COMPREHENSIVE ACTION FOR CLIMATE CHANGE INITIATIVE

CACCI REPORT

Capacity Needs Assessment Report for the Implementation of Zambia's Nationally Determined Contribution (NDC) and National Adaptation Plan (NAP)

ANAPRI/IAPRI and Zambia CACCI Technical Team

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About CACCI Reports

ANAPRI CACCI Reports are publications stemming from implementation of the Comprehensive Action for Climate Change Initiative (CACCI) pilot project in Zambia and Ghana. CACCI is committed to expediting the implementation of Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) by addressing the need for data and analytics and bolstering institutional and coordination capacities. In Africa, CACCI collaborates closely with the African Union Commission, the African Network of Agricultural Policy Research Institutes (ANAPRI), AKADEMIYA2063, and climate stakeholders in selected countries. This partnership aims to inform climate planning and enhance capacities for evidence-based policymaking, advancing progress toward climate - related objectives.

ANAPRI's involvement in the CACCI contributes to the provision of technical expertise, strengthening national, regional, and continental capacities for NDCs and NAPs implementation. In close collaboration with its two-member centers, the Indaba Agricultural Policy Research Institute (IAPRI) in Zambia and the Institute of Statistical Social and Economic Research (ISSER) in Ghana, ANAPRI, through CACCI, supported the Climate Change Technical Working Groups within respective countries and the ministries responsible for coordinating these working groups by offering data and analytical support.

Jointly published with ANAPRI member centers (IAPRI and ISSER) and the Country Climate Change Technical Working Group, the CACCI reports catalogue the key deliverables under the project. The data shared through these reports aim to provide evidence based insights to practitioners and policymakers spearheading climate action in countries where CACCI is being implemented. CACCI is generously supported by the U.S. Agency for International Development (USAID) through the Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence (PRCI), led by Michigan State University (MSU). It is important to note that the views expressed in this publication do not necessarily reflect those of the funder but represent the perspectives of the authors.

About ANAPRI

The African Network of Agricultural Policy Research Institutes (ANAPRI) is a network that brings together various agricultural policy research institutes in Africa. It serves as a platform for collaboration, knowledge sharing, and collective action among its member institutes. ANAPRI works towards promoting evidence-based policy formulation and implementation to enhance agricultural development and food security across the African continent. Through research, policy analysis, capacity building, and advocacy, ANAPRI aims to contribute to sustainable agricultural and rural development in Africa.

About IAPRI

Established in 2011, the Indaba Agricultural Policy Research Institute (IAPRI) is Zambia's first indigenous policy research institute dedicated to policy analysis of the agricultural and environmental sectors. IAPRI is a non-profit company limited by guarantee and collaboratively works with public and private stakeholders. The institute's vision is "to be the Centre of Excellence for Agricultural Policy Research and Outreach in Zambia". IAPRI exists to carry out agricultural policy research and outreach activities, serving the agricultural sector in Zambia to achieve sustainable pro-poor agricultural development. IAPRI's mandate is to utilize empirical evidence to advise and guide the Government of Zambia and other stakeholders on agricultural investments and policies.

About ISSER

ISSER was established in 1962 as the Institute of Statistics to provide a programme of teaching and research in statistics. In 1969, it was reorganized and renamed the Institute of Statistical, Social, and Economic Research with an expanded mandate to conduct research in the social sciences to generate solutions for national development. ISSER currently serves as the research wing under the College of Humanities, University of Ghana, and engages

in several policy-relevant research whose findings are intended to help policymakers on the best policy decisions to make for national development.

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Please note that any views expressed or errors remaining are solely the responsibility of the authors. For comments and questions, please contact:

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1.0 Introduction

As a party to the Paris Agreement on climate change, Zambia, through the Ministry of Green Economy and Environment (MGEE), submitted the Nationally Determined Contribution (NDC) which outlines the country's commitment towards climate mitigation and adaptation. The first NDC was submitted in September 2016 and was later revised, updated, and resubmitted in December 2021. Further, Zambia has made substantial progress in developing its National Adaptation Plan (NAP) with a specific focus on adaptation. The NDC and NAP are the two key processes through which Zambia has expressed its commitment and pledge to address the challenge of climate change at the national, regional, and global levels. Together, the NDC and NAP flanked by other national development policies and strategies such as the National Policy of Climate Change of 2016, the Eighth National Development Plan (8NDP), and Vision 2030, are aimed at contributing to greenhouse gas (GHG) emission reduction, enhance adaptation to climate change impacts and build climate resilience.

To effectively implement climate actions and achieve the commitments outlined in the NDC and NAP, the country has adopted a multi sectorial and multistakeholder approach, with overall coordination by the MGEE. This approach is aimed at galvanizing the strengths and capacities of different stakeholders to implement the planned climate actions. Thus, it is important to understand the capacity needs and gaps of the key stakeholders involved in the two processes. Such information is key in the design of initiatives that are aimed at enhancing the capacity of stakeholders. To this end, the MGEE and Indaba Agricultural Policy Research Institute (IAPRI) commissioned a study to evaluate the capacity needs and gaps ofkey stakeholders involved in the implementation of the NDC and NAP. The results of the studyare expected to feed into capacity-building programs targeted at the various key stakeholders.

