b>\$37.85</b>	<b>\$37.85</b>	<b>\$37.85</b>	<b>\$264.95</b>
3.1.1 Formulate and implement a capacity and competence development programme for water security	\$2.14	\$2.14	\$2.14	\$2.14	\$2.14	\$2.14	\$2.14	\$14.98
3.1.3 Formulate and implement a water research and development programme	\$35.71	\$35.71	\$35.71	\$35.71	\$35.71	\$35.71	\$35.71	\$249.97
<b>3.2 Financing water investments and resource mobilisation</b>	<b>\$23.80</b>	<b>\$23.80</b>	<b>\$23.80</b>	<b>\$23.80</b>	<b>\$23.80</b>	<b>\$23.80</b>	<b>\$23.80</b>	<b>\$166.60</b>
3.2.1 Develop and implement a water investment scorecard	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$49.98
3.2.3 Project preparation and proposal development	\$16.66	\$16.66	\$16.66	\$16.66	\$16.66	\$16.66	\$16.66	\$116.62
<b>3.3 Strengthening PPPs and international cooperation in water investments</b>	<b>\$39.62</b>	<b>\$39.62</b>	<b>\$39.62</b>	<b>\$39.62</b>	<b>\$39.62</b>	<b>\$39.62</b>	<b>\$39.62</b>	<b>\$277.34</b>
3.3.10 Establish an annual or biannual international water investment summit	\$5.71	\$5.71	\$5.71	\$5.71	\$5.71	\$5.71	\$5.71	\$39.97
3.3.2 Prepare investment plans and a pipeline of projects for economic, multipurpose water development investments both at national and provincial levels	\$14.28	\$14.28	\$14.28	\$14.28	\$14.28	\$14.28	\$14.28	\$99.96
3.3.3 Sensitise and create awareness regarding investment plans for economic, multipurpose water resource development investments	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$7.14	\$49.98
3.3.6 Pilot the cooperative and SME approaches to economic, multipurpose water and sanitation investment	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$2.50	\$17.50
3.3.7 Scale up the cooperative approach to economic, multipurpose water and sanitation investment	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$24.99
3.3.8 Establish international public-private water investment partnerships	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$3.57	\$24.99
3.3.9 Mobilise international water investment champions and envoys	\$2.85	\$2.85	\$2.85	\$2.85	\$2.85	\$2.85	\$2.85	\$19.95
<b>0.2 Programme operational activities</b>	<b>\$0.22</b>	<b>\$0.22</b>	<b>\$0.22</b>	<b>\$0.22</b>	<b>\$0.22</b>	<b>\$0.22</b>	<b>\$0.22</b>	<b>\$1.54</b>
0.2.1 Programme management	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$1.40
0.2.2 Programme reporting	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.02	\$0.14
<b>Grand Total</b>	<b>\$935.50</b>	<b>\$935.05</b>	<b>\$799.98</b>	<b>\$799.98</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$777.44</b>	<b>\$5,802.83</b>

## Appendix 5: NAP and ZIP Overlapping Actions (US\$ millions)

Note: The 'Serial Number' column code refers to the unique record serial number in the NAP data table, and digits in front of the priority actions in column four correspond to the numbering in the ZIP.

NAP Measure	Serial Number	NAP Budget	ZIP Priority Action	ZIP Cost	Overlap
Design of climate-resilient tailings dumps (e.g. flood-responsive dewatering)	R163	\$4.00	1.1.5 Provide support for dewatering for small-scale artisanal mining	\$4.00	\$4.00
Develop climate-smart codes and standards for water and sanitation infrastructure	R278	\$0.15	2.1.4 Improve sanitation services and hygiene promotion in urban areas through rehabilitation and construction of climate-resilient sanitation infrastructure	\$200.00	\$100.08
Develop tourism activities at waterfalls in high-rainfall areas	R191	\$5.50	1.1.4 Water infrastructure for tourism development	\$5.50	\$5.50
Develop well fields	R244	\$30.43	1.2.5 Countrywide development of wellfields for multipurpose, economic/productive utilisation of water resources	\$70.00	\$50.22
Enhance water catchment management and protection	R248	\$0.20	2.3.7 Catchment management water resources planning and policy formulation	\$5.00	\$2.60
Implement health promotion activities	R143	\$128.02	2.1.7 Improve hygiene practices in households and communities in rural areas	\$75.00	\$101.51
Improve domestic water supply by utility companies	R262	\$1,117.00	2.1.3 Improve water supply services in urban areas through rehabilitation and construction of climate-resilient water supply infrastructure	\$300.00	\$708.50
Construction and/or rehabilitation of irrigation infrastructure	R013	\$7.53	1.1.1 Enhance irrigated agriculture systems	\$125.00	\$66.26
Monitoring and management of water resources	R255	\$2.74	1.2.3 Strengthen water information systems to support decision-making	\$5.00	\$3.87
Enhance natural capital accounting for water	R274	\$0.30	2.3.3 Natural capital accounting for water	\$15.00	\$7.65
Promote artificial groundwater recharge	R266	\$0.04	2.2.2 Improve water storage through artificial recharge	\$20.00	\$10.02
Promote ecological sanitation that uses less water	R259	\$10.00	2.2.4 Promote carbon-neutral sanitation	\$50.00	\$30.00
Promote participatory forestry management	R101	\$146.94	2.3.6 Strengthen community participation in sustainable land, forest and water management	\$20.00	\$83.47
Promote off-grid renewable energy solutions	R059	\$3.58	1.1.3 Develop climate-resilient energy	\$1.00	\$2.29
Public education and sensitisation on efficient water utilisation	R272	\$13.00	2.1.9 Promote efficiency in the provision/supply of water and sanitation services in rural areas	\$75.00	\$44.00

NAP Measure	Serial Number	NAP Budget	ZIP Priority Action	ZIP Cost	Overlap
Sustainable fisheries management	R090	\$4.78	1.1.2 Develop and strengthen fisheries and aquaculture systems	\$120.00	\$62.39
Use water-efficient mining and mineral processes	R172	\$10.00	1.1.6 Develop and implement strategies for sustainable dewatering and tailing disposal targeted at small-scale artisanal mining	\$1.50	\$5.75
Water catchment protection and conservation	R256	\$0.90	2.3.2 Protection and conservation of water catchment areas	\$13.00	\$6.95
Water quality monitoring and control	R245	\$9.21	2.1.1 Strengthen water quality systems in urban areas	\$5.00	\$7.11
<b>Total</b>		<b>\$1,494</b>		<b>\$1,110</b>	<b>\$1,302</b>
Lifespan		<b>13</b>		<b>7</b>	
Annual Equity		<b>\$115</b>		<b>\$159</b>	<b>\$137</b>



REPUBLIC OF ZAMBIA