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TERMINAL EVALUATION

Final Report

UNDP/GEF Project

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



PIMS ID: 5322

Agency's Project ID: 00076448

Project ID: 00087832

Evaluation Period: November-December 2019

Date of Evaluation Report: 26 December 2019

Country and Region: Global

GEF Operational Program: Climate Change/ LDCF

GEF Agency: UNDP

Executing Partner: UNDP

International Consultant: Amal Aldababseh adababseh@estidama-jo.com

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1. Executive Summary

1.1 Project Summary Table

Project Title: Strengthening climate information and early warning systems in Eastern and Southern Africa for climate-resilient development and adaptation to climate change – Global		
UNDP Project ID (PIMS #):	5322	
ATLAS Business Unit, Award & Project ID:	UNDP1. Award ID: 00087832, Project ID: 00076448	
Country(ies):	Global	
Region:	Global	
Focal Area:	Climate Change / LDCF	
GEF Focal Area Strategic Objective:	Least Developed Countries Fund (LDCF) Objective 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at a local, national, regional and global level	
Trust Fund (GEF)	Least Developed Countries Fund (LDCF)	
Executing Agency/ Implementing Partner	UNDP	
Project Financing	<u>at CEO endorsement (US\$)</u>	<u>at TE Dec. 2019 (US\$)</u>
[1] GEF financing:	\$ 3,460,000	\$ 3,460,000
[2] UNDP contribution:	0	0
[3] Government:	0	\$ 300,000
[4] Other partners:	0	0
[5] Total co-financing [2+3+4]:	0	\$ 300,000
PROJECT TOTAL COST [1+5]	\$ 3,460,000	3,760,000
Project Document Signature Date	2 January 2014	
Closing date	Proposed Nov. 2017	Actual Dec. 2019

1.2 Project Description

The UNDP implemented and GEF supported Project “**Strengthening climate information and early warning systems in Eastern and Southern Africa for climate-resilient development and adaptation to climate change – Global**” follows the Direct Implementation Modality (DIM).

In response to a request for assistance by several Least Developed Countries (LDCs), UNDP-GEF designed this Programme, a multi-country programme- on strengthening Climate information and Early Warning Systems (CI/EWS) for climate-resilient development and adaptation to climate change. Eleven countries including Benin, Burkina Faso, Liberia, Sierra Leone, Sao Tome, and Principe, Ethiopia, the Gambia, Uganda, Tanzania, Malawi, and Zambia were targeted to receive assistance with financing from the Least Developed Country Fund (LDCF). The objective of the project was to assist countries in the UNDP-GEF LDCF-financed Climate Information (CI)/Early Warning System (EWS) program to successfully implement all components of their country-specific projects. The project was designed to be in-line with the outcomes of the approved national projects, it was designed to be delivered in the context of:

1. Enhanced capacity to monitor and forecast extreme weather, hydrology and climate change;
2. Efficient and effective use of hydro-meteorological information for generating early warnings and supporting long-term development plans.

To achieve the Programme's objective, the project has two outcomes, and six outputs. The Programme's outcomes are Enhanced capacity to monitor and forecast extreme weather, hydrology and climate change, and Efficient and effective use of hydro-meteorological information for generating early warnings and supporting long-term development plans.

The Programme's design focused on identifying national priorities for enhanced CI/EWS, especially in the context of food security, water resources management, health risk management, and terrestrial and coastal ecosystem resilience. These national priorities were identified by conducting in-depth assessments and stakeholder consultations. Through partnerships with key stakeholder organizations, the project was expected to¹:

- support the sustainable use and maintenance of technology by assisting countries to foster private sector involvement,
- strengthening technical capacities to manage the flow of data and information within countries (between key institutions and users as well as across countries) and support country-led efforts to make the information as useful as possible to the intended recipients.
- identify alternative ways of generating information and warnings that may be used by country teams as a stopgap and/or complementary measure until national capacities are enough to take on the required roles.
- support the enhancement and cross-fertilization of knowledge on CI/EWS within and between countries in the program.

The Programme document stated the most critical barriers (11) affecting the effective use of CI/EWS for managing and/or responding to climate change risks and opportunities. These barriers included technical, operational, and financial.

1.3 Evaluation Rating Table

The Programme's overall rating is **Satisfactory** as it has achieved most of the intended results despite the 2-year delay encountered during its implementation. The detailed Programme's rating is provided in Table 1.

Table 1: Rating Project Performance²

	Criteria	Rating
Monitoring and Evaluation		
	The overall quality of M&E	MS
	M&E design at project startup	S
	M&E Plan Implementation	MS
IA & EA Execution		
	The overall quality of Implementation / Execution	S
	Implementing Agency Execution	S
Outcomes		
	Overall Quality of Project Outcomes	S
	Relevance: relevant (R) or not relevant (NR)	R
	Effectiveness	S
	Efficiency	S
Sustainability: Likely (L); Moderately Likely (ML); Moderately Unlikely (MU); Unlikely (U).		
	The overall likelihood of sustainability	L
	Financial resources	L

¹ ProDoc, Section 3: Strategy toward the multi-country technical assistance on CI/EWS. Page 9

² The rating for the main evaluation criteria is narratively highlighted in the report; other rating is not. Rating explanations: HS- Highly Satisfactory; S- Satisfactory; MS- Moderately Satisfactory; MU – Moderately Unsatisfactory; U – Unsatisfactory; HU – Highly Unsatisfactory; UA – Unable to Assess; N/A – Not Applicable Sustainability ratings: L – Likely; ML – Moderately Likely; MU – Moderately Unlikely; U – Unlikely. Impact ratings: Significant (S); Minimal (M); Negligible (N).

Socio-economic	L
Institutional framework and governance	L
Environmental	L
Impact: Significant (3), Minimal (2), Negligible (1)	
Environmental Status Improvement	3
Environmental Stress Reduction	3
Progress towards stress/status change	2
Overall Project Results	S

1.4 Summary of Conclusions, Recommendations, and Lessons

Summary of Conclusions

The Programme managed to deliver considerable results by the end of its implementation. UNDP has provided satisfactory support to Programme implementation. The Programme has demonstrated the capacity to enhance national capacities to monitor and forecast extreme weather, hydrology and climate change in 11 African countries. The Programme has also succeeded in mobilizing the needed country contribution to ensure the implementation of the Programme's activities as per its annual work plans. The Programme facilitated the efficient and effective use of hydrometeorological information for generating early warnings and supporting long term development plans. This is clearly reflected in the nationally led projects' capacity scorecards.

The Programme focused on providing support to all partner countries particularly in filling gaps as identified by countries as well as in supporting the development of an exit strategy. Support was provided by the Programme in a Regional Workshop held in Zambia to which 10 countries attended. It was also provided by ensuring capacity for data consolidation through holding a workshop to ensure that capacities for data assimilation of various equipment existed. The Programme made outreach to [ADCON](#) to develop specific training to technicians from partner countries. Missions have been prioritized to selected countries by country support specialist.

The Programme also has worked with additional countries interested in its approach. These included: Madagascar, Cambodia, South Sudan and Guinea. This support led to the invitation of representatives from Cambodia and Guinea to attend a workshop and active support of a project country support specialists to present a national CI/EWS proposal for GEF Approval. Based on the experience gained from the Programme, work has started in supporting country partners to upscale CIEWS support through the development of proposals to be presented to the GCF and other donor funds.

Based on the review and assessment of the Programme deliverables, the Programme implementation reports, and taking into consideration the nature of the Programme, the Programme overall rating is **Satisfactory**.

The Programme is very much acknowledged by the participating governments, and very relevant to UNDP, GEF, and the Governments' plans. With the confirmed interest and support provided by UNDP prospects for sustainability are certain, and overall sustainability is considered **likely**.

Recommendations

This evaluation concludes that the Programme has contributed to important results. The Programme is considered successful as it was able to ensure that relevant components of the climate monitoring, forecasting and early warning systems in most of the participating countries can deliver timely information and warnings, and utilizing appropriate technologies and scientific knowledge in a sustainable manner. The Programme also managed to deliver its planned results. Furthermore, lessons learned had been published and disseminated by UNDP and other development partners through different tools and venues.

The TE recognizes the considerable achievements of the Programme, particularly in achieving and preparing key deliverables and documentation. The TE is focusing to a large extent on the areas of the Programme that have not performed as well as was anticipated in the Programme's design. The TE wishes that this does not undermine the successes of the Programme and the hard work and commitment of all those who have been involved in it. As this is the Programme's

terminal evaluation, there is little the Programme itself can do. Hence, the TE would like to make the following recommendation to ensure that a clear set of actions to follow up or reinforce the initial benefits of the Programme are identified:

- **Recommendation 1:** Although the Programme had faced at least one notable risk related to sustainability, as documented in 2018 PIR, the risks were not documented during project design or during implementation. Developing risks and assumptions logs that the Programme encountered during implementation is a critical monitoring and evaluation tool, it proved to be useful, particularly if they are made accessible to relevant audiences. A proper way to do so would have been most likely by ensuring that the key lessons referring to risks and assumptions were posted in the appropriate location such as the Programme website with links to the nationally led projects' websites and UNDP COs sites. This should be done as soon as possible following programme completion in order to strengthen the likelihood of sustainability of project results as much as possible (**UNDP1 and the Project team**).
- **Recommendation 2:** Given the nature of the regional Programme as one of the first attempts to provide technical supports based on countries' need and in-depth stakeholder consultations, there are valuable lessons and knowledge sharing to be gained by examining the Programme through a wide-lens. The Programme has contributed specific results and it would be highly useful to gain a perspective as to whether a regional approach is something that should continue to be supported under capacity building modalities, or if interventions at the country level are most effective. Partners and stakeholders see that the Programme approach was very beneficial and asked for a continuation of the Programme through a second phase or a new programme that follows the same approach and provide a contribution of the services provided by the Programme.
- Discussing a new phase of the programme could be pursued through a UNDP regional event that includes all stakeholders, beneficiaries and partners mainly the private sector, international development agencies working in Africa on similar fields and donor community (**UNDP Regional Office and the GEF**).
- **Recommendation 3:** If a second phase of the Programme or a follows on Programme is to be undertaken by UNDP, it is recommended that a thorough baseline is conducted early on in the process to assess the current capacity of the 11 countries and the need to include/exclude other countries interested to join the Programme. The possibility of extending the scope of work of the Programme to cover more countries/regions should be investigated in order to utilize functional existed mechanisms (**UNDP and/or other development partners**).
- **Recommendation 4:** In order to ensure the sustainability of the Programme's outcomes, it is necessary to institutionalize the Programme's main results. The Programme should investigate embedding its work, results, outcomes, and experiences at one of the development partners through existing and ongoing initiatives and links to regional plans and programmes (**UNDP COs and UNDP1**).
- **Recommendation 5:** It is important to assess the capacity need of the 11 countries continuously. A review of each country capacity may be necessary for a future follows on the initiative as there are continuous changes at the economic, technical, operational, political and environmental levels in many of the participating countries. Equally, the 11 countries should embark on and benefit from the private sector in the identification and implementation of climate change, early warning and enhancing resilience-related initiatives. In this regard, private sector engagement early on in the project and programme design and subsequently during implementation would be advantageous for initiatives of this type (**UNDP COs, development partners, and the Governments of the 11 countries**).

Lessons Learned

Some of the best practices and lessons learned for this Programme:

- ✓ This Programme could have benefitted from a more adequate monitoring plan and processes, as opposed to only an annual report that was used to measure progress. A Mid-term review- that was skipped- could have been helpful for assessing performance

to assist in the terminal evaluation³. In addition, an effective and well-structured documentation process or platform could have been more useful for measuring project progress. Similar future Programmes should consider how to improve mechanisms to support the process of ensuring that beneficiary institutions develop a reporting requirement that informs policy-making, assesses progress on capacity development, and helps enable mainstreaming climate data into national development activities.

- ✓ Since it is difficult to attain measurable outcomes within a short time frame of most capacity development projects/programmes, it is essential to ensure that the Programme design is not overly ambitious and include needed details such as SMART indicators and targets from the beginning.
- ✓ The Programme concept was well-justified, had a good approach, and was opportunistic, relevant and strategic. However, various operational issues contributed to uncertainty with respect to sustainability. Operational risks need to be clearly and carefully analyzed at the programme design phase, and appropriate risk mitigation measures identified from the beginning. In addition, continuous assessment of risks is an absolute necessity to ensure effective management of risks and the identification of proper mitigation measures.

³ “While an MTR was not held, the project did actively look into national project MTR to incorporate gaps being felt by countries into its support planning, particularly in the use of end user products”: CIRDA Programme Manager note.

2. Acronyms and abbreviations

ACMAD	African Center for Meteorological Applications and Development
ACPC	African Climate Policy Centre
AGRHYMET	Centre Regional de Formation et d'Application en Agrométéorologie et Hydrologie Opérationnelle
APR	Annual Progress Report
ASL	Annual Spending Limits
AWP	Annual Work Plan
BCPR	Bureau or Crisis Prevention Recovery
BTORs	Back-to-Office-Reports
CI/EWS	Climate Information / Early Warning System
CDRs	Combined delivery reports
CO	Country Office
CTAs	Chief Technical Advisor
DDCC	District Disaster Coordinating Committee
DIM	Direct Implementation Modality
EU	European Union
FEWS	Famine Early Warning Systems
FAO	Food and Agriculture Organization of the United Nations
GEF	Global Environment Facility
GEF CEO	Global Environment Facility Chief Executive Officer
GFDRR	Global Framework for Disaster Risk Reduction
GTPs	Growth Transformation Plans
IASM	Integrated African Strategy on Meteorology
ICCD	International Center for Climate Change and Development
ICPAC	International Climate Prediction and Application Centre
IR	Inception Report
IW	Inception Workshop
LDCF	Least Development Country Fund
LDCs	Least Developed Countries
LFA	Logical Framework Analysis
LECRDS	Low Emission and Climate Resilient Development Strategies
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MOU	Memorandum of Understanding
MTR	Mid-term Review
NHMS	National Hydrological and Meteorological Services
NIM	National Implementation Modality
NGO	Non-Governmental Organization

PNDES	National Social and Economic Development Program
PB	Programme Board
PIR	Project Implementation Report
PMU	Project Management Unit
PPP	Private-Public-Partnership
Pro.Doc.	Programme Document
QPRs	Quarterly Progress Reports
RIMES	Regional Integrated Multi-Hazard Early Warning System for Africa and Asia
SADC	South African Development Community
RTA	Regional Technical Advisor
SDGs	Sustainable Development Goals
TAG	Technical Advisory Group
TE	Terminal Evaluation
UN-SPIDER	The United Nations Platform for Space-based Information for Disaster Management and Emergency Response
UNDAF	United Nations Development Assistant Framework
UNDP	United Nations Development Programme
UNDP CO	United Nations Development Programme- Country Office
UNDP-GEF	United Nations Development Programme- Global Environment Facility
UNFCCC	United Nations Framework Conventions on Climate Change
UNISDR	United Nations International Strategy for Disaster Reduction
USAID	United States Agency for International Development
WB	World Bank
WFP	World Food Programme
WMO	World Meteorological Organization

1. Introduction

Terminal Evaluation (TE) is an integral component of the UNDP-supported GEF-financed project cycle management. This report for the TE of the Project “Strengthening climate information and early warning systems in Eastern and Southern Africa for climate-resilient development and adaptation to climate change – Global” (hereafter called “Programme”) summarizes the full evaluation and the main findings of the TE in accordance with the UNDP/GEF terminal evaluation guide⁴. According to the UNDP and GEF Monitoring and evaluation guidelines, TEs should be carried out during the last 3 months of the Project implementation. This TE is scheduled during the last three months of the operational closure of the Programme.

1.1 Purpose of the Evaluation

As per the UNDP/GEF policies and procedures, this full-size Programme is required to undergo a terminal evaluation upon completion of implementation. The purpose of this evaluation is to:

- use the criteria of *relevance, effectiveness, efficiency, sustainability, and impact*, to assess the project’s status in achieving its intended results and impacts and the achievements of project overall objective.
- Intend to provide evidence-based credible, useful, and reliable information as it produces a set of recommendations and lessons learned to help guide future design and implementation of UNDP/GEF Project.
- contribute to the overall assessment of results in achieving GEF strategic objectives aimed at global environmental benefits.
- achieve the five standard purposes⁵ of UNDP/GEF project evaluation.

1.2 Scope and Methodology

Terminal evaluations are planned monitoring and evaluation (M&E) activities of any UNDP/GEF projects according to the UNDP/GEF TE Guidance. The UNDP Office in New York initiated this terminal evaluation exercise during the last 3 months of the Programme financial completion. As proposed in the TE’s TOR, the TE set-up a collaborative and participatory approach to ensure close cooperation with the team, government counterparts, the UNDP Country Office, UNDP-GEF Regional Technical Adviser, and other key stakeholders.

Giving the nature of the Programme, it was proposed that there will be no field mission to the Programme’s locations. Instead, the TE consultant organized several skype calls to interview key stakeholders, partners, and beneficiaries. The calls were organized to ensure that key stakeholders and the Programme’s beneficiaries were involved in the TE and to get their opinion and review of the Programme’s achievements, impacts, sustainability, efficiency, and relevance. The TE was carried out in accordance with the evaluation Terms of Reference (**TOR, Annex 1**).

The TE considered analyzing four major Programme’s components; Programme implementation, Log-Frame Matrix Analysis (LFA) and strategy, adaptive management framework, and Programme performance. The evaluation focused on reviewing, analyzing and understanding Programme preparation and implementation phases, starting from the project’s development stage to the current time. Special focus was placed upon the project’s LF to examine the rationale behind the Programme’s design and consider how that contributed to achieving the objective and overall Governments, UNDP, and GEF goals.

⁴ <http://web.undp.org/evaluation/documents/guidance/GEF/UNDP-GEF-TE-Guide.pdf>

⁵ *Project-Level Evaluation: Guidance for Conducting Terminal Evaluations of UNDP-Supported, GEF-Financed Projects:* <http://web.undp.org/evaluation/documents/guidance/GEF/UNDP-GEF-TE-Guide.pdf>: *promote accountability and transparency, and to assess and disclose the extent of project accomplishments; synthesize lessons that can help to improve the selection, design, and implementation of future GEF financed UNDP activities; provide feedback on issues that are recurrent across the UNDP portfolio and need attention, and on improvements regarding previously identified issues; contribute to the overall assessment of results in achieving GEF strategic objectives aimed at global environmental benefit; and gauge the extent of project convergence with other UN and UNDP priorities, including harmonization with other UN Development Assistance Framework (UNDAF) and UNDP Country Programme Action Plan (CPAP) outcomes and outputs.*

The Programme's strategy was also assessed, along with the Programme's main components, outcomes, outputs, indicators, and targets. A compressive desk review was conducted for the project's adaptive management framework. The evaluation included analyzing the Programme's risks, issues, and assumptions, assessing their validity, and the way in which the Programme has responded and managed risks and issues. Furthermore, the TE focused on evaluating the project's performance and the project's impacts over its lifetime. Consequently, the TE assessed the effectiveness of implementing various activities in achieving the Programme's outcomes, and thus the effectiveness of the Programme's outcomes on achieving the Programme's objective.

The methodology followed in the TE includes several methods with an analysis of both qualitative and quantitative data, where possible. It included the following:

Desk Review of key project documentation. This included (**Annex 2**):

- UNDP Project Document
- Project Technical and Progress Reports (Project Inception Report, Project
- Annual Progress Report (APR/PIR),
- Annual Work Plans (AWPs),
- Combined-Delivery Reports (CDRs).
- Financial reports (project co-financing).
- Mission's Back-to-office reports (BTORs).
- Events' reports (workshops, training, etc.)
- Technical reports.
- Project board meetings (members and minutes).
- National Projects' Terminal Reports.

