

The logo for 'baastel' is positioned on the left side of the page. It features the word 'baastel' in a dark blue, serif font. Above the letters 'a', 'a', and 's' are four small dots of varying shades of blue and grey. The logo is partially overlaid by a large, light blue circle that contains a white silhouette of a world map. To the right of this circle is a dark blue curved shape that extends from the top right corner towards the bottom of the page.

baastel

**Strengthening Climate information and Early Warning  
Systems in Sierra Leone**

**Ref. No.: SLE/ICPN/2018/018**

**Terminal Evaluation Report - Final**

Submitted by: Olivier Beucher and Momo Turay

Requested by: United Nations Development Programme (UNDP)

**January 7, 2019**

Le Groupe-conseil baastel sprl  
Boulevard Adolphe Max, 55  
1000 Brussels  
BELGIUM

Tel: + 32 (0)2 893 0032

**WWW.BAASTEL.COM**

Contact: [olivier.beucher@baastel.com](mailto:olivier.beucher@baastel.com)



Strengthening Climate information and Early Warning Systems in Sierra Leone  
TERMINAL EVALUATION REPORT

<b>Project Title</b>	<b>Strengthening Climate information and Early Warning Systems in Sierra Leone</b>
GEF project ID	5006
UNDP project ID	5107
Terminal evaluation time frame	23 July to 6 October 2018
Date of draft evaluation report	31 August 2018
Implementing Partner and other project partners	SLMA; ONS-DMD; MWR; EPA
Evaluation team members	Olivier BEUCHER (Baastel) and Momo Turay

### Acknowledgements

We wish to thank the staff of the Office of National Security – Disaster Management Department (ONS-DMD), Sierra Leone Meteorological Agency (SLMA), the Ministry of Water Resources (MWR) and the Environment Protection Agency-Sierra Leone (EPA-SL), whose assistance made this report possible. We are particularly grateful to the assistance availed to us by the United Nations Development Programme (UNDP) Sierra Leone Country Office and its staff, for providing us with useful logistical assistance and guidance to carry out this Terminal Evaluation. We extend our appreciation to the other national stakeholders who accepted to avail some time for us, as well as the local stakeholders met during the field visits in Bumbuna, Kenema and Guma, in particular the staff from the Bumbuna Watershed Management Authority, the Bumbuna and the Dodo dams facilities, and the local people met in Kagbagona Community and Dodo Chiefdom.

# Executive Summary

---

The project “Strengthening Climate information and Early Warning Systems in Sierra Leone” started in October 2013 and is part of a UNDP regional initiative: Programme on Climate Information for Resilient Development in Africa (CIRDA). The initial idea of this project was to implement Sierra Leone’s number 1 priority NAPA<sup>1</sup> intervention: “Develop an Early Warning System in Sierra Leone”. Therefore, the focus of the project is “to reduce the country’s vulnerability and risk to climate change hazards characterized by irregular and unpredictable rainfall associated with increased floods and landslides, as well as, seasonal and prolonged droughts through the development of an Early Warning System (EWS) and enhancing the availability of climate information for long-term planning.

Implemented by the Sierra Leone Meteorological Department (SLMD), under the authority of the Ministry of Transport and Aviation (MTA), two main outcomes were expected from the project:

- Outcome 1: Enhanced capacity of national hydro-meteorological (NHMS) institutions to monitor extreme weather and produce sector tailored weather forecasting;
- Outcome 2: Efficient and effective use of hydro-meteorological information for generating early warnings and support long-term development plans.

This Terminal Evaluation (TE) seeks to provide a comprehensive and systematic accounting of performance at the end of the project cycle, considering the totality of the effort from project design, through implementation to wrap up, also considering the likelihood of sustainability and possible impacts. The TE concludes that overall, the project was relevant, quite effective in delivering Outcome 1 (capacity building) but less effective in delivering Outcome 2. Implementation after the Ebola crisis was rather efficient, although UNDP could have done better on procurement processes and M&E. Although closing, in August 2018 the impression is that the project is not completed, with still some uninstalled equipment, and above-all no real dynamic towards the setting of an effective EWS in Sierra Leone. In this sense, the no-cost extension obtained until August 2018 was not sufficient, and given the margins remaining on project management costs, a longer extension would have allowed to consolidate project outputs and outcomes, and better prepare project exit. Sustainability of project results is therefore at risk if no strong leadership is taken by national institutions, and more specifically the SLMA and the ONS-DMD.

## Project design

Conclusion CCL1. **Project design is overall good and coherent**, covering all necessary aspects for this type of project. A large number of stakeholders were involved in the design process, both at national and local levels. Management arrangements are appropriate and linkages with other intervention are clear. However, the proposed results framework was not sufficient to properly assess project achievements. The project document also is limited in detail on how the assumptions and risks identified have helped to determine activities and planned outputs, and there is no strong

---

<sup>1</sup> National Adaptation Programme of Action

evidence that planning documents have utilized lessons learned/recommendations from previous projects as inputs to planning and defining the project strategy.

### Project implementation

CCL2. **Project implementation was strongly disturbed** by the Ebola outbreak in Sierra Leone from May 2014 to March 2016, which resulted in substantial delays in the delivery of project activities. Adaptive management however helped overcome this crisis. After 2 years of very low disbursements, project activities (and disbursements) tremendously accelerated from 2016 so that the project is likely to reach initial financial plans.

CCL3. **Stakeholders' engagement was quite effective** in project implementation, but regular project coordination meetings and Steering Committee meetings did not prove to be sufficient to boost cooperation between key national institutions.

CCL4. **There is a lack of follow-up on co-financing** from the baseline projects during project implementation. This suggests a lack of real technical collaboration and search for synergies between the project and its co-financiers, which can be regretted.

CCL5. Monitoring of project results was realised in annual PIRs against the results framework indicators defined in the project document, but the defined indicators were not SMART and **did not enable proper monitoring of project achievements**. No review of those indicators happened (there was no baseline study conducted), and the project has missed an independent MTR.

CCL6. **Coordination between institutional partners was poor** at project start and identified as a key risk, as this is a key element of EWS. The project lacked strong interventions to boost cooperation between the SLMA, the EPA, the MWR and the ONS-DMD, as for example the setting of the planned multi-agency platform (Inter-institutional Technical Committee EWS-MITEC) for synergy building, which was not formally put in place. UNDP (as implementing Agency) and the MTA (as executing Agency) could probably have played a stronger role in this.

CCL7. **The role of UNDP in implementing this project is recognised** widely, in particular regarding administrative and management processes that the MTA and the SLMD did not have the capacities to assume. However, three main challenges were reported:

- the efficiency of UNDP procedures, in particular procurement procedures, is criticized (and more specifically delays in procuring meteorological equipment).
- In addition, although the difficulties faced by the TE mission in accessing several project documents largely relates to staff turnover, they also highlight some deficiencies in filing and storing information and documentation at UNDP Sierra Leone.
- In terms of project management, the TE mission also highlights the need to improve monitoring practices, using a detailed performance measurement framework with indicators at output level, as per results-based management best-practices .

### Project results

CCL8. **The project is highly relevant to the priorities set out by the government** in the NAPA, to MDGs 1, 3, 6 and 7, PRSP II and Sierra Leone Vision 2025. It is also in line with GEF climate change



focal areas outcomes 2.1 and 2.2, and with the needs of target beneficiaries. Project design is coherent and relevant to other donor-supported activities.

CCL9. **Project's efficiency is overall satisfactory** given time constraints, the Ebola crisis and the fact that the project used financial resources wisely and limited project management costs. However, **significant delays due to UNDP procurement processes** negatively impacted efficiency and project delivery, and **partnership arrangements did not work efficiently** (lack of both leadership and coordination between key institutions). Final project efficiency is also conditioned to the actual use of the equipment installed and capacities developed, which is not, in the evaluator's opinion, guaranteed for the moment.

CCL10. **Ownership of climate change and disaster management issues is generally good** at the national and local levels, but **actual ownership of project outputs by key institutions is not very strong**, which may negatively affect project sustainability and impacts.

CCL11. **The Project has successfully mainstreamed UNDP priorities** regarding poverty alleviation, governance, prevention and recovery from natural disasters and women empowerment (at local level only however). The project also mainstreamed priorities as set out in successive CPAPs and is consistent with UNDAF Outcomes 2.1-2.3.

CCL12. The project document did not propose a robust sustainability or exit strategy. Overall, **risks to project sustainability are moderate**. Environmental and socioeconomic risks are limited, but financial and governance risks are significant and should be duly considered in the exit strategy.

CCL13. **The catalytic potential of the project is quite high**. Whether this catalytic potential will be expressed or not however depends on a number of factors, the main ones being the willingness of the concerned institutions to actively use the equipment installed and capacities built, and cooperate with each other to pursue the work.

CCL14. **It is still too early to confirm the project's impacts on disaster preparedness** and, e.g. saving of life, as impacts related to the improved collection of climate and hydrological data, and the coordination of responsibilities between institutions for early warning and disaster preparedness, may be confirmed in the future, depending on efforts put in sustaining project results

## Recommendations

R1. To achieve project results and ensure sustainability, finalise project interventions, including in particular:

- The need to ensure that the equipment procured is duly installed and utilized (MWR, SLMA). This includes in particular the re-installation of AWS on the ground and the finalisation of the installation of water stations by MWR;
- The signature of SOPs between key institutions;
- The implementation of the MoUs signed and the signature of the draft MoUs produced by the project between the SLMA and key users of meteorological information, with a view to ensure additional financial resources to SLMA;
- The actual transfer of the CIDMEWS platform to national institutions, and the training of their staff for its use.

This requires additional funds or funding by other projects (for equipment installation) and follow-up interventions from UNDP CO and the MTA. If no such action is taken, many of the project achievements could be lost.

R2. In order to support sustainability and replication, and achieve a fully operational EWS in Sierra Leone, quickly move on the design of a follow-up project for GEF, Adaptation Fund or GCF funding. Given the delays in these processes, UNDP CO should take quick action for the preparation of a concept note.

R3. UNDP CO to improve the efficiency of procurement procedures, as difficulties in procuring equipment and consultants can cause important delays and put a project at risk. In the future, regarding meteorological equipment, consider improving engagement with Copenhagen office.

R4. UNDP CO to consider using more systematically a results-based management approach to monitor GEF-funded projects, and, if deemed necessary, consider training of UNDP staff on monitoring and evaluation and how M&E can support project management. In future projects, consider the systematic implementation of a baseline study to ensure that the project results-framework (indicators and baseline values) is a workable and appropriate tool to monitor project results. This includes risk management and monitoring of co-financing.

R5. The evaluation exercise revealed some weaknesses in filing and storing project information at UNDP CO. It is therefore recommended that project key documents, Steering Committee meetings minutes, activity reports, monitoring visits reports, and all written products be duly stored, filed and backed-up within UNDP systems. If not an isolated case, consider reviewing current practices within UNDP CO and preparing and/or raising awareness on specific internal procedures for information management.

**Table ES1. Evaluation ratings<sup>2</sup>**

Criteria	rating	Comments
<b>1. Monitoring and Evaluation:</b> Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of M&E	MU	M&E did not allow precise and anticipative project management.
M&E design at project start up	MU	Project results framework insufficient to properly capture project achievements (choice of indicators).
M&E Plan Implementation	MS	Lack of an independent MTR and baseline study reviewing and detailing project indicators
<b>2. IA&amp; EA Execution:</b> Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		

<sup>2</sup> See corresponding sections in the main text of the report for details on how ratings have been set.