2.0 Data and Methods

Data for this study were obtained from key stakeholders who were members of the Multi-sectoral Working Group (MSWG) on Climate Change. The Multi-sectoral Working Group consists of stakeholders from government line ministries and statutory bodies, the private sector, civil society and the academia. Thus, the MSWG formed the sampling frame for the assessment. Prior to reaching out to the stakeholders, a desk review of possible challenges and implementation gaps was conducted. This was followed by a stakeholder mapping exercise aimed at identifying the key stakeholders and their respective roles in the NDC and NAP implementation. Information from these two stages informed the design of the questionnaire.

An online questionnaire using KoboCollect was used to obtain the responses from stakeholders on various capacity needs themes including: The challenges that hinder implementation,

- The ranking of the challenges,
- Areas required for capacity strengthening, and
- Recommended solutions.

Of the 19 key institutions identified during the stakeholder mapping exercise, responses were obtained from 11 institutions, representing 58% response rate.

Table 1 presents the list of successfully interviewed respondents.The survey was administered online and remained available for 2 weeks from 9 March - 23 March. The questionnaire captured both qualitative and quantitative data which were analyzed to generate basic statistical information as well as qualitative description based on responses and the main study themes.

Table 1. List of respondents successfully interviewed

Institution	Sector
Zambia Climate Change Network	Civil society
Zambia Environmental Management Agency	Quasi-government
Ministry of Transport and Logistics	Government
Ministry of Green Economy and Environment	Government
The University of Zambia	Academia
Ministry of Fisheries and Livestock	Government
Forestry Department	Government
Ministry of Finance and National Planning	Government
Ministry of Agriculture	Government
National Designated Authority for the Green Climate Fund	Government
Zambia Meteorological Department	Government

3.0 Findings

Challenges identified from desk review

During the capacity needs assessment, a review of the existing literature was conducted to identify the challenges hindering the implementation of the NDCs and NAP. Overall, while progress has been made in implementing Zambia's NDCs, significant challenges remain. Lack of funding for the implementation of NDCs is one of the major challenges. Zambia's NDCs require significant investments in renewable energy, energy efficiency, and other low-carbon technologies. However, the country faces limited financial resources, and the private sector is yet to fully engage in investing in the renewable energy sector. The limited capacity of institutions responsible for implementing the NDCs is another challenge. Additionally, the coordination and collaboration between different ministries and stakeholders are not strong enough to support the successful implementation of the NDCs.

Furthermore, there are socio-economic challenges related to the implementation of the NDCs in Zambia. For instance, the promotion of renewable energy technologies could lead to the loss of jobs in the fossil fuel industry, which could create social tensions and resistance to the adoption of low-carbon technologies (Ministry of Lands and Natural Resources 2020). The rural communities may not have access to the resources necessary to switch to renewable energy technologies, making it difficult for them to participate in the transition to a low-carbon economy. The other challenges identified by the stock take report on mitigation and adaptation actions towards the achievement of the NDCs include; lack of national framework for Measuring Reporting and Verification, limited capacity within the country to undertake mitigation analysis among others, low adoption rates due cultural orientation, limited demand for carbon credits and limited framework for carbon trading (Ministry of Lands and Natural Resources 2020).

The revised stocktaking baseline report submitted to the United Nations Framework Convention on Climate Change highlighted the following as the main challenges hindering the development of the NAP; the lack of detailed and timely sector-specific climate information for awareness and planning purposes; failure to incorporate comprehensive budgeting into the planning process with a robust M&E process to establish the exact amounts that would be spent on specific adaptation activities; the dominance of the top-down approach in the planning and budgeting processes which may result in weak inter-sectoral coordination, less detailed budget allocations and weak capacity for climate change adaptation; limited access to technology; poor infrastructure; and weak monitoring and evaluation framework Zambia (UNFCCC 2020).

The following section incorporates the findings from the capacity needs assessment which was conducted after the review of the literature.

3.1 Challenges that hinder implementation

3.1.1 NDC challenges

On average, over 45% of the respondents indicated that all the listed challenges were relevant towards the actualization of NDC targets (Figure 1). Of the listed challenges, all the respondents identified limited capacity within the country to undertake mitigation analysis as an issue. Approximately 91% identified inadequate research to inform mitigation and adaptation options; Inadequate investment plan to facilitate resource mobilization for implementation of NDC actions; imited framework for carbon trading and; the need to fully operationalize the MRV system to enhance the monitoring of mitigation, adaptation and support including capacity, technology, research and financial flow for climate change as issues. While limited demand for carbon credits within the country was the least identified issue with less than half (45.5%) of the respondents citing it as a challenge.

