# Management Responses - Strengthening climate information and early warning systems in Eastern and Southern Africa for climate resilient development and adaptation to climate change - Zambia

### (PIMS 5091)

## Final Terminal Evaluation Report

#### June 2019

Project Title: Strengthening climate information and early warning systems in Eastern and Southern Africa for climate resilient development and adaptation to climate change

UNDP Project ID (PIMS) #: ZMB10/00086729

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#### Context, background, findings and lessons learned

The project "Strengthening Climate Information and Early Warning Systems in Eastern and Southern Africa for Climate Resilient Development and Adaptation to Climate Change" – Zambia (PIMS5091) started on 25th February 2015 and was implemented through the Zambia Meteorological Department (ZMD), at the Ministry of Transport and Communications. It is a Full-size UNDP-GEF Least Developed Country Fund (LDCF) Project, with an overall budget of US\$ 3,600,000 from GEF and US \$400,000 from UNDP, over four years.

The project was intended to increase Zambia's resilience and ability to adapt to the impacts of climate change. This project was designed within the framework of the UNDP-GEF's Multi-country Support Programme to Strengthen Climate Information for Resilient Development and Adaptation to Climate Change in Africa (CIRDA), comprising 11 country-led projects that focused on strengthening climate information and early warning systems (CIEWS).

The objective of the project was "to strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation to climate change in Zambia." The project expected outcomes were: 1. Enhanced capacity of the Zambia Meteorological Department (ZMD) to monitor and forecast extreme weather events and climate change; and 2. Efficient and effective use of hydro-meteorological and environmental information for generating early warnings and informing long-term development plans.

#### Terminal Evaluation Methodology

This Terminal Evaluation (TE) was conducted in accordance with the UNDP Guidance for Conducting Terminal Evaluations of UNDP-Supported GEF-Financed Projects (UNDP 2014) and the standard GEF rating scale were used, as summarized below. Diverse evaluation approaches were used to gather information pertaining to the project. These approaches included a literature review (Annex 1) and stakeholder's consultations (Annex 3) at national, regional, district and local levels. A total of 98 people were consulted. The collection and analysis of data was guided by a data evaluation matrix, which was developed at the commencement of the evaluation, and is included as Annex 2 to the Report. The project preliminary findings were presented to key stakeholders in a debrief during the field visits in a meeting in Lusaka

#### **Key Findings**

The CIEWS project was designed to respond to priority adaptation needs and actions identified in Zambia's National Adaptation Programmes of Action (NAPA 10,11), specifically Option 2: "Strengthening of early warning systems to improve services to preparedness and adaptation to climate change". Based on the project evaluation criteria, namely relevance, effectiveness, efficiency, monitoring and evaluation (M&E), partnerships and stakeholder's participation, sustainability, and impacts, this TE draws conclusions on each of these components.

Relevance: The project logic is well aligned with the identified problems, country needs and baseline assessment. Therefore, the outputs are justifiable with observable linkages to policies and priorities. Overall, the project is highly relevant and is, therefore, rated Relevant.

Effectiveness: The project has managed to achieve all of the seven indicators presented in the project log frame. It has been noted that a strong foundation has been set to facilitate the continuity of various project activities initiated by the project, through the GCF project. Apart from the initial delays due to procurement issues, the project effectiveness has been rated Satisfactory.

Efficiency: The financial management was primarily adequate and conformed to good practice and transparency through independent project audits, adhering to approved project work plan and budgets. The project appropriately used the UNDP/GEF financial accountability template forms (FACE) for budgeting and financial tracking. However, this TE recognizes that the government's in-kind contribution to the project has not been quantitatively reported. Therefore, it has not been possible to quantify or verify the contribution in dollar values, in order to measure the magnitude of commitment. At the time of preparing this report a final project report had not been provided and the AMAT tracking tool had not been fully completed. This criterion is rated Satisfactory.

Sustainability: The project sustainability was measured against financial, institutional, environmental, and socio-economic aspects. The project had implemented diverse activities, using different approaches. The capacity, network and knowledge to manage projects have increased among the key stakeholders. There was strong commitment from government (both provincial and district levels), as well as the private sector, through co-financing, in continuing to support the project.

Key stakeholders have indicated that institutional capacity is a major risk for the sustainability of the project results. Institutional and managerial capacity of ZMD and of key local level stakeholders needs to be strengthened further.

Environmental risks and local impact on intensifying climate risks are still prominent. For enabling sustainability, it is essential that the project be adequately and deliberately integrated into overall national mitigation and adaptation strategies. Sensitization of stakeholders, for improved CIEWS monitoring and information dissemination and use, must be accompanied with general sensitization on climate risks, impacts, and mitigation measures, at all levels. It is noted that climate change is a key focus of the 7th National Development Plan 2017-202 (7NDP). One of the programmes included under 7NDP Strategy 1 (Improve production and productivity) is early warning system development. Operationalization of these programmes is critical to the sustainability of the CIEWS outputs. The sustainability is rated as Likely.