<b>Overall quality of Implementation / MS Execution</b>		Given the local context and the Ebola outbreak, overall implementation is rated MS
Quality of UNDP Implementation	MS	Implementation by UNDP enabled the achievement of major capacity building interventions and other project outputs. However, lengthy procurement processes, low quality of M&E and information management are important weaknesses.
Quality of Execution - Executing Agency	MU	MTA involvement relied mainly on the SLMD, whose capacities were very limited at project start. Leadership from SLMA remained too limited.
<b>3. Outcomes:</b> Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
<b>Overall Quality of Project Outcomes</b>	<b>S</b>	Overall quality is satisfactory but some of the outputs need to be completed to ensure sustainability of project results.
Relevance: relevant (R) or not relevant (NR)	R	The project is relevant to Sierra Leone priorities, as well as GEF and UNDP objectives
Effectiveness	MS	A lot was done in terms of capacity building (Infrastructure, equipment, training and awareness raising), but a lot remains to be done to complete the project outputs and outcomes and ensure their usefulness and sustainability
Efficiency	S	Rating considers time constraints, the Ebola crisis and the fact that the project used financial resources wisely and limited project management costs
<b>4. Sustainability:</b> Likely (L); Moderately Likely (ML); Moderately Unlikely (MU); Unlikely (U).		
<b>Overall likelihood of risk to sustainability</b>	<b>ML</b>	Overall, risks to project sustainability are moderate. Environmental and socioeconomic risks are limited, but financial and governance risks are significant and should be duly considered in the exit strategy
Financial resources	MU	The SLMA budget has increased but there is currently no financial plan to ensure sustainability of project achievements. The main strategy adopted is (i) to fund remaining installation of equipment with another ongoing project; and (ii) to design a follow-up project for Green Climate Fund funding. Whereas this could be promising, the time lapse between GCF project design and actual project start will be of minimum 2 years, so there is a need to ensure project achievements are sustained in the meantime.
Socio-political	L	Risk to sustainability is rather low on the socio-political side. There is sufficient public and





**Strengthening Climate information and Early Warning Systems in Sierra Leone**  
**TERMINAL EVALUATION REPORT**

		stakeholder awareness in support of the project's long-term objectives.
Institutional framework and governance	MU	There is a risk of lack of leadership after the project end. The SLMA was the main project implementer and should take a strong lead in pursuing project achievements and coordinating EWS and climate information activities with other relevant institutions, in particular the ONS-DMD, MWR and the EPA.
Environmental	L	Project outcomes mostly aim to increase resilience to environmental risks, so there is no new threat on this aspect.
<b>5. Impact:</b> Significant (S), Minimal (M), Negligible (N).		
Environmental Status Improvement	M	
Environmental Stress Reduction	M	
Progress towards stress/status change	M	
<b>Overall Project Results</b>	<b>MS</b>	



# Table of Contents

Executive Summary.....	ii
<i>Recommendations</i> .....	iv
Table of Contents .....	viii
Acronyms and abbreviations .....	x
<b>1. Introduction .....</b>	<b>1</b>
<b>1.1. Purpose of the evaluation.....</b>	<b>1</b>
<b>1.2. Scope and methodology .....</b>	<b>1</b>
<i>Data Collection</i> .....	2
<i>Data Analysis and Interpretation</i> .....	3
<b>1.3. Structure of the evaluation report .....</b>	<b>4</b>
<b>1.4. Limits of the evaluation .....</b>	<b>4</b>
<b>2. Project description and development context .....</b>	<b>5</b>
<i>Project start and duration</i> .....	5
<i>Problems that the project sought to address</i> .....	5
<i>Immediate and development objectives of the project</i> .....	6
<i>Main stakeholders</i> .....	6
<i>Expected Results</i> .....	7
<b>3. Terminal evaluation findings .....</b>	<b>9</b>
<b>3.1. Project design/formulation.....</b>	<b>9</b>
<i>Analysis of Results Framework/indicators</i> .....	9
<i>Assumptions and Risks</i> .....	11
<i>Lessons from other relevant projects (e.g., same focal area) incorporated into project design</i> .....	12
<i>Planned stakeholder participation</i> .....	12
<i>Management arrangements</i> .....	12
<i>Replication approach</i> .....	14
<i>UNDP comparative advantage</i> .....	14
<i>Linkages between Project and other interventions within the sector</i> .....	15
<b>3.2. Project implementation .....</b>	<b>16</b>
<i>Adaptive management</i> .....	16



	<i>Partnership arrangements and stakeholders' engagement</i> .....	17
	<i>Project Finance</i> .....	19
	<i>Monitoring and evaluation</i> .....	23
	<i>Implementing Agency (IA) and Executing Agency (EA) execution, coordination, and operational issues</i> .....	24
<b>3.3.</b>	<b>Project results</b> .....	<b>27</b>
	<i>Relevance</i> .....	27
	<i>Effectiveness</i> .....	28
	<i>Efficiency</i> .....	31
	<i>Country ownership</i> .....	33
	<i>Mainstreaming</i> .....	34
	<i>Sustainability</i> .....	35
	<i>Catalytic role</i> .....	37
	<i>Impact</i> .....	39
<b>3.4.</b>	<b>Conclusions, recommendations and lessons learned</b> .....	<b>40</b>
	<i>Conclusions</i> .....	40
	<i>Recommendations</i> .....	42
	<i>Lessons learned</i> .....	43
	<i>Overall rating table</i> .....	44
	<b>ANNEXES</b> .....	<b>46</b>
	<b>Annex 1. Terminal Evaluation matrix</b> .....	<b>47</b>
	<b>Annex 2. List of documents and websites consulted for the TE</b> .....	<b>63</b>
	<b>Annex 3. List of people interviewed and met during the mission</b> .....	<b>68</b>
	<b>Annex 4. Schedule of mission</b> .....	<b>71</b>
	<b>Annex 5. Interview protocols</b> .....	<b>73</b>
	<b>Annex 6. Terms of reference of the TE</b> .....	<b>77</b>
	<b>Annex 7. Rating scales</b> .....	<b>78</b>
	<b>Annex 8. Matrix for assessing the achievement of outcomes</b> .....	<b>80</b>
	<b>Annex 9. Tracking Tool</b> .....	<b>85</b>
	<b>Annex 10. Audit Trail</b> .....	<b>86</b>



# Acronyms and abbreviations

Acronym	Definition
AWS	Automatic Weather Station
BWMA	Bumbuna Watershed Management Authority
CIESIN	Centre for International Earth Science Information Networks
CO	Country Office
CPAP	UN Development Assistance Framework (UNDAF) and UNDP Country Programme Action Plan
CTA	Chief Technical Advisor
DWR	Directorate for Water Resource
EA	Executing Agency
EPA-SL	Environment Protection Authority - Sierra Leone
EWS	Early Warning System
EWS-MITEC	Inter-institutional Technical Committee
FBC	Fourah Bay College
GCF	Green Climate Fund
GEF	Global Environment Facility
GVWC	Guma Valley Water Company
IA	Implementing Agency
INTEGEMS	Integrated Geo-information and Environmental Management Service
IVS	Inland Valley Swamps
LFA	Log Frame Analysis
M&E	Monitoring and Evaluation
MAFFS	Ministry of Agriculture Forestry and Food Security
MDGs	Millennium Development Goals (MDGs)
MoU	Memorandums of Understanding
MTA	Ministry of Transport and Aviation
MTA	Ministry of Transport and Aviation
MTR	Mid-Term Review
MWR	Ministry of Water Resources
NAPA	National Adaptation Programme of Action
NATCOM	National Telecommunication Commission
NHMS	National Hydrometeorological Services
OECD DAC	Organisation for Economic Co-operation and Development - Development Assistance Committee
ONS-DMD	Office for National Security – Disaster Management Department
PIF	Project Information Form
PIR	Project Implementation Report
PPG	Project Preparation Grant
Prodoc	Project Document
PRSP II	Poverty Reduction Strategy Paper
SLAA	Sierra Leone Airport Authority
SLCAA	Sierra Leone Civil Aviation Authority
SLMA	Sierra Leone Meteorological Agency

Strengthening Climate information and Early Warning Systems in Sierra Leone  
TERMINAL EVALUATION REPORT

SLMD	Sierra Leone Meteorological Department (part of the MoT before it became an agency-SLMA in July 2017)
SLWACO	Sierra Leone Water Company
SMART	Specific, Measurable, Attainable, Realistic and Timely
SOPs	Standard Operation Procedures
TE	Terminal Evaluation
UNDAF	United Nations Development Assistance Framework
UNDP	United Nations Development Programme
UNISDR	UN Office for Disaster Reduction
USL	University of Sierra Leone
WHO	World Health Organisation
WMO	World Meteorological Organisation



# 1. Introduction

---

## 1.1. Purpose of the evaluation

---

1. As indicated in the UNDP Guidance for Conducting Terminal Evaluations<sup>3</sup> (TE), the objective of the Terminal Evaluation (TE) is to provide a comprehensive and systematic accounting of performance at the end of the project cycle, considering the totality of the effort from project design, through implementation to wrap up, also considering the likelihood of sustainability and possible impacts. The TE must:
  - Assess accomplishments and in particular assess the implementation of planned project outcomes against actual results;
  - Synthesize lessons that can help to improve the selection, design and implementation of future GEF financed UNDP activities;
  - Contribute to the overall assessment of results in achieving GEF strategic objectives aimed at global environmental benefit;
  - 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.

## 1.2. Scope and methodology

---

2. On the basis of evidence gathered during the evaluation process, the evaluator presents evaluation findings and draws out lessons learned and practical recommendations for future projects. Evaluation findings are presented along four main sections:
  - 1) Project Design/formulation
  - 2) Project implementation
  - 3) Project results
  - 4) Conclusions, recommendations and lessons learned
3. Project results are analysed along the 5 OECD DAC criteria: relevance, effectiveness, efficiency, sustainability, and impact. The aspects of country ownership, mainstreaming and catalytic role are dealt with separately.

---

<sup>3</sup> Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed projects, UNDP Evaluation Office, 2012.



### Box 1. UNDP Evaluation criteria

#### 1. Relevance

The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time.

The extent to which the project is in line with the GEF Operational Programs or the strategic priorities under which the project was funded.

#### 2. Effectiveness

The extent to which an objective has been achieved or how likely it is to be achieved.

#### 3. Efficiency

The extent to which results have been delivered with the least costly resources possible; also called cost effectiveness or efficacy.

#### 4. Results

The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention.

In GEF terms, results include direct project outputs, short to medium-term outcomes, and longer term impact including global environmental benefits, replication effects and other local effects.

#### 5. Sustainability

The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion.

Projects need to be environmentally, as well as financially and socially sustainable.

4. A structured process was adopted for the implementation of this terminal evaluation, to assess the extent of achievement of the intended results defined in the project document, and identify opportunities, challenges and lessons learnt during implementation, and determine relevance of a next phase of programming. The evaluation was conducted using OECD DAC<sup>4</sup> criteria, and following the UNDP Evaluation Guidance for GEF Financed Projects.

### Data Collection

5. Both primary and secondary data were collected through different channels:
  - **Documentary analysis.** Key project design and implementation documents were desk reviewed in order to properly understand the context and situation of the project to date and feed-in the evaluation framework, identifying information gaps and data collection needs. This included, among others, GEF Project Information Form (PIF), project document, Annual Project Implementation Reports (PIRs), Financial Data, activity reports (such as training reports, workshops minutes), publications, and products designed and prepared during the project.

---

<sup>4</sup> Organisation for Economic Co-operation and Development– Development Assistance Committee



- ***In-depth interviews.*** These were primarily semi-structured and were conducted with a large array of project stakeholders. Secondary data was obtained mainly from UNDP country office and relevant partners and organizations. Primary data was gathered through qualitative and quantitative methods, including desk reviews and semi-structured interviews and focus group discussions. The in-country mission enabled the evaluators to meet with the main stakeholders involved in the project implementation or as project beneficiaries, in particular: Ministry of Transport and Aviation (MTA)/ Sierra Leone Meteorological Agency (SLMA), Directorate for Water Resource (DWR), Ministry of Agriculture, Forestry and Food Security (MAFFS), SLCAA (Sierra Leone Civil Aviation Authority), SLAA (Sierra Leone Airport Authority), Office for National Security – Disaster Management Department (ONS-DMD), Sierra Leone Maritime Administration, among others.
  - ***On-site visits and focus group discussions.*** The field mission upcountry enabled site visits and interviews/focus groups with local authorities, water management companies and communities in the following project sites:
    - Bumbuna Watershed - Bumbuna dam facilities, water level monitoring stations, early warning installations, Bumbuna Watershed Management Authority (BWMA) and Kagbagona Community
    - Dams facilities, water level monitoring stations and community of the Dodo Chiefdom in Kenema
6. The TE mission could cover the main facilities installed by the project in those regions (a number of meteorological stations and ground water monitoring stations could be visited) and meet with main local stakeholders. More communities could have been met but the difficult weather conditions blocked a number of visits due to road flooding.
7. The third project site in Guma valley was visited but access to the water monitoring facilities was not granted by the security guard.

### Data Analysis and Interpretation

8. The evaluators compiled and analysed all collected data on progress towards meeting the project targets, intermediate results achieved, and gaps reported. Quantitative data, where applicable, was analysed with the appropriate tools. The variety of data sources (face-to-face interviews, field visits, focus group discussions with communities, literature reviews) allowed to triangulate (i.e. cross-check) information when informing indicators of the evaluation matrix and responding to the evaluation questions. Where discrepancies occurred, data was checked again and findings adjusted to reflect uncertainty.
9. Findings are related to pertinent information through interpretative analysis. The interpretative process applied both deductive and inductive logic. This systematic approach ensures all the findings, conclusions and recommendations are substantiated by evidence.





### 1.3. Structure of the evaluation report

---

10. After a brief description of the project and its development context, the TE findings are presented along the following main sections:
  - Project Design / Formulation
  - Project Implementation
  - Project Results
  - Conclusions, Recommendations & Lessons learned
11. The detailed evaluation questions and indicators used in each section are described in the evaluation matrix in Annex 1.

### 1.4. Limits of the evaluation

---

12. Although the evaluation process was conducted quite successfully, the exercise was limited by a number of factors, in particular:
  - The difficulty in gathering project documentation comprehensively. The UNDP CO and implementing partners were not able to send a comprehensive set of project documents to the evaluators, as if there were no well-designed file structure/database for this project, gathering all important project documents, outputs and management reports.
  - The fact that the main Project Coordinator has left the project and UNDP several months before the TE took place, limiting the exchange of information on project management and challenges.
  - The fact that in some key institutions, the people present at project design and early implementation have now changed, limiting the “historic” analysis of the project (in particular regarding the project design process).
  - The weather and road conditions during the mission of the International consultant have also constrained possibilities during the field mission, limiting the number of communities met due to flooding of roads and bridges.
  - It should also be noted here that the project has not been subject to an independent Mid-Term Review as originally planned
13. Those limits to the evaluation exercise have not, in the evaluators opinion, resulted in major impacts on the quality of the analysis nor on the evaluation conclusions, but they do have slightly weakened the evidence base and the level of details for some of the sections of this report.