After reviewing related documents and developing a good understanding of the Programme and its main achievements, an Inception Report (IR) was prepared and submitted to UNDP for approval on 10th November 2019; it included:

- ❖ a general overview of the Programme and its main components;
- ❖ the objective of the TE,
- ❖ the proposed methodology of the TE,
- ❖ a proposed list of people to interview. The TE ensured that women who were involved in the Programme were interviewed during the TE exercise whether participated in the Programme management, stakeholders, beneficiaries or UNDP COs⁶. The list was prepared based on the Programme Document and the list of Programme's stakeholders and beneficiaries (**Annex 3**), around 25% of the people interviewed were women.
- ❖ An evaluation matrix used during the interviews to guide the interviews with the Programme's stakeholders (**Annex 4**).

Interviews and consultations with key stakeholders, using a set of questions. The questions aimed to provide answers to the points described in the following section. In general, the questions were arranged around the evaluation criteria. Findings were crosschecked during different interviews and with the available evidence. A gender-responsive data analysis technique was used. The TE used a set of pre-prepared questions to initiate and facilitate the discussion with the stakeholders and ensure that all aspects of the TE are covered (**Annex 5**);

Data collection and observations based on the interviews. The information collected, including documentary evidence, interviews, and observations compiled, analyzed and organized according to the questions asked in the evaluation. It helped in getting the perspective of both women and men beneficiaries and stakeholders. To the extent possible, data collection and analysis was disaggregated by sex.

Preparing the Terminal Evaluation Report: information and data collected were systematically and carefully examined in accordance with the UNDP Project Evaluation Methodology. Information and stakeholders' opinions with associated sources/ references and

⁶ Gender-responsive data analyses included the examination of statistics disaggregated by sex as well as of more qualitative information about the situation of men and women involved in/benefited from the Programme.

assumptions given, were used to develop the Programme's evaluation ratings and draft the TE report that should be submitted to UNDP for review and feedback. UNDP is responsible to circulate the report to key partners for review. UNDP is also responsible to compile all comments on the TE draft report and share with the TE consultant. The response to these comments, whether comments were accepted and integrated into the TE report or not, is provided in the "**Audit Trail**" document (annexed to the TE final report). Audit trail document is considered by the UNDP GEF TE Guidebook as an integral part of the TE final report submission.

1.3 Structure of the Evaluation Report

The TE report includes the following components (as per the TOR and the UNDP/GEF Evaluation Manual):

- Opening page
- Executive Summary
- Acronyms and Abbreviations

- ✓ Introduction

- ✓ Project description and development context

- ✓ Findings
 - Project Design / Formulation
 - Project Implementation
 - Project Results

- ✓ Conclusions, Recommendations & Lessons

- ✓ Annexes

2. Project Description and Development Context

2.1 Project start and duration

The Project was executed by UNDP using the Direct Implementation Modality (DIM). UNDP is the Implementing Partner, through its UNDP-GEF climate change adaptation team in New York. UNDP provided services related to the recruitment of project staff and consultants, travel, sub-contracting, and payment of vendors in lieu of regional and national workshops that project staff organized and conducted. The direct costs associated with the execution services provided by UNDP were borne from the Project Management Cost budget line item.

The request for the CEO Endorsement was signed on September 12, 2013. The Programme was signed by UNDP on January 8, 2014. The Mid-term review was planned to take place on January 8, 2016; however, no MTR was organized. The Programme planned closing date was November 2017 which got extended to December 31, 2019.

The Inception Workshop (IW) was held on 12-15 April 2014 in Ethiopia. The main objective of Project's IW was to launch the UNDP-GEF/LDCF financed Multi-Country Programme to Strengthen Climate Information for Resilient Development and Adaptation in Africa. The inception workshop was attended by 3 UNDP staff and high-level representatives from the governments of Benin, Liberia, Ethiopia, Sierra Leone, Sao Tome and Principe, Malawi, Uganda, Tanzania and Zambia⁷, in addition to the participation of Ministers from 4 countries (Sao Tome and Principe, Sierra Leone and Uganda). Key partners were also involved and have attended the workshop, namely, WMO, UNFCCC, regional information centres and the Red Cross.

The Programme should have been closed by November 2017, but several factors caused a delay in its completion. Due to this delay in Programme implementation, an official extension was granted by the UNDP/GEF based on UNDP request. The request to extend the Programme was submitted to UNDP GEF. A no-cost extension was granted. The extension allowed the Programme to finalize the remaining activities and provide support to countries with ongoing national projects. The extension was granted on 10th October 2017. The newly approved Programme closure date is December 2019.

2.2 Problems that the project sought to address

Weather and climate information, based on routinely collected observations and forecast models, allow countries to produce short-term weather forecasts as well as long-term projections of climate change and its impact on human and natural resources. Combined with information on key vulnerabilities, these forecasts and observations enable the dissemination of warnings of impending disasters, as well as indicating when slow-onset climatic shifts may be an impediment to livelihoods and economic growth.

In response to a request for assistance by LDCs, UNDP-GEF has designed a program on CI/EWS for Climate Resilient Development and Adaptation to Climate Change in Africa. The program comprises 11 countries country-led projects in Benin, Burkina Faso, Liberia, Sierra Leone, Sao Tome, and Principe, Ethiopia, Uganda, the Gambia, Tanzania, Malawi, and Zambia. The focus of each project was to enhance the capacity of each country to monitor and forecast extreme weather, hydrology, and climate change as well as make efficient and effective use of hydro-meteorological information for generating early warnings and supporting long-term development plans. These projects were approved by the LDCF Council and were implemented in line with UNDP NIM guidelines.

In support of these NIM-implemented country programs, the purpose of the Programme was to enable each of the countries to cost-effectively draw on technical assistance for strengthening climate information and early warning systems, as well as benefit from regional coordination and sharing of knowledge and experiences. The technical assistance delivered through this Programme focused on meteorological, climate and hydrological observing and forecasting systems, disaster risk management and viable communication systems/processes for

⁷ BTOR, by Bonizella Biagini, Programme Manager, 14 May 2014.

disseminating alerts, the use of alternative cost-effective technologies, and engagement with the private sector for the provision of climate services.

The Programme is consistent with the programmatic objectives of UNDP. It is aligned with UNDP United Nations Development Assistance Framework (UNDAF) specifically, UNDAF Outcome 4. Strengthened capacity of developing countries to mainstream climate change adaptation policies into national development plans and with UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: Promote Climate Change Adaptation.

The Programme document identified the below-listed substantial barriers to the effective use of CI/EWS for managing and/or responding to climate change risks and opportunities (as stated in the Programme Document, pages 6-7):

- Insufficient weather, climate and hydrological monitoring infrastructure and the capabilities to access such information in a timely manner;
- Limited use of satellite and weather/environmental monitoring information;
- Long-term sustainability of observational infrastructure and technically skilled human resources are not factored into government budgets;
- Challenges in meeting required operation and maintenance costs;
- Limited knowledge and capacity to effectively predict future climate events;
- Inconsistent use of different information sources across and within country borders;
- Monitoring and forecast weather/climate information not used to identify perilous hazards and risks
- Insufficient tailoring of weather/climate/hydrological information for decision making sectors and to provide private sector services;
- Inability to quickly process information to support the timely dissemination of accurate warnings and advisories;
- Standard Operating Procedures for issuing warnings are either not available or not followed;
- Monitoring and forecast information available from international and regional centres are not sufficiently utilized.

The above-listed barriers are multi-faceted and encompass underlying technological, institutional, financial, and human resource constraints. In some countries, the unavailability of local meteorological/hydrological measurements is an impediment to the development of useful early warnings/advisories, whereas in other internationally available forecasts and satellite monitoring are currently either under-utilized and/or have limited use for monitoring and forecasting purposes.

In nearly all countries the lack of communication and sharing of meteorological, hydrological, environmental and socio-economic data between government institutions, as well as the human and financial resources to maintain and translate these data into useful products/warnings, are critical impediments. The communication channels used for distributing any such data and information to those that need them most is similarly a constraint, as is the financial sustainability of CI/EWS systems.

2.3 Immediate and development objectives of the project

In response to a request for assistance by several Least Developed Countries (LDCs), UNDP-GEF designed this Programme, a multi-country program- on strengthening Climate information and Early Warning Systems (CI/EWS) for climate-resilient development and adaptation to climate change. Eleven countries including Benin, Burkina Faso, Liberia, Sierra Leone, Sao Tome, and Principe, Ethiopia, the Gambia, Uganda, Tanzania, Malawi, and Zambia were targeted to receive assistance with financing from the Least Developed Country Fund (LDCF).

The Programme General Objective, as stated in the ProDoc Log-frame, is “***to ensure that all components of the climate monitoring, forecasting and early warning systems in each country participating in the multi-country Programme are able to deliver timely information and warnings, utilizing appropriate technologies and scientific knowledge in a sustainable manner.***”⁸

⁸ Programme Log-frame, Page 16.

The Programme **Specific Objectives** are: i) meet the need to generate, process and disseminate high quality and timely weather and climate data that is comprehensive, reliable, accessible and in a form that end users can understand, ii) enable vulnerable communities, farmers and policymakers in Africa to access and use climate data to make informed decisions on how to survive in a changing climate, iii) bring innovative, reliable, low cost, easily maintained technologies with national coverage and cellular links to hydromet agencies, and iv) impact human lives, food and global security.⁹

The Programme was designed to be in-line with the outcomes of the approved national projects. It was designed to be delivered in the context of:

1. *Enhanced capacity to monitor and forecast extreme weather, hydrology and climate change;*
2. *Efficient and effective use of hydro-meteorological information for generating early warnings and supporting long-term development plans.*

2.4 Baseline Indicators Established

Under the baseline scenario, to ensure that all components of the climate monitoring, forecasting and early warnings systems in each country participating in the multi-country program can deliver timely information and warnings, utilizing appropriate technologies and scientific knowledge in a sustainable manner the capacity to monitor and forecast extreme weather, hydrology and climate change should be developed, and the efficiency and effectiveness to use hydro-meteorological information for generating early warnings and supporting long-term development plans should be enhanced.

The baseline is made up of diverse interventions being undertaken by different countries to further Programme development objectives. The baseline included:

- ✓ Limited or no technical support and backstopping currently accessible to countries.
- ✓ The average percentage of national coverage of weather/climate and hydrological monitoring network at the beginning of the project.
- ✓ The average frequency of data transmission and collection at the beginning of the project.
- ✓ Currently low levels of access to improved CI and drought/flood warnings.
- ✓ Currently, few development frameworks incorporate climate change information

2.5 Main Stakeholders

According to the ProDoc, Page 23, below are primary stakeholders to be interviewed, amongst others:

- UNDP/GEF.
- UNDP/BCPR.
- World Meteorological Organization/Global Framework for Climate Services (WMO/GCOS);
- The United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER),
- UNDP Country Offices participating in the CI/EWS program.
- UNDP Procurement Support Unit
- LTA Holders (ADCON/OTT/BRL/UBIMET/Earth Networks)
- NMHS's.
- Focal Points and Implementing Partners
- Private sector organizations engaged with during the project (TAHMO, Airtel, Winrock, IBM, ACRE)
- Similar minded development agencies and NGOs (USAID, the World Bank, HNI, IEDRO, Columbia University- David and Helen Gurley Brown Institute for Media Innovation and the International Research Institute for Climate Sciences).

During Programme implementation, the Programme correctly managed to involve relevant stakeholders in planning, implementing and monitoring of the Programme's activities. This

⁹ CIRDA_one_pager.pdf https://www.adaptation-undp.org/sites/default/files/downloads/cirda_one_pager.pdf

Programme has involved multi-stakeholder groups such as government agencies, local institutions, private sector, international development partners and donor community to complement their work and to participate in decision-making.

2.6 Expected Results

The Programme has brought many positive results in enhancing capacity at the national level to deliver timely information and warnings, utilization of appropriate technologies and scientific knowledge in a sustainable manner. Following are some of the key targets as identified in the Programme Document:¹⁰

- Each country has received significant and useful technical support.
- Enhanced capacity to monitor and forecast extreme weather, hydrology and climate change by increasing at least 10% average national coverage of functional CI/EWS system and enhancing the frequency of data transmission and collection at the end of the project.
- Efficient and effective use of hydro-meteorological information for generating early warnings and supporting long-term development plans. Increase percentage in the population who have access to improved CI/EWS and at least 3 sectoral development frameworks (at national, sub-national and sector level) incorporate analyses of risks based on climate change projections and consider costs and benefits of adaptation.

¹⁰ *ProDoc, Project Results Framework. Page 16.*

3. Findings

3.1 Project Design/ Formulation

In response to a request for assistance by LDCs, UNDP-GEF has designed a program on CI/EWS for Climate Resilient Development and Adaptation to Climate Change in Africa. The program comprises 11 countries with country-led projects in Benin, Burkina Faso, Liberia, Sierra Leone, Sao Tome, and Principe, Ethiopia, Uganda, the Gambia, Tanzania, Malawi, and Zambia. The focus of each project was to enhance the capacity of each country to monitor and forecast extreme weather, hydrology, and climate change as well as make efficient and effective use of hydro-meteorological information for generating early warnings and supporting long-term development plans. These projects were approved by the LDCF Council and were implemented in line with UNDP NIM guidelines.

In support of these NIM-implemented country programs, the purpose of the Programme was to enable each of the countries to cost-effectively draw on technical assistance for strengthening climate information and early warning systems, as well as benefit from regional coordination and sharing of knowledge and experiences. The technical assistance delivered through this Programme focused on meteorological, climate and hydrological observing and forecasting systems, disaster risk management and viable communication systems/processes for disseminating alerts, the use of alternative cost-effective technologies, and engagement with the private sector for the provision of climate services.

Each country project in the UNDP-GEF supported multi-country program has identified a national priority for enhanced Climate Information (CI) and Early Warning Systems (EWS), especially in the context of food security, water resources management, health risk management and terrestrial and coastal ecosystem resilience. In-depth assessments and stakeholder consultations were conducted during the Programme preparatory phase in each country, and the key barriers were noted as significant impediments to the effective use of CI/EWS for managing and/or responding to climate change risks and opportunities.

The Programme is consistent with the programmatic objectives of UNDP. It is aligned with UNDP United Nations Development Assistance Framework (UNDAF) specifically, UNDAF Outcome 4. *Strengthened capacity of developing countries to mainstream climate change adaptation policies into national development plans.* UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: *Promote Climate Change Adaptation.* The national projects are in line with GEF LDCF/SCCF focal area objective 2 (*“Increase adaptive capacity to respond to the impacts of climate change, including variability, at the local, national, regional and global level”*) and objective 3 (*“Promote transfer and adoption of adaptation technology”*). The Programme is also in line with the LDCF/SCCF aim ***to strengthen adaptive capacity to reduce risks from climate-induced economic losses, successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas and enhanced enabling environment to support adaptation-related technology transfer.***

Although the Programme was developed before the SDGs, yet, it directly contributes to several SDGs. It directly contributes to achieving **SDG Goals 9, Industry and Infrastructure, 11, Sustainability, and 13, Climate Action.**

According to the UNDP/GEF Terminal Evaluation Guide, the TE consultant assesses and analyzes:

- whether the Project objective and components were clear, well-written, practical and feasible within the proposed timeframe and with the allocated budget;
- the ability and capacities of the Project’s executing agency to implement the project’s components in line with the proposed design;
- what lessons learned from other relevant projects were incorporated into the project design;
- needed partnerships to implement the project were properly incorporated in the project design;
- financial resources (including the cash and in-kind co-financing) were adequate or not;

- the Project's assumptions and risks identified during the project preparation with the proposed mitigation measures, and
- the Project's outcomes and the proposed indicators were **SMART**¹¹

The ProDoc stated how this Programme will help and provide the needed support to countries based on their needs. A common requirements list across all countries was prepared as well as a country-specific project framework was developed based on the country consultations over around 12 months. A detailed Programme framework with two key outcomes was developed, validated and endorsed by GEF/ LDCF later. For each one of the two outcomes, the associated outputs were developed, and a full list of country-specific outputs was developed as per the UNDP-GEF/LDCF council. Therefore, the Programme was considered as timely and urgently needed to support the 11 participating countries. The Programme was designed to support each country with several specialized technical assistance based on the country-specific outputs. This technical support was designed to “*be of a high technical standard, there is also a need to facilitate sharing of data, lessons learned, good practices, knowledge and expertise*”. Thus, the Programme has its added value as “*a regional approach*”. The Programme “*has clear advantages for the delivery of technical assistance support to all countries supported by UNDP-GEF on CI/EWS*”.

Furthermore, the Programme was designed to “*support the sustainable use and maintenance of technology by assisting countries to foster private sector involvement, strengthening technical capacities to manage the flow of data and information within countries (between key institutions and users as well as across countries) and support country-led efforts to make information (i.e. warnings and advisories) as useful as possible to the intended recipients*”.¹² The Programme identified alternative ways of generating information and warnings (e.g. from low-cost sources) that may be used by country teams as a stop-gap and/or complementary measure until national capacities are sufficient to take on the required roles. The Programme was designed to support the enhancement and cross-fertilization of knowledge on CI/EWS within and between countries in the Programme.

Nevertheless, the Project design suffered from a major flaw which is related to key sections like the Programme stakeholders, partnerships to be formulated, gender mainstreaming dimension, and Programme's risks and assumptions. These details were not provided in the Programme document, which made the Programme implementation a bit complex for the team taking into consideration that this key information was not provided.

3.1.1 Logical-Framework Analysis (LFA)/ (Project logic/ Strategy, Indicators)

Due to the Programme nature, it has two results frameworks. One is the overall arching for the Programme, and one is country-specific. Projects' LFA are key monitoring and evaluation tool used as a base for the planning of detailed activities defined during the project development phase. It is very crucial for the Programme team to review the LFA during the IW, update if necessary, and agree on the new LFA. For this Programme, according to its IR, the LF has not been reviewed nor updated during the IW.

The Programme LF followed principally the GEF format and included targets to be achieved at the end of the Programme at the outcomes level. However, it was noticed that the targets proposed to be achieved are not all identified. This resulted in some weaknesses in the LF mainly in relation to the evaluation of the timeliness of the Programme's achievements. Table 2 provides an overview of the TE assessment of the Programme's LFA and how “SMART” the achievements are compared to the defined end-of-project targets.

The ProDoc established a strategy to address challenges to make the balance between the capacity needs, and the efficiency and effectiveness in using relevant information in relation to early warnings and supporting the development of long-term development plans. The strategy, as a simple and direct plan, mostly addressed the sustainable use and maintenance of technology by enhancing needed capacity at national levels, assisting countries to foster private sector involvement, strengthening technical capacities to manage the flow of data and information within each countries, support the development of needed frameworks, and

¹¹ SMART: *Specific, Measurable, Achievable, Relevant, and Time-bound.*

¹² Programme Document. Page 9.

enhanced national coverage of weather, climate and hydrological monitoring infrastructure at national level. The Programme identified alternative ways of generating information and warnings that could be used by country teams as a stopgap and/or complementary measure until national capacities are enough to take on the required roles. The Programme supported the enhancement and cross-fertilization of knowledge on CI/EWS within and between countries in the Programme.

The Programme strategy correctly identified capacity barriers (systematic, institutional, technical and knowledge), and risks and issues that might hinder the Programme implementation and hence consistently set the basis for a plan of action. Furthermore, the strategy survived through to the project implementation period and effectively remained the strategy for the Project. The Programme captured broader development impacts mainly improving governance by enhancing local and national capacities. The targets achievement per the end of the Project as formulated during project development-are generally realistic. The indicators are generally broad, not very specific and time-bounded, they have some issues as summarized in the below table. The indicator framework should have been reviewed and made more efficient by modifying it during the Programme IW.