Monitoring & Evaluation (M&E): M&E is a critical component of project implementation and, therefore, needs to be adequately funded and implemented. A final project report had not been provided and the AMAT tracking tool has not been fully completed at the time of preparing this report. In addition, the 2015 and 2016 Project Implementation Report (PIRs) do not have financial data, as was presented in the subsequent 2017 and 2018 reports. It is necessary to be consistent across all of these reports. However, despite these shortcomings, the project implemented a participatory M&E system that involved joint data collection and verification, as well as periodic progress reviews on a quarterly and annually basis. Various stakeholders were involved from the national, regional, district and local levels. The M&E system is rated Satisfactory.

Partnerships and Stakeholders Participation: The project established partnerships and engagement with a wide range of stakeholder during project implementation from the government ministries, departments, agencies, and institutions; UNDP Country Office; GEF; private sectors; NGOs; community members; and, individual experts. Stakeholders interviewed indicated that partnerships and collaborations could have been stronger at the beginning of the project. Despite the overall achievement that has been recorded in this project, there were also some challenges encountered such as changes in project staff in ZMD, which slowed down decision-making. The project partnerships and stakeholder's participation has been rated Satisfactory.

Gender consideration: The project should be credited for taking an approach in involving women in the project activities. Out of the total number of over 60,000 small scale farmers reached by the project since inception in Gwembe, Mambwe and Sesheke districts, 60% have been women beneficiaries. In project areas the targeted women groups were established for sharing weather and climate information. The information provided to women facilitated their planning and decision

making for the determining which farming systems to adopt. This resulted in diversification of women's' livelihoods, ranging from crop production to small livestock rearing, as well as poultry. The affirmative action taken by the project to involve women in receiving weather and climate information facilitated their ability to freely choose to grow crops that are drought tolerant, using the flood ponds for rice, as well as diversification of their livelihoods, including keeping goats.

Within ZMD there is an opportunity to further enhance gender aspects to support the gender affirmative action that was adopted by the department. An assessment of opportunities would provide a good basis for equitable participation of women, either in training programmes or project activities as beneficiaries. For example, out of the 33 staff trained under the project only 6 are female. It is understood that the government froze the recruitment process at one point, which would have opened the window for recruitment of women.

#### Lessons learnt

Mainstreaming climate change efforts: Creating the enabling environment for mainstreaming climate change into the national policy framework is critical in changing community mind sets. Capacity building, awareness raising, and engaging communities requires sustained provision of useful and contextualized information. Climate information has enabled local communities to adapt to changing seasonal patterns, thereby safeguarding their livelihoods.

Building partnerships and strong stakeholder engagement: Partnerships and effective engagement with stakeholders at all levels is necessary to create momentum and change, as it creates a sense of belonging and inclusion of the otherwise marginalized groups (e.g. women). Climate change affects every sector and the entire economy. Therefore, intersectoral partnerships and engaging the local community will lead to transformative changes and broader adaptation to adverse impacts of climate change. When communities are equipped with knowledge and awareness, their adaptive capacity is enhanced.

Use of existing central and local structures and systems: The integration of project implementation systems and structures under the National Implementation Modalities (NIM) can be applieded for its lowering of the overall administrative costs in terms of staffing and use of government facilities etc. This approach also helped mainstreaming development into the national development framework, since they already know the strategic service delivery systems and the communities.

Modern technology and indigenous knowledge are complementary: Local communities possess a lot of indigenous knowledge that can complement and strengthen new technologies, such as automatic weather stations (AWS).

#### Recommendations and management responses

Terminal evaluation recommendation 1. Data access and tailoring - it is noted that data is being shared through the daily and 10-day forecasts through radio, TV, and website and this is encouraged and should continue. In response to repeated feedback from stakeholders and partners, it is highly recommended that:

a. There is clarity in the form of clear guidelines or data access policies and procedures, including any

applicable costs to enable institutions to include such costs in annual budgets.

b. Recognize the varying sectoral data needs and that some institutions may wish to undertake their own analysis. It is, therefore, highly recommended that ZMD works with the different sectors to establish clear user needs, types of data, frequency and establish suitable tailored data access and packaging.