## 2. Project description and development context

---

### Project start and duration

14. Almost everywhere in the world, climate change has proven to cause more intense and more frequent climate extreme events, pushing many governments to take preventive action to limit potential disasters. To support this process, UNDP-GEF (Global Environment Facility) designed in 2012 a regional project focusing on strengthening climate information and early warning systems (EWS) for climate resilient development. Ten countries were selected to implement EWS projects: Malawi, Benin, Burkina Faso, Tanzania, Uganda, Ethiopia, Zambia, São Tomé and Príncipe, Liberia, and Sierra Leone.
15. The Sierra Leone project started in October 2013 and was officially closed at the end of August 2018. Initially planned as a four years project (planned closing date: October 2017), a no cost extension was attributed to finalise the different activities (and in particular the procurement of some equipment) in 2018.
16. The Ebola crises faced by Sierra Leone between May 2014 and March 2016<sup>5</sup> considerably delayed project operations. As a consequence, the actual project implementation period was approximately three years, instead of four.

### Problems that the project sought to address

17. The project document describes the problem the project seeks to address in this way:

“The primary problem that this project seeks to address is that the current climate information (including monitoring) and early warning systems (EWS) in Sierra Leone are not functioning as optimally as they could for effectively supporting adaptive capacity of local communities and key sectors. The main problem facing the country today is its high vulnerability to climate change together with its low capacity to address and adapt to this phenomenon. Root causes of the problem include institutional weaknesses that do not support Government development plans (such as weak or inexistent Hydromet and Climate Services for sustainable development), natural constraints (such as the intrinsic physical vulnerability) and structural factors (such as high population pressure, the high level of poverty among rural populations, weak mechanization and intensification of production modes, and limited investment capacities). In synthesis the following root causes make the manifestations of climate change (predominantly droughts and floods) in Sierra Leone particularly destructive. These include *inter alia*:

  - Weak or inexistent Hydromet and Climate Services for Sustainable Development
  - Reduced coverage of the meteorological and hydrological monitoring networks
  - Insufficient human technical capacity
  - Inadequate forecast supporting facilities
  - Weak Climate information dissemination and communication to end users.
18. Based on this analysis, the project document states that improving EWSs is one way to adapt to a changing climate so to be able to accurately predict impending hazards on communities and

---

<sup>17</sup> The World Health Organization (WHO) declared the country Ebola-free on 17 March 2016, as per the WHO Ebola Situation Report

society as a whole and avoid loss of lives and unnecessary pressure on communities and infrastructure.

### Immediate and development objectives of the project

19. The initial idea of this project was to implement Sierra Leone's number 1 priority NAPA<sup>6</sup> intervention: "Develop an Early Warning System in Sierra Leone". Therefore, the focus of the project is "to reduce the country's vulnerability and risk to climate change hazards characterized by irregular and unpredictable rainfall associated with increased floods and landslides, as well as, seasonal and prolonged droughts through the development of an Early Warning System (EWS) and enhancing the availability of climate information for long-term planning".<sup>7</sup>
20. The document identifies four immediate interventions to "augment the capacity of Sierra Leone to manage severe weather-related disasters, ensure food security and agricultural production and make their socioeconomic development process less vulnerable to climate-related risks":
  - Enhance the capacity of hydro-meteorological services and networks to monitor and predict weather and climate events and associated risks e.g. floods and droughts.
  - Develop a more effective, efficient and targeted delivery of climate information including early warnings.
  - Support improved and timely preparedness and response to forecast climate-related risks and vulnerabilities
  - Strengthen the existing dissemination/response system, building on The Sierra Leone Red Cross who has a strong Disaster Management (DM) network.
21. Based on this analysis, the project objective is to strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation to climate change in Sierra Leone. Two main outcomes were expected from the project:
  - Enhanced capacity of national hydro-meteorological (NHMS) institutions to monitor extreme weather and produce sector tailored weather forecasting;
  - Efficient and effective use of hydro-meteorological information for generating early warnings and support long-term development plans.

### Main stakeholders

22. The project was implemented jointly by four institutions:
  - The Sierra Leone Meteorological Department (SLMD) / Ministry of Transport and Aviation, which became the Sierra Leone Meteorological Agency (SLMA) during the project, as executing entity;
  - And three implementing entities:

---

<sup>6</sup> National Adaptation Programme of Action

<sup>7</sup> Project document



- The Directorate for Water Resources (DWR) / Ministry of Water Resources (MWR)
- The Office of National Security – Disaster Management Department (ONS-DMD)
- The Environment Protection Authority - Sierra Leone (EPA-SL)

23. Other key institutional partners include:

- The Ministry of Agriculture, Forestry and Food Security (MAFFS), in particular regarding meteorological information and EW needs of rural communities;
- SLIAR (Sierra Leone Institute Agricultural Research)
- SLAA (Sierra Leone Airport Authority)
- SLCAA (Sierra Leone Civil Airport Authority)
- SLPA (Sierra Leone Ports Authority)
- Bumbuna Watershed Management Authority (BWMA)

## Expected Results

24. The results expected from the project, as designed in the project document, are presented in Table 1.

**Table 1. Expected results (outcomes and outputs) from the project**

Outcomes	Outputs
Component 1. Transfer of technologies for climate and environmental monitoring infrastructure.	
Outcome 1: Enhanced capacity of the Sierra Leone Meteorological Department of (SLMD) and Directorate for Water Resource (DWR) to monitor extreme weather and produce sector tailored weather forecasting climate change.	Output 1.1: 12 river gauges, 2 water level (limnimetric scale), 6 groundwater data logger, 2 signal counter rotations for hydrological monitoring are installed in partnership with SLMD to complement watershed management networks of Guma Valley, Bumbuna Watershed and The Ministry of Water Resources (MWR). (The Ministry of Water Resources (MWR)
	Output 1.2: 38 rainfall gauges, 8 synoptic, 8 climatological automatic weather stations, WMO standard, are installed to support the establishment of an integrated weather monitoring network. (Sierra Leone Meteorological Department-SLMD)
	Output 1.3: Forecasting meteorological tools, software, infrastructure facilities and specialised training are made available to run SYNERGIE, SADIS & AMESD systems to strengthen the capacity of SLMD to produce improved and sector tailored weather forecasts. (Sierra Leone Meteorological Department-SLMD)
	Output 1.4: A total of 6 Meteorologists, 16 Meteorological Technicians, 4 Forecasting Superintendent Officers 20 Specialist Superintendent Officers are trained to support EWS data handling and forecasting operations. (Sierra Leone Meteorological Department-SLMD and the University of Sierra Leone -Fourah Bay College)



	Output 1.5: A Communications network is established for SLMD and ONS-Disaster Management Department to support EWS warning and dissemination mechanism. (ONS-Disaster Management Department and Sierra Leone Meteorological Department-SLMD)
Component 2. Climate information integrated into development plans and early warning systems	
Outcome 2: Efficient and effective use of hydro-meteorological information for generating early warnings and support long-term development plans	Output 2.1.: At least 13 Meteorologists and 6 hydrologists are trained in EWS sector tailored weather and hydrological forecasting techniques and information Packaging.(Sierra Leone Meteorological Department-SLMD)
	Output 2.2.: A multidisciplinary and Inter-institutional Technical Committee (EWS-MITEC) is established to develop SOPs (standard operation procedures) and study/plan/propose integration/delivery of EWS products to the various identified national end users including community sectors. (ONS-Disaster Management Department)
	Output 2.3.: A CC-Data Management System (CC-DAMAS) is established to allow systematic storage and mainstreaming of digital information to support decision making in sector planning. (The Sierra Leone Environment Protection Agency).
	Output 2.4.: The existing dissemination/response system under the ONS-Disaster Management Department (DMD) is strengthened to support EWS. (ONS-Disaster Management Department and Sierra Leone Meteorological Department-SLMD)
	Output 2.5.: A framework for financial sustainability based on cost-recovery service provision is established at SLMD to support future EWS operations. (Sierra Leone Meteorological Department-SLMD)
	Output 2.6: Community based EWS (CBEWS) network is developed in 3 pilot sites to enhance and test its impact on risk reduction in sectors and population. (ONS-Disaster Management Department and Sierra Leone Meteorological Department-SLMD)



## 3. Terminal evaluation findings

---

### 3.1. Project design/formulation

---

25. The project design process started in September 2012 with an inception workshop in Freetown attended by 50 representatives from government agencies and other relevant stakeholders. Initial consultations were then conducted by the PPG<sup>8</sup> consultants with key institutions to effectively design the project objectives, outputs and activities, and prepare the GEF CEO Endorsement document.
26. According to the documentation consulted, the project conceptualization and design process was overall good and participatory. The project document provides a good and adequate description of the project context, in terms of development in Sierra Leone, climate change and disaster risks. It also adequately sets the scope of the project and provides adequate justification for the use of Government, LDCF and UNDP resources.

#### Analysis of Results Framework/indicators

27. The project objectives and components as described in section 2 were sufficiently clear and seemed to be feasible within the project timeframe. The choice was made to focus the project on the delivery of two outcomes focusing on climate information and early warning system, in line with the regional initiative driven by UNDP in several African countries. In this sense, the project was well focused and did not plan to cover too many sectors, geographical areas or pursue too many objectives as is sometimes the case.
28. Activities under Outcome 1 (*Enhanced capacity of the Sierra Leone Meteorological Department of (SLMD) and Directorate for Water Resource (DWR) to monitor extreme weather and produce sector tailored weather forecasting climate change*) aimed to re-build the capacities of the SLMD and the DWR through investments in offices, equipment, staff, meteorological stations, water monitoring equipment, and software. After the civil war<sup>9</sup>, the once renowned Sierra Leone meteorological services were in a very bad condition and unable to fulfil their mission. This constituted a major limit to the implementation of any climate change adaptation or resilience action. In this context, Component 1 (Transfer of technologies for climate and environmental monitoring infrastructure) and Outcome 1 clearly defined the way forward in terms of capacity building.
29. Activities under Outcome 2 (*Efficient and effective use of hydro-meteorological information for generating early warnings and support long-term development plans*) focus more on organizational aspects of EWS, building on the renewed capacities to monitor, analyse and disseminate climate and water information under component 1. Outputs 2.1-2.6 activities require strong cooperation and involvement from key institutions. From that point of view, practical feasibility within the

---

8 PPG: Project Preparation Grant

9 Sierra Leone civil war lasted 11 years from March 1991 to January 2002

project timeframe was subject to various factors, including willingness to invest time and resources from the institutions, willingness to actively cooperate, leadership, ownership and capacities of implementing entities, among others.

30. Overall, the links between Outcomes and Outputs and the overall Objective are clear and convincing.
31. According to the OECD DAC guidelines, indicators for measuring achievement of the objectives should be Specific, Measurable, Attainable, Realistic and Time-bound (SMART). Table 2 presents the indicators as they are defined in the Results framework of the project document.

**Table 2. Monitoring indicators as defined in to the Project Results Framework in the project document**

Objective/outcome	Indicators	S	M	A	R	T	Comments
Project Objective To strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation to climate change in Sierra Leone.	1. Capacity as per capacity assessment scorecard (BASELINE: 45; TARGET: 161) (see Annex 13)	+	+	+	-	+	The scorecard was used to define the baseline level of capacities. However, the tool was not used during project implementation, probably due to the associated costs. Therefore the indicator itself was not very realistic.
	2.Domestic finance committed to the relevant institutions to monitor extreme weather and climate change Current budget: \$500,000	-	+	+	+	+	The proposed baseline is not specific enough as it does not detail how the calculation was done. Together, Objective indicators 1 and 2 do not allow to properly assess the level of actual achievement of the Objective.
Outcome 1 Enhanced capacity of national hydro-meteorological (NHMS) and environmental institutions to monitor extreme weather and climate change.	1.% national coverage of climate/weather and hydrological monitoring infrastructure	+	+	+	+	+	The proposed baseline provides a good indication on how to measure this indicator.
	2.Frequency and timeliness of climate-related data availability (BASELINE: monthly)	-	-	+	-	+	This indicator is not specific enough (it does not specify what data is concerned, from how many stations) to be easily measured
Outcome 2 Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans	1.% of population with access to improved climate information and flood, drought, strong wind and coastal warnings (disaggregated by gender)	-	-	+	+	+	The indicator is not specific enough to be easily measurable; it does not define what is meant by "improved climate information", and does not specify the areas concerned: is the indicator at national or sub-national (project sites) level? There is no indication on how the proposed baseline value (Current access to warnings: 35% men, 25% women) was defined.

2. GoSL Development Plans and land-use plans at National/District that integrate climate information in their formulation of poverty reduction strategies and links between poverty and the environment at local levels (BASELINE: No integration; TARGET Integration of at least 1 National and 1 district development Plan and land-use plan incorporates climate change risks into their design into the revised in 2015)	-	-	+	+	+	Again, the indicator is not specific enough to be easily measurable. It should specify what development plans are precisely targeted (or at least what sectors are targeted, and what districts).
3. Sector-specific EW products and strategies that integrate climate risks (mining, tourism, and land management sectors)	-	+	+	+	+	This indicator should better specify what is meant by "sector-specific EW products".