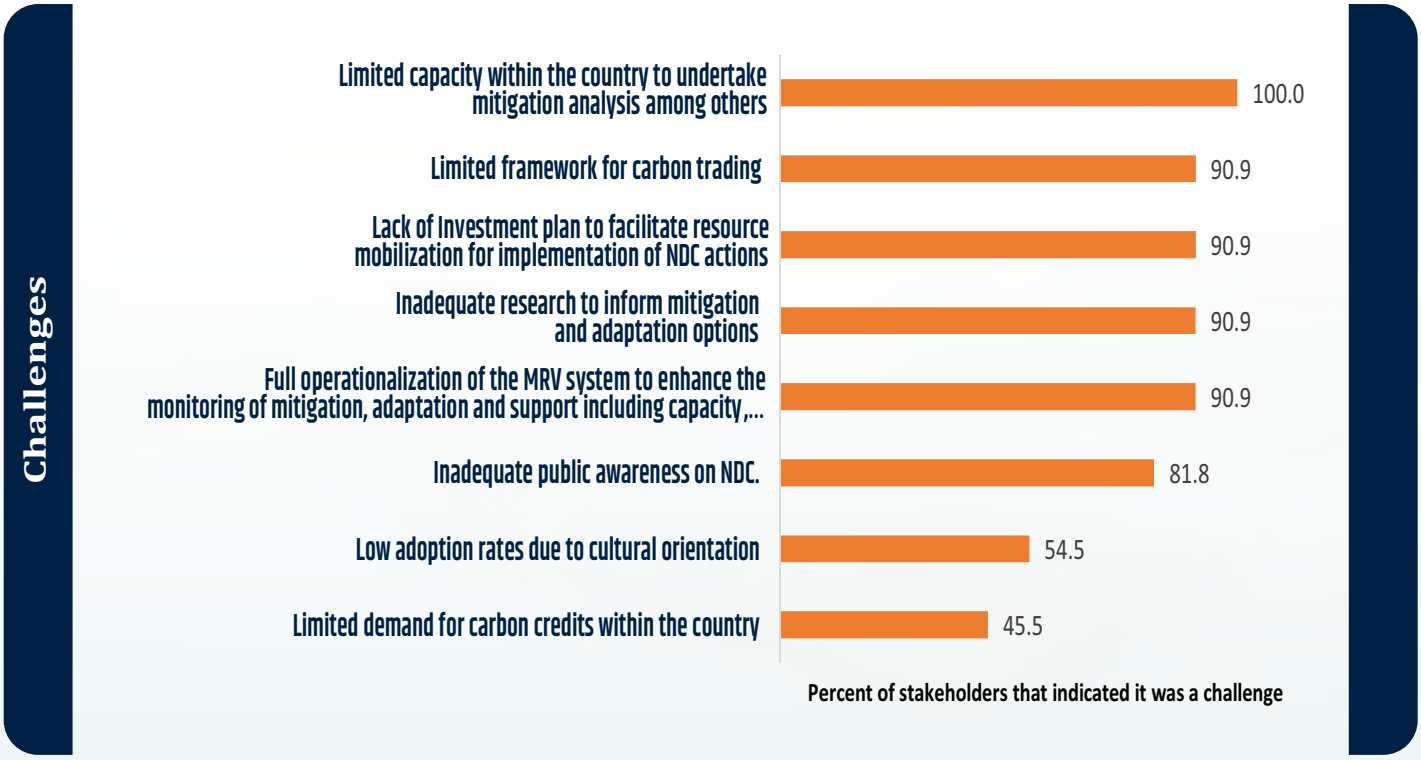

Figure 1: NDC challenges that hinder implementation

Source: Capacity needs assessment survey (2023)

3.1.2 NAP challenges

On average, over 70% of the respondents indicated that all the listed capacity challenges were barriers towards the implementation of the NAP (Figure 2). Of the listed capacity challenges, all the respondents identified technological barriers and a weak monitoring and evaluation framework as relevant. Insufficient data, including on climatic projections, which results in the formulation of short term adaptation efforts was the least identified issue with approximately 73% of respondents identifying it as a key challenge. See figure 2 below.