Management response: The recommendation is in line with the required procedure of data access and tailoring

Key action(s)	Time frame [month, year to month, year]	Responsible unit(s)	Tracking <sup>1</sup>	
			Comments	Status <sup>2</sup>
1.1 Include access costs of information by stakeholders	June 2020	ZMD	There is a bill to transform the Zambia Meteorological Department (ZMD) into an Authority. The bill allows the Authority to provide cost recovery mechanisms for specialised information and services. The bill will be tabled in parliament for enactment in 2020.	Done
1.2 Develop sector specific information	June 2020	ZMD	ZMD started preparing sector specific information for agriculture in 2019. In 2020, they will include the water sector.	Done

Terminal evaluation recommendation 2. Maintenance and replacement of Automatic Weather stations: The support and investment provided under the CIEWS project will likely require substantial ongoing maintenance. The project intended to influence the government to increase the ZMD annual budget by almost 50%, but only achieved 28% after the four years of the project. Therefore, funding for the department remains inadequate. It is noted that the cost recovery model will enable ZMD to cover some of the operational costs. It is necessary to understand the full annual operating, maintenance, and replacement costs of the weather stations. The weather

stations established under the project face the risk of rapidly deteriorating in functionality if not adequately maintained. It is highly recommended that:

a. A full assessment be undertaken to determine the annual operating, maintenance and replacement costs (where necessary) of the weather stations, at least for an initial period of 5 to 7 years.

b. From the assessment, identify funding shortfalls and prepare a funding strategy to address any shortfall.

Management response: Agreed - the recommendation is relevant as it will serve to enhance the sustainability and continuation of the generation of information in Zambia

Key action(s)	Time frame [month, year to month, year]	Responsible unit(s)	Tracking	
			Comments	Status
2.1 conduct assessment to determine cost of operationalization, maintenance and replacement AWSs and prepare funding strategy.	June 2020	ZMD	Operations and maintenance strategy were developed as part of the formulation of the GCF project and implementation of the same has started	Done

Terminal evaluation recommendation 3. Capacity building- Staff at the district level raised the need for additional and ongoing capacity to continue engaging with local communities beyond the project life.

It is highly recommended that ZMD efforts continue to increase and enhance the critical mass to enable wider extension services and sectoral support to different sectors. The current efforts to seek cabinet office approval to establish high positions for those who have been trained and those to graduate should continue.

It is noted that the government human resource regulations states that staff members who are provided training are bonded to the department for the period of two years. However, additional efforts should be made to ensure that staff stay with the department beyond the two-year bonding period.

Management response: We agree with the recommendation to ensure long term investment in the sector

Key action(s)	Time frame [month, year]	Responsible unit(s)	Tracking	
			Comments	Status
3.1 Seek cabinet approval to unfreeze positions to be occupied by trained graduates.	On-going	ZMD	As part of the restructuring, ZMD as indicated in 1.1 above, the bill in parliament would approve the structures needed for smooth operations of ZMD	Done
3.2 Increase staff bondage to the department after training	On-going	ZMD	ZMD cannot increase staff bondage. Increase for staff bondage will be based on cabinet approval	Done

Terminal evaluation recommendation 4: Sharing of lessons learned on good practice project approaches - This evaluation commended the baseline self-capacity assessment conducted during the project preparation phase, which guided the identification and prioritization of stakeholder needs. Equipment and capacity-building investments were selected based on identified priorities, as well as the available budget and focal areas of the CIEWS project. This is good practice and should be an important lesson to be shared with other institutions for formulation of future projects.

This evaluation highly recommends that:

a. In addition to the social media videos produced about the results and impact of the project, preparation of information briefs in good practice project implementation should be shared with all project partners.

Management response: During the project and with the current GCF successor project information briefs

and good practices will be shared through the project publications

Key action(s)	Time frame [month, year]	Responsible unit(s)	Tracking	
			Comments	Status
4.1 Preparation of information briefs to be shared with project partners	June 2020	UNDP/ZMD	Project briefs were prepared and used to design the GCF project which is under implementation and shared to all stakeholders	Done

Terminal evaluation recommendation 5. Monitoring and Evaluation - The current methods of collecting M&E data are weak and inconsistent to enable longitudinal assessment of development support impact. As a systematic and long-term process, monitoring should continually gather information regarding the progress made by an implemented project. While evaluation is time specific and it is performed to judge whether a project has reached its goals and delivered what is expected according to its original plan.

M&E are also relevant to development partners and donors, who need to assess the reliability of partnerships and accountability upon which further collaborations could be established. This evaluation highly recommends that:

In future, develop an M&E system and reporting for planning and building a knowledge management and database. This can be linked, integrated, and interfaced with the existing government M&E system. This will enhance both management and institutional memory through proper reporting, record keeping and archiving at all central and local government levels, to allow for streamlined integrated database management as a pillar for effective Results-Based Monitoring & Evaluation/Management.

Management response:

Key action(s)	Time frame [month, year]	Responsible unit(s)	Tracking	
			Comments	Status
5.1 Develop M & E system	On-going	UNDP/ZMD	The M&E system has been developed as part of the GCF project	Done

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