32. Table 2 shows that overall, most of the indicators in the project results framework are not completely SMART. They frequently are not specific enough to be easily measurable, and the proposed baseline values (which could help specify the indicators) are not explained properly to ensure consistency when informing those indicators. This is often the case in project documents given the time and budget constraints during project design processes. A baseline study at project start could have been the opportunity to reformulate the indicators, specify the data collection methods for each of them and make sure they allow to properly measure how far the Objective and Outcomes of the project were reached. Unfortunately, no baseline study was conducted for this project.
33. The project document provides some detailed guidance on the approach to monitoring, evaluation and reporting, including details of responsibilities, as well as a reasonable budget. This M&E plan is rather standard and sufficiently budgeted to monitor results and track progress toward achieving objectives.
34. Overall, **M&E design at entry is rated as 'Moderately Satisfactory'**<sup>10</sup>

### Assumptions and Risks

35. The section on Risks and Assumptions in Part 2 of the project document describes 16 possible risks to the project success and deducts 16 assumptions from those risks. The likelihood of each risk (low, medium or high) is not assessed, and the document makes a simple link between each risk and assumption that is not very convincing.

<sup>10</sup> Over a 6pt rating scale: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU).





36. Externalities, such as the effects of climate change, are captured in risk n°9: “Natural disasters damage infrastructure (particularly floods).” Other externalities, such as the effect of an economic crisis, or of a sanitary crisis (such as the Ebola outbreak), are not captured.
37. There is no indication how the assumptions and risks identified have helped to determine activities and planned outputs. For example, risk n°3: “The project cannot resolve the lack of coordination between EWS agencies and with EWS-related initiatives to improve the ability to work cross-sectorally” is translated into assumption n°3: “The project will resolve the lack of inter-agency and inter-project collaboration and their ability to work cross-sectorally”, but there is no indication in the project document how this will be done, and Assumption n°3 is more of a result to be achieved than an assumption.
38. The project document does not clarify either how the risks/assumptions are to be used in project management or in the project assurance.

### Lessons from other relevant projects (e.g., same focal area) incorporated into project design

39. Although the project design clearly intends to build on and cooperate with past and existing interventions, there is no strong evidence that planning documents have utilized lessons learned/recommendations from previous projects as inputs to planning and defining the project strategy.

### Planned stakeholder participation

40. The main stakeholders identified in the project document are described in section 2. Interviews conducted by the evaluation mission could not confirm that the process to prepare the project was inclusive and participatory, as most interviewees were not in place at the time of the project design. The project document however states that “All major stakeholders have been consulted in the project conceptualization and design phase before and during the project preparatory phase”, and “The draft proposal was presented to a wide range of stakeholders at a National workshop in (March 2013) and their inputs were used to further develop the project design and the core of the project document. Two additional missions were carried out to the country to establish the baseline of Communities’ and stakeholders’ vulnerability (Inception workshop) towards climate change induced extreme weather events (September 2012) and to find out about community and stakeholders’ priorities for Early Warning/adaptation measures (January 2013).”
41. The Primary and secondary stakeholders are described in *Table 1. Primary and Secondary Stakeholders and their roles in the project* of the project document. For each of the project outputs, the lead institution, its role, and the specific role of key implementing partners are described in *Annex 1: Stakeholder involvement plan*.

### Management arrangements

42. The project document covers management arrangements in Part 5. It details the project implementation arrangements as follows:



- A project board composed of the SLMD (Senior Beneficiary), Ministry of Aviation (Executive) and UNDP (Senior supplier) must “play a critical role in project monitoring and evaluations by quality assuring these processes and products”.
  - The project executing agency is the MTA. A capacity assessment has been realised during the Project Preparation Grant (PPG) phase and a scorecard is proposed in Annex 4 of the project document. It is not clear however how this scorecard was actually used and for which institutions. Nevertheless, the project document concludes that the “MTA is a competent execution partner. The Ministry has a track record of successfully implementing programmes such as this and other donor support programmes. It is envisioned that the project team be housed at MTA.”
  - The SLMD “has the major mandate for coordinating weather monitoring and forecasting as well as climate change related programmes and policies, and as such will execute relevant outputs under component 1 of the project.”
  - The Implementation oversight “will be by UNDP Sierra Leone, Meteorological Department and the UNDP Regional Service Centre. UNDP has overall responsibility for supervision, project development, guiding project activities through technical backstopping and logistical support.”
43. Figure 2 of the project document proposes a Project Manager based at the MTA, and Project support at UNDP country office, composed of a Project Coordinator, a Chief Technical Advisor (CTA), a finance and administration staff, and a driver.
44. Overall these arrangements are appropriate, but some aspects lack clarity:
- There is some confusion on the distribution of roles and responsibilities between the Project Manager (based at the MTA) and the Project support team (and the Project coordinator in particular). The ProJet document states that the Project Manager has the “prime responsibility to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost”, which can be understood as an oversight role. However, the document also mentions: “The Project Manager has the authority to run the project on a day-to-day basis”, which would rather seem to be the responsibility of the project coordinator. The roles and responsibilities of the Project Support are not sufficiently detailed.
  - Whereas it is clearly stated that SLMD “will execute relevant outputs under component 1 of the project”, responsibilities for executing outputs under component 2 are shared. *ANNEX 1. Stakeholder involvement plan* suggests it should be shared between SLMD, ONS-DMD and EPA-SL, but there is no clear indication on the coordination between those institutions for delivering the different outputs in a coherent manner.

However, the project Inception report, issued after the inception workshop organised on <sup>st</sup> May 2014 in Freetown, clarifies some aspects:

- The Government has agreed to deliver the project through national implementation (NIM), with support from UNDP for procurement of goods and services, which differs from the NEX modality initially planned in the project document



- The report also clarifies that the project is implemented by the Sierra Leone Meteorological Department (SLMD) in the Ministry of Transport and Aviation (MTA), with support from a UNDP National Project Manager (NPM)
45. Finally, the Management arrangements section of the project document mentions that “This project in Sierra Leone is part of a multi-country program on Climate Information and EWS supported by UNDP-GEF. In response to LDCF/SCCF Council requirement that a regional component would be included to enhance coordination, increase cost effectiveness and, most importantly, benefit from a regional network of technologies, a cohort of technical advisors and a project manager will be recruited to support each of the national level project teams. In particular they will support countries to develop robust adaptation plans and provide technical assistance and deliver training for accessing, processing and disseminating data for early warning and national/sectoral planning related purposes on a systematic basis.” This support took the form of various regional workshops where Sierra Leone was represented and assistance to procurement and technical specifications for meteorological equipment.

### Replication approach

46. Section 2.7 of the project document focuses on ‘Replicability’. The section does insist on capacity building activities, a key aspect of replicability, and explains that lessons learned from the pilot zones of the project will be transferred in the network of decentralised and national level focal points to be established through the project.
47. The EWS platform to be put in place by the project is also planned to include a feedback mechanism developed in Output 2.2 to serve the sharing of lessons learned and suggestions from end users.
48. The overall idea of the project is to establish a nation-wide EWS starting with a few pilot sites to test the approaches and system. Therefore, replication to other locations is a rather clear objective.

### UNDP comparative advantage

49. UNDP comparative advantage is described in section 2.3.2 of the project document. The section sets out rather clearly that the focus of the project on capacity building and integration of climate change risks into sustainable management of environment and natural resources are key competencies of UNDP Sierra Leone. In addition, the various projects conducted by UNDP before this specific project constitutes a strong track record, probably unequalled by other GEF agencies in the country.
50. However, the section is not so convincing since it does not provide any indication of the success of UNDP in managing those previous and ongoing projects, nor does it acknowledge the conclusions and recommendations of the evaluations conducted on those projects. Having a strong track record of projects is not an assurance of quality in delivery. To assess and demonstrate the comparative advantage, the section could for example have provided a comparative analysis of GEF agencies in the country based on previous projects conducted,



presence in the country, management capacities, relationships developed with the government agencies, among other aspects.

### Linkages between Project and other interventions within the sector

51. The project document includes a section on “*Ongoing relevant national and regional initiatives*” stocktaking climate and non-climate related projects being implemented in Sierra Leone. In addition to presenting the main objective and components of a variety of projects, the section tries to briefly describe how this project will pursue or build on the baseline situation they create.
52. Overall, the other interventions within the sector are clearly identified, and this section also introduces the baseline projects that will provide co-financing to the project.



## 3.2. Project implementation

53. Project implementation was strongly disturbed by the Ebola outbreak in Sierra Leone from May 2014 to March 2016, a risk that was not anticipated at project design. This resulted in substantial delays in the delivery of project activities, as government services were withheld, movement in the country severely restricted, and international travel limited, hampering access to services from international consultants and delivery of goods<sup>11</sup>.
54. There is very limited documentation and information on what was achieved over the period October 2013 - May 2014, but it is likely to be very limited, as is often the case in this type of projects during the first year of implementation. Consequently, project implementation roughly spanned over the period November 2015 – August 2018, which means less than 3 years instead of 4. The project coordinator was recruited by UNDP in November 2015 and this is when activities really started<sup>12</sup>. He left in December 2017 and was not replaced. This is duly acknowledged for in the analysis.

### Adaptive management

55. Three Project Implementation Reports (PIRs) are available, for years 2016, 2017 and 2018. PIRs do not provide specific examples of adaptive management. In 2016, the PIR reports three challenges and proposes a management response to each.

**Table 3. PIR2016 Challenges reported and proposed management response**

	Challenge reported in PIR2016	Proposed management response
1	There were weak internal structures and a lack of clear leadership at the Sierra Leone Meteorological Department.	The project is coordinating with the Government to develop clear leadership and management structures at the Meteorological Department.
2	Low retention of trained staff at Meteorological Department hampered long-term sustainability.	The project is having discussions with the Ministry to increase budgetary support for efficient operations of Meteorological Department staff as well as incentives for results-based performance of staff.
3	Financial: Limited financial commitment from the Government for sustaining project results.	There are discussions with the Government to encourage increased budgetary support to the Meteorological Department, in order to ensure monitoring and maintenance of automatic weather stations and other equipment.

<sup>11</sup> PIR 2016

<sup>12</sup> PIR 2016: "Substantial delays in project implementation occurred due to the impacts of the Ebola crisis. The Ebola crisis in Sierra Leone started in May 2014, and was officially declared over only 18 months later in October 2015. The crisis resulted in a complete shift of priorities both within Government partners and the UN, and an inability to implement project activities. As a result, the Project Manager for this project was only recruited in November 2015"

56. The same exact text is copy/pasted in PIR2017, and there is no follow-up on those aspects in PIR2018, so the actual implementation of the management response is not reported. The information collected by the TE mission suggests that the transformation of the SLMD into an Agency (SLMA) has allowed to clarify the management structure of the meteorological services, but leadership has remained rather weak. To accompany this evolution, the agency's budget has been significantly increased<sup>13</sup>, although actual delivery of funds seems to be problematic.
57. Adaptive management is visible in Project Board (or Steering Committee) meetings minutes, with challenges and action decisions clearly stated. Those meetings were to be held quarterly during project implementation; however, only 4 meeting minutes were made available to the TE mission<sup>14</sup>.
58. Project partners have demonstrated good flexibility in postponing project activities during the Ebola crises and accelerating implementation afterwards. In addition to the loss of 18 months of project implementation due to Ebola, important delays were faced when procuring meteorological equipment through UNDP services. Consequently, a strong commitment from project management has been to deliver project outputs in an accelerated manner. It has not permitted to close the project on time, but the no-cost extension obtained has remained very reasonable as compared to the considerable delays faced by the project early 2016.
59. Overall, although not sufficiently documented, there is evidence that **adaptive management has occurred during project implementation**, which contributed to some of the project successes.

### Partnership arrangements and stakeholders' engagement

60. The project document identified the following as a risk that could potentially affect the success of the project: "The project cannot resolve the lack of coordination between EWS agencies and with EWS-related initiatives to improve the ability to work cross-sectorally". Lack of coordination between national institutions was an important finding of the PPG phase and it was confirmed during the TE mission: whereas the main four institutional partners (SLMA, EPA-SL, ONS-DMD, MWR) did interact and collaborate on some project activities, there are no strong partnerships at national level and a lack of leadership in pushing the EWS agenda to ensure Sierra Leoneans benefit from a comprehensive, multi-sector and efficient EWS. For example, project output 2.2 aimed at establishing a multidisciplinary and Inter-institutional Technical Committee (EWS-MITEC) to develop SOPs (standard operation procedures) and study/plan/propose integration/delivery of EWS products to the various identified national end users including community sectors, but this was not realized. Working in silos remains a reality in those institutions, although collaboration and exchange of data is key to EWS.
61. The project did initiate discussions for establishing Memorandums of Understanding (MoUs) between the SLMA and various institutions, in particular:
  - MoU signed between SLMA and ONS on DRM;
  - MoU signed between SLMA and Sierra Leone Broadcasting Corporation;

<sup>13</sup> Interviews reported a budget increase from Le 500,000,000 to Le 600,000,000, Le 700,000,000 and Le 1,300,000,000 from 2013 to 2018.