The country-specific frameworks (outputs per country sheet) provide comprehensive and detailed actions of what is needed per country per outcome and output. The indicator framework did not include a capacity development scorecard.

Table 2: Overview of the Terminal Evaluation of the Programme's Outcomes

Criteria	TE comments
Specific	Outcomes must use change language, describing a specific future condition. Outcomes were using change language as needed however their indicators, baselines and targets were not very well-formulated. For example, target number 2 under outcome number 2: <i>At least 3 sectoral development frameworks (at national, sub-national and sector level) incorporate analyses of risks based on climate change projections and take into account costs and benefits of adaptation.</i> This does not tell if the target is per each participating country or only 3 at the level of the regional Programme!
Measurable	Some of the indicators are not linked to measurable targets. For example, for the <i>indicator “Level and quality of technical support and backstopping provided is adequate and has significantly contributed to the delivery of the multi-country Programme as measured through the capacity assessment scorecard”</i> , the target by end of the project is: <i>Each country has received significant and useful technical support.</i> This is neither a measurable nor a specific target. It does not tell the exact increase in the capacity scorecard needed.
Achievable	Most of the targets are achievable; however, indicators are not specific to help measure the progress.
Relevant	All targets and indicators are relevant.
Time-bound	As the majority of the targets are generic, they were only defined by the end of the Project and hence, it was not easy for the project team to benefit from the Project result framework as no details were provided for the targets at the mid-term point of the Programme.

3.1.2 Assumptions and Risks

The Programme’s LF included a set of risks and assumptions per outcome. However, the ProDoc did not discuss them under a specific section like other UNDP projects documents “key Indicators, Assumption, and Risk Section”.

The Programme document did not successfully articulate Programme Assumptions. Only **Two** assumptions were listed in the Project Results Framework section: *NHMSs each country recognize the value of technical assistance on the areas of intervention outlined in this project document, and Countries request assistance from this initiative.* No explanation was provided in the Programme document.

The Project identified **Seven Risks** during the formulation stage¹³. However, no risks rating and mitigation strategy were included. Risks can be classified as political, operational, and technical. It was noticeable that many of the potential risks were not identified in the Pro.Doc. during the project formulation stage. No rating was provided and no mitigation measures even though the Programme was supposed to operate in a very dynamic and complex set up as it was designed to provide support to 11 countries.

During the Programme implementation, the PMU identified one risk related to Programme sustainability: Sustainability of Project goals once the project end.¹⁴ In the report, the team identified possible mitigation measures. It was noted that risks weren't monitored by the PMU and the UNDP (no risk analysis/ management in APRs, no update in ATLAS). The risks log could not be accessed by the TE consultant. Hence, TE believes the management of the Programme's risks needed a lot of improvement, as they needed to be carefully identified and monitored with concrete mitigation measures, and quarterly updated with a robust follow-up plan on mitigation measures.

3.1.3 Lessons from other relevant projects incorporated into the project design.

The Pro.Doc. did not incorporate lessons learned from other relevant projects although it listed a number of key ongoing projects and initiatives that are very relevant to the Programme and were being implemented at the time of project formulation including the WB GFDRR work, UNEP, WMO, and the Global Framework for Climate Services projects in Africa.

The Programme design did not benefit obviously from previous projects development and implementation mainly those focused on strengthening institutional infrastructure and capacities at different levels.

The Programme mentioned that the experiences gained from ongoing projects could be used in other countries, but did not use the knowledge generated from any of the mentioned initiatives in the project design [... *there are also several initiatives in individual countries that could be useful in other countries e.g. use of mobile phones for both distributing agricultural advisories and crowdsourcing information on disasters and ongoing crises. Where possible and useful, the uptake of these technologies will be promoted through technical advice and policy-related advocacy to relevant key institutions in the countries ...*].

3.1.4 Planned stakeholder participation

Besides coordination with other donors, the sharing of information, data and best practices between countries taking part in the UNDP-GEF multi-country Programme were promoted. Several mechanisms were used for this purpose, including region-based and web-based discussion fora, as well as developing guidelines and communications materials on best practices, challenges and opportunities to implement successful EWS throughout the countries. As part of these interactions the sharing of data and information, especially between the 11 countries sharing climate zones or watersheds, was encouraged. Additionally, based on demand from different countries, region-based training sessions were organized on risk and vulnerability mapping, tailored information and forecasts, successful communication strategies, private sector engagement and revenue generation etc.

The ProDoc did not provide any details on stakeholder participation in Programme implementation. It only mentioned that "*Other relevant stakeholders may participate in meetings as observers as needed, or upon approval by the Board, as Board members.*"¹⁵ However, the Programme team managed to build the needed partnership between the government, NMHS, private weather companies, cell phone companies and other private and public partners. These partnerships were crucial to support government agencies in the adoption of innovative technologies. Building these partnerships among the many stakeholders needed extensive effort.¹⁶

¹³ UNDP GEF Project Document, *Project Results Framework*. Pages 16-17.

¹⁴ Programme PIR 2018: Section E. Critical Risk Management. Page 21.

¹⁵ Programme Document. Section 6. Management Arrangement. Page 22.

¹⁶ Programme completion report. Page 11.

The Programme managed to overcome several issues in building needed partnership as what works in one country may not work elsewhere. Furthermore, in some countries, the technical and senior management team in NMHS changes frequently, which required the team to start over again.

One of the main achievements of the Programme, as viewed by interviewed stakeholders, “*the team facilitated the dialogue between NMHSs and cell phone companies to discuss hydromet services*”. The Programme held workshops that facilitated linkages between NMHSs and a 3-2-1 free dialling service in Africa developed by a nonprofit NGO, Human Network International (HNI, now a for-profit venture, Viamo). Some of the cell phone services, particularly those in competitive markets, began to see that hydromet products could be a competitive advantage for the company, making possible a mutually beneficial arrangement with the NMHSs. Such an arrangement, however, requires the NMHS to routinely generate a high-quality product suite suitable for delivery by cell phone to farmers, fishermen, herdsman, and others, which will drive paying customers to the cell phone service.

In conclusion, the Project has managed to involve many stakeholders in Programme implementation and hence the stakeholders’ participation has been planned sufficiently.

3.1.5 Replication approach

The nature of the Programme facilitated its role as a catalyst in mobilizing resources and actions by key actors and main players in relation to meteorology and hydrology in East and Southern Africa. The Programme helped countries to overcome existing barriers and introducing new strategies and technologies that helped in improving national capacities. Strengthening and improving capacities for collecting and analyzing climate information to provide timely early warnings is crucial to ensure climate-resilient development and adaptation.

There are various aspects of Programme design that facilitate replication:

- First. The Programme strengthened the enabling environment to enhance resilience and build sustainability. The national climate information and early warning systems in 11 countries have been strengthened and this could be used to benefit other sectors like agriculture, water management, education and scientific research, etc.
- Second. The Programme developed a model of innovation in engaging the private sector. Other initiatives could learn from the Programme on how and when to engage with the private sector. The technical assistance provided as well as the regional coordination and sharing of knowledge and experiences could be implemented in other regions as well as in the same region but for other technical areas.
- The cooperation with the key donor agencies and development partner at the State level and regional level would enhance learning-by-doing and facilitate cooperation among different actors even after the completion of the Programme.

These items can be used to raise awareness, manage knowledge, and facilitate replicability.

3.1.6 UNDP comparative advantage

Implementation of this project was carried out under the general guidance of a Project Board (PB) composed of designated senior-level representatives from UNDP-GEF. UNDP comparative advantages lie in its global and regional experience and local presence in integrating policy development, developing capacities, and providing technical support. UNDP support in designing, accessing the GEF funding, and implementing activities are consistent with the UNDP, GEF and the Governments plans.

Furthermore, UNDP in New York led the implementation of this Programme while UNDP COs are leading the development and implementation of several projects at the national and regional levels, many of these projects related to climate change, resilience and energy, hence, UNDP has the capacity at the national and regional level to provide the Government of participating countries with political, technical and operational support.

3.1.7 Linkages between the Programme and other interventions within the sector

The Programme was successful in building key strategic partnerships, cooperating with important institutions, and building linkages with other projects. It collaborated with and built on

the success of different national projects funded by other donors and development partners, Among those:

Developed partnership with the World Bank and its activities in Africa.

- The Programme has worked actively with the World Bank in sharing its Experience. The objective is to ensure that lessons learned from the Programme helped to serve future projects and looked to coordinate with different strategies to address the need for climate information in LDCs.
- A representative to World Bank participated in a workshop organized in Zambia as a speaker in a panel on lesson learned from a donor and international perspective.
- The Programme provided support to the World Bank organized AMOCMET Workshop.
- The Programme invited represented from all partner countries and covered the costs of key speakers and country representatives. It hosted a side event to provide insights from the project and countries.

Developed partnership with USAID.

- A Programme expert worked with USAID to develop 2 webinars on value-added weather services propositions in Africa. These webinars were circulated by the Programme and made available to all national partners.

Developed partnership with WMO. It took the following forms:

- WMO continues followed up on the Programme activities as a member of the Board.
- WMO representatives were invited as a speaker in one of the Programme's event.
- WMO invited the Programme to attend the launch of its private sector initiative in March 2018.¹⁷

Enhanced engagement with UNDP similar initiatives.

- The Programme has been providing general advisory support to various UNDP RTAs developing or managing climate information projects. This has included projects that are Asia, Latin American and Africa based. Support has led to the promotion of innovative and cost-effective solutions for hydromet equipment and tools through the LTAs developed via the Programme, as well as in making use of the market study and baseline information collected by the project.
- The Programme has collaborated with the DRR units providing inputs to policy document looking to link DRR to adaptation. The Programme has also provided inputs to guide UNDP's 5-10-50 Strategy.
- The Programme worked with UNEP DTU Initiative to provide inputs and develop a paper to be published within a wider publication on the role of climate information for Medium and Small Enterprises. The Programme team worked as a reviewer for other papers included within this publication.

Expanded outreach to at least 5 companies - private sector

- The Programme ensured outreach to IBM to look to engage in productive partnerships for technologies for climate services in partner countries. Through the development of hydrology, LTA outreach to Ingenierie BRL was made to support countries in developing hydrological EWS products.
- Outreach was also made to innovative technology providers such as Kukua and service models such as that being piloted by PICSA. Identification of training providers was also made accessible to country partners and was invited to take place in regional workshops such was the case of NIMET.

Initiated new relations with civil society and academic relevant institutions.

- The Programme maintained its relationship with Columbia University, IRI. It also initiated a partnership with the International Center for Climate Change and Development (ICCD) to gauge on how to best amplify its knowledge management. It also continued its partnership with IEDRO for digitization support.
- The Programme engaged with the Walker Institute's Rainwatch Initiative and the Center for Water Security and Cooperation to provide insight and support to partner countries during the regional workshop.

¹⁷ Mid Term PMD.

Overall, the Project was active in cooperating with key ongoing and new initiatives. This cooperation has positively affected the Programme's implementation and enhanced its visibility.

3.1.8 Management arrangement

The Programme was executed by UNDP using the Direct Implementation Modality (DIM). UNDP was the Implementing Partner, responsible for project execution. UNDP provided services related to the recruitment of project staff and consultants, travel, sub-contracting, and payment of vendors in lieu of regional and national workshops that project staff organize and conduct. The direct costs associated with the execution services provided by UNDP were borne from the Project Management Cost budget line item.

Implementation of the project was carried out under the general guidance of the Project Board (PB) which was composed of designated senior-level representatives from UNDP-GEF. The PB was the strategic decision-making body of the project. It provided overall guidance and direction to the project manager and was responsible for making decisions on a consensus basis, when high-level strategic guidance is required, including the approval of major revisions in project strategy or implementation approach.

The PB consisted of representation from UNDP-GEF (Chair); UNDP/BCPR; WMO/GCOS; UN-SPIDER, and representatives of 3 UNDP Country Offices participating in the CI/EWS programme (COs represented in the project board rotated annually with a representation of both Anglophone and Francophone countries in any year.)

Further, UNDP is also carrying the Project Assurance role¹⁸ which was assumed by the Green LECRDS cluster.

The Project encountered a two-year delay in implementation of major activities, this was due to the inclusion of one additional country and to provide more technical support to nationally led projects with ongoing activities.

The Programme did not introduce changes to the proposed management arrangement. Below is a brief description of the Programme management arrangement:

A Project Manager (PM): Day-to-day management of project activities was undertaken by the Project Manager. While the PM's work was guided by the Project Board, the PM was supervised by the UNDP-GEF Principal Technical Advisor on Green, Low Emission Climate Resilient Development. Oversight and quality assurance of the work on climate change adaptation, as it relates to this project and the related CI/EWS projects that this project supports, was provided by the UNDP-GEF Senior Technical Advisor on Adaptation.

The PM and the supporting team worked on delivering the Programme outputs by working directly with their project counterparts in each of the countries (as per the country project documents appended to this project document). Support from the PM and the team of CTAs were requested from either the country-led project teams or recommended by UNDP (CO or UNDP-GEF staff responsible for oversight who determine that such support is necessary based on regular review of implementation progress of the national projects). The PM and the Programme team together formulated the Programme Management Unit (PMU).

Due to the nature of the Programme, quarterly teleconferences were proposed to be conducted between the PM and the remaining team from the Project management unit, country focal points and the UNDP-GEF RTA.

Programme's Chief Technical Advisors (CTAs): The PM directly provided and drew upon expertise from a core team of Chief Technical Advisors (CTAs) who provided, technical support to empower the country teams to implement their national projects on CI/EWS. The PM drew on administrative support financed by the Programme and located in the Addis Ababa Regional Service Centre.

A group of CTAs hired by the Project through in order "to provide, technical support to empower the country teams to implement their national projects on CI/EWS"¹⁹. The Programme team decided to hire the needed specialists for long-duration rather than hiring many experts for short

¹⁸ According to GEF, the Project Assurance role is meant to support the Project Board (PB) by carrying out independent and objective project monitoring and oversight functions

¹⁹ UNDP GEF Programme Document, Page 24.

durations to save time as the procurement and recruitment processes take time and to ensure that these experts take the needed time to understand the Programme. As a result, 4 CTAs/experts were hired by the Project in order to provide long-term support to the Programme and its beneficiaries (**Table 3**). However, 9 Project’s staff were hired in full-time and part-time bases to provide the needed technical and administrative support (**Table 4**).

The ProDoc stated the need to establish a **Technical Advisory Group (TAG)**. This Committee was responsible for providing technical advice on the approaches and methodologies used by the project team in all capacity building efforts that are delivered to the countries. It was supposed to provide technical guidance to the project team so that the support provided to national teams is anchored on the cutting-edge knowledge as well as technological developments on CI/EWS. Costs associated with TAG meetings were covered by the project in line with UNDP policies and procedures.

The TAG was to be composed of 4 members drawn from organizations working with weather and climate information/services and EWS in Africa (e.g. Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES; based in Bangkok), UK Met Office, IRI/Earth Institute, International Federation of Red Cross/Red Crescent, South African Met Service, NCAR/UCAR, etc.

Programme Assurance/Oversight Responsibilities: UNDP-GEF provided oversight for the project in line with UNDP’s role in the GEF Partnership. UNDP-GEF provided project cycle management services, including on project initiation, monitoring and evaluation, troubleshooting, and reporting to the donor.

The Programme was overseen by a UNDP-GEF Task Manager specifically within the UNDP – GEF Green, Low Emission and Climate Resilient Development Strategies (Green LECRDS) cluster. UNDP-GEF delegated spending authority to UNDP based on Annual Spending Limits (ASL) as per the agreed Annual Work Plan. The budget for the project was set up by UNDP/GEF under UNDP1. UNDP/GEF approved the budget as cleared by the Project Board, including the issuance of ASL. Subsequently, UNDP used to spend within the approved spending limits as per the project work-plan and requests made by the PM.

Table 3: The list of experts who were involved in the Project implementation

Gender	Role
Male	Chief Technical Advisor for forecasting and weather monitoring CTA Innovative Technologies
Male	CTA of Private Sector (Oct 2015)
Male	hired to conduct a market study and its update

Table 4. Project team

Gender	Nature of assignment
female	Project Manager
male	communications officer (May 2015- Dec 2016)
male	country support officer hydrology
male	country support officer met and forecasting east Africa
male	country support officer met and forecasting wet Africa
male	country support officer, technologies
female	Programme analyst
female	PA
female	Project Coordinator

3.2 Project Implementation

In line with UNDP/GEF TE guidelines, the following six areas of Programme implementation have been assessed: adaptive management; partnership arrangements; feedback from M&E activities used for adaptive management; Programme finance; monitoring and evaluation; and design at entry and implementation, and UNDP role.

A scale of six-level was used to rate the achievements of project implementation and adaptive management in terms of the criteria above²⁰. Ratings are summarized in the TE Ratings & Achievements table 1, Paged 6-7. Furthermore, a narrative description of the complete evaluation and rating of the results is provided in the following paragraphs:

3.2.1 Adaptive Management (changes to the project design and project outputs during implementation)

The Programme did not apply any clear/planned adaptive management measure. Two major M&E tools were not utilized to develop adaptive management measures that the Programme could have required during its implantation; i) The inception workshop - which was not organized in line with UNDP/GEF guidelines and subsequently the Inception report which was not prepared in-line with the UNDP/GEF with the purpose to provide a comprehensive overview of the changes, and modifications to the Programme Document and ii) The Programme Mid-term Review as it was not organized.²¹

The TE observed a few adaptive management measures taken by the Programme, so far, most of these measures were not documented or discussed in the Project's Board:

- The hiring of long-term technical experts through LTAs instead of short-term consultants to undertake critical technical work. This was done to avoid wasting a lot of time pertaining to the long procedures followed to hire consultants. This decision perfectly supported the Programme like many of the experts working for almost the entire period of the Programme implementation. They were fully aware of the Programme's components and have good knowledge of the Programme's stakeholders and beneficiaries.
- the involvement of key international multilingual experts and management team. The experience experts gained in one country helped them tremendously in elsewhere.

In conclusion, the Programme implemented a few adaptive management measures that enabled it to make good progress.

3.2.2 Partnership arrangements (with relevant stakeholders involved in the country/region)

The Programme was successful in arranging partnerships with the main stakeholders for the implementation of the Programme's activities. The ProDoc proposed to set up a Technical Advisory Group (TAG) "*to provide technical advice on the approaches and methodologies used by the project team in all capacity building efforts that are delivered to the countries*". It was proposed that the TAG "*comprising of 4 members drawn from organizations working with weather and climate information/services and EWS in Africa (e.g. Regional Integrated Multi-Hazard Early Warning System for Africa and Asia (RIMES; based in Bangkok), UK Met Office, IRI/Earth Institute, International Federation of Red Cross/Red Crescent, South African Met Service, NCAR/UCAR, etc.*" The Programme document also stated that the Programme should establish partnerships with "*regional centres of excellence such as ACMAD and AGRHYMET*" which will be invited to provide technical guidance.

The Programme developed key partnerships with the private sector. With the Programme support, the NMHS started viewing cell phone service companies as key partners for the collection of observations and other data and the delivery of services. The Programme facilitated the dialogue between NMHSs and cell phone companies to discuss hydromet services. Cell phone companies were invited to participate in the Programme workshops, and a representative of the international cell phone association, the GSMA, participated in the Programme's event at the meetings of the UNFCCC in Morocco in December 2016.