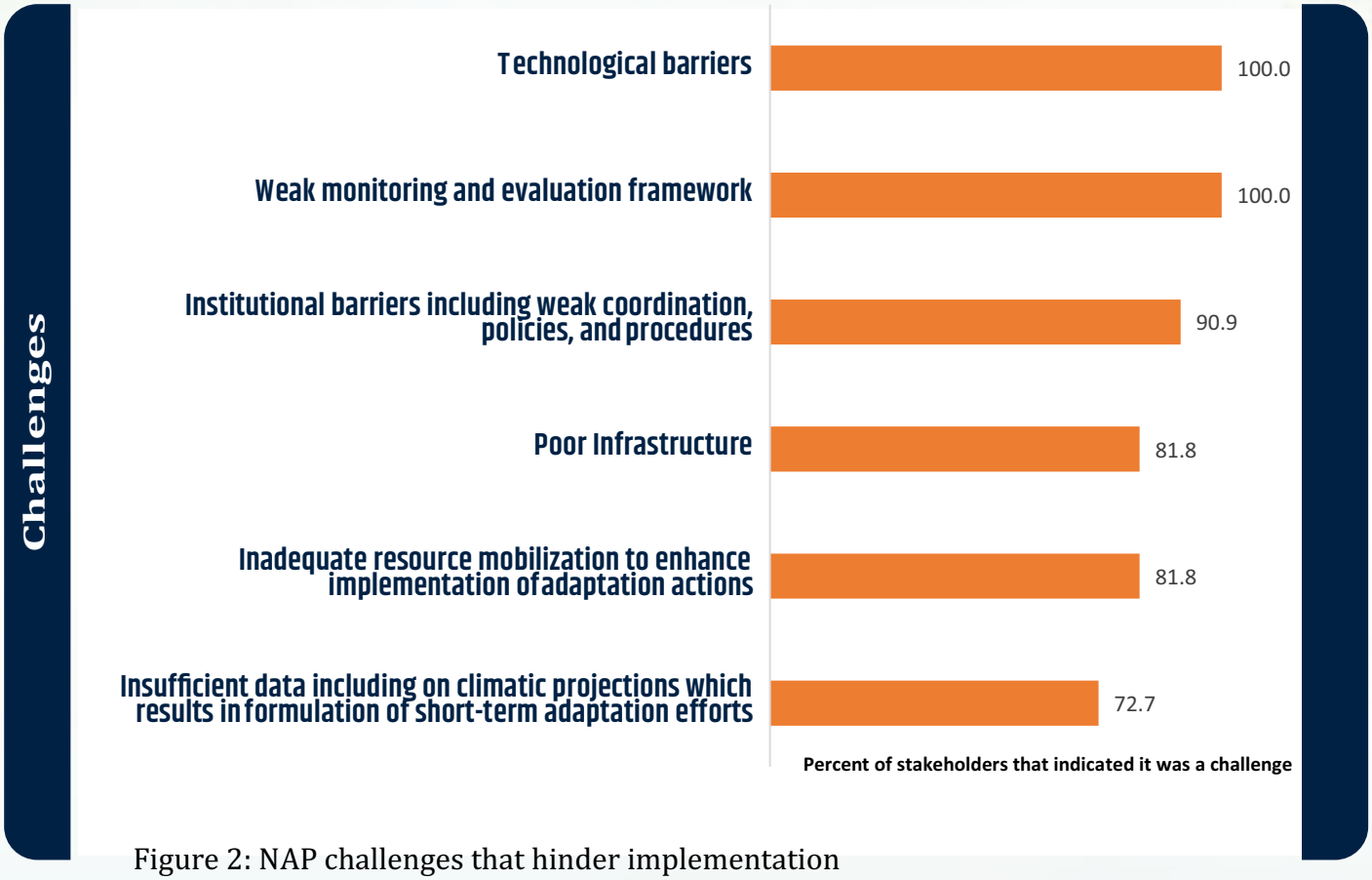

Figure 2: NAP challenges that hinder implementation

Source: Capacity needs assessment survey (2023)

3.2 Ranking of the challenges

The respondents were asked to rank their respective NDC and NAP challenges. The rating for NDC and NAP ranged from 1– 6, where 1 equal "most significant" and 6

equals “least significant”. Thus, the lower the score, the higher the rating, the more important the challenge is perceived to be and vice-versa. Figure 3 and Figure 4 show respectively, the comparison of the average scoring and ranking of each of the challenges. The scores were generated using the sum product of the challenges from the respective frequencies of each challenge. This makes it possible to compare the perceived importance across challenges.

3.2.2 Ranking of NDC challenges

The rankings of the NDC challenges are presented in Figure 3. Of the six identified NDC challenges, the top three rated challenges are 1) Lack of Investment Plan to facilitate resource mobilization for the implementation of NDC actions (score of 13); 2) f ull operationalization of the MRV system to enhance the monitoring of mitigation, adaptation, and support including capacity, technology, research and financial flow for climate change (score of 16); and 3) inadequate research to inform mitigation and adaptation options. The 3 least rated challenges w ere inadequate public awareness on NDC (score 28); low adoption of mitigation practices due to cultural orientation (score 33); and limited capacity within the country to undertake mitigation analysis among others and low adoption rates due to cultural orientation (score of 33).