<sup>14</sup> Dated 26 November 2015, 5 April 2016, 30 June 2016 and 14th July 2017



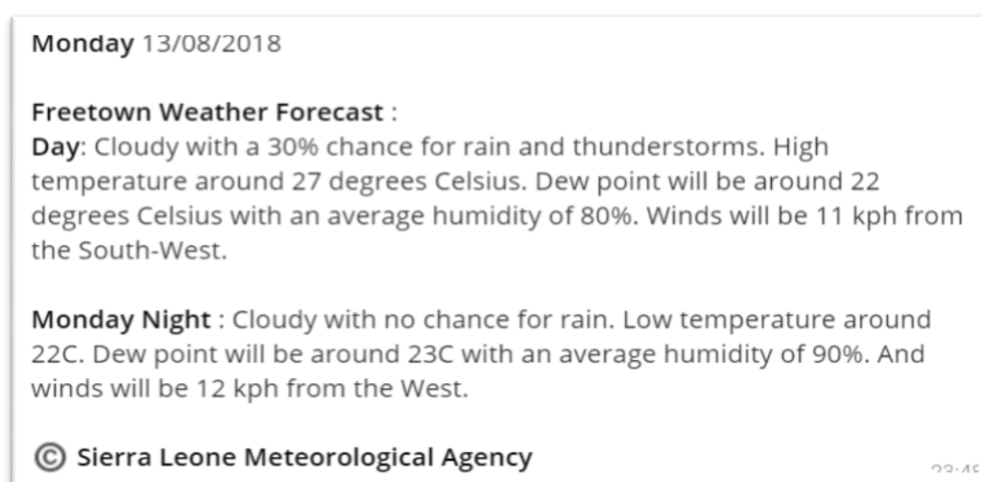
- MoU discussed with the Sierra Leone National Telecommunication Commission (NATCOM);
- MoU discussed with the Ministry of Agriculture Forestry and Food Security (MAFFS);

However, those MoUs need to be implemented with strong leadership from SLMA management, which does not seem to be the case for the moment.

62. In addition, the specific role of each institution as defined in the project document was not well accepted by all. The EPA has expressed concerns about its own involvement and non-central position in project implementation. Stronger cooperation from all intuitions certainly would have facilitated project implementation overall.
63. However, cooperation between the SLMA and some key beneficiary institutions is real, as reported for example by the Sierra Leone Airport Authority (SLAA) and Sierra Leone Maritime Administration, which receive regular weather forecasts that are necessary to their activity.
64. Engagement of the private sector mainly concerned a number of service providers to the project. Among them, INTEGEMS (Integrated Geo-information and Environmental Management Services, a private sector consultancy based in Freetown) has become a key partner for setting the early warning and disaster risk management tools. The *Update of Sierra Leone Hazard Profile and Capacity Gap Analysis* and the CIDMEWS-SL platform conceived by INTEGEMS are key project outputs and INTEGEMS will certainly remain an important private sector partner institution in the future.
65. At the regional level, a strong partnership was established by the project with the *Bumbuna Watershed Management Authority* (BWMA), which has worked in close collaboration with the ONS-DMD and 70 local communities of Bumbuna and Dodo watersheds. The quality of this partnership has pushed to extend it to the Dodo watershed and the collaboration is reported as a success.
66. The communities consulted by the TE mission confirmed that their perspectives, and in particular those of women, were taken into account during project implementation.
67. **Overall, stakeholders' engagement was quite effective in project design and project implementation**, but regular project coordination meetings and Steering Committee meetings did not prove sufficient to boost cooperation between key national institutions.
68. Outreach and public awareness on meteorological risks has increased through awareness campaigns in project focus regions (Bumbuna and Dodo specifically), and dissemination of locally produced meteorological information through radios, newspapers and social networks (see Figure 1).



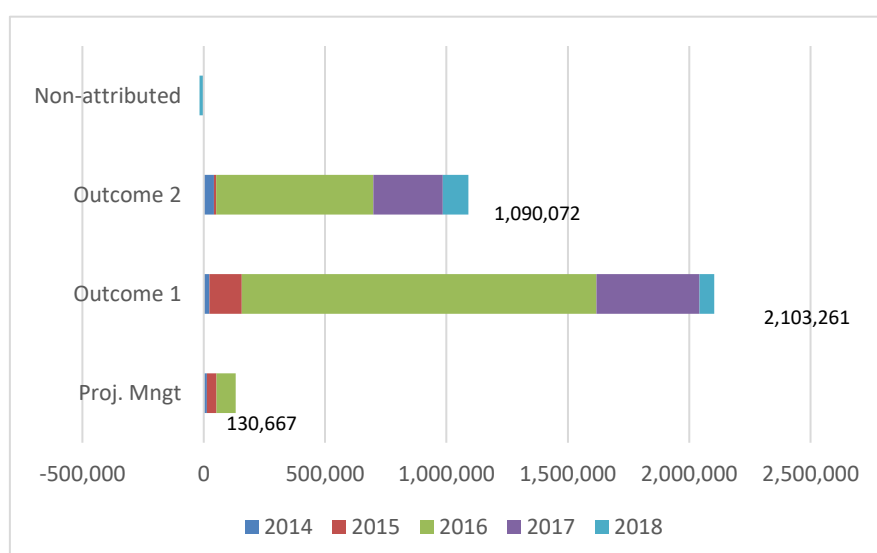
Figure 1. Daily weather forecast disseminated through WhatsApp



## Project Finance

69. As far as the LDCF grant is concerned, on August 10, 2018, total project expenditures reach US\$3,324,001<sup>15</sup>, with 63% spent under Outcome 1, and 33% spent under Outcome 2 (see Figure 2 and Figure 3). This is roughly in line with the original project budget, which planned 66% of the costs to be incurred under Outcome 1, and 29% of the costs under Outcome 2.
70. Whereas cumulated expenditures for years 2014 and 2015 only reach a total of US\$260,407 (due to project delays during the Ebola crisis), they reach US\$2,187,910 in 2016 and US\$710,491 in 2017. **Overall, disbursement tremendously accelerated from 2016 so that the project is likely to reach initial plans, as shown in Table 5.**

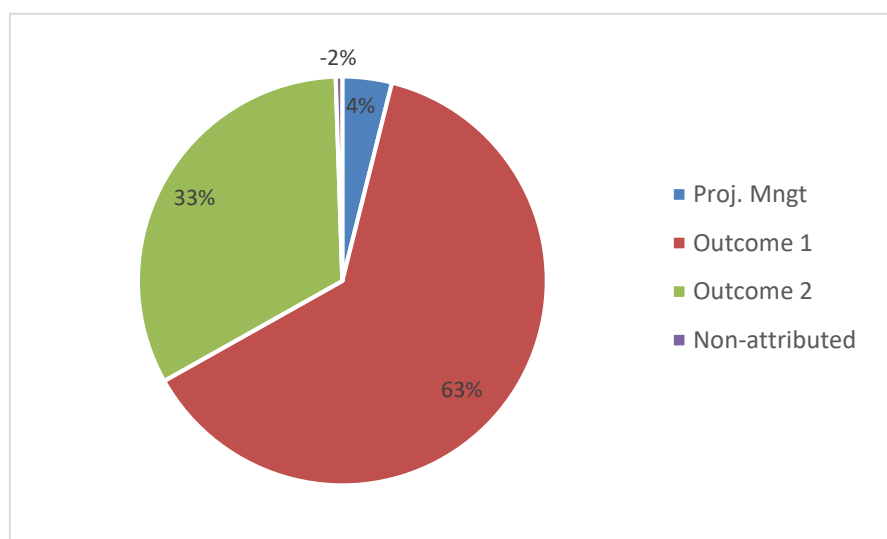
Figure 2. Project expenditures per outcome and per year as of 10 August 2018 (in \$US)



<sup>15</sup> Remaining expenditure for the equipment amounts US\$43,069, so this figure is almost final.



Figure 3. Percentage of project expenditures per outcome as of 10 August 2018



71. As often the case in such projects, actual co-financing is very difficult to assess. At project start, planned co-financing were the following:

Table 4. Associated baseline projects and the indicative co-financing amounts at project start

Project	Cofinancing source	Institution	Amount (US\$)
Environmental Governance and Mainstreaming Project	UE	EPA-SL	5,000,000
African Monitoring of the Environment for Sustainable Development (AMESD) Project	UE	MAFFS	2,000,000
Supporting the Government of Sierra Leone to implement its National Water Supply and Sanitation Strategy (Kabala Town Water Supply)	DFID	MWR	12,000,000
GEF Agency	UNDP	UNDP	1,347,310

72. As per the DFID/MWR Project Completion Review<sup>16</sup>, total program spending reached £14,704,300 (i.e. US\$22.7 million as per November 2015 exchange rate), which is far above the planned US\$12 million. The actual share of this project, which ran from 1 February 2011 to 30 June 2016, that can be considered as co-financing to the LDCF project is not easy to assess, since part of the budget was used to face the Ebola crisis. But it can safely be considered that the planned US\$12 million

<sup>16</sup> Supporting the Government of Sierra Leone to implement its National Water Supply and Sanitation Strategy, Project Completion Review - Top Sheet, DFID, 27 September 2016

co-financing has been reached by this source. Through this project DIFD supported the Government of Sierra Leone to implement its National Water and Sanitation Policy. The objective was to respond to the urgent need for better planning and coordination in water management. It also focused on the need to improve the financing, management and delivery of sustainable WASH services in Sierra Leone to enable whole rural and urban communities to adopt safe hygiene and sanitation practices, consume safe water and improve waste management.

73. UNDP has confirmed during the evaluation mission that the planned in-kind co-financing was actual and delivered.
74. As far as the *Environmental Governance and Mainstreaming Project* is concerned (EU funded), which efficiency is considered as good to very good in the final evaluation<sup>17</sup> document, it can be considered that the foreseen co-financing was used as per initial plans. This project's main objective was to improve environmental governance in Sierra Leone and facilitate the implementation of environmental and climate change related policies through support to the Environmental Protection Agency.
75. No information could however be collected by the TE mission on the final results of the AMESD program in Sierra Leone. Consequently, planned co-financing amount cannot be confirmed.
76. Overall, there is a clear lack of follow-up on co-financing from the baseline projects during project implementation. Although co-financing amounts as presented in Table 5 are real (baseline projects were implemented as per those amounts), this suggests a lack of real technical collaboration and search for synergies between the project and its co-financiers. Building on those synergies could have enhanced project results and reinforce their sustainability.

---

<sup>17</sup> European Union, November 2017. Final Evaluation of the Environmental Governance and Mainstreaming Project (EGMP) in Sierra Leone.



Table 5. Project financial delivery status (US\$)

	2014		2015		2016		2017		2018		TOTAL*	
	Plan <sup>18</sup>	Actual <sup>19</sup>	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual	Plan	Actual
Total GEF	460,100	78,391	1,301,505	182,016	1,203,960	2,187,910	634,435	710,491	0	147,813	3,600,000	3,306,621
<u>Co-financiers:</u>												
Total UNDP											1,347,310	1,347,310
EPA/UE <sup>20</sup>											5,000,000	5,000,000
MAFFS AMESD/UE											2,000,000	- <sup>21</sup>
MWR/DFID <sup>22</sup>											12,000,000	12,000,000
TOTAL co-financing											20,347,310	18,347,130
TOTAL Project											23,947,310	21,653,931

\* Total figures as of 10 August 2018 (before project closing). Planned figures for GEF funds are from the project document and Cofinancing figures are from the CEO endorsement document.

<sup>18</sup> Planned amounts based on figures provided in the project document.

<sup>19</sup> Actual amounts, for GEF and UNDP CO, based on figures provided by UNDP CO as of 19 January 2016

<sup>20</sup> Environmental Governance and Mainstreaming Project

<sup>21</sup> The actual co-financing amount could not be confirmed by the TE mission

<sup>22</sup> Supporting the Government of Sierra Leone to implement its National Water Supply and Sanitation Strategy (Kabala Town Water Supply)



## Monitoring and evaluation

77. Monitoring of project results was realised in annual PIRs in 2016, 2017 and 2018 against the results framework indicators defined in the project document. Each PIR report details the level of achievement of the defined indicators, which is a good practice. The information provided in PIRs is generally positive and optimistic, which sometimes contrasts with the interviews realized during the TE mission and the difficulties met in collecting documentation. In fact, many of the statements in the PIRs are difficult to support with evidence, and the TE mission has had difficulties in cross-checking those statements. For example:

- For Outcome 2 indicator “% of population with access to improved climate information and flood, drought, strong wind and coastal warnings (disaggregated by gender)” PIR2017 states: “Estimated 35% men, 26% women currently having access to climate information, mostly in urban areas covered by selected print and electronic media. Installation of hydrological monitoring equipment to be completed in 4th Quarter of 2017”. The TE mission has found no evidence supporting this statement, and wonders where such information comes from.
- PIR2018 Objective indicator 1: “The capacity level for all EWS agencies is enhanced through the development of web: <http://www.cidmews.solutions/index> of the Climate Information, Disaster Management and Early Warning Systems (CIDMEWS). The CIDMEWS launch scheduled for October 2017 was deferred because of the national electioneering process”. It seems a bit optimistic to consider that capacity level is enhanced through the development of the CIDMEWS platform and to mention at the same time that the platform is yet to be launched (which is still not the case in August 2018). Not only have trainings on the platform not occurred yet, but the concerned institutions are not responding to invitations from the platform developer INTEGEMS. In addition, considering the PIR2018 was prepared in July 2018, one could expect an analysis of the still ongoing delay in launching the CIDMEWS platform, which would require a quick management response.
- PIR2018 Objective indicator 2 on domestic finance: “Target has been substantially achieved as there has been a progressive increase in target of budget allocations for monitoring infrastructure far above the 30% target to over 160% from Year 1. Domestic financing from the Sierra Leone Government alone for equipment, operation and maintenance in the SLMA showed a steady increase from a baseline of Le 500,000,000 to Le 600,000,000, Le 700,000,000 and Le 1,300,000,000 currently.” Whereas this budget increase is confirmed, actual money transfers to the SLMA seem to be problematic, which is not acknowledged for in the PIR. In this context, it may be a bit too early to affirm “This demonstrates the political will of the Government to invest in monitoring extreme weather and climate change in Sierra Leone”. In addition, the PIR states “Beyond this, the agency is now positioned and legally able to generate much-needed revenues from the sales of EWS & CI and maintain their operations”. Whereas this is legally true, to date there are no signed agreements on the sale of customized climate products to end users, and the SLMA does not seem very proactive in engaging discussions on this matter.