²⁰ UNDP/GEF TE Guideline: *Highly satisfactory (HS) - the project has no shortcomings; Satisfactory (S) - minor shortcomings; Moderately satisfactory (MS) - moderate shortcomings; Moderately unsatisfactory (MU) - significant shortcomings; Unsatisfactory (U) - major shortcomings; and Highly unsatisfactory (HU) - severe shortcomings*

²¹ *As the Programme was funded by the LDCF. The Programme management team indicated that the MTR is not a requirement. No reference supports this decision. Furthermore, the project did review national MTRs to ensure that identified gaps and issues could be supported by the CIRDA Programme through KM and assistance. This was the case in the focus of end user products and hydrology.*

The Programme set a good model for Private-Public-Partnership (PPP) that was cited by international organizations like the WMO “*There are numerous case studies and practices present in various parts of the community today and examples from other sectors that can inform best practices for effective PPE to mitigate these risk*”²², and the World Bank as it expressed support for a full services approach and collaboration with the private sector in its publication: “*Weathering the Change: How to Improve Hydromet Services in Developing Countries, 2019*”.

3.2.3 Feedback from M&E activities used for adaptive management

The M&E plan in the ProDoc followed the UNDP/GEF Project’s M&E template. It included the LF, Programme’s IW and IR, QPRs and APRs, and the MTR and TE.

The UNDP Programme Assurance role has been applied correctly in assisting the Programme team in preparing annual work plans, prepare for the PB meetings, and follow up on the procurement and recruitment of international consultants. Nonetheless, the TE observed key weaknesses in the Programme monitoring cycle as a key Programme’s M&E activity were missing such as QPRs, APRs and Risks and updating risks and issues logs in ATLAS. Also, the only annual report, 2018, could have been further strengthened by providing more substantial details about the Programme, its progress against the outputs, risks, and issues, financial resources used and the planned budget. The MTR was not conducted as well and hence no recommendations were developed at the mid-term point of the Programme implementation. By missing these M&E tools, the project missed an opportunity to get clear feedback from crucial M&E activities in order to develop the needed adaptive management measures.

In conclusion, the Programme did not benefit from the feedback from M&E to appropriately and adequately address new challenges and risks and thereby ensure the achievement of established targets²³.

3.2.4 Project Finance

As per the UNDP/GEF TE guidelines, the TE assessed the actual expenditure and the originally planned budget as well as the leveraged co-financing. The Project budget was increased from **US\$ 3,460,000** to **US\$ 3,760,000** in 2016 by receiving **US\$ 300,000** from The Gambia to support the Regional Programme.²⁴

As of November 2019, out of the **US\$ 3,760,000** GEF/LDCF support, **US\$ 3,747,803.71** about **(99.76%)** of the Programme total budget, has been dispersed. Only around **US\$ 12,196** about **(0.32%)** are committed, as presented in **Table 5**.

The spending per outcome was in-line with the GEF approved budget. While Programme management consumed a higher budget than the planned, the spending was **174%** of the total approved budget. The PM team indicated that the overspending under the Programme management component was due to the underestimation of the Programme team salary and associated costs.

The Programme depended entirely on the countries’ contributions. Three co-financing letters showed the contribution of three countries to the Programme; **Uganda, The Gambia and Benin**. The Programme Document did not mention any other sources for co-financing due to the special nature of the Programme.

Although financial audits are requested from the Programme, it was not subject to any financial audits.

²² Programme completion report. 2019. Page 14.

²³ According to the Programme Coordinator: “annual QA where made providing an opportunity for the programme to report on programme achievements, delays and adjustments based on clear metrics. This was evaluated by UNDP leadership”.

²⁴ Official letter from the Department of Water Resource, The Gambia to the UNDP CO requesting transfer of US \$ 300,000 from National Project Management to UNDP Regional Head Quarter’s Management.

Table 5: Project Budget and Expenditures (US\$)

Project Component	Budget Approved (US\$)	Disbursed as of December 2019								Committed budget (2019)	Total (US\$) (Spent and committed)	Difference between planned and actual (US\$)
		2014	2015	2016	2017	2018	2019	Total spent	% of budget spent			
Component 1	1,855,80	296,757	537,443	651,639	72,131	220,68	66,43	1,845,0	99%	0	1,845,086	10,714
Component 2	1,731,20	316,119	644,157	158,009	199,727	222,43	60,31	1,600,7	92%	0	1,600,755	130,445
Project Management	173,000	67,844	134,542	-68,895	110,744	52,774	3,582	300,591	174%	12197	312,788	-139,788
	0	166	249	249	249	249	208	1,370	0%	0	1,370	-1,370
TOTAL GEF	3,760,00	680,886	1,316,39	741,003	382,851	496,13	130,5	3,747,8	100%	12197	3,760,000	0

3.2.5 Monitoring and evaluation: design at entry and implementation (*)

M&E Design at Entry: the standard UNDP/GEF budgeted monitoring and evaluation plan was included in both the UNDP ProDoc. Roles and responsibilities were clear in the M&E plan. The M&E Plan was practical, enough for this Programme and well-conceived. It included the project inception workshop and report, first annual work plan, quarterly reporting, annual reporting, mid-term evaluation, end of project cycle evaluation, and DIM audit. A total of **US\$ 120,000**, about **3.47%** of the total GEF/LDCF grant was allocated for the M&E activities. The actual cost of the M&E during implementation could not be estimated by the TE due to the lack of financial information provided.

Based on the above, the M&E design at project startup is rated as:

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
	S				

Implementation of M&E

The TE consultant reviewed the Programme M&E during the actual implementation of the Programme, the M&E activities partially followed the M&E plan and that:

- UNDP and UNDP/GEF role both have been correctly applied to this Programme, based on the following notes:
 - UNDP has followed the standard M&E activities based on the UNDP/GEF standard procedures. The team conducted several monitoring sites visits, attended and facilitated the commission of the Project's Board, and conducted technical missions to provide support to different countries. More than 50 missions have been commissioned.
 - UNDP provided the needed operational, technical support. The UNDP has been active in preparing the project work plans, budget revision, convening the project committees and attending the meetings, and following up on Programme's recruitment and procurement.
 - The UNDP actively participates in the Programme's board, including the participation of senior UNDP officials. UNDP provided assistance and technical guidance to the Programme through the regional technical advisor (UNDP/GEF RTA).
 - Annual Quality Assurance Reports were prepared annually by the project allowing for UNDP feedback and oversight.
 - Communication between the Project's team, the Project's governing bodies, and the UNDP is continuous and open and conducted mostly through the PB. Stakeholders who were interviewed for the TE appraised the continuous support the Programme has provided and the leading role of UNDP.
 - Programme 2018 PIR was reviewed and approved by the UNDP and include the agency's rating of implementation and risks affecting project implementation.
- The Project's IW was organized in April 2014 in Ethiopia and a report has been prepared. However, it was noted that no official inception report (IR) was prepared and shared with stakeholders as per the UNDP/GEF M&E standards. The only report prepared is the BTOR²⁵ by the PM which is a different M&E reporting tool. The IR should include the results of the discussion, the recommendation made during the workshops, and the details of what has been discussed and agreed upon. The IR should also include the result of Programme team and stakeholders discussion on critical adaptive management measures, it should capture the discussion, the decisions, and provided an updated copy of the ProDoc, and hence, the Inception Phase (Workshop and Report) represent a major weakness in the project cycle.
- The Project Board (PB) meetings: According to the ProDoc, the Programme is subject to one PB meeting per year. To date, four PB meetings were convened and documented (8 July 2014, 5 March 2015, 16 Feb 2017, 22 February 2018)
- UNDP Regional Unit, the UNDP/GEF Regional Technical Advisor and assistant responsible for this Project, and UNDP1's provisions of financial resources have also been in accordance with project norms and in the timeframe.
- UNDP has helped the Programme at the technical and operational levels. It carried out the needed assurance role and helped the Programme in procuring critical services, hiring key consultants. The

²⁵ BTOR: Back to Office Report. Prepared by Bonizella Biagini. 14 May 2015.

TE recognizes that the UNDP has practised its role in compliance with the UNDP established procedures.

- Project Implementation Reports (PIR). PIRs are used as a critical analysis of the Programme’s status and are submitted to the NPSC for review, discussion, and endorsement. The Programme prepared ONE PIR only in 2018. It was not clear to the TE consultant why PIRs were not prepared for the Programme since its inception.
- Quarterly Progress Reports (QPRs); the QPRs are prepared mainly to report on progress. The TE noticed that these reports were completely missing, and no reports were prepared. Instead, the PM team focused on preparing the Implementation and Monitoring Stage quality Assurance Report on yearly bases.
- Programme Terminal Report (PTR). This report should be prepared during the last three months of the Programme implementation and to be discussed during the terminal review meeting. Ideally, this report should be prepared by the Programme team who has overseen all project’s operational issues since its inception. The TE received and reviewed the Terminal report which provided a good base for the TE work.

The TE consultant noticed that the M&E framework could have been reinforced by putting more emphasis on the Programme’s reporting tools (QPRs and PIRs). As the majority of the Programme’s core team (who were involved in the project implementation during the period of 2014-2018) have left the Programme, major Programme’s M&E activities were not discussed. However, based on the review of the Programme’s Board presentations and minutes of meetings as well as the terminal evaluation of the country-led projects, it was sensed that the Programme team was trying hard to focus on the Programme’s implementation, rather than on M&E reporting.

Based on the above, the implementation of the M&E plan is rated as:

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
		MS			

3.2.6 UNDP and Implementing Partner implementation/execution, coordination, and operational issues

UNDP implementation (GEF IA):

UNDP as the Project Assurance provided support to the Programme’s Board and team and carried out objective project oversight and monitoring functions. The key features of the UNDP implementation are as follows:

- The UNDP facilitated the Programme’s work by providing advice and ensure that the UNDP/GEF office is involved.
- The UNDP followed up on the Programme’s activities and carried out the needed monitoring activities.
- The UNDP facilitated, based on the Programme request, Programme’s procurement.
- The UNDP provided the provision of financial resources in accordance with UNDP/GEF guidelines.
- The UNDP through its high-level staff provided the needed political support.
- The UNDP provided the needed regional coverage for the project and made the needed linkages with the participating UNDP COs in the region.

The UNDP support to the Programme’s team is regarded by stakeholders as satisfactory and timely.

Rating for UNDP implementation is:

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
	S				

3.3 Project Results

3.3.1 Overall Results (attainment of objectives)

The TE evaluated the achievements of results in terms of attainment of the overall objective as well as identified project’s outcomes and outputs, according to the UNDP/GEF evaluation guidelines. For this,

the performance by the outcome is analyzed by looking at three main aspects as identified by the UNDP/GEF evaluation guide: general progress towards the established baseline level of the indicators; actual values of indicators by the end of the Programme vs. designed ones; and evidence of relevance, effectiveness, and efficiency of the results as well as how this evidence was documented.²⁶

Based on observations, desk review, interviews, data collection and analyses, and review of the Programme’s technical reports and progress reports (PIR and Quality Assurance), a detailed assessment at the outcome level is presented below (Table 6).

Overall results of the Project are rated as:

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
	S				

²⁶ UNDP/GEF Terminal Evaluation Guide

Table 6: Matrix for rating the Achievement of Outcomes

The key is used for indicator assessment (Color Coding):

Green = Completed, the indicator shows successful achievement
Yellow = On target to be achieved by the end of the project
Red = Not on target to be achieved by project closure

Project Strategy	Indicator	Baseline	Targets by the end of the Project	Progress at the TE time, December 2019	TE Comments	Rating
<p>Project Objective: To ensure that all components of the climate monitoring, forecasting and early warning systems in each country participating in the multi-country programme are able to deliver timely information and warnings, utilizing appropriate technologies and scientific knowledge in a sustainable manner</p>	<p>Level and quality of technical support and backstopping provided is adequate and has significantly contributed to the delivery of the multi-country programme as measured through the capacity assessment scorecard.</p>	<p>Limited or no technical support and backstopping currently accessible to countries.</p>	<p>Each country has received significant and useful technical support.</p>	<p>Support was provided to participating countries by the Programme in identifying potential partners to enhance CI/EWS systems and their sustainability, developing tailored training to countries in data assimilation, integration, digitalization. Programme's experts worked with all 11 partner countries in assessing their needs for met equipment, identifying suitable options and in developing procurement tools in the form of LTAs to meet these challenges. Regional workshops were held on an annual basis and their usefulness and relevance were consistently evaluated, training modules were developed and available for not only national partners but for countries in general. Missions by team experts were deployed to all 11 national partners and knowledge management in the form of regional market studies and lessons learned were developed. This enhanced the scope of achievement of national projects. <u>To quantify the support provided by the Programme to participating countries, the capacity scorecard results per final PIRs for national projects were used to show progress:</u></p> <ul style="list-style-type: none"> • Benin: capacity enhanced for national institutions this was confirmed in the Project's TE. No scorecard was provided. • Burkina Faso: 176 (baseline 74 and target was 161) • Ethiopia: TE rated this achievement as satisfactory • Liberia: Capacity assessment score rating was not used however credible evidence in both TE and PIR regarding capacity enhancement of all NHMS team in equipment 	<p>Completed, the indicator shows successful achievement</p>	<p>S</p>

				<p>maintenance and forecasting through training missions and expert support.</p> <ul style="list-style-type: none"> • Malawi: capacity has increased from 72 to 143 (baseline 121). • Sao Tome- Capacity reported as considerably enhanced both in training to NHMs and stakeholders and in equipment procured working and integrated to national systems. • Sierra Leone- increased to 161 (baseline 45) • Tanzania- achievement measuring was based on overall assessments of project interventions and progress made toward achieving the project outcomes. These indicate enhanced the capacity of Tanzania’s Meteorological Agency and Ministry of Water and Irrigation to monitor (and forecast) droughts and floods and advocate for effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans in project pilot districts (namely Liwale and Arumeru) through access to enhanced observation equipment and monitoring capacity. • Uganda: Capacity of Agencies to produce early warning information has increased from 92% in 2017 to 99% in 2018 (50.5 out of target 51). The capacity to package information increased slightly from 89% in 2017 to 92 (35 out of the target of 36). The capacity of legislative and governance has slightly increased from 81% in 2017 to 85% in 2017 (15 out of 16). • Zambia: capacity increase from 80 to 156 per the capacity scorecard, which represents a 91% increase. 		
<p>Outcome 1: Enhanced capacity to monitor and forecast extreme weather, hydrology and climate change</p>	<p>1. The average percentage of national coverage of weather/climate and hydrological monitoring infrastructure across all countries</p>	<p>Average percentage national coverage of weather/ climate and hydrological monitoring network at the beginning of the project</p>	<p>Increase of at least 10% average national coverage of functional CI/EWS system</p>	<p>National project PIRs indicate an improvement in coverage across all 11 country partners.</p> <ul style="list-style-type: none"> • Benin: Specific target regarding coverage was not listed however national coverage is listed as expanding due to procured equipment • Burkina Faso: increase 100% NHMS optimal monitoring arrangement (baseline 25% and the target was 75%) • Ethiopia: terminal evaluation listed achievement as moderately satisfactory with coverage increasing to 57% but not hitting the target • Liberia: Coverage percentage not listed however project procured and installed all of the target equipment for coverage. In the case of AWS, it was 11 (target 9) stations. 		<p>S</p>

				<p>All hydro and met stations providing real-time and continuous monitoring.</p> <ul style="list-style-type: none"> • Malawi: Installation of 10 automatic weather stations has increased the network coverage from 33% to 72%. National coverage of operational surface manual hydrological stations with Department of Water Resources (DWR) has increased from a baseline of 52% at the start of the project to 65% and surface manual has increased from a baseline of 85% at project start to 90%. National coverage of automatic hydrological stations has increased from a baseline of 19% to 60%. • Sao Tome: increase to 60% (target) national coverage from a baseline of 20% • Sierra Leone: Target has been achieved. The National coverage which was based on the number of districts has increased to 66% hitting the target of 60% as nine out of the then 12 districts have optimal monitoring arrangements. At baseline, it was two districts. • Tanzania reached 75% coverages of all national territory has been covered by an automated network, and the target has been met. Baseline stood at 30%. • Uganda: national coverage of the operational weather stations has reached 47% (100% of project target). In terms of national coverage under 1.2, 46% (52 out of the 112 districts in the country) have weather stations. And, under 1.3, the status of national coverage for rain gauges/manual stations has remained at 26%. (Baseline 10%, 9% and 1% respectively). • Zambia: The project has been able to deliver on its targets on the provision of 28 AWS equivalent to 39% of the districts against the target 29%, contributing a total of 41% of the country's total AWS network. Further the project facilitated the rehabilitation of all 39 manual stations in the country representing 54% against 37% of the target. The network is fully functional and provides real-time data since 2015 except for the Kafulafuta that was installed in early 2017. The increased network has resulted in ZMD producing timely and accurate weather and climate information which is disseminated nationally and internationally. 		
	2.Average frequency and timeliness of	The average frequency of data	The average frequency of data	National project PIRs indicate an improvement in transmission in all 11 partner countries		S

	<p>climate-related data availability</p>	<p>transmission and collection at the beginning of the project.</p>	<p>transmission and collection at the end of the project.</p>	<ul style="list-style-type: none"> • Benin: Water level of main rivers is transmitted daily to EWS server as per target (baseline monthly) • Burkina Faso: Daily data transmission increased from baseline monthly • Ethiopia: every 15 mins (beyond daily target) • Liberia: Real-time data is being provided with information from the new station being continuously sent. • Malawi: The Department of Climate Change and Meteorological Services (DCCMS) is now making hourly Observation in all 58 AWS, 4 times observations in all 21 Conventional stations. The DCCMS is also able to make hourly Observation in all 63 AWS, 4 times observations in all 21 Conventional stations. • Sao Tome: Daily data transmission (target achieved) done automatically every 15 mins. This has resulted in updated forecasting at 6-hour intervals. • Sierra Leone: Daily data transmission frequency now in operation in comparison to monthly transmission at baseline. • Tanzania: stations are connected to a server in Dar es Salaam, Mtwara and Moshi and transmission of data to TMA is made after every one hour through GPRS system overreaching target. • Uganda: Information is being provided in real-time. This has resulted in Seasonal forecasts have been provided with a lead time of one week. Agro-met stations are giving reliable information for ten days (decadal) weather information as well as bi-weekly and monthly advisories. • Zambia: Real-time data is provided online (see above indicator) baseline stood at daily recordings but integrated by ZMD with a larger time lag 		
<p>Outcome 2: Efficient and effective use of hydrometeorological information for generating early warnings and supporting long term development plans</p>	<p>1 Percentage of population with access to improved climate information and flood and drought warnings</p>	<p>Currently low levels of access to improved CI and drought/flood warnings</p>	<p>Percentage increase in population who have access to improved EWS/CI</p>	<p><u>National project final PIRs state:</u></p> <ul style="list-style-type: none"> • Benin- % increased not assessed however there is evidence cited in PIR and in terminal evaluation that target was reached due to targeted agro alerts, flooding EWS targeting all flood-prone population and use of media such as radio and television alerts. • Burkina Faso: increased to 50% (target) from baseline (5% women and 10% men) • Ethiopia: terminal evaluation listed as moderately satisfactory with increased coverage but not monitored consistently to have the percentage 		<p>S</p>

				<ul style="list-style-type: none"> • Liberia: An Integrated Water Resource Management System for Liberia has been established for general use. Further, A new weather website has been developed and was launched on July 22, 2018. This website, hosted and managed by the Ministry of Transport, publishes weather information for public consumption. • Malawi: According to the 2017 comprehensive baseline study of early warning systems in Malawi, 42.74% of the population has access to improved climate information and warnings (7,265,800 people); 83.37% of the population get warnings in time (baseline 10%). Should be noted that not all of this achievement can be attributed to the CI/EWS project. • Sao Tome: 80% of the population with access to improved climate information and flood, drought, strong wind and coastal warning (target 50% and baseline 30% men and 20% women) • Sierra Leone: Target has been achieved with 50% men - 50% of women currently accessing improved climate information is achieved from a 0 baseline. • Tanzania: Over 70% of residents in the targeted areas benefited from improved climate information and early warnings (baseline 30%) • Uganda: About 10% (83.3% of target) of men and 8% (66.7% of target) of women now have access to weather and climate information nationwide. This represents an average of 75% achievement against the end of project target (baseline was 3%) • Zambia: 100 % of men and 100 % of women in target areas from a 0% baseline. 		
	<p>2 Number of development frameworks that integrate climate information in their formulation</p>	<p>currently, few development frameworks incorporate climate change information</p>	<p>At least 3 sectoral development frameworks (at national, sub-national and sector level) incorporate analyses of risks based</p>	<p><u>National project final PIRs state:</u></p> <ul style="list-style-type: none"> • Benin- no information cited on this indicator • Burkina Faso: 2 of the PRSP policy briefs now incorporate analyses of risk maps and/or climate change projections influencing long-term planning proposals. These are the National Social and Economic Development Program (PNDES) and National Adaptation Plan – both of which consider analyses of climate risk maps. • Ethiopia: Listed in the TE as satisfactory with the objective and outcome targets of the project have been incorporated in the pillars of NMA and HWQD sector-specific GTPs. Ethiopia's second National GTP (2015-2020) incorporates 		<p>S</p>

			<p>on climate change projections and take into account the costs and benefits of adaptation.</p>	<p>targets for delivery of meteorological forecasting and early warning services including: “preparation and dissemination of short duration weather forecasting reports twice a day; midterm weather forecast on daily basis; 1-5 days cities weather forecast which could be updated daily as well as regional midterm weather forecast which could be updated yearly”.</p> <ul style="list-style-type: none"> • Liberia: The partnerships have been established. Target was not reached during project lifetime (PIR reporting) • Malawi: The first-ever National Disaster Risk Management Policy of 2015 and Climate Change Management Policy are in place. A first-ever Meteorology Policy was finalized and awaits Cabinet approval. • 2 District Development Plans have integrated Climate information, and these have even been supported at urban council level, which has never been the case before as focus has been on rural areas. • Sao Tome: Sectorial strategies and plans integrate now the risks associated with CC (no number is cited). In order to add some quality and celerity to the CONPREC communication system, the project has developed a "Standard Operational Protocol of Communication" which will be made operational in 2019. • Sierra Leone: Progress towards the target of at least 2 (target set) of the PRSP policy briefs incorporate analyses of risk maps and/or climate change projections influencing long term planning proposals is achieved with the development of the hazard profile, land policy and the drafted Climate Change Strategy and Action Plan by the Environment Protection Agency of Sierra Leone. • Tanzania: project has improved the integration of climate information into early warning systems and short and long-term plans in the pilot districts (Liwale and Arumeru). The project has developed guidelines for updating local land use plans, district strategic development plans and district budget plans considering emerging climate information, flood forecasts and economic scenarios for Liwale and Arumeru Districts. The guidelines were used to update local land use plans, district strategic development plans and district budget plans considering emerging climate information, flood forecasts and economic scenarios. • Uganda: 3 sectors have been able to integrate climate and early warning information in their policies and plans that are 		
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				<p>at different stages of review or development. These include Ministries of Water and Environment; Agriculture, Livestock and Fisheries and Office of Prime Minister. The policies and strategies include Water policy and Act; the National Environment Policy and Act; Disaster Preparedness and Management Policy and Bill; and Climate Change Bill under development; and Agriculture Sector Development Investment Plan and Climate Smart Agriculture Strategy.</p> <ul style="list-style-type: none"> • Zambia: At the national level, climate change has been integrated into all pillars of the 7 NDP which is the key policy document for the Government in implementing the national agenda. One of the major transformations in the use of weather and climate information at the district level is the weather-related impact actions. At the district level, the project facilitated the organization of the multi-sectorial District Disaster Coordinating Committee (DDCC). The weather and climate information produced supports policy and planning among the different sectors represented in the DDCC. Further, the DMMU focal points in the districts use the weather and climate information to update the disaster risk reduction activities 		
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3.3.2 Relevance (*)

The Programme provided overarching support to 11 countries that are/were implementing their own climate information projects with their own object. Targeted groups for the Programme were Met Offices, directly and indirectly, end-users of climate information. UNDP has worked directly with Met Offices and has engaged representative end-users from agriculture, utilities, aviation, government to participate in workshops or to provide information on needs through their contributions in blogs and knowledge management products. UNDP has encouraged the development of last-mile services to meet those identified needs through knowledge management products and by introducing potential partners. A market study that was conducted to help close in on the project achievements and NHMS capacities to meet these last-mile needs, this particularly investigated addressing the needs of those users with little access to climate information.

The Programme has been highly relevant to UNDP activities. It represented a contribution to the fulfilment of UNDP UNDAF, **Outcome 4. Strengthened capacity of developing countries to mainstream climate change adaptation policies into national development plans.** The Project was also designed to contribute to the following UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: **Promote Climate Change Adaptation.**

At the time of Programme development, it was very relevant to several national-level projects. It was interlinked and relevant to outcome 2 in Benin (PIMS #5105), Burkina Faso (PIMS #5104), Ethiopia (PIMS #5095), Liberia (PIMS #4858), Malawi (PIMS #5092), Sao Tome and Principe (PIMS #5103), Sierra Leone (PIMS #5107), 5096 Tanzania (PIMS #5096), Uganda (PIMS #5094), and Zambia (PIMS #5091).²⁷

The Programme is also highly relevant to the GEF Strategic Objective and Programme: **The Least Developed Countries Fund (LDCF).** Objective 2: **Increase adaptive capacity to respond to the impacts of climate change, including variability, at the local, national, regional and global level.** GEF Expected Outcomes (relating to the LDCF Results-Based Management Framework): Outcome 2.1: **Increased knowledge and understanding of climate variability and change-induced risks at the country level and in targeted vulnerable areas.** Outcome 2.2: **Strengthened adaptive capacity to reduce risks to climate-induced economic losses.** Outcome Indicators (relating to the LDCF Results-Based Management Framework): i) Relevant risk information disseminated to stakeholders, ii) Type and number of monitoring systems in place, and iii) % of the population covered by climate change risk measures

Based on the abovementioned the Relevance is rated as Relevant (R).

Relevant (R)	Not Relevant (NR)
R	

3.3.3 Effectiveness and efficiency (*)

Effectiveness

The Programme objective and main outputs have been achieved; most of the established targets have been met though many of the targets at the end of the Programme are difficult to measure as indicators are mostly generic. For example, for the project objective, the target by the end of the Programme was: Each country has received significant and useful technical support. The associated indicator is: *Level and quality of technical support and backstopping provided is adequate and has significantly contributed to the delivery of the multi-country Programme as measured through the capacity assessment scorecard.* However, capacity level as per the initial scorecards was not provided in the Programme document as the baseline. The Programme management structure as outlined in the ProDoc followed the typical UNDP/GEF Programme management structure and was efficient in generating expected results.

Considering the above-mentioned facts, Effectiveness was rated **Satisfactory.**

Based on the above mentioned the Effectiveness is rated:

²⁷ ProDoc, Page 12.

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
	S				

Efficiency

Programme efficiency is considered **Satisfactory (S)** for the following reasons:

- The cost-effectiveness of the Programme is considered **Satisfactory (S)**. The inclusion of long-term experts through Long-term Agreements (LTAs) has helped the team in saving time and efforts to re-hire needed experts. The inclusion of experts through LTAs enhanced the Programme’s efficiency and facilitated work at a minimal cost. It helped the Programme in achieving many results with limited allocations.
- Programme capacity to build needed partnerships during the Programme’s implementation phase is rated as **Highly Satisfactory (HS)**.
- The M&E of the Programme was undertaken according to UNDP and GEF procedures and it is rated as **Moderately Satisfactory (MS)**, mainly the use of financial resources.
- Risks and issues identification and management is rated as **Moderately Unsatisfactory (MUS)**. Issues and risks were not quarterly updated as no QPRs prepared for the Programme.
- The involvement of men and women equally into Programme activities as well as mainstreaming gender in the Programme’s activities are rated as **Satisfactory (S)**. Women were encouraged to attend meetings and participate as speakers in different events. Project management included several females.
- Having multiple countries procure the same equipment had the advantage that experiences were shared, joint training sessions were conducted in a large multi-country group format, and teams from one country assisted another in the initial installation.
- The Programme technical team became expert in troubleshooting installation and communication problems with equipment provided under the LTA. Because of these results, the Programme significantly increased the functional observing infrastructure in several countries. Hence, the approach to providing multi-country assistance to 11 national projects proved to be a successful and important input in helping national projects achieve individual project goals.
- The Programme arranged for use of an LTA approved previously for a World Food Programme project that allowed for procurement of more traditional AWS from ADCON. However, the impact of these procurement tools was significant in helping accelerate procurement while ensuring that quality from providers was consistent and appropriate to national needs and capacities. Procurement implemented with reduced administrative and technical demands on the NMHS and UNDP country office staff.
- The Programme team was also instrumental in setting up LTAs for Met. services and equipment and a similar one for hydrological services and equipment. These were awarded to *Ubimet*, *BRL* and *Earth Networks* providing support to COs to be able to see other alternatives to traditional ADCON stations.
- The Programme team helped analyze needs through in-country missions and assessments to advise on the best options. It also allowed for the streamlining of costs and proved more bang for the buck. Also, it then identified a key need in data assimilation, so that the information from various equipment brands could be integrated (thus reducing costs from separate networks).

Based on the above mentioned the Efficiency is rated:

Highly Satisfactory (HS)	Satisfactory (S)	Moderately Satisfactory (MS)	Moderately Unsatisfactory (MU)	Unsatisfactory (U)	Highly Unsatisfactory (HU)
	S				

3.3.4 Country Ownership

Although this is a regional Programme, country ownership was evident during the Programme formulation stage and Programme implementation due to the following:

- the Programme idea has its origin within the national sectoral and development plans. It is aligned and interlinked with several nationally led projects.
- The Programme component was developed based on comprehensive consultation with national stakeholders.
- Each country project has identified a national priority for enhanced Climate Information and Early Warning Systems, especially in the context of food security, water resources management, health risk management and terrestrial and coastal ecosystem resilience.
- In-depth assessments and stakeholder consultations were conducted during the project preparatory phase in each country, and all barriers were noted as significant impediments to the effective use of CI/EWS for managing and/or responding to climate change risks and opportunities.
- Country-specific Programme frameworks have been developed based on country consultations (they took around 12 months to develop).
- As a regional Programme, common requirements across all countries were identified and for each country, the number and type of specialized technical assistance were identified to provide needed support services.
- Each of the Programme outputs complements the deliverables of several nationally led projects.
- The Programme capitalized on a number of ongoing regional and international efforts that support CI/EWS in Africa including efforts through EU (GeoNetCAST, DevCoCAST, MARS, GMFS), FEWS, IFRC, ICPAC, ACMAD, ACPC, SADC-CMC, AGRHYMET, with financing from both bilateral (e.g. USAID, DFID, JICA, GIZ) and multilateral (e.g. World Bank, GFDRR, FAO, WMO) sources.

3.3.5 Mainstreaming

This Programme was a key component of UNDP global, regional, and country programming. It was successfully mainstreamed with other UNDP priorities including recovery from natural disasters, gender, and improved governance. The Programme was able to positively mainstream several UNDP priorities. Specifically:

- ✓ It contributed to the fulfilment of UNDP UNDAF, Outcome 4. ***Strengthened capacity of developing countries to mainstream climate change adaptation policies into national development plans.***
- ✓ It contributed to UNDP Strategic Plan Environment and Sustainable Development Primary Outcome: ***Promote Climate Change Adaptation.***
- ✓ It supported several national-led UNDP projects: Benin (PIMS #5105), Burkina Faso (PIMS #5104), Ethiopia (PIMS #5095), Liberia (PIMS #4858), Malawi (PIMS #5092), Sao Tome and Principe (PIMS #5103), Sierra Leone (PIMS #5107), 5096 Tanzania (PIMS #5096), Uganda (PIMS #5094), and Zambia (PIMS #5091).
- ✓ The Programme managed to mainstream gender in most of its activities. UNDP Programme -related team included both women and men. The two top project management positions were occupied by females. Four out of nine Programme team members were females. However, it was not easy to define the percentage of women participation in project activities as the project did not promote disaggregated data by gender.
- ✓ The technical assistance that was delivered through the Programme focused on several UNDP priorities, such as *meteorological, climate and hydrological observing and forecasting systems, disaster risk management and viable communication systems/processes for disseminating alerts, the use of alternative cost-effective technologies, and engagement with the private sector for the provision of climate services.* This has helped several countries to achieve their national plans. For example, in Liberia and Sierra Leone, after the Ebola crises, NHMS had to be rebuilt. In these countries' web portals with dynamic climate, information has been established and include interactive flooding maps. This has been possible partly due to the advisory support provided by the Programme in establishing a cost-sharing agreement with a private company as well as through investing in modelling support for flooding²⁸. Sierra Leone has also developed a Climate Information, Disaster Management and Early

²⁸ Programme 2018 PIR.

Warning Systems platform to feed early warnings, thus enhancing the capacity for risk information dissemination.

- ✓ The Programme targeted both women and men in their events. Female experts were invited as key speakers. However, data pertaining to the Programme’s beneficiaries, and events’ participants were not disaggregated by sex.

3.3.6 Sustainability (*)

UNDP/GEF TE guidelines identify Sustainability as the *likelihood of continued benefits after the project ends*. Consequently, the assessment of sustainability considers the risks that are likely to affect the continuation of project outcomes. The GEF Guidelines establish four areas for considering risks to sustainability:

Financial risks

As a regional Programme that has received a contribution from nationally led projects, the Programme financial sustainability is entirely depending on the national project. National projects have included within its project document a component to identify long term arrangement to ensure the sustainability of the project despite its close. According to the Programme team, although the Programme looked to emphasize this from the beginning, some of the national projects did not prioritize this component until the last year of implementation. A workshop was held in Zambia in December 2017 provided specific guidance and support on this issue to ensure a full and seamless transition from project to national implementation. Experts hired by the Programme worked in Liberia, Sierra Leone and Uganda to establish cost-sharing agreements and have reached out to other partners to provide support. LTAs for hydromet equipment looked to identify technological solutions that were easier to maintain and more appropriate for the terrain. Missions were held to partner countries to ensure that the equipment was well installed and that countries knew how to maintain them. In some countries, cost-sharing agreements with aviation and energy sectors have helped. In addition, some were able to see budget allotment increased.

Based on the above discussion, the financial risks are limited, and sustainability is rated as:

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MS)	Unlikely (U)
L			

Socio-economic risks

Work under the Programme assisted countries to undertake risk and vulnerability mapping through training, advisory and mentoring support. Countries were assisted to understand the information needs of the recipients of climate information and warnings so that value-added products can be tailored and presented in ways that enable users to act upon the information. So, the Programme has helped to protect the socio-economic context in different countries and location and has included several locally-based organizations to ensure enable them to actively participate in developing and implementing activities to ensure continuity and replicability once the Programme is completed. Hence, the socio-economic risks associated with the Programme are considered negligible.

Based on the above-mentioned Socio-economic Risk, risks are negligible and thus the sustainability is rated as

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MS)	Unlikely (U)
L			

Institutional framework and governance risks

Considerable effort has been made to meeting targets and nationally led projects have increased access to climate information and have made considerable effort in streamlining it within national policies. Some countries have been successful in building their EWS system in case of Uganda, rebuilding their entire EWS system such as in Sierra Leone, and directing greater national funds to ensure its operability due to its increase national relevance such as in Burkina Faso. However, not all countries have achieved the same measure of success.

The Programme has directed a lot of support and resources to help countries meet outcome 2. This includes developing a market study, identifying potential partners (HNI, Earth Networks, IBM, etc) for cost-sharing, packaging information and disseminating, developing a communications toolkit. Hosting a hackathon and dedicating an entire regional workshop on this topic. All these activities have strengthened the institutional framework in order to ensure the Programme’s sustainability after the completion of the Programme activities. In 2016, a workshop was organized in Zambia 2016 to help national projects reaching the last mile in a manner to ensure the sustainability of the newly enhanced observation systems²⁹. Furthermore, countries were mostly interested in expanding network coverage and beginning to integrate hydrological data, the Programme has responded to this interest and helped to enhance national capacities to ensure sustainability.

This was seen (and made even more evident after MTRs) to be an issue where national teams were continuously struggling with. In fact, this became key lessons learned from the Programme and that it is included in the *New Vision Document: CI/EWS projects can not only be about equipment, but they also need to be about the usefulness of this information to end-users and need to take into account long term sustainability for long term resilience.*

The Programme has also supported the work of Uganda, Malawi, Sierra Leone, Benin and Tanzania in their interest to upscale the project through access to GCF funds.

The Institutional framework and governance risks are low, and sustainability is:

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MS)	Unlikely (U)
L			

Environmental risks

None of the activities that were implemented by the Programme posed an environmental threat to the sustainability of the Programme outcomes.

The Environmental risks are negligible, and the sustainability is:

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MS)	Unlikely (U)
L			

Overall rating: All the associated risks are negligible and thus, the overall rating for Sustainability is:

Likely (L)	Moderately Likely (ML)	Moderately Unlikely (MS)	Unlikely (U)
L			

3.3.7 Impact

The Programme has achieved major milestones and key outputs. Below is a summary of key deliverables, that would have a long-term impact:

The capacities of the multi-country in relation to delivering timely information and warnings, utilizing appropriate technologies and scientific knowledge in a sustainable manner have developed as capacity scorecard results showed³⁰:

- **Benin**- Capacity reported as enhanced for national institutions this was confirmed in the project’s TE however a scorecard was not explicitly provided.
- **Burkina Faso**- 176 (baseline 74 and target was 161)
- **Ethiopia**: Terminal evaluation rated this achievement as satisfactory
- **Liberia**: Capacity assessment score rating was not used however credible evidence in both Terminal Evaluation and PIR regarding capacity enhancement of all NHMS team in equipment maintenance and forecasting through training missions and expert support.
- **Malawi**: The capacity scorecard rating has increased from a baseline of 72 across men and women from the project start to an average scorecard of 143 which has exceeded the targeted 121

²⁹ Programme PIR 2018.

³⁰ Final Programme PIR.

- **Sao Tome**- Capacity reported as considerably enhanced both in training to NHMs and stakeholders and in equipment procured working and integrated to national systems.
- **Sierra Leone**- 161 (baseline 45)
- **Tanzania**- capacity scorecard rating not assessed rather achievement measuring was based on overall assessments of project interventions and progress made toward achieving the project outcomes. These indicate enhanced the capacity of Tanzania's Meteorological Agency and Ministry of Water and Irrigation to monitor (and forecast) droughts and floods and advocate for effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans in project pilot districts (namely Liwale and Arumeru) through access to enhanced observation equipment and monitoring capacity.
- **Uganda**: Capacity of Agencies to produce early warning information has increased from 92% in 2017 to 99% in 2018(50.5 out of target 51) attributed to quality assurance of weather services, bench-marking exposure visits to the South Africa Weather Services and various in house training; The capacity to package information increased slightly from 89% in 2017 to 92 (35 out of target of 36) again due to in house training of Uganda National Meteorological Authority (UNMA) and Directorate of Water Resources Management (DWRM) staff by suppliers of weather equipment, and Quality Management Expert from the Kenya Meteorological Department; capacity to disseminate information has remained at 100% (target of 36 out of 36) for UNMA and did not change for the DWRM as installation of the hydrological stations were completed a month to end of the project; and capacity of legislative and governance has slightly increased from 81% in 2017 to 85% in 2017 (15 out of 16)
- **Zambia**: There has been a capacity increase from 80 to 156 per the capacity scorecard, which represents a 91% increase since the inception of the project

Enhanced capacity to monitor and forecast extreme weather, hydrology and climate change. Improvement in coverage across all 11 country partners as follows³¹.

- **Benin**: Specific target regarding coverage was not listed however national coverage is listed as expanding due to procured equipment
- **Burkina Faso**: increase 100% NHMS optimal monitoring arrangement (baseline 25% and the target was 75%)
- **Ethiopia**: terminal evaluation listed achievement as moderately satisfactory with coverage increasing to 57% but not hitting the target
- **Liberia**: Coverage percentage not listed however project procured and installed all of the target equipment for coverage. In the case of AWS, it was 11 (target 9) stations. All hydro and met stations providing real-time and continuous monitoring.
- **Malawi**: Installation of 10 automatic weather stations has increased the network coverage from 33% to 72%. National coverage of operational surface manual hydrological stations with Department of Water Resources (DWR) has increased from a baseline of 52% at the start of the project to 65% and surface manual has increased from a baseline of 85% at project start to 90%. National coverage of automatic hydrological stations has increased from a baseline of 19% to 60%.
- **Sao Tome**: increase to 60% (target) national coverage from a baseline of 20%
- **Sierra Leone**: Target has been achieved. The National coverage which was based on the number of districts has increased to 66% hitting the target of 60% as nine out of the then 12 districts have optimal monitoring arrangements. At baseline, it was two districts.
- **Tanzania** reached 75% coverages of all national territory has been covered by an automated network, and the target has been met. Baseline stood at 30%.
- **Uganda**: national coverage of the operational weather stations has reached 47% (100% of project target). In terms of national coverage under 1.2, 46% (52 out of the 112 districts in the country) have weather stations. And, under 1.3, the status of national coverage for rain gauges/manual stations has remained at 26%. (Baseline 10%, 9% and 1% respectively).
- **Zambia**: The project has been able to deliver on its targets on the provision of 28 AWS equivalent to 39% of the districts against the target 29%, contributing a total of 41% of the country's total AWS network. Further the project facilitated the rehabilitation of all 39 manual stations in the country representing 54% against 37% of the target. The network is

³¹ *National projects' PIRs, and Programme completion report.*

fully functional and provides real-time data since 2015 except for the Kafulafuta that was installed in early 2017. The increased network has resulted in ZMD producing timely and accurate weather and climate information which is disseminated nationally and internationally (www.zmd.gov.zm).

National project PIRs indicate an improvement in transmission in all 11 partner countries

- **Benin:** Water level of main rivers is transmitted daily to EWS server as per target (baseline monthly)
- **Burkina Faso:** Daily data transmission increased from baseline monthly
- **Ethiopia:** every 15 mins (beyond daily target)
- **Liberia:** Real-time data is being provided with information from the new station being continuously sent.
- **Malawi:** The Department of Climate Change and Meteorological Services (DCCMS) is now making hourly Observation in all 58 AWS, 4 times observations in all 21 Conventional stations. The DCCMS is also able to make hourly Observation in all 63 AWS, 4 times observations in all 21 Conventional stations.
- **Sao Tome:** Daily data transmission (target achieved) done automatically every 15 mins. This has resulted in updated forecasting at 6-hour intervals.
- **Sierra Leone:** Daily data transmission frequency now in operation in comparison to monthly transmission at baseline.
- **Tanzania:** stations are connected to a server in Dar es Salaam, Mtwara and Moshi and transmission of data to TMA is made after every one hour through GPRS system overreaching target.
- **Uganda:** Information is being provided in real-time. This has resulted in Seasonal forecasts have been provided with a lead time of one week. Agro-met stations are giving reliable information for ten days (dekadal) weather information as well as bi-weekly and monthly advisories.
- **Zambia:** Real-time data is provided online (see above indicator) baseline stood at daily recordings but integrated by ZMD with a larger time lag

Efficient and effective use of hydrometeorological information for generating early warnings and supporting long term development plans. National project final PIRs stated that:

- **Benin-** % increased not assessed however there is evidence cited in PIR and in terminal evaluation that target was reached due to targeted agro alerts, flooding EWS targeting all flood-prone population and use of media such as radio and television alerts.
- **Burkina Faso:** increased to 50% (target) from baseline (5% women and 10% men)
- **Ethiopia:** terminal evaluation listed as moderately satisfactory with increased coverage but not monitored consistently to have the percentage
- **Liberia:** An Integrated Water Resource Management System (IWRMS) for Liberia has been established for general use. Further, A new weather website has been developed and was launched on July 22, 2018. This website, hosted and managed by the Ministry of Transport, publishes weather information for public consumption.
- **Malawi:** According to the 2017 comprehensive baseline study of early warning systems in Malawi, 42.74% of the population has access to improved climate information and warnings (7,265,800 people); 83.37% of the population get warnings in time (baseline 10%). Should be noted that not all of this achievement can be attributed to the CI/EWS project.
- **Sao Tome:** 80% of the population with access to improved climate information and flood, drought, strong wind and coastal warning (target 50% and baseline 30% men and 20% women)
- **Sierra Leone:** Target has been achieved with 50% men - 50% of women currently accessing improved climate information is achieved from a 0 baseline.
- **Tanzania:** Over 70% of residents in the targeted areas benefited from improved climate information and early warnings (baseline 30%)
- **Uganda:** About 10% (83.3% of target) of men and 8% (66.7% of target) of women now have access to weather and climate information nationwide. This represents an average of 75% achievement against the end of project target (baseline was 3%)
- **Zambia:** 100 % of men and 100 % of women in target areas from a 0% baseline.

According to the National Projects' PIR and the Programme completion report:

- **Benin**- no information cited on this indicator
- **Burkina Faso**: 2 of the PRSP policy briefs now incorporate analyses of risk maps and/or climate change projections influencing long-term planning proposals. These are the National Social and Economic Development Program (PNDES) and National Adaptation Plan – both of which consider analyses of climate risk maps.
- **Ethiopia**: Listed in the TE as satisfactory with the objective and outcome targets of the project have been incorporated in the pillars of NMA and HWQD sector-specific GTPs. NMAs GTPII is aligned with global and regional perspectives including the Integrated African Strategy on Meteorology (IASM). HWQDs GTPII aims to upgrade all hydrology stations with telemetry. Ethiopia's second National GTP (2015-2020) incorporates targets for delivery of meteorological forecasting and early warning services including: "preparation and dissemination of short duration weather forecasting reports twice a day; midterm weather forecast on daily basis; 1-5 days cities weather forecast which could be updated daily as well as regional midterm weather forecast which could be updated yearly".
- **Liberia**: The partnerships have been established and better awareness has been made. However, the target was not reached during project lifetime (PIR reporting)
- **Malawi**: The first-ever National Disaster Risk Management Policy of 2015 and Climate Change Management Policy are in place. A first-ever Meteorology Policy was finalized and awaits Cabinet approval.
District Development Plans have integrated Climate information, and these have even been supported at urban council level, which has never been the case before as focus has been on rural areas.
- **Sao Tome**: Sectorial strategies and plans integrate now the risks associated with CC (no number is cited). In order to add some quality and celerity to the CONPREC communication system, the project has developed a "Standard Operational Protocol of Communication" which will be made operational in 2019.
- **Sierra Leone**: Progress towards the target of at least 2 (target set) of the PRSP policy briefs incorporate analyses of risk maps and/or climate change projections influencing long term planning proposals is achieved with the development of the hazard profile, land policy and the drafted Climate Change Strategy and Action Plan by the Environment Protection Agency of Sierra Leone.
- **Tanzania**: project has improved the integration of climate information into early warning systems and short and long-term plans in the pilot districts (Liwale and Arumeru). The project has developed guidelines for updating local land use plans, district strategic development plans and district budget plans considering emerging climate information, flood forecasts and economic scenarios for Liwale and Arumeru Districts. The guidelines were used to update local land use plans, district strategic development plans and district budget plans considering emerging climate information, flood forecasts and economic scenarios.
- **Uganda**: 3 sectors have been able to integrate climate and early warning information in their policies and plans that are at different stages of review or development. These include Ministries of Water and Environment; Agriculture, Livestock and Fisheries and Office of Prime Minister. The policies and strategies include Water policy and Act; the National Environment Policy and Act; Disaster Preparedness and Management Policy and Bill; and Climate Change Bill under development; and Agriculture Sector Development Investment Plan and Climate Smart Agriculture Strategy.
- **Zambia**: At the national level, climate change has been integrated into all pillars of the 7NDP which is the key policy document for the Government in implementing the national agenda. One of the major transformations in the use of weather and climate information at the district level is the weather-related impact actions. At the district level, the project facilitated the organization of the multi-sectorial District Disaster Coordinating Committee (DDCC). The weather and climate information produced supports policy and planning among the different sectors represented in the DDCC. Further, the DMMU focal points in the districts use the weather and climate information to update the disaster risk reduction activities

4. Conclusions, Recommendations & Lessons

The Programme managed to deliver considerable results by the end of its implementation. UNDP has provided satisfactory support to Programme implementation. The Programme has demonstrated the capacity to enhance national capacities to monitor and forecast extreme weather, hydrology and climate change in 11 African countries. The Programme has also succeeded in mobilizing the needed country contribution to ensure the implementation of the Programme's activities as per its annual work plans. The Programme facilitated the efficient and effective use of hydrometeorological information for generating early warnings and supporting long term development plans. This is clearly reflected in the nationally led projects' capacity scorecards.

The Programme focused on providing support to all partner countries particularly in filling gaps as identified by countries as well as in supporting the development of an exit strategy. Support was provided by the Programme in a Regional Workshop held in Zambia to which 10 countries attended. It was also provided by ensuring capacity for data consolidation through holding a workshop to ensure that capacities for data assimilation of various equipment existed. The Programme made outreach to [ADCON](#) to develop specific training to technicians from partner countries. Missions have been prioritized to selected countries by country support specialist.

The Programme also has worked with additional countries interested in its approach. These included: Madagascar, Cambodia, South Sudan and Guinea. This support led to the invitation of representatives from Cambodia and Guinea to attend a workshop and active support of a project country support specialists to present a national CI/EWS proposal for GEF Approval. Based on the experience gained from the Programme, work has started in supporting country partners to upscale CIEWS support through the development of proposals to be presented to the GCF and other donor funds.

Based on the review and assessment of the Programme deliverables, the Programme implementation reports, and taking into consideration the nature of the Programme, the Programme overall rating is **Satisfactory**.

The Programme is very much acknowledged by the participating governments, and very relevant to UNDP, GEF, and the Governments' plans. With the confirmed interest and support provided by UNDP prospects for sustainability are certain, and overall sustainability is considered **likely**.

4.1 Corrective actions for the design, implementation, monitoring, and evaluation of the project

For the Design

Corrective Action 1: M&E plans and activities should be detailed and discussed with stakeholders during the Programme design stage.

Corrective Action 2: A lot of emphases should be put on the Programme Results Framework. The Programme logframe is very weak and made the M&E work of the team difficult during its implementation. Targets and indicators need to be SMART.

Corrective Action 3: Sections related to stakeholders, partnerships, lessons learned from other projects, Programme's sustainability and replicability were all missing! These sections are very important and provide the needed guidance to the Programme team to steer the implementation mainly before the inception workshop.

Corrective Action 4: co-financing data was completely missing from the document. Annexe 4 pertaining to the Programme's co-financing is missing.

Corrective Action 5: mainstreaming aspects are not well-articulated and in general many are not addressed. No information provided on gender, or the role of the Programme in poverty alleviations, etc.

For the Implementation

Corrective Action 6: make the best use of IW and IR. It was noticed that these two M&E tools represent weakness in Programme management cycle. IW aims at ensuring that the Programme design is still responding to the regional and national contexts. It helps the team in reviewing and updating the Programme's outputs, indicators, targets, and management arrangement.

Corrective Action 7: critical M&E tools need to be utilized such as the QPRs, APR/PIRs, Risk and Issues log, and adaptive management measures. These need to constitute parts of the Project implementation review. In order to effectively manage such a regional Programme, all M&E tools need to be in place.

Corrective Action 8: Programme events should be analyzed in terms of the number of participants, affiliations, sex, satisfaction, etc.

For the Monitoring and Evaluation

Correction Action 9: Ensure that the Programme's M&E tools are all prepared and shared with the stakeholders as per the UNDP Guidelines. PB and stakeholders need to be informed about the Programme progress, risks and issue, barriers it faces, etc. Reports should include qualitative and quantitative analysis and provide essential information.

Correction Action 10: An exit strategy that is discussed and agreed upon is very important to be developed during the project's implementation.

4.2 Actions to follow up or reinforce the initial benefits of the project

This evaluation concludes that the Programme has contributed to important results. The Programme is considered successful as it was able to ensure that relevant components of the climate monitoring, forecasting and early warning systems in most of the participating countries can deliver timely information and warnings, utilizing appropriate technologies and scientific knowledge in a sustainable manner. The Programme also managed to deliver its planned results. Furthermore, lessons learned had been published and disseminated by UNDP through different tools and venues.

The TE recognizes the considerable achievements of the Programme, particularly in achieving and preparing key deliverables and documentation. The TE is focusing to a large extent on the areas of the Programme that have not performed as well as was anticipated in the Programme's design. The TE wishes that this does not undermine the successes of the Programme and the hard work and commitment of all those who have been involved in it. As this is the Programme's terminal evaluation, there is little the Programme itself can do. Hence, the TE would like to make the following recommendation to ensure that a clear set of actions to follow up or reinforce the initial benefits of the Programme are identified:

Recommendations

This evaluation concludes that the Programme has contributed to important results. The Programme is considered successful as it was able to ensure that relevant components of the climate monitoring, forecasting and early warning systems in most of the participating countries can deliver timely information and warnings, and utilizing appropriate technologies and scientific knowledge in a sustainable manner. The Programme also managed to deliver its planned results. Furthermore, lessons learned had been published and disseminated by UNDP and other development partners through different tools and venues.

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- **Recommendation 1:** Although the Programme had faced at least one notable risk related to sustainability, as documented in 2018 PIR, the risks were not documented

during project design or during implementation. Developing risks and assumptions logs that the Programme encountered during implementation is a critical monitoring and evaluation tool, it proved to be useful, particularly if they are made accessible to relevant audiences. A proper way to do so would have been most likely by ensuring that the key lessons referring to risks and assumptions were posted in the appropriate location such as the Programme website with links to the nationally led projects' websites and UNDP COs sites. This should be done as soon as possible following programme completion in order to strengthen the likelihood of sustainability of project results as much as possible (**UNDP1 and the Project team**).

- **Recommendation 2:** Given the nature of the regional Programme as one of the first attempts to provide technical supports based on countries' need and in-depth stakeholder consultations, there are valuable lessons and knowledge sharing to be gained by examining the Programme through a wide-lens. The Programme has contributed specific results and it would be highly useful to gain a perspective as to whether a regional approach is something that should continue to be supported under capacity building modalities, or if interventions at the country level are most effective. Partners and stakeholders see that the Programme approach was very beneficial and asked for a continuation of the Programme through a second phase or a new programme that follows the same approach and provide a contribution of the services provided by the Programme.
- Discussing a new phase of the programme could be pursued through a UNDP regional event that includes all stakeholders, beneficiaries and partners mainly the private sector, international development agencies working in Africa on similar fields and donor community (**UNDP Regional Office and the GEF**).
- **Recommendation 3:** If a second phase of the Programme or a follows on Programme is to be undertaken by UNDP, it is recommended that a thorough baseline is conducted early on in the process to assess the current capacity of the 11 countries and the need to include/exclude other countries interested to join the Programme. The possibility of extending the scope of work of the Programme to cover more countries/regions should be investigated in order to utilize functional existed mechanisms (**UNDP and/or other development partners**).
- **Recommendation 4:** In order to ensure the sustainability of the Programme's outcomes, it is necessary to institutionalize the Programme's main results. The Programme should investigate embedding its work, results, outcomes, and experiences at one of the development partners through existing and ongoing initiatives and links to regional plans and programmes (**UNDP COs and UNDP1**).
- **Recommendation 5:** It is important to assess the capacity need of the 11 countries continuously. A review of each country capacity may be necessary for a future follows on the initiative as there are continuous changes at the economic, technical, operational, political and environmental levels in many of the participating countries. Equally, the 11 countries should embark on and benefit from the private sector in the identification and implementation of climate change, early warning and enhancing resilience-related initiatives. In this regard, private sector engagement early on in the project and programme design and subsequently during implementation would be advantageous for initiatives of this type (**UNDP COs, development partners, and the Governments of the 11 countries**).

4.3 Proposals for future directions underlining main objectives

The quality of the Programme document- at the design stage- is very crucial to provide a good base for the team to achieve the Programme intended outcomes. The Programme document should include all needed details as per the UNDP GEF template.

4.4 Best and worst practices in addressing issues relating to relevance, performance, and success

Some of the best practices and lessons learned for this Programme:

Lessons Learned

Some of the best practices and lessons learned for this Programme:

- ✓ This Programme could have benefitted from a more adequate monitoring plan and processes, as opposed to only an annual report that was used to measure progress. A Mid-term review- that was skipped- could have been helpful for assessing performance to assist in the terminal evaluation. In addition, an effective and well-structured documentation process or platform could have been more useful for measuring project progress. Similar future Programmes should consider how to improve mechanisms to support the process of ensuring that beneficiary institutions develop a reporting requirement that informs policy-making, assesses progress on capacity development, and helps enable mainstreaming climate data into national development activities.
- ✓ Since it is difficult to attain measurable outcomes within a short time frame of most capacity development projects/programmes, it is essential to ensure that the Programme design is not overly ambitious and include needed details such as SMART indicators and targets from the beginning.
- ✓ The Programme concept was well-justified, had a good approach, and was opportunistic, relevant and strategic. However, various operational issues contributed to uncertainty with respect to sustainability. Operational risks need to be clearly and carefully analyzed at the programme design phase, and appropriate risk mitigation measures identified from the beginning. In addition, continuous assessment of risks is an absolute necessity to ensure effective management of risks and the identification of proper mitigation measures

5. Annexes

Annexe 1. ToR

TERMS OF REFERENCE

Individual Consultant- Terminal Evaluation

Terminal Evaluator for the Multi-Country Project:

“Strengthening climate information and early warning systems in Eastern and Southern Africa for climate-resilient development and adaptation to climate change (CIRDA)”

Type of Contract: Individual Consultant

Duty Station: Home Based

Starting date: 28 October 2019

Duration: Twenty (20) working days through 31 December 2019

Supervisor: Regional Technical Advisor Climate Change Adaptation- Africa

Background

UNDP's Multi-Country CIRDA Project was developed in response to a request for assistance by a number of Least Developed Countries (LDCs), to provide regional support to African LDC's in their efforts in improving climate information and early warning systems to significantly improve lives and build resiliency. The Multi-Country Project was designed to complement national projects developed in eleven African countries (Benin, Burkina Faso, the Gambia, Liberia, Sierra Leone, Sao Tome and Principe, Ethiopia, Uganda, Tanzania, Malawi and Zambia) for enhancing national climate information and early warning systems with through funding from the GEF's Least Developed Country Fund (LDCF). Given limitations in the number of weather, climate and hydrological monitoring stations per country, a regional approach to collecting observations was considered a means to help improve the use and sharing of data between countries as well as ensuring natural efficiencies and economies of scale in the delivery of technical assistance and skill-building, and in enhancing knowledge management and knowledge sharing among partner countries. The national CI/EWS initiatives were endorsed in September 2013, with the UNDP Multi-Country CIRDA Programme being formed in 2014.

Improving climate information and early warning systems across Africa has the potential to significantly improve lives, build resiliency and support global efforts to achieve the Sustainable Development Goals. UNDP's CIRDA Project was designed to respond to national and international priorities in improving capacities to manage and respond to the uncertainties of climate change in line with GEF LDCF/SCCF focal area objective 2 (“Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level”) and objective 3 (“Promote transfer and adoption of adaptation technology”).

For over 30 years, the international development community has made substantial investments in climate information systems for Africa, nevertheless, according to the World Bank, “most hydromet services are unable to meet the needs for weather and climate information.” This lack of quality information is costing African nations dearly. With effectively structured public-private partnerships, new technology strengthened institutions increased regional cooperation and continued capacity building, sustainable climate and weather information solutions are a realistic and attainable goal.

The project’s specific objective was to assist partner countries in successfully implementing all components of their national CI/EWS projects in alignment with their approved outcomes. Technical assistance was to be delivered in the context of:

1. Enhanced capacity to monitor and forecast extreme weather, hydrology and climate change;
2. Efficient and effective use of hydro-meteorological information for generating early warnings and supporting long-term development plans.

The Project hence looked to provide capacity building and technology transfer, providing the 11 participating African LDCs access to international experts on meteorology, hydrology, forecasting, innovative technologies and public-private partnerships. Support was also delivered through in-country support missions, capacity building workshops and knowledge products and platforms, to promote innovative approaches for providing and sustaining long-term local weather and climate services and facilitate South-South Cooperation to maximize the return on investments in end-to-end early warning and climate information systems. In this light, UNDP-GEF is seeking the service of an evaluation expert to conduct the final evaluation of the Project.

Scope of the assignment

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular, the GEF operational focal point, UNDP Country Office, project team, UNDP-GEF Technical Adviser based in the region and key stakeholders.

The evaluator will review all relevant sources of information, such as the project document, project reports – including board meeting minutes, project budget revisions, progress reports from national projects and from the CIRDA Project, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. All these documents will be provided.

The evaluator is expected to frame the evaluation effort using the criteria of relevance, effectiveness, efficiency, sustainability, and impact as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported Projects. An overall approach and method for conducting project terminal evaluations of UNDP supported projects can be found in the Handbook on Planning, Monitoring and Evaluating for Development Results.

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluations'.

Project evaluation criteria and questions

The evaluator will evaluate Project monitoring and evaluation, Project execution, the outcome of the Project's outcomes and sustainability. An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework, which provides performance and impact indicators for project implementation along with their corresponding means of verification.

The evaluation in the assessment of the Project's outcomes will at a minimum cover the following criteria: relevance, effectiveness, efficiency, sustainability and impact.

- **Relevance:** Relevance looks at the relationship between the needs and problems identified and the objectives of the intervention. The extent to which the objectives of a development intervention are consistent with beneficiaries' requirements, country needs, global priorities and partners' and donors' policies.
- **Effectiveness:** The extent to which the development intervention's objectives were achieved. The evaluation should form an opinion on the progress made to date and the role of UNDP's CIRDA Project delivering the observed changes. If the objectives have not been achieved, an assessment should be made of the extent to which progress has fallen short of the target and what factors have influenced why something hasn't been successful or why it has not yet been achieved.
- **Efficiency:** A measure of how economically resources/inputs (funds, expertise, time, etc.) are converted into results.
- **Sustainability:** The continuation of benefits after the project ends. The probability of continued long-term benefits, assessing i) sustainability of financial resources, ii) socio-political sustainability, iii) sustainability of institutional framework and governance, iv) environmental sustainability, and v) a final rating of overall sustainability
- **Impact:** The evaluator will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include mainstreaming. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

The evaluation should also assess the key financial aspects of the project. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the UNDP Regional Hub for Africa (RHA) and Project Team to obtain financial data.

Evaluation Questions and Ratings

Monitoring and Evaluation (Ratings: 6: Highly Satisfactory (HS): no shortcomings; 5: Satisfactory (S): minor shortcomings; 4: Moderately Satisfactory (MS); 3. Moderately Unsatisfactory (MU): significant shortcomings; 2. Unsatisfactory (U): major problems; 1. Highly Unsatisfactory (HU): severe problems)

- Evaluate M&E design at entry
- Evaluate the M&E plan at the implementation
- Evaluate the overall quality of M&E

Project Execution (Ratings: 6: Highly Satisfactory (HS): no shortcomings; 5: Satisfactory (S): minor shortcomings; 4: Moderately Satisfactory (MS); 3. Moderately Unsatisfactory (MU): significant shortcomings; 2. Unsatisfactory (U): major problems; 1. Highly Unsatisfactory (HU): severe problems)

- Quality of UNDP implementation
- Quality of Project execution
- The overall quality of Project implementation and execution

Relevance (Ratings: 2. Relevant (R), 1. Not-relevant (NR))

How does the project relate to the main objectives of the GEF focal area, and to addressing main barriers identified in regard to access to climate information for development purposes in the region?

Effectiveness (Ratings: 6: Highly Satisfactory (HS): no shortcomings; 5: Satisfactory (S): minor shortcomings; 4: Moderately Satisfactory (MS); 3: Moderately Unsatisfactory (MU): significant shortcomings; 2: Unsatisfactory (U): major problems; 1: Highly Unsatisfactory (HU): severe problems)

To what extent have the expected outcomes and objectives of the project been achieved?

Efficiency (Ratings: 6: Highly Satisfactory (HS): no shortcomings; 5: Satisfactory (S): minor shortcomings; 4: Moderately Satisfactory (MS); 3: Moderately Unsatisfactory (MU): significant shortcomings; 2: Unsatisfactory (U): major problems; 1: Highly Unsatisfactory (HU): severe problems)

Was the project implemented efficiently, in line with international and national norms and standards?

Sustainability (Ratings: 4. Likely (L): negligible risks to sustainability; 3. Moderately Likely (ML): moderate risks; 2. Moderately Unlikely (MU): significant risks; 1. Unlikely (U): severe risks)

To what extent did the Project provide support in looking to address financial and institutional risks to sustaining long-term project results from partner counties?

Impact (Ratings: 3. Significant (S), 2. Minimal (M), 1. Negligible (N))

Are there indications that the project has contributed to, or enabled progress toward a new adaptive approach to climate information from national observation systems?

Deliverables

The consultant is expected to deliver the following:

- **Inception Report:** Evaluator provides clarifications on their understanding of the task, timing and method to UNDP RHA and Project Management (provided no later than 5 days from the contract start date);
- **Presentation:** Evaluator presents initial findings to Project Management and UNDP RHA (provided within estimated 15 days after the inception report and no later than 20 November 2019);
- **Draft Final Report:** Evaluator presents full report including a chapter on conclusions, recommendations and lessons along with annexes for review to RHA. The draft will be reviewed by RTA and UNDP HQ (provided within 15 days after presentation and no later than 13 December 2019);
- **Final Report:** Final report incorporating revisions made by UNDP. An audit trail detailing how all received comments have (and have not) been addressed in the final evaluation report will be included. The report will be sent to RHA for uploading to UNDP

Evaluation Resource Centre (provided within 2 weeks of receiving UNDP comments on the draft report and no later than 31 December 2019).

Payment Method

1. **Inception Report:** Evaluator provides clarifications on their understanding of the task, timing and method to UNDP RHA and Project Management. **5th November 2019, 10%** of the total payment.
2. **Presentation:** Evaluator presents initial findings to Project Management and UNDP RHA (provided within an estimated 15 days after the inception report. **20 November 2019, 15%** of the total payment.
3. **Draft Final Report:** Evaluator presents full report including a chapter on conclusions, recommendations and lessons along with annexes for review to RHA. The draft will be reviewed by RTA and UNDP HQ provided within 15 days after presentation. **13 December 2019, 35%** of the total payment.
4. **Final Report:** Final report incorporating revisions made by UNDP. An audit trail detailing how all received comments have (and have not) been addressed in the final evaluation report will be included. The report will be sent to RHA for uploading to UNDP Evaluation Resource Centre provided within 2 weeks of receiving UNDP comments on the draft report. **31 December 2019, 40%** of the total payment.

Information on working arrangements

- Estimated level of effort: 20 days;
- The consultant will be home-based;
- The Consultant will be given access to relevant information necessary for the execution of the tasks under this assignment, including the list of potential interviews to be held via online platforms (Skype, email etc.);
- The consultant will engage with the Supervisor by email and Skype on an as-needed basis;
- The Consultant will be responsible for providing her/his working station (i.e., laptop, internet, phone, scanner/printer, etc.) and must have access to a reliable internet connection;
- Given the regional consultations to be undertaken during this assignment, the consultant is expected to be reasonably flexible with his/her availability for such consultations taking into consideration different time zones;
- Payments will be made upon submission of the deliverables, a detailed timesheet and certification of payment form, and acceptance and confirmation by the Supervisor on days worked (with a “day” calculated as 8 hours of work) and satisfactory delivery and acceptance of outputs.

Competencies

Corporate

- Demonstrates integrity by modelling the UN's values and ethical standards;
- Promotes the vision, mission, and strategic goals of UNDP;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;
- Treats all people fairly without favouritism.

Technical

- Good knowledge in the planning, management, monitoring and evaluation of development projects;
- An adequate understanding of environmental finance concepts and programming;

- A high degree of familiarity with UNDP and GEF monitoring and evaluation concepts;
- Proven experience and good track record of final project evaluations.

Professionalism

- Capable of working in a high-pressure environment with sharp and frequent deadlines, managing many tasks simultaneously;
- Excellent analytical and organizational skills;
- Exercise the highest level of responsibility and be able to handle confidential and politically sensitive issues in a responsible and mature manner.

Communication

- Excellent writing and verbal communication skills;
- Communicate effectively in writing to a varied and broad audience simply and concisely;
- Good command of video communication software packages, such as GoToMeeting and Skype.

Teamwork

- Works well in a team to advance the priorities of GEF and UNDP as a whole;
- Projects a positive image and is ready to take on a wide range of tasks;
- Focuses on results for governments requesting support;
- Welcomes constructive feedback.

Qualifications

Education:

- Master's degree in Climate Change, Environmental Sciences, Natural Resources Management, Water Resources Management, Meteorology or another closely related field.

Experience:

- The technical knowledge that can be proven by a minimum of 7 years' work experience in a field related to Climate Change Adaptation such as meteorology and hydrology, natural resource management, etc;
- Knowledge of UNDP and GEF programming and procedures;
- Previous experience with results-based monitoring and evaluation methodologies;
- Demonstrated evaluation experience through two writing samples of past evaluations of similarly funded projects;
- Experience with evaluations of global or regional projects is a strong asset;

Annexe 2. List of documents reviewed

The TE consultant reviewed the following documents related to the Project:

No.	Name of the Document
1	2015 Board meeting minutes
2	2017 CDR Jan-Dec 87831 PIMS 5322 LDCF
3	2017 CIRDA Board Meeting Minutes
4	2018 Annual PMD
5	2018 Board Meeting Minutes
6	2018 GEF PIR PIMS5322 GEFID
7	2019 GEF PIR Gambia
8	2019 GEF PIR Sao Tome
9	5104 MTR—Rapport d_ Evaluation a mi-parcours BKF
10	5322_Regioanl CL_EWS_prodoc-updated with additional fund
11	082415_082615 Workshop_ Evaluation
12	082415_082615 Workshop_ Minutes
13	87832 burdev G03 tbwp_2016_07_13 signed
14	20170130144137478 Performance Management
15	ACP Annual Report on GP 600187
16	Benin CIRDA Contribution COA
17	Board Presentation 2014
18	Board Presentation BB 2015
19	Boni Mid Term PMD 2018
20	BTOR COTONOU mission 2- Ngamini
21	BTOR Gambia mission – Ngamini
22	BTOR JTS Lusaka ZMD
23	BTOR Sierra Leone & Liberia mission – Ngamini
24	BTOR_Hoedjes_Malawi_ October 2016
25	BTOR_Hoedjes_SierraLeone_Nov2015
26	BTOR_Hoedjes_Tanzania_Training_Ulrich
27	CIRDA 2 pager
28	CIRDA 2016 Achievements

29	CIRDA 2017 Board Presentation
30	CIRDA 2018 Board Presentation
31	CIRDA long article May 28 2019
32	CIRDA_2014_CDR
33	CIRDA_2015_CDR
34	CIRDA_2016_CDR
35	CIRDA_2017_CDR
36	CIRDA_2018_CDR
37	Concept Note scaling up CIEWS in Africa CIRD Ateam edits
38	Stakeholders list-GG-UD
39	Data Digitization inventory composite
40	Data Digitization Survey under the CIRDA programme
41	Data Rescue Country Resource Needs Estimates for Malawi Zambia Tanzania
42	Ethiopia Final Signed TE Report with Audit Trail
43	Ethiopia_CIRDA_Mission_TORs_December 2016
44	Evaluation Responses
45	Final CIEWS Project Report
46	Final MTR Report Ethiopia
47	Final participant list simple
48	Final report TEMP BENIN 3_Def
49	Project extension request approval
50	Gambia agreement
51	GCF Proposal- 2-page overview
52	CIRDA project board meeting minutes
53	Implementation and monitoring stage quality assurance report 2016
54	Implementation and monitoring stage quality assurance report 2017
55	IWRM_Tanzania_FinalWorkshop_No19_V1
56	Jeremy BTOR Uganda Product Development Workshop
57	Last Mile Evaluation Results
58	Letter to CIRDA launch workshop participants
59	Liberia note to file MTR

60	Liberia Terminal evaluation
61	Liberia
62	List of missions undertaken by CIRDA team
63	Malawi EWS Mid-term review report Final
64	Malawi Final TE report- word version
65	Mission report inception workshop
66	Participants and speaker list final (2)
67	Participants list-short version
68	PIMS 5104_Evaluation Finale_BKF
69	PIMS 5105 Benin MTR French
70	The priority fundraising campaign has started!
71	ProjectDoc Final_ Regional _CI_EWS
72	Assistance provided to Uganda under CIRDA
73	GEF council approval of CIRDA to oversee SCIEWS Uganda
74	Report on visit to the Philippines
75	Results
76	Sierra Leone Strengthening Climate Information and Early Warning System
77	Survey Consolidated
78	Tanzania Final MTR
79	Tanzania Terminal Evaluation
80	Training _participants _CIRDA
81	Uganda CIRDA contribution COA
82	Uganda CIRDA workshop participants
83	Uganda MTR report
84	Uganda terminal evaluation report
85	Worksop attendance list
86	Workshop evaluation responses
87	Workshop participants Tanzania
88	Zambia MTR CIEWS Report
89	Zambia TE 5091 Final

Annexe 3: Proposed list of persons to interview

No	Classification	Name	Company
1	CIRDA Team	Bonizella Biagini	CIRDA Project Manager
2	CIRDA Experts	John Snow	IC
3	CIRDA Experts	Jeremy Usher	IC
4	CIRDA Experts	Alan Miller	IC
5	CIRDA Experts	Jean Ngamini	IC
6	CIRDA Experts	Georgie George	IC
7	CIRDA Experts	Ulrich Diasso	IC
8	CIRDA Experts	Joost Hoedjes	IC
9	CIRDA Team	Roxanna Manea	IC
10	CIRDA Team	Annalisa Virray	IC
11	Partner CO	Isidore Agbokou	UNDP CO Benin
12	Partner Project	Arnaud Zannou	Benin CIEWS Project Manager
13	Partner CO	Hama Traore	UNDP CO Burkina Faso
14	Partner Project	Rigobert Bayala	Burkina Faso CIEWS PM
15	Partner CO	Wubua Mekonnen	UNDP CO Ethiopia
16	Partner Project	Ababu Anage	Ethiopia CI/EWS PM
17	Partner CO	Almamy Camara	UNDP CO the Gambia
18	Partner CO	Moses Massah	UNDP CO Liberia
19	Partner Project	Kumeh Assaf	Liberia CIEWS Project Manager
20	Partner CO	Andrew Spezowka	UNDP CO Malawi
21	Partner CO	Tanzila Sankoh	UNDP CO Sierra Leone
22	Partner Project	Joseph Kaindaneh	Sierra Leone CIEWS PM
23	Partner CO	Laurent Ngoma	Sao Tome UNDP CO
24	Partner Project	Cosme Dias	Sao Tome CIEWS PM
25	Partner CO	Abbas Kitogo	UNDP CO Tanzania
26	Partner Project	Daniel Alfei	Tanzania CO Project Manager
27	Partner CO	Onesimus Muhwezi	UND CO Uganda
28	Partner Project	Pascal Okello	Uganda CIEWS Project Manager
29	Partner CO	Chongo Simpasa	UNDP CO Zambia
30	Partner Project	Joseph Kaibande	Zambia CIEWS Project Manager
31	Development Agency Partner	Prashant Singh	World Bank
32	Development Agency Partner	Mary Power	WMO
33	National NHMS	Edson Nkonde	ZMD (Zambia)
34	National NHMS	Hamza Kabelwa	Tanzania Met Agency
35	National NHMS	Tsegaye Ketema	Meteorological Development Directorate (Ethiopia)
36	National NHMS	Lamin Mai Touray	Director of the Department of Water Resources (the Gambia)
37	National NHMS	Fred Kossam	Malawi Met Agency

38	Private Sector	Marie-Christine GERMAIN	BRL
39	National NHMS	Joao Vicente	Director Met Services Sao Tome
40	Development Partner	David McAfee	HNI
41	National Hydrological Directorate	Pascal Nakohoun Locou	Directorate of Hydrology
42	Partner Project	Bayala Rigobert	SP/CNDD
43	National NHMS	Gabriel Kpaka	Sierra Leone Met Agency (SLMA)
44	National NHMS	Ernest Ouedraogo	Agence Nationale de la Météorologie (Burkina Faso)
45	National NHMS	Simpore Koudaogo	Agence Nationale de la Météorologie (Burkina Faso)
46	National NHMS	Ousmane OUEDRAOGO	Agence Nationale de la Météorologie (Burkina Faso)
47	Private Sector	Mary Glackin	IBM
48	Private Sector	Ari Davidov	Earth Networks
49	Private Sector	David Kuguru	Vodafore
50	CIRDA EXperts	Anthony Mills	C4
51	Development Agency Partner	Michael Opagi	IFC
52	UNDP	Mettelena Hering	UNDP Procurement Support Unit
53	Private Sector	John Selker	TAHMO
54	Private Sector	Stewart Collis	Awhere
55	National NHMS	Robert Rutaagi	UNMA (Uganda)
56	National NHMS	Festus Luboyera	UNMA (Uganda)
57	Private Sector	Christoph Neudhart	Ubimet
58	UNDP	Benjamin Larroquette	Regional Technical Advisor
59	UNDP	Pradeep Kurukulasuriya	
60	UNPD	Patrick Gremillet	Climate Change and Disaster Risk Reduction (UNDP WMO Partnership Advisor)
61	Development Partner	Catherine Vaughan	IRI- Columbia
62	Development Partner	Mark Hansen	Brown Institute of Media Innovation
63	Development Agency Partner	Juan-Carlos VILLAGRAN	Head of UN-SPIDER Bonn Office (Board Member)
64	Development Agency Partner	Paul Egerton	WMO
65	Development Partner	Dr Richard Crouthame	IEDRO
66	Development Partner	Julius Mattai	Integems (Sierra Leone)
68	Private Sector	PHILIP VATTER	ADCON/OTT

Annexe 4. Evaluative Question Matrix

Evaluation Criteria	Evaluation Indicators	Means of Verification
i. Project Strategy		
1. Project design		
Review the problem addressed by the project and the underlying assumptions. Review the effect of any incorrect assumptions or changes to the context of achieving the project results as outlined in the Project Document.	Reported adaptive management measures in response to changes in context.	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Interviews with project staff and key stakeholders.
Review the relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Were lessons from other relevant projects properly incorporated into the project design?	Reported progress toward achieving the results	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Interviews with project staff and key stakeholders.
Review how the project addresses country priorities. Review country ownership. Was the project concept in line with the national sector development priorities and plans of the country?	<p>Endorsement of the project by governmental agencies.</p> <p>Provision of counterpart funding.</p>	<ul style="list-style-type: none"> ▪ Documents endorsements and co-financing. ▪ Interviews with UNDP, project staff and governmental agencies.
Review decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, considered during project design processes?	Level of participation of project partners in project design and actual inclusion in project implementation arrangements	<ul style="list-style-type: none"> ▪ Interviews with stakeholders. ▪ Project progress reports.
Review the extent to which relevant gender issues were raised in the project design.	Level of gender issues raised outlined in project documents	<ul style="list-style-type: none"> ▪ Project documents
2. Results Framework/ Logframe:		
Undertake a critical analysis of the project's log frame indicators and targets, assess how "smart" the midterm and end-of-project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.	Indicators and targets of outcome and outputs.	<ul style="list-style-type: none"> ▪ Project framework
Are the project's objectives and outcomes or components clear, practical, and within its time frame?	The stated contribution of stakeholders in project implementation.	<ul style="list-style-type: none"> ▪ Interviews with stakeholders.

Examine if progress so far has led to or could in the future catalyze beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance, etc...) that should be included in the project results in the framework and monitored on an annual basis.	Indicators of the project's outcome (from the project results framework)	<ul style="list-style-type: none"> ▪ Field visits and interviews with local stakeholders involved with these projects and the direct beneficiaries.
Ensure the broader development and gender aspects of the project are being monitored effectively. Develop and recommend smart 'development' indicators, including sex-disaggregated indicators and indicators that capture development benefits.	Measures were taken to ensure proper project implementation based on project monitoring and evaluation	<ul style="list-style-type: none"> ▪ Project's reports. ▪ Interviews with PSC/Project board members ▪ Minutes of interviews with key stakeholders
ii. Progress Towards Results		
3. Progress towards outcomes analysis		
Review the logframe indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix.	Output level indicators of the Results Framework.	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Tangible Product (publications, studies, etc.) ▪ Interviews with the project's staff, partners, and stakeholders.
iii. Project Implementation and Adaptive Management		
4. Management arrangement		
Review the overall effectiveness of project management as outlined in the Project Document. Have changes been made and are they effective? Are responsibilities and reporting lines clear? Is decision-making transparent and undertaken in a timely manner? Recommend areas for improvement.	Level of implementation of mechanisms outlined in the project document	<ul style="list-style-type: none"> ▪ Interviews with project staff and partners. ▪ Project progress reports.
Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommend areas for improvement.	Level of satisfaction (among partners and project staff) of overall management by Implementing partner.	<ul style="list-style-type: none"> ▪ Interviews with project staff, consultants, and partner organizations
Review the quality of support provided by the GEF Partner Agency (UNDP) and recommend areas for improvement.	Level of satisfaction (among partners and project staff) of overall management by UNDP	<ul style="list-style-type: none"> ▪ Interviews with project staff, consultants, and partner organizations
5. Work planning		
Review any delays in project start-up and implementation, identify the causes and examine if they have been resolved.	Level of compliance with project planning / annual plans	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Interviews with project staff.

Are work-planning processes results-based? If not, suggest ways to re-orientate work planning to focus on results?	List of results proposed in the work plan	<ul style="list-style-type: none"> ▪ Project work plan.
Examine the use of the project's results framework/ logframe as a management tool and review any changes made to it since project start.	Level of compliance with project results framework and logframe	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Interviews with project staff.
6. Finance and co-finance		
Consider the financial management of the project, with specific reference to the cost-effectiveness of interventions.	Level of compliance with project financial planning / annual plans	<ul style="list-style-type: none"> ▪ Project financial reports. ▪ Interviews with project staff.
Review the changes to fund allocations as a result of budget revisions and assess the appropriateness and relevance of such revisions.	Level of compliance with project financial planning	<ul style="list-style-type: none"> ▪ Project financial reports.
Does the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for the timely flow of funds?	<p>Quality of standards for financial and operative management.</p> <p>Perception of management efficiency by project partners and project staff/consultants</p>	<ul style="list-style-type: none"> ▪ Interviews with the project and UNDP finance staff. ▪ Financial reports.
Informed by the co-financing monitoring table to be filled out, provide commentary on co-financing: is co-financing being used strategically to help the objectives of the project? Is the Project Team meeting with all co-financing partners regularly in order to align financing priorities and annual work plans?	Level of co-financing in relation to the original planning	<ul style="list-style-type: none"> ▪ Financial reports of the project. ▪ Interviews with project management staff and UNDP RTA.
7. Project-level Monitoring and Evaluation Systems		
Review the monitoring tools currently being used: Do they provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective? Are additional tools required? How could they be made more participatory and inclusive?	<p>Measures were taken to improve project implementation based on project monitoring and evaluation.</p> <p>Level of implementation of the M&E system.</p> <p>Changes in project implementation as result of supervision visits/missions.</p>	<ul style="list-style-type: none"> ▪ Project progress and implementation reports. ▪ Interview with project staff, UNDP team, and key stakeholders.
Examine the financial management of the project monitoring and evaluation budget. Are sufficient resources being allocated to monitoring and evaluation? Are these resources being allocated effectively?	<p>The number of cases where resources are insufficient.</p> <p>The number of cases where budgets were</p>	<ul style="list-style-type: none"> ▪ Project progress reports/ financial reports/ consultant contracts and report

	transferred between different budget lines.	
8. Stakeholder Engagement		
Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?	Level of participation of project partners in project design and actual inclusion in project implementation arrangements	<ul style="list-style-type: none"> ▪ Interviews with key stakeholders
Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?	<p>Endorsement of the project by governmental agencies.</p> <p>Provision of counterpart funding</p> <p>Perception of ownership by national and local agencies</p>	<ul style="list-style-type: none"> ▪ Interviews with national partners, UNDP and project staff. ▪ Project progress reports/PIR. ▪ Documented endorsements and co-financing.
Participation and public awareness: To what extent has stakeholder involvement and public awareness contributed to the progress towards the achievement of project objectives?	<p>Perceived level of collaboration and coordination.</p> <p>The stated contribution of stakeholders in the achievement of outputs.</p>	<ul style="list-style-type: none"> ▪ Interviews with the Project Management team. ▪ Interviews with stakeholders. ▪ Citation of stakeholders' roles in specific products like publications
9. Reporting		
Assess how adaptive management changes have been reported by the project management and shared with the Project Board.	Reported adaptive management measures in response to changes in context	<ul style="list-style-type: none"> ▪ Project progress reports ▪ Interviews with project staff and key stakeholders
Assess how well the Project Team and partners undertake and fulfil GEF reporting requirements (i.e. how have they addressed poorly rated PIRs, if applicable?)	Level of alignment with the GEF mandate and policies at the time of design and implementation; and the GEF CCCD.	<ul style="list-style-type: none"> ▪ Comparison of project document and annual reports and policy and strategy papers of local-regional agencies, GEF and UNDP. ▪ Interviews with UNDP, project and governmental agencies.
Assess how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.	Reported adaptive management measures.	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Interviews with project staff and key stakeholders.

10. Communications		
Review internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and investment in the sustainability of project results?	The degree to which plans were followed up by project management. Perception of effectiveness.	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Interviews with project staff and key stakeholders.
Review external project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)	Stated the existed means of communication. The degree to which plans were followed up by project management.	<ul style="list-style-type: none"> ▪ Project progress reports. ▪ Interviews with project staff and key stakeholders
iv. Sustainability		
Validate whether the risks identified in the Project Document, Annual Project Review/PIRs, and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date. If not, explain why.	Identified risks and mitigation measures during project design and the updated risk-log sheet in ATLAS	<ul style="list-style-type: none"> ▪ Project document ▪ Progress report ▪ Risk log
11. Financial risks to sustainability.		
What is the likelihood of financial and economic resources not being available once the GEF assistance ends (consider potential resources can be from multiple sources, such as the public and private sectors, income-generating activities, and other funding that will be adequate financial resources for sustaining project's outcomes)?	Estimations on financial requirements. Estimations of the future budget of key stakeholders.	<ul style="list-style-type: none"> ▪ Studies on financial sustainability. ▪ Documented estimations of the future budget. ▪ Interviews with project staff and key stakeholders
12. Socio-economic risks to sustainability.		
<p>Are there any social or political risks that may jeopardize the sustainability of project outcomes?</p> <p>What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained?</p> <p>Do the various key stakeholders see that it is in their interest that the project benefits continue to flow?</p> <p>Is there enough public/stakeholder awareness in support of the long-term objectives of the project?</p> <p>Are lessons learned being documented by the Project Team on a continual basis and shared/transferred to appropriate parties who could</p>	<p>Key factors positively or negatively impacted project results (in relation to the stated assumptions).</p> <p>Main national stakeholders participate actively in the implementation and replication of project activities and results.</p>	<ul style="list-style-type: none"> ▪ Interviews with project staff, key stakeholders. ▪ Project progress reports. ▪ Revision of literature on context ▪ Documentation on activities of key stakeholders

learn from the project and potentially replicate and/or scale it in the future?		
13. Institutional Framework and Governance risks to sustainability		
Do the legal frameworks, policies, governance structures, and processes pose risks that may jeopardize sustenance of project benefits? While assessing this parameter, also consider if the required systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place.	Key institutional frameworks that may positively or negatively influence project results (in relation to stated assumptions)	<ul style="list-style-type: none"> ▪ Analysis of existing frameworks. ▪ Interviews with project staff and key stakeholders
14. Environmental risks to sustainability		
Are there any environmental risks that may jeopardize the sustenance of project outcomes?	Number of identified risks	<ul style="list-style-type: none"> ▪ Risk log and management response.

Annexe 5. The questionnaire used for the interviews

Evaluation Criteria Questions	Evaluation Indicators	Sources	Methodology
Overall project assessment, lessons learned and recommendations			
What do you perceive as the project's most significant achievements thus far?	Project achievements	Virtual interviews Project documentation	Virtual interviews Review of project documentation
Please comment on any lessons learned thus far through this project	Lessons learned	Project reports Virtual interviews	Review of project documentation Virtual interviews
What issues, if any, are impeding project progress and how might these be addressed?	Obstacles to progress	Virtual interviews Project reports	Virtual interviews Review of project documentation
Do you have any recommendations to strengthen project execution and delivery?	Recommendations	Virtual interviews Project reports	Virtual interviews Review of project documentation
Do you have any recommendations to maximize project impact and sustainability?	Recommendations	Virtual interviews Project reports	Virtual interviews Review of project documentation
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional, and national levels?			
To what extent does the project correspond to local and national development priorities and organizational policies?	Level of consistency between project objectives and achievements and national priorities	ProDoc GEF strategy documents	Review of documentation Interviews

To what extent is the project in line with GEF Operational Programs or the strategic priorities under which the project was funded?	Level of consistency between project objectives and achievements and the strategic priorities and programs of GEF	ProDoc GEF strategy documents	Review of project and Redocumentation
Are the objectives of the project still appropriate given the changed circumstances since the project was designed?	Level of fit between project objectives and socioeconomic/ environmental and political context.	Interviews Project reports	Interviews Review of project documentation
What is the level of country ownership of the project?	Level of country ownership	Interviews Project reports	Interviews Review of project documentation
Have the relevant representatives from government and civil society been involved in project implementation?	Level of participation of key stakeholders in project implementation	Project documentation (e.g. PIRs, list of participants)	Review of project documentation
Effectiveness: to what extent have the expected outcomes and objectives of the project been achieved			
To what extent were each of the project outcomes and project objectives achieved thus far?	Each of the project outcomes and project objectives achieved thus far? Log-frame indicators at the objective and outcome levels	PIRs, progress reports, consultancy reports Interviews	Interviews Review of project documentation
Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?			
To what extent have the results been delivered with the least costly resources possible?	Total amount spent compared to budget	PIRs (particularly summaries of project expenses- CDRs)	Review of project documentation

	Amount spent per output and outcome compared to budget The total amount of co-financing secured	Interviews	Interviews
Sustainability			
Are there financial risks that may jeopardize the sustainability of project outcomes?	Amount of funding available after project termination to support project objectives	Interviews	Interviews
Has a mechanism been installed to ensure financial and economic sustainability once GEF assistance ends?	installed to ensure financial and economic sustainability once GEF assistance ends? Financial commitments or arrangements established to secure resources for post-project activities that are consistent with project objectives	Project reports Interviews	Review of project documentation Interviews
Is there enough stakeholder (including government and public) awareness and ownership of the project's long-term objectives?	Level of stakeholder support for project objectives	Project reports including surveys Interviews	Project reports including surveys Interviews
Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize the sustainability of project benefits?	The existence of legal and policy frameworks and governance structures to enable the sustainability of project benefits	Project reports Interviews	Review of Project documentation Interviews

Are required systems for accountability and transparency, and required technical know-how, in place?	Level of capacity, accountability, and transparency to facilitate the sustainability of project achievements	Project reports Interviews	Review of Project documentation Interviews
Are there ongoing activities that may pose an environmental threat to the sustainability of project outcomes?	Presence of environmental threats to project sustainability	Project reports Interviews	Review of Project documentation Interviews
Project Design			
Are there any aspects of the project design that should be modified at this point to maximize project impact or to better reflect the project reality?	Design changes required	Interviews Project documentation	Interviews Review of project documentation
Were the project's objectives and components clear, practicable and feasible within its time frame?	Content of logframe	Logframe Interviews	Review of logframe interviews
Were the main project assumptions and risks identified?	Project assumptions and risks	Logframe Interviews	Review of logframe Interviews
Were the capacities and resources of the executing institution and counterparts properly considered when the project was designed?	Capacity and resources of EA and counterparts at project entry	Interviews ProDoc	Interviews Review of ProDoc
Were the management arrangements and roles and responsibilities properly identified prior to project approval?	Detail and clarity of management arrangements	ProDoc	Review of ProDoc
Were partnership arrangements negotiated prior to project approval?	Agreements with partners on project implementation at project entry	Interviews ProDoc	Interviews Review of ProDoc

To what extent did stakeholders participate in the project formulation process?	Level of stakeholder participation in project design	Interviews ProDoc	Interviews Review of ProDoc
Were lessons from other relevant projects properly incorporated in the project design?	Project design reflecting previous lessons learned	Interviews	Interviews
Impact			
What are the main positive and negative impacts of the project thus far?	Project impacts (capacity, enabling framework, etc.)	Project reports Interviews	Review of project documentation Interviews
Has the project led to global environmental benefits or reductions in stress to ecological systems, or is there evidence that the project has put in place processes that will lead to such an impact?	Systems, structures, and capacity expected to lead to changes in levels of environmental stresses.	Project reports Interviews	Review of project documentation Interviews
Project Implementation			
Has Implementing Agency & Executing Agency supervision and support been adequate so far?	EA and IA level of supervision and support	Interviews Project reports (PIRs, progress reports)	Interviews Review of project documentation
Has there been an appropriate focus on results by the IA and EA?	EA and IA monitoring results	Interviews Project reports (PIRs, progress reports)	Interviews Review of project documentation
Are managing parties responsive to significant implementation problems (if any) and project risks?	Response to implementation problems and risks	Project reports Interviews	Review of project documentation Interviews

Does the M&E plan include all necessary elements to permit the monitoring of results and clearly identify M&E roles and responsibilities?	M&E Plan	Pro.Doc.	Review of Pro.Doc.
Was the M&E Plan sufficiently budgeted and funded during project preparation and implementation?	Amount of funding designated and utilized for M&E	Pro.Doc. Interviews Project reports detailing expenses	Review of Pro.Doc. Interviews Review of project expenses
Is the project log-frame effectively being used as a management tool to measure progress and performance?	Use of log-frame	Project reports including PIRs Interviews	Review of project reports Interviews
Are progress and financial reporting requirements/ schedules complied with, including the timely delivery of well-developed monitoring reports (PIRs)?	Content and submission dates of project reports	Interviews Project reports	Interviews Review of project documentation
Are follow-up actions, and/or adaptive management, taken in response to M&E activities (e.g., in response to PIRs, and steering committee meetings)?	Responses to M&E activities	Project reports Interviews	Interviews Review of project documentation
If changes in planned project outputs, activities or implementation methodology were made, were these adequately justified and approved by the project steering committee?	Explanations provided for changes during project implementation	Steering committee minutes Project reports	Review of steering committee minutes and project documentation
Stakeholders			
Is the project involving the relevant stakeholders through information sharing and consultation and by seeking their active participation in project implementation, and M&E?	Level of participation of stakeholders in project implementation	Project reports Interviews	Review of project documentation

			Interviews
Project Finance			
Is there enough clarity in the reported co-financing and leveraged resources to substantiate in-kind and cash co-financing from all listed sources?	Table specifying co-financing and leveraged resources secured and sources thereof	Project reports Interviews	Review of project documentation Interviews
Have the reasons for differences in the level of expected and actual co-financing been made clear and are the reasons compelling?	Explanation of the difference between expected and actual co-financing	Project reports	Review of project documentation Interviews
Are externally funded project components well integrated into the GEF supported components?	Components funded by co-financing	Project reports Interviews	Review of project documentation Interviews
Is the extent of materialization of co-financing influencing project outcomes and/or sustainability?	Total co-financing secured. Level of achievement of project outcomes Perceived project sustainability.	Project reports Interviews	Review of project documentation Interviews
Mainstreaming			
Is it possible to identify and define the positive or negative effects of the project on local populations at national and regional levels?	Employment generated as a result of the project Impact of the project on income levels, food security, etc.	PIRs, Interviews	Review of PIRs Interviews

Do the project objectives conform to agreed priorities in the UNDP CPD, CPAP, and UNDAF?	The consistency of Project with CPD, CPAP, and UNDAF	Pro.Doc., CPD, CPAP UNDAF	Review of Pro.Doc., CPD, CPAP, and UNDAF
Have gender issues been considered in project implementation? If so, how and to what extent?	Level and nature of participation of women in project implementation	PIRs, interviews	Review of PIRs, interviews

Annexe 6: Evaluation Consultant Agreement Form

Evaluators/Consultants:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well-founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about it and how issues should be reported.
5. Should be sensitive to beliefs, manners, and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings, and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Terminal Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:

Name of Consultant: Amal Aldababseh

Name of Consultancy Organization (where relevant): INDIVIDUAL CONSULTANT

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at Amman/Jordan

on 25 December 2019

Signature: 

Annexe 7: Evaluation Report Clearance Form

(to be completed by CO and UNDP GEF Technical Adviser based in the region and included in the final document)

Evaluation Report Reviewed and Cleared by UNDP Country Office	
Name: _____	
Signature: _____	Date: _____
UNDP GEF RTA	
Name: _____	
Signature: _____	Date: _____

Annexe 8: Annexed in a separate file - TE Audit Trail