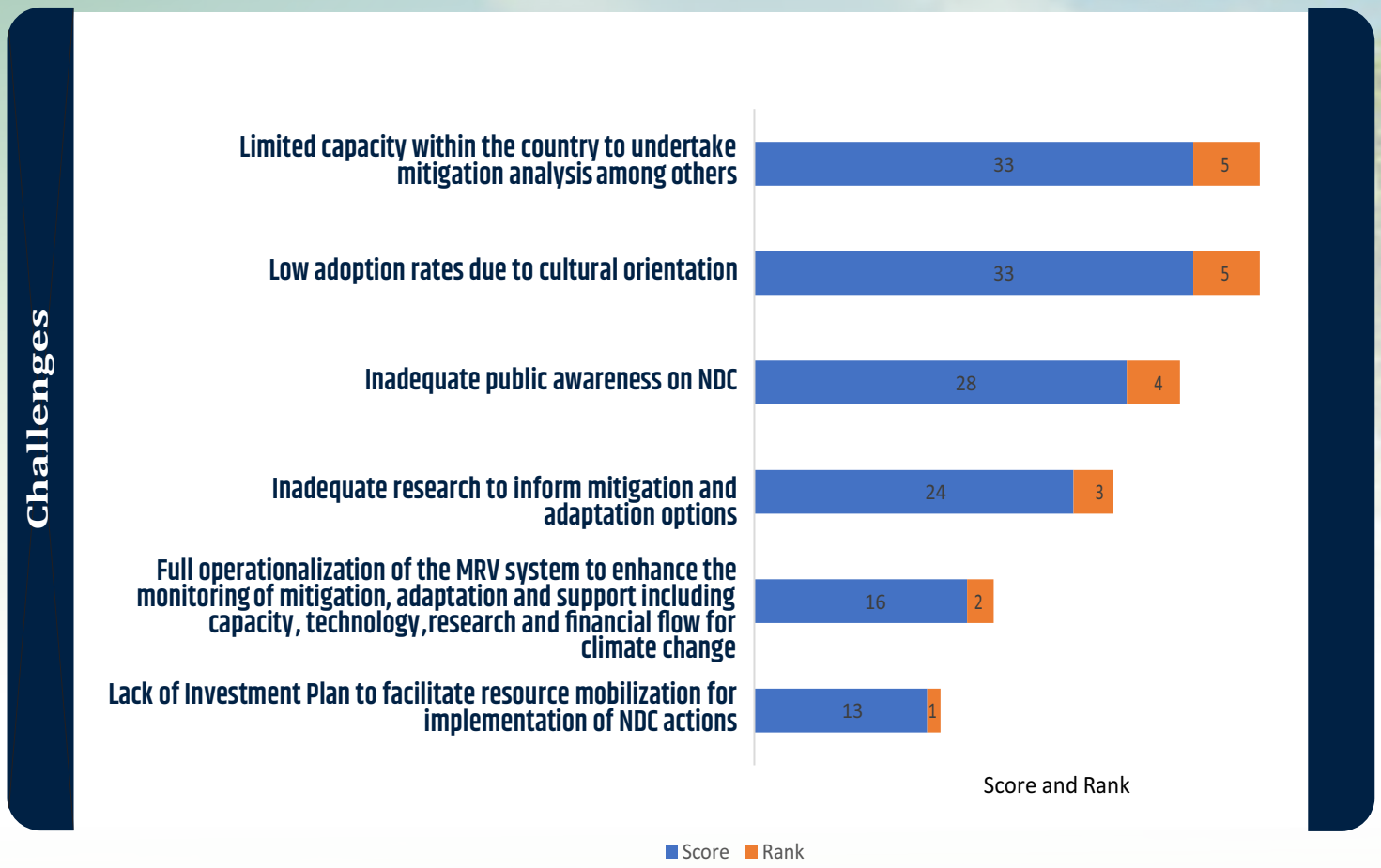

Figure 3: Ranking of NDC challenges

Source: Capacity needs assessment survey (2023)

3.2.3 Ranking of NAP challenges

Figure 4 shows the ratings of the NAP challenges. Of the 6 identified NAP challenges the top three rated challenges were: 1) inadequate resource mobilization to enhance implementation of adaptation actions (score of 18); 2) insufficient data (including data on climate projections which result in the formulation of short-term adaptation actions) (score of 19); and 3) technological barriers (score 29). The least rated challenge was poor infrastructure with a score of 37. In fourth place is institutional barriers including weak coordination, policies, and procedures, followed by a weak M&E framework in fifth place and least was poor infrastructure. See Figure 4 below.