- PIR 2017 Outcome1 Indicator 1: “The seventy (70) most vulnerable communities / pilot demonstration sites with Early Warning Systems, established in communities including Bumbuna and Guma/Dodo Hydroelectric Dam areas”. Whereas communities in Bumbuna and Dodo have clearly benefitted from project interventions, the evaluation mission could not find any information on activities around the Guma dam close to Freetown, and access to the site has been denied to the consultants. It would be good to find evidence of interventions in this area.
78. The quality of monitoring indicators and M&E plan are dealt with in section 3.1. Implementation of the M&E plan included an Inception workshop (organised on 1st May 2014) and periodic monitoring visits of the project coordinator to project sites:
- Monitoring visit to Bumbuna Watershed, Hydroelectric Dam and Environs. 17th – 19th June, 2016.
  - Monitoring visit to Bumbuna Watershed, Bumbuna Hydroelectric Dam, and Downstream Communities (Kathombo & Mapaki Villages). 10th – 11th November, 2016.
  - Monitoring visit to Kailahun, Kabala, Kambia, Makeni, Kamakwie, Moyamba, Njala University, Lungi Airport, Kenema, Kono, and environs. 13 April – 21st April, 2017
  - Monitoring visit to Bumbuna & Dodo Watersheds, Hydroelectric Dams and Environs, Tonkolili District & Simbaru Chiefdoms, Northern and Eastern Provinces. 1st June – 13th June 2017.
79. Finally, the planned mid-term review did not take place. Initially scheduled in 2016, it was not implemented due to the ebola outbreak. Postponed to 2017, it did not happen. There is no information on when/how the decision to cancel the mid-term review was taken.
80. There is no evidence of discussions on M&E reports with stakeholders and project staff, not even in PSC meetings minutes made available to the TE mission. Therefore, there is no evidence of feedback from M&E activities to be used for adaptive management. It seems that project monitoring at output level did occur, although it would probably have helped follow-up of activities.
81. Overall, **monitoring and evaluation is rated as ‘Moderately Unsatisfactory’<sup>23</sup>**.

### Implementing Agency (IA) and Executing Agency (EA) execution, coordination, and operational issues

82. UNDP CO is the IA and the MTA is the EA. MTA was chosen as the EA from the Project formulation phase, as it hosted the SLMD, and then kept an oversight role of the new agency (SLMA). This choice seemed suitable and relevant given the central role of the meteorological service on climate information and early warning, and its necessary involvement in both project outcomes.

<sup>23</sup> Over a 6pt rating scale: Highly Satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU).



83. At project design phase, the MTA capacities were assessed, and this assessment confirmed the Ministry's capacity to implement the project. However, MTA services mostly relied on the SLMD for project execution, but regrettably, the SLMD has not taken a strong lead in coordinating activities with other institutions. This is possibly because at project start, the capacities of the SLMD were very poor. The project did work on the upgrading of the department (offices/building, equipment and staff training), but this took time and trained staff started to become operational only from early 2017, in particular the new Director General and Deputy Director. So before 2017, the SLMD was structurally not sufficiently resourced to achieve project results. As a result, neither the SLMD nor the MTA did take a leading role in project coordination and management, which mostly relied on the project coordinator employed by UNDP. No management reporting and risk management activities occurred at the level of those institutions, except through their participation in regular coordination meetings organised by UNDP and reporting on activities conducted by their own services (e.g. trainings, investments, etc.).
84. Some incomprehension around the role of the main four partners (SLMA, MWR, EPA and ONS) seems to have occurred. For example, it was reported that the EPA would have liked to play a stronger role in the project, which did not seem relevant given the project results framework. In addition, whereas the project document clearly gives the overall responsibility of the execution of Component 1 to the SLMD (Section 5. Management Arrangements: "The SLMD has the major mandate for coordinating weather monitoring and forecasting as well as climate change related programmes and policies, and as such will execute relevant outputs under component 1 of the project"), responsibilities are shared between institutions for the execution of Component 2:

<u>Output</u>	<u>Lead institution</u>
Output 2.1	SLMD
Output 2.2	ONS-Disaster Management Department
Output 2.3	EPA-SL
Output 2.4	ONS-Disaster Management Department
Output 2.5	SLMD

85. Coordination between those institutions was therefore a key success parameter in project execution, and this was identified as a risk in the project document:
- Risk n°2: Poor co-ordination among implementing and executing agencies
  - Risk n°3: The project cannot resolve the lack of coordination between EWS agencies and with EWS-related initiatives to improve the ability to work cross-sectorally.
86. Interviews conducted during the TE mission suggest that although rather regular management meetings and Project Board meetings were organised, actual collaboration between the services of those 4 key stakeholders remained rather poor, which has affected, among other things, delivery of outcome 2.
87. On another note, main project partners recognize the legitimacy of the UNDP CO as the project Implementing Agency, in particular regarding administrative and management processes that the MTA and the SLMD did not have the capacities to assume. Whether UNDP CO placed enough resource to this role is however questioned, looking at the important delays in procurement processes, which strongly affected project delivery and, at some point, commitment of some project partners. The absence of project coordinator from December 2017 also seems to have



negatively impacted project dynamics and has not allowed proper preparation of a project exit strategy.

88. Reporting and risk management by UNDP CO show some weaknesses as discussed in section 3.3. However, some responsiveness to implementation issues was shown through regular coordination meetings with implementing partners and visits to project sites.



### 3.3. Project results

#### Relevance

89. At the start of the century, the SLMD had been suffering for many years from no investment in infrastructure and human resources, and most meteorological equipment had been destroyed during the civil war. Investing in climate monitoring equipment and developing the capacities of the meteorological services was therefore highly relevant to enable climate change adaptation interventions. Given the increasing frequency and intensity of natural disasters, the urgent need for disaster prevention and early warning systems was widely recognised.
90. This was translated into Sierra Leone's National Adaptation Program of Action (NAPA), a highly participatory process, published in 2007. In fact, the project responds to the top 3 priority projects identified in the NAPA:
- Project No 1: Develop an Early Warning System in Sierra Leone
  - Project No. 2: Rehabilitation & Reconstruction of meteorological/climate monitoring stations throughout the country
  - Project No. 3: Capacity building of the MET Dept through training of personnel for the country's adaptation to climate change
91. **The project is therefore highly relevant to the priorities set out by the government in the NAPA** and was one of the first projects relating to NAPA implementation. It supported national development goals and plans to achieve Millennium Development Goals (MDGs) 1, 3, 6 and 7, and is also relevant to strategic documents available at the time of project design, such as:
- The Second Poverty Reduction Strategy Paper (PRSP II) 2008-2012<sup>24</sup> which acknowledges the threat posed by climate change and the need to design interventions to protect the land and forest.
  - Sierra Leone Vision 2025<sup>25</sup> acknowledges global warming and climate change as an important threat to the country's development, requesting for urgent action.
92. Finally, the project is also relevant to strategies and policies prepared during its course, given the development of the climate change agenda in Sierra Leone over this period. In particular:
- The Sierra Leone *National Climate Change Strategy and Action Plan*<sup>26</sup>, which includes a priority project denominated "Strengthening of Climate Change Early Warning System of Sierra Leone";
  - The *National Climate Change Policy Framework Document*<sup>27</sup>, in which the Government of Sierra Leone commits "to ensuring that climate change becomes an integral part of the national development policy and process"
  - Finally, very recently, the new President of Sierra Leone, Julius Maada Bio, in its *Public State Opening Address*, mentioned his willingness to "establish independent

<sup>24</sup> Government of Sierra Leone, 2005. POVERTY REDUCTION STRATEGY PAPER

<sup>25</sup> SIERRA LEONE VISION 2025: "SWEET-SALONE". STRATEGIES FOR NATIONAL TRANSFORMATION. AUGUST 2003

<sup>26</sup> Government of Sierra Leone, undated. Sierra Leone National Climate Change Strategy and Action Plan. UNDP.

<sup>27</sup> Government of Sierra Leone, undated. The National Climate Change Policy Framework Document. Environment Protection Agency.





agencies for disaster management and meteorology to improve the knowledge base and expand actions for early warning and disaster risk reduction », which demonstrates again the relevance of the project to past and ongoing government priorities.

93. Given the project objective to strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation to climate change in Sierra Leone, we consider the project is also clearly **relevant to GEF climate change focal area**, Outcome 2.1 (Increased knowledge and understanding of climate variability and change-induced risks at country level and in targeted vulnerable areas) and Outcome 2.2 (Strengthened adaptive capacity to reduce risks to climate-induced economic losses).
94. The needs of target beneficiaries at the local and national levels have been duly considered both at project design and during implementation. Stakeholders consulted during the TE mission confirmed the project relevance and its adequacy to national realities and existing capacities, even if more and better would be needed. Indeed, the project interventions matched the needs of national level key institutions (in particular capacity building of the SLMA and MWR), but also local level needs in Bumbuna and Dodo watersheds, working directly with rural communities. Field visits during the TE mission confirmed the relevance of the interventions regarding early warning, alerts and awareness raising around flood prone areas. In Bumbuna, for example, communities met confirmed that the project addressed key risks to their livelihoods, in particular about flooding events, and that the increase of meteorological and early warning services has started to improve their livelihoods.
95. **Project design is coherent and relevant to other donor-supported activities**, in particular the baseline projects which served as co-financing. Indeed, the *African Monitoring of Environment for Sustainable Development* (AMESD) program's objective was to enhance monitoring for preparedness and adaptation to environmental change. And DFID-funded project *Supporting the Government of Sierra Leone to implement its National Water Supply and Sanitation Strategy* supported the Ministry of Water Resources in securing water supply and sanitation, which closely relates to climate information and disaster preparedness. Relevance of the project is also demonstrated by the intention of the government, in close collaboration with UNDP, to prepare a scaled-up, follow-up project for funding by the Green Climate Fund (GCF). Lessons and experiences from the project will need to be duly considered in this process.
96. Finally, the project is fully in line with UNDAF as detailed in the below section on Sustainability, and particularly consistent with Sustainable development goals (SDGs) 11 (Make cities and human settlements inclusive, safe, resilient and sustainable) and 13 (Take urgent action to combat climate change and its impacts)
97. Overall, Relevance of the project is rated as **Highly Satisfactory**.

## Effectiveness

98. Annex 8 shows the level of achievement of project outcomes:



- Achievement of the project objective is rated – in average - 'Moderately Satisfactory'<sup>28</sup>: The project objective "to strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation to climate change in Sierra Leone" was partially reached. A lot was done to increase the capacities of the SLMA and the MWR to monitor climate information and process it. The project permitted to transform the non-operational SLMD into a semi-independent agency, with the infrastructure, the internal competencies and the equipment to realize its mission, if not completely, at least with some level of credibility and efficiency. However, installation of equipment is not yet complete<sup>29</sup> and some of the tools developed, in particular the CIDMEWS platform developed by INTEGEMS, have not been deployed to their potential. In addition, there is no effective EWS in place in Sierra Leone after the project, since responsibilities between institutions and information streams have not been agreed on.
- Outcome 1 is rated 'Moderately Satisfactory': although climate monitoring capacities are definitely improved, the installation of equipment is not complete and dissemination of climate information to end-users still needs to be adapted (contents, format) to their specific needs and through appropriate channels, including to the general public. The various training sessions conducted during the project and the funding of trainings abroad to various staff (UK, Nigeria) was instrumental in increasing the capacity of Sierra Leone to monitor and use environmental information, as long as the trained people are able and willing to use this new capacity in their work in Sierra Leone.
- Outcome 2 is rated 'Moderately Unsatisfactory': Use of hydro-meteorological and environmental information for making early warnings and long-term development plans is not effective yet, considering that (i) there is no EWS at national level to present disasters and the concerned institutions have not established strong cooperation yet; (ii) although the new government seems to be willing to take action in this regard, to date the development frameworks do not incorporate EWS and climate information products<sup>30</sup>; and (iii) Sector-specific EW products have not been developed yet. The hazard profile realized by INTEGEMS provides a is an excellent basis for planning future actions in different sectors of the economy and this work will hopefully be used by the new government. The CIDMEWS platform is also an excellent tool to collect and process climate and other environmental information. The tool has already attracted other countries as it responds to a variety of needs using the most recent technologies, but in Sierra Leone it still needs to be transferred

<sup>28</sup> Over a 6pt rating scale: *Highly Satisfactory (HS)*; *Satisfactory (S)*; *Moderately Satisfactory (MS)*; *Moderately Unsatisfactory (MU)*; *Unsatisfactory (U)*; *Highly Unsatisfactory (HU)*.