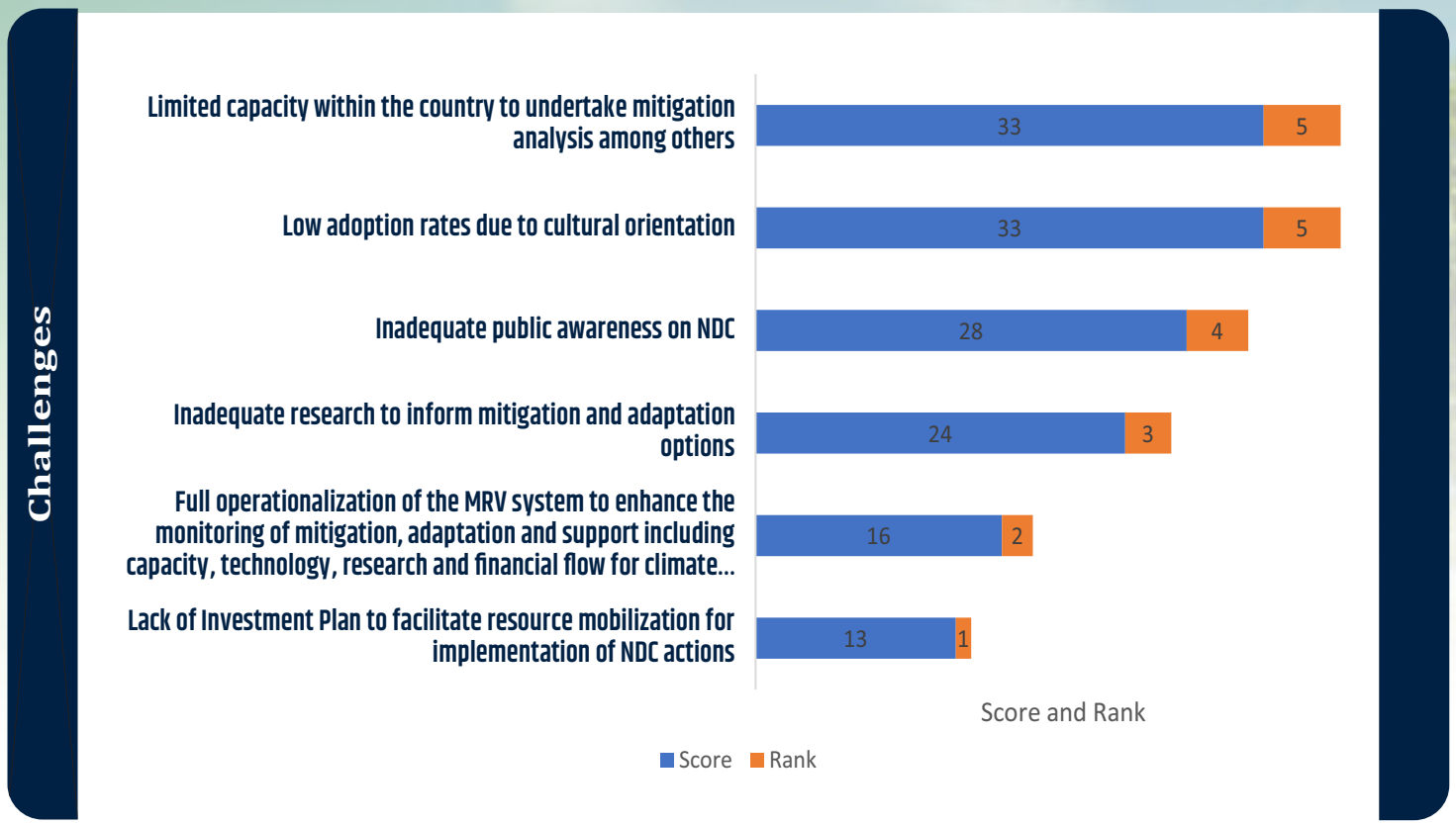

Figure 4: Ranking of NAP challenges

Source: Capacity needs assessment survey (2023)

3.3 Areas requiring capacity strengthening

Following the rating of the identified challenges, stakeholders were asked to state the areas which they perceive capacity strengthening is required for the NDC and the NAP. These are presented in the next two subsections.

3.3.1 NDC capacity strengthening

The stakeholders recognized the following areas in need of capacity strengthening to enhance NDC implementation :resource mobilization; enhancing GHG accounting; modelling on carbon accounting of both mitigation and adaptation and; accreditation to the Green Climate Fund. Of the areas in need of strengthening, modelling on carbon accounting of both mitigation and adaptation were identified by most respondents (45.5%), followed distantly by resource mobilization (27.3%), while GHG accounting and accreditation to the Green Climate Fund were the least mentioned with 18.2% and 9.1% respectively, identifying them as needs.

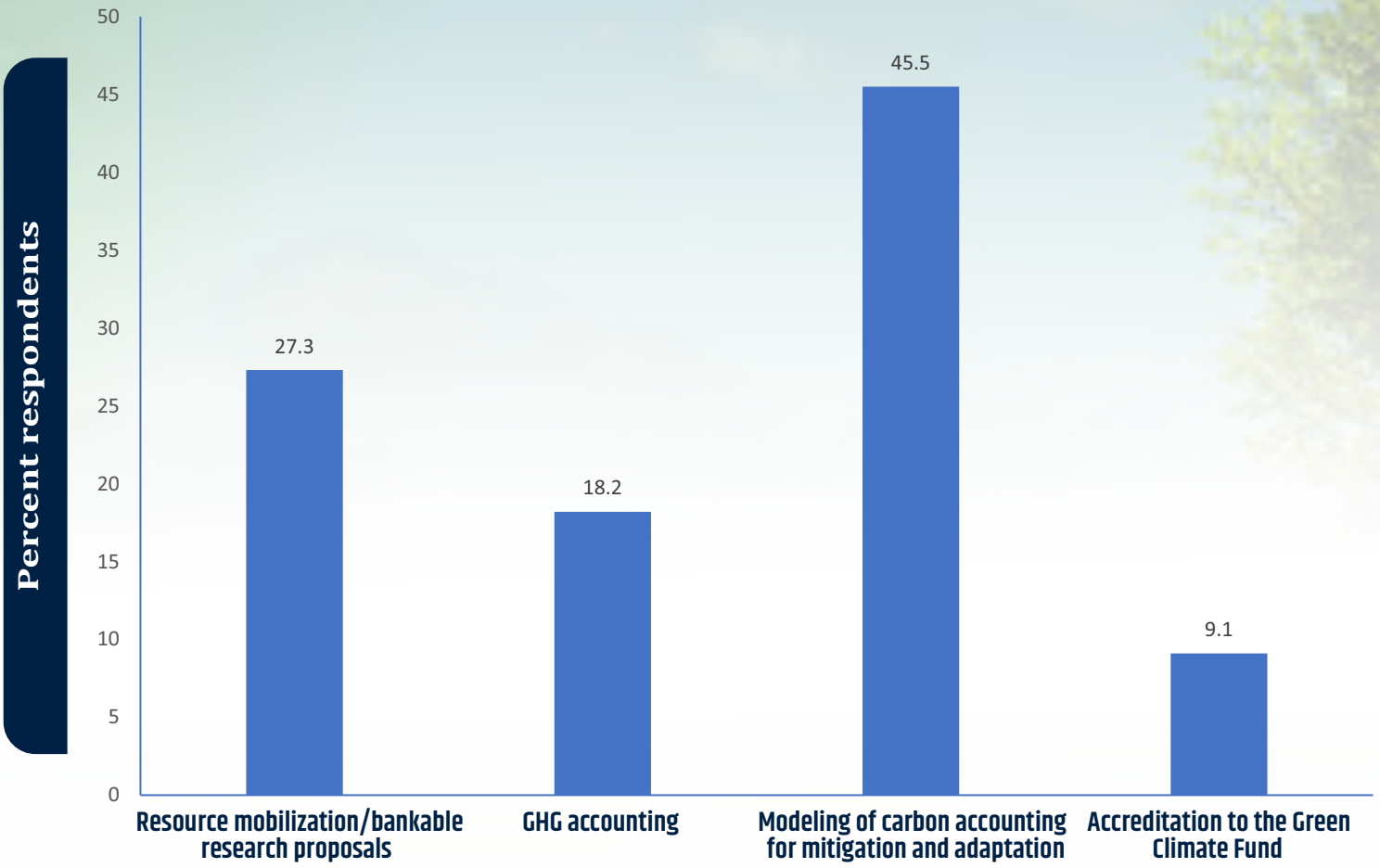

Figure 5: Requirements for NDC capacity strengthening

Source: Capacity needs assessment survey (2023)

3.3.2 Requirements for NAP capacity strengthening

In regards to the NAP, stakeholders recognized the following areas – in order of importance- in need of capacity strengthening: skills in development and implementation of NAP projects (36.4%); skills in modelling and projection of adaptation pathways (27.3%); skills in proposal writing on climate change adaptation (9.1%); and capacity building in MRV to strengthen stakeholders' capacity in providing quality data that is measurable during the development and implementation of the NAP (9.1%).

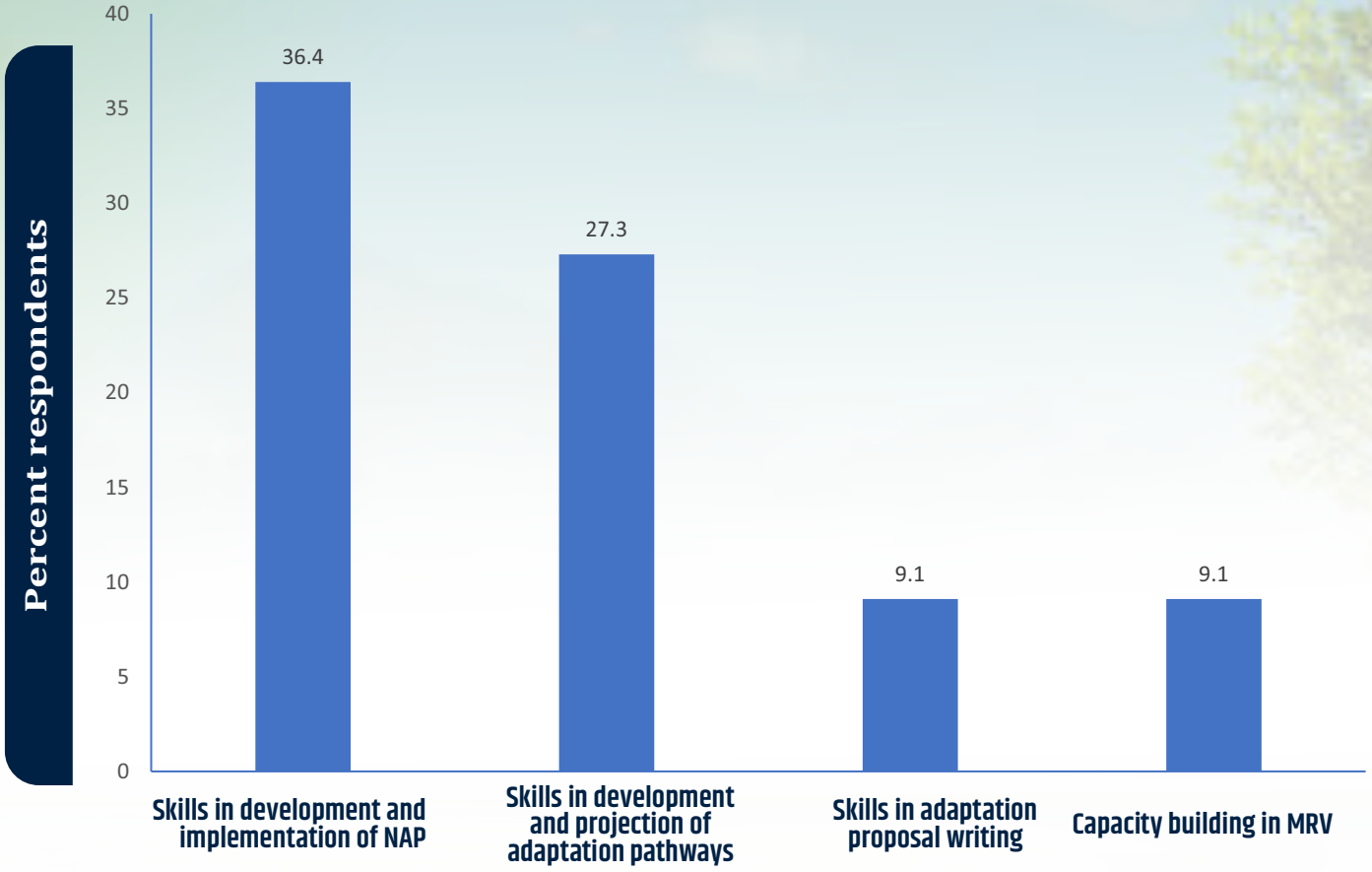

Figure 6: Requirements for NAP capacity strengthening

Source: Capacity needs assessment survey (2023)

4.0 Recommendations for strengthening NDC and NAP implementation

4.1 Recommendations for strengthening NDC implementation

For each of the challenges identified, the respondents provided recommendations in response. Below are the respective proposed recommendations:

i. **Inadequate research to inform mitigation and adaptation options**: Stakeholders outlined a number of interventions including the provision of adequate financing for research, promoting participation of academic institutions in climate research, providing capacity building in climate change related research, and mainstreaming climate change activities.

ii. **Lack of an updated investment plan to facilitate resource mobilization for implementation of the NDC**: Stakeholders highlighted resource mobilization for

reviewing and updating the current investment plan from cooperating partners and the private sector, and capacity building on investment plan development as some of the main solutions to the challenge on investment plan.

iii. **Inadequate public awareness on NDC**: To address this challenge, stakeholders proposed mobilizing resources for advocacy and awareness, enhancing awareness among stakeholders, and developing a communication strategy.

iv. **Low adoption of climate mitigation and adaptation practices due to culture orientation**: In response to this challenge, it was proposed that the traditional leadership be engaged to sensitize smallholder farmers and other community members onclimate- smart technologies, and the development of an awareness strategy.,

v. **Limited capacity within the country to undertake mitigation analysis:** Stakeholders proposed that financial support be provided to mitigation research capacity building.

vi. **Lack of framework for carbon trading:** stakeholders noted the need for enhancing government involvement in developing guidelines andprocedures , and where necessary adapting other legislative frameworks to develop the carbon trade framework and enact the Climate Change Bill.

Other recommendations proposed to enhance the actualization of NDC targets include: undertaking partnerships with financing organizations, creating institutions that champion NDCs, and, building capacity to measure, report and verify emissions.

4.2 Recommendations for strengthening NAP implementation

Similar to the NDC, stakeholders proposed recommendations for responding to the identified challenges under the NAP as outlined below.

i. **Insufficient data including climatic projections which results in the formulation of short-term adaptation efforts:** The main proposed recommendations include enhancing research and information sharing mechanisms, capacity strengthening in climate modelling and projections,

strengthening M&E frameworks, and enhancing capacity building to institutionalize data collection.

ii. **Inadequate resource mobilization to support implementation of adaptation actions:** It was recommended that resource mobilization strategy be improved and funds be dedicated to support development and operation of NAP

iii. **Institutional barriers including weak coordination, policies, and procedures** Stakeholders recommended strengthening collaboration and coordination mechanisms, enactment of the Climate Change Bill, and harmonization of existing policies

iv. **Weak monitoring and evaluation framework:** Stakeholders emphasized the need to strengthen the M&E framework alongside capacity building of staff on M&E principles and, cascading M&E structures to the subnational structures (e.g., provinces and districts). Another recommendation under this challenge was the need to make available adequate resources for M&E activities.

v. **Technological barriers**: Key proposed recommendations for this challenge were investment in technology research and development; promoting south-to-south cooperation technology transfer, and capacity building in local technology development and use.

4.3 Strengthening Climate Finance

As indicated in this report; stakeholders recognize the need for various initiatives that could enhance the implementation of the NDC and NAP in response toclimate change impacts and ultimately contribute to building climate resilience. One recurring theme was the issue of resource mobilization and climate finance. Among the key concerns are limited knowledge and understanding of climate finance and low capacity to develop bankable climate change funding proposals, thus limiting Zambia's ability to mobilize resources required to effectively adapt and mitigate. Positive strides have been recorded in the endeavor to enhance climate finance capacity, with the establishment of the National Designated Authority (NDA) for the Green Climate Fund (GCF) being among the key steps.

Despite these strides, the country continues to face challenges in accessing climate finance, technology development and transfer, and capacity building due to inadequate and unpredictable financial resources from domestic and external sources. For Zambia to fully harness the many green funds opportunities, there is a need to create a project development team in the Ministry of Green Economy and Environment to adequately prepare project proposals for different funding opportunities such as GCF. The MGEE has highlighted the project development team as one area requiring technical support through partnerships with stakeholders that have experience in developing funding proposals.

References

Government of the Republic of Zambia (GRZ). 2016. National Policy of Climate Change (2016 – 2021). Ministry of Lands and Natural Resources, Lusaka, Zambia.

GRZ. 2022. Eighth National Development Plan – (2022 2026): Socioeconomic transformation for improved livelihoods. Ministry of Finance and National Planning, Lusaka, Zambia

GRZ. 2006. Vision 2030: A prosperous middle-income nation by 2030. GRZ, Lusaka, Zambia

Ministry of Lands and Natural Resources (2020). A stocktake of mitigation and adaptation actions towards the achievement of a nationally determined contribution target.

UNFCCC (2020). The National Adaptation Planning Process. Revised Stocktaking Report and Recommendations to Advance the Nap Process in Zambia.

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