<sup>29</sup> Hydrological monitoring stations are not yet transmitting data as solar panels and transmission equipment has not been installed by fear of theft.

<sup>30</sup> We however acknowledge that the new (still draft) DEVELOPMENT COOPERATION FRAMEWORK FOR SIERRA LEONE includes 'Environment, Climate Change and Disaster Management' as one of its 8 "crucial pillars to support the dire need for the eradication of poverty and sustainable growth"



to the relevant institutions (in particular the SLMA, the MWR, the ONS and the EPA), who should be trained in using it<sup>31</sup>.

99. Overall, effectiveness can be rated as **Moderately Satisfactory**: a lot was done in terms of capacity building (Infrastructure, equipment, training and awareness raising), but a lot remains to be done to complete the project outputs and outcomes and ensure their usefulness and sustainability. There is no assurance, at the TE date, that (i) hydrological stations will become operational in a near future<sup>32</sup>; (ii) no gap in data from AWS will occur given the need to move AWS from Africell towers to WMO-compliant locations<sup>33</sup>; (iii) the CIDMEWS platform will be transferred to SLMA and fed and used by all concerned institutions; (iv) SLMA, ONS, and other institutions will finalize signature and actually implement the MoUs developed during the project to clarify their roles and responsibilities in establishing an effective EWS to a variety of users.
100. A lot of the project was based on procuring equipment and improving SLMA infrastructure, in addition to building human capacities. This enabled a rather good level of achievement of the project overall, but it appears rather clearly that the project was unable to modify the silo type of approach of key institutions, each one working on its own agenda and experiencing difficulties in collaborating on a cross-sectoral system such as an EWS. In addition, technical capacities are now improved but there remains a strong lack of leadership to bring the country a step further in terms of climate information and EW.
101. Finally, although risk logs were updated quarterly in UNDP Atlas system, there is no evidence of risk management activities implemented during the project. Some of the identified risks have proven real (e.g. the lack of cooperation between key institutions), but no specific and timely management response was brought.

---

<sup>31</sup> The TE mission was informed that trainings were proposed to those institutions, but INTEGEMS did not get any positive feedback to date.

<sup>32</sup> As of October 17, an advert was published to recruit a firm for this

<sup>33</sup> The AWS were not installed as per WMO standards. They currently are located on Africell towers, and under a one-year lease. These AWS therefore need to be relocated on government land (already identified plots) and in line with WMO standards.



**Photo 1. Examples of equipment and infrastructure built by the project**



An AWS fixed to an Africell cell-phone tower in Bo



A water table monitoring station in Magbauraka



SLMA rehabilitated building in Freetown



SLMA refurbished building in Freetown

## Efficiency

102. As presented in section 3.2 *Project Finance*, on August 10, 2018, LDCF project expenditures reached US\$3,324,001, that is 92% of the initial plan. This percentage should slightly increase at project closing as some investments are yet to be finalized. Although it is difficult to assess the real support to project activities achieved by this co-financing, co-financing was achieved at least at 90% (the TE mission was unable to confirm actual co-financing from the AMESD program), which is good.
103. Progress made was monitored in the UNDP Enhanced Results Based Management Platform, including the risk log which was regularly updated in ATLAS.

104. Three Project Implementation Reports (PIRs) were prepared annually from 2016 to 2018. These key reports monitor progress made against the Results Framework indicators since project start and for the reporting periods 30 June to 1 July. The problem with this is that (i) the PIRs mostly focus on informing the indicators as defined in the Results Framework at objective and outcome level, but there is no reporting at output level; (ii) given that the quality of the indicators, as discussed in section 3.1 *Analysis of Results Framework/indicators*, was not optimal, PIRs do not provide a very clear view on project results. In addition, the information provided is rather optimistic, contrasting sometimes with evidences collected during the TE mission, as reported in section 3.2 *Monitoring and evaluation*. The fact that no independent mid-term review was implemented during the project has also impacted the lack of independence of reporting on results.
105. Project management costs were planned at US\$180,000 at project start (project document). Real management costs reached US\$130,667, which is very reasonable for implementing such a project.
106. Critics on the efficiency of UNDP procurement processes were repeatedly reported to the TE mission. Procurement of equipment took far too much time to enable smooth project implementation. This is particularly true for the procurement of meteorological equipment. The fact that the same situation is found in other projects in Africa dealing with UNDP procurement services in Copenhagen for meteorological equipment suggests that a real problem exist with this service, which UNDP headquarters should consider seriously.
107. Partnership arrangements of the project were not efficient. As reported to the TE mission, the main implementing partners (SLMA, MWR, ONS-DMD, EPA) experienced difficulties in working together in a coordinated manner and there has been a strong lack of leadership to push the project work plan and overall agenda. As a result, the achievement of planned results remains incomplete to date, in particular under Outcome 2, as reported in the Effectiveness section. This lack of both leadership and coordination between key institutions involved in climate information and early warning is a risk to the sustainability of project results, and to the real implementation of an efficient EWS in the future.
108. Local capacities were efficiently utilized during the project implementation when looking at the quality of the products emanating from local consultants and firms. Local consultants and consulting firms produced many studies and papers. To name a few, we can mention, among others, the *Legal Framework Supporting Early Warning Systems and Establishment of Partnerships for the Dissemination of Climate Information to End-Users* prepared by Francis Ben Kaifala Esq; the *Review of Relevant Laws in Sierra Leone and Recommendations for the Integration of Climate Risk into National Policies and Plans* produced by Michael Imran Kanu and Ebunoluwa Finda Tengbe; and the two products prepared by INTEGEMS, namely the *Update of Sierra Leone Hazard Profile and Capacity Gap Analysis*, and the *Climate Information, Disaster Management and Early Warning System-Sierra Leone (CIDMEWS-SL)* web platform. This last product for example is about to be exported in other countries<sup>34</sup>, which demonstrates its quality and relevance for EW and disaster preparedness and management. International expertise was mainly utilized for the procurement and installation of meteorological equipment and related trainings, transferring high level

---

<sup>34</sup> INTEGEMS has been contacted by a Caribbean country to propose the same type of platform





technologies to the country. Therefore, we consider that an appropriate balance was struck between utilization of international expertise and local capacity.

109. Lessons from this project include the need to better prepare partnership arrangement from the project design phase, establishing clear responsibilities for each institution and making sure every institution's interest is duly considered, in order to ensure strong cooperation during project implementation. Another lesson lies in UNDP's capacities to deliver management and procurement services in an efficient manner. Whereas UNDP is recognized for its well-designed management and administrative capacities, lack of efficiency is regretted, and administrative procedures and human capacities should be improved/increased.
110. Overall, efficiency is rated as **Satisfactory** given time constraints, the Ebola crisis and the fact that the project used financial resources wisely and limited project management costs. But final project efficiency is conditioned to the actual use of the equipment installed and capacities developed, which is not, in the evaluators opinion, guaranteed for the moment. For example, the actual installation of water monitoring equipment (MWR mainly), the actual use of the CIDMEWS platform, and the start of a real collaboration between institutions to ensure EW is a reality in Sierra Leone need to be secured in the coming months.

### Country ownership

111. As mentioned in the project document and previously reported in Section 3.3 *Relevance*, it is confirmed that the project fully reflects the priority measures identified by Sierra Leone's NAPA, and contributes to the country's development and achievement of critical MDGs. Climate Change Adaptation is a leading priority for the Government of Sierra Leone.
112. Relevant country representatives from the government were involved in project implementation, and members of the Project Board: SLMA, MWR, EPA and ONS-DMD. The fact that several institutions were directly involved in project implementation definitely reinforced project ownership. In addition, the involvement of local actors like the *Bumbuna Watershed Management Authority* (BWMA) to implement interventions at the community level in Bumbuna and Dodo was very relevant as BWMA staff was already working at this level and has staff positioned near Bumbuna dam. At the same time, some monitoring equipment is not completely operational, some project outputs like the CIDMEWS platform have remained unused to date, and there is a lack of cooperation and leadership on data dissemination and use and EW, questioning actual ownership of project outputs beyond trainings, equipment and refurbishment investments.
113. Other institutions with a direct interest in meteorological information were involved at a lesser extent, in particular: the Sierra Leone Airport Authority (an AWS was installed at Lungi airport), the Sierra Leone Maritime Administration, the Ministry of Agriculture and Food Security. They confirmed the project's relevance, but their actual knowledge of project outputs and activities appeared to be limited during the TE mission, which is an indicator of their rather low involvement in the project itself. This does not reflect the actual level of ownership on meteorological questions however, since those actors are important "clients" of the SLMA and reported good cooperation with SLMA services.



114. Finally, during the period covered by the project, the EPA enacted the *Sierra Leone National Climate Change Strategy and Action Plan*<sup>35</sup> with funding from UNDP trac resources. This demonstrates that climate change, EW and disaster management are important to the government and ownership of those questions is high in Sierra Leone. The fact that the country is considered as one of the most vulnerable to climate change, and dramatic events like the 2017 landslide in Freetown certainly contribute to this level of awareness.
115. To conclude, ownership of climate change and disaster management issues is generally good at the national and local levels, but actual ownership of project outputs by key institutions is not very strong, which may negatively affect project sustainability and impacts.

## Mainstreaming

116. Mainstreaming of other UNDP priorities, such as poverty alleviation, improved governance, the prevention and recovery from natural disasters, and women's empowerment, is an important aspect of UNDP-supported projects. Table 6 shows how those different dimensions were taken into account by the project.

**Table 6. Mainstreaming of other UNDP priorities by the project intervention**

UNDP priorities	Project mainstreaming effect
Poverty alleviation	Interventions in the Bumbuna and Dodo watersheds included EW procedures, awareness raising sessions and drills, as well as revenue generation activities such as training of women in fishing and net weaving. Focus group discussions indicated an impact on family revenues, women mentioning fishing as a new activity for them helped to pay for school fees for example. Other interventions such as the construction of drying floors for rice has improved women's conditions, and rehabilitation of community centre in Dodo is reported to have increased cohesion in the community.
Improved governance	By working with different institutions and promoting coordination between them, the project could have had a positive effect on governance. However, the actual level of cooperation/coordination between the main implementing partners was and remains a challenge.
Prevention and recovery from natural disasters	Prevention of disasters is one of the main objectives of the project
Women's empowerment	Women's empowerment is not a strong aspect of the project for interventions at the national level, but as mentioned above, some activities have specifically targeted women in interventions at community level.

117. The project document clearly demonstrates that "The project is linked to country priorities of the UNDP Country Programme Action Plan (CPAP, 2011-2012) in particular to its contribution to the Sierra Leone's Government National Strategy: The "Agenda for Change" 2008-2012, which is expressed in the United Nations Joint Vision 2009-2012 (UN JV) document. Activities and results

<sup>35</sup> EPA, 2014. Sierra Leone National Climate Change Strategy and Action Plan. Government of Sierra Leone, UNDP.



that will be developed under this project are also fully consistent with the UNDAF Outcome 2.1 "Improved sustainable Natural Resource Utilization and food security", 2.2 "Improved access to sustainable livelihoods opportunities in an innovative and competitive private sector", and UNDAF Outcome 2.3 "Improved access to sustainable basic infrastructure".

118. Alignment with priorities set in the Country Programme Action Plan (CPAP) 2013-2014 is also a reality, as demonstrated in the table below.

**Table 7. Alignment with priorities set in the CPAP 2013-2014<sup>36</sup>**

UNDP Country Programme Action Plan	Improved governance and risk management
Cluster 1	UNDP Country Programme Outcome 2: Enhanced capacities of key national and local institutions to deliver more effective, efficient and equitable service at the national and local levels
UNDP Country Programme Action Plan	Improved growth and management of resources and disasters
Cluster 2	UNDP Country Programme Outcome 6: Policy and legal framework, and institutional arrangements for managing natural resources and addressing climate change, disaster, and environmental management strengthened

119. From the elements exposed above, it can be concluded that the project has successfully mainstreamed other UNDP priorities.

## Sustainability

120. The project document proposes a section on sustainability in 2.6. According to this section, sustainability of the project intervention will be ensured by different factors, with a specific focus on capacity building of institutions and civil servants, the transformation of the SLMD into a semi-autonomous agency (SLMA) to guarantee cost recovery, and the funding pledged by the ONS-DMD.

121. However, the section does not include any plan for managing financial risks, socio-economic risks, institutional framework and governance risks and environmental risks. It does not propose either a strong sustainability or exit strategy. Consequently, this cannot be considered as a robust sustainability strategy.

122. The TE mission found that various activities listed in the project document as contributing to the project's sustainability were not actually implemented, for example:

- The multi-agency platform (Inter-institutional Technical Committee EWS-MITEC) for synergy building was not formally put in place;
- Standard Operating Procedures (SOPs) for equipment operation and maintenance and data storage and collection were not systematically developed;
- Leverage of revenue-generating tailored EWS and climate information products to ensure long-term financial sustainability are yet to be developed.

<sup>36</sup> UNDP, 2013. Country Programme Action Plan between the Government of Sierra Leone and UNDP, 2013-2014.





123. In addition, there remain various challenges that may hinder the achievement of sustainable outcomes. We can specifically mention:

- The equipment that remains to be installed (under MWR especially). There is no guarantee at this stage that this equipment, already procured, will be in operation soon.
- The lack of training of staff on maintaining the installed equipment. This is an issue highlighted by MWR in particular.
- The AWS were not installed as per WMO standards. They currently are located on Africell towers, and under a one-year lease that needs to be renewed every year at a cost. These AWS therefore need to be relocated on government land (already identified plots) and in line with WMO standards.
- The CIDMEWS platform is a major project output, a tool likely to foster exchange of data and generation of alerts in Sierra Leone. The low motivation demonstrated by institutions, and the SLMA in particular, to take ownership of the platform and get trained on it is worrying regarding sustainability of project results.
- As noted in the Ownership section above, the rather low ownership of project outputs and lack of leadership on EWS and climate information are a challenge to project results suitability.

**Table 8. Project sustainability rating**

Risk	Comment	Rating <sup>37</sup>
Financial	The SLMA budget has increased but there is currently no financial plan to ensure sustainability of project achievements. The main strategy adopted is (i) to fund remaining installation of equipment with another ongoing project; and (ii) to design a follow-up project for Green Climate Fund funding. Whereas this could be promising, the time lapse between GCF project design and actual project start will be of minimum 2 years, so there is a need to ensure project achievements are sustained in the meantime.	MU
Socio Political	Risk to sustainability is rather low on the socio-political side. There is sufficient public and stakeholder awareness in support of the project's long-term objectives.	L
Institutional framework and governance	There is a risk of lack of leadership after the project end. The SLMA was the main project implementer and should take a strong lead in pursuing project achievements and coordinating EWS and climate information activities with other relevant institutions, in particular the ONS-DMD, MWR and the EPA.	MU
Environmental risks	Project outcomes mostly aim to increase resilience to environmental risks, so there is no new threat on this aspect.	L

<sup>37</sup> The rating scale is Likely (L); Moderately Likely (ML); Moderately Unlikely (MU); Unlikely (U). please see annex 7 for details on the rating scales used in the report



---

**Sustainability of  
Project outcomes  
(overall rating)**

---

**ML**

124. Overall, risks to project sustainability are moderate. Environmental and socioeconomic risks are limited, but financial and governance risks are significant and should be duly considered in the exit strategy.

**Catalytic role**

125. As per UNDP/GEF evaluation guidelines, we consider in this section the extent to which the project demonstrated: a) production of a public good, b) demonstration, c) replication, and d) scaling up. We present this analysis in the matrix below.



Table 9. Assessment of project catalytic role

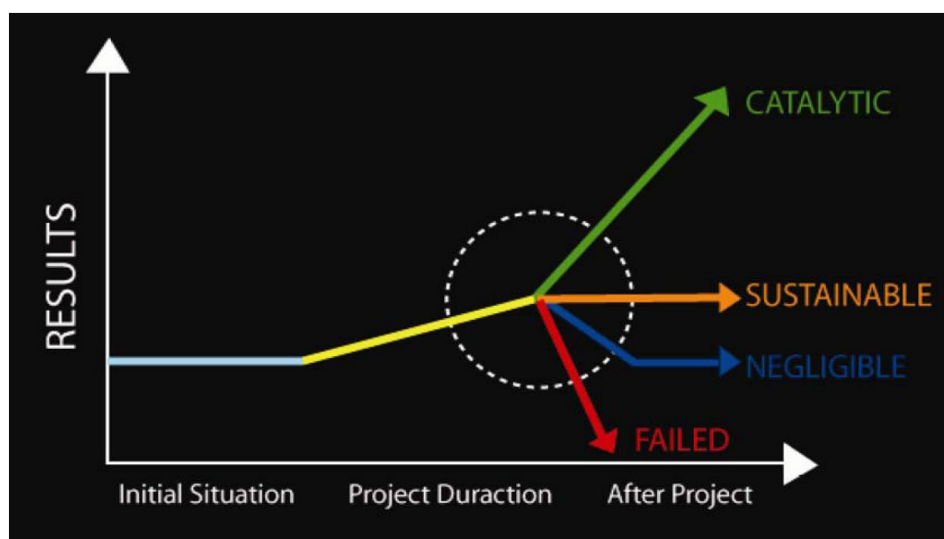
Catalytic result	Description <sup>38</sup>	Assessment of project catalytic role
Production of public good	Approaches developed through the project are taken up on a regional / national scale, becoming widely accepted, and perhaps legally required	Approaches to EW in the Bumbuna and Dodo watersheds maybe replicated to other watersheds at risk, in particular in those where electric dams are planned (e.g. the Bumbuna II hydroelectric dam by Seli Hydropower dam). At national level, the CIDMEWS platform will constitute a public good when used at its full potential, gathering a large amount of data and providing critical information for EW and disaster preparedness and management. Globally, awareness is good and approaches developed through the project are widely accepted.
Demonstration	Activities, demonstrations, and/or techniques are repeated within or outside the project, nationally or internationally	Interventions in Bumbuna and Dodo watersheds are considered as pilot, to be replicated in other watershed locations in Sierra Leone. Internationally, the CIDMEWS platform has already raised interest (e.g. in the Caribbean).
Replication	Steps have been taken to catalyse the public good, for instance through the development of demonstration sites, successful information dissemination and training	Information and training have occurred, but the limited leadership may be an issue for proper replication of project results
Scaling up	The lowest level of catalytic result, including for instance development of new technologies and approaches.  If no significant actions were taken to build on this achievement, the catalytic effect is left to 'market forces'	Scaling up must mostly be considered through the extensive appropriation and use of the CIDMEWS platform, its extension to other sectors/service providers and information "clients", which will enable a real EWS to be put in place in Sierra Leone.

126. Overall, we conclude that the catalytic potential is quite high, with important equipment to be used in the next few years for collecting data, tools to centralise and process this data, and trained staff. Whether this catalytic potential will be expressed or not however depends on a number of factors, the main ones being the willingness of the concerned institutions to use the equipment installed and capacities built actively, and cooperate with each other to pursue the work

127. The figure below illustrates how the results of such project may benefit the country in the future. It shows that **project closure is a critical moment for future impacts** the project might or might not have. Depending on the actions taken now, the results may be catalytic (i.e. scaled-up and replicated), just sustainable, negligible or even fail if project achievements are not taken up by stakeholders.

<sup>38</sup> Guidance for conducting terminal evaluations of UNDP-supported, GEF-financed projects, UNDP Evaluation Office, 2012

Figure 4. Four possible results after a GEF project ends<sup>39</sup>



### Impact

128. It is difficult to qualify project results as long-term impacts at this stage. Impacts are usually more visible 2-5 years after project closure, when a given situation can be related to the project implemented a few years before.

129. At the local level, focus group discussions suggest that direct impacts of the project in the two pilot watersheds consist in:

- Safer behaviour of fishermen because of awareness and flooding alerts;
- Improved livelihood and resilience of women (drying floors, net weaving and fishing) and their children;
- Farming in certain areas along the river abandoned to prevent accidents and search for alternative livelihoods instead.
- Improved community cohesion (rehabilitated community centre, joint exercises and awareness raising activities)

130. At the national level, the most significant impact lies in the strong national commitment to disaster risk reduction, management, meteorology and early warning, as illustrated by the recent President's Public State Opening Address. It is still too early however to confirm the project's impacts on disaster preparedness and, e.g. saving of life, as impacts related to the improved collection of climate and hydrological data, and the coordination of responsibilities between institutions for early warning and disaster preparedness, may be confirmed in the future, depending on efforts put in sustaining project results. What may be seen as an impact already is the reported change of perception regarding meteorological services in Sierra Leone. The new agency (SLMA) is now able to provide accurate meteorological information and this seems to be recognized by users, both institutions and the population (but was not measured).

<sup>39</sup> Source: Evaluation of the Catalytic Role of the GEF. A Qualitative Analysis of Terminal Evaluations. Avery Ouellette. October 2008.



### 3.4. Conclusions, recommendations and lessons learned

---

#### Conclusions

##### Project design

Conclusion CCL1. **Project design is overall good and coherent**, covering all necessary aspects for this type of project. A large number of stakeholders were involved in the design process, both at national and local levels. Management arrangements are appropriate and linkages with other intervention are clear. However, the proposed results framework was not sufficient to properly assess project achievements. The project document also is limited in detail on how the assumptions and risks identified have helped to determine activities and planned outputs, and there is no strong evidence that planning documents have utilized lessons learned/recommendations from previous projects as inputs to planning and defining the project strategy.

##### Project implementation

CCL2. **Project implementation was strongly disturbed** by the Ebola outbreak in Sierra Leone from May 2014 to March 2016, which resulted in substantial delays in the delivery of project activities. Adaptive management however helped overcome this crisis. After 2 years of very low disbursements, project activities (and disbursements) tremendously accelerated from 2016 so that the project is likely to reach initial financial plans.

CCL3. **Stakeholders' engagement was quite effective** in project implementation, but regular project coordination meetings and Steering Committee meetings did not prove to be sufficient to boost cooperation between key national institutions.

CCL4. **There is a lack of follow-up on co-financing** from the baseline projects during project implementation. This suggests a lack of real technical collaboration and search for synergies between the project and its co-financiers, which can be regretted.

CCL5. Monitoring of project results was realised in annual PIRs against the results framework indicators defined in the project document, but the defined indicators were not SMART and **did not enable proper monitoring of project achievements**. No review of those indicators happened (there was no baseline study conducted), and the project has missed an independent MTR.

CCL6. **Coordination between institutional partners was poor** at project start and identified as a key risk, as this is a key element of EWS. The project lacked strong interventions to boost cooperation between the SLMA, the EPA, the MWR and the ONS-DMD, as for example the setting of the planned multi-agency platform (Inter-institutional Technical Committee EWS-MITEC) for synergy building, which was not formally put in place. UNDP (as implementing Agency) and the MTA (as executing Agency) could probably have played a stronger role in this.

CCL7. **The role of UNDP in implementing this project is recognised** widely, in particular regarding administrative and management processes that the MTA and the SLMD did not have the capacities to assume. However, three main challenges were reported:



- the efficiency of UNDP procedures, in particular procurement procedures, is criticized (and more specifically delays in procuring meteorological equipment).
- In addition, although the difficulties faced by the TE mission in accessing several project documents largely relates to staff turnover, they also highlight some deficiencies in filing and storing information and documentation at UNDP Sierra Leone.
- In terms of project management, the TE mission also highlights the need to improve monitoring practices, using a detailed performance measurement framework with indicators at output level, as per results-based management best-practices .

### Project results

CCL8. **The project is highly relevant to the priorities set out by the government** in the NAPA, to MDGs 1, 3, 6 and 7, PRSP II and Sierra Leone Vision 2025. It is also in line with GEF climate change focal areas outcomes 2.1 and 2.2, and with the needs of target beneficiaries. Project design is coherent and relevant to other donor-supported activities.

CCL9. **Project's efficiency is overall satisfactory** given time constraints, the Ebola crisis and the fact that the project used financial resources wisely and limited project management costs. However, **significant delays due to UNDP procurement processes** negatively impacted efficiency and project delivery, and **partnership arrangements did not work efficiently** (lack of both leadership and coordination between key institutions). Final project efficiency is also conditioned to the actual use of the equipment installed and capacities developed, which is not, in the evaluators opinion, guaranteed for the moment

CCL10. **Ownership of climate change and disaster management issues is generally good** at the national and local levels, but **actual ownership of project outputs by key institutions is not very strong**, which may negatively affect project sustainability and impacts.

CCL11. **The Project has successfully mainstreamed UNDP priorities** regarding poverty alleviation, governance, prevention and recovery from natural disasters and women empowerment (at local level only however). The project also mainstreamed priorities as set out in successive CPAPs and is consistent with UNDAF Outcomes 2.1-2.3.

CCL12. The project document did not propose a robust sustainability or exit strategy. Overall, **risks to project sustainability are moderate**. Environmental and socioeconomic risks are limited, but financial and governance risks are significant and should be duly considered in the exit strategy.

CCL13. **The catalytic potential of the project is quite high**. Whether this catalytic potential will be expressed or not however depends on a number of factors, the main ones being the willingness of the concerned institutions to actively use the equipment installed and capacities built, and cooperate with each other to pursue the work.

CCL14. **It is still too early to confirm the project's impacts on disaster preparedness** and, e.g. saving of life, as impacts related to the improved collection of climate and hydrological data, and the coordination of responsibilities between institutions for early warning and disaster preparedness, may be confirmed in the future, depending on efforts put in sustaining project results



Overall, the project was relevant, quite effective in delivering Outcome 1 (capacity building) but less effective in delivering Outcome 2. Implementation after the Ebola crisis was rather efficient, although UNDP could have done better on procurement processes and M&E. Although closing, in August 2018 the impression is that the project was not completed, with still some uninstalled equipment, and above-all no real dynamic towards the setting of an effective EWS in Sierra Leone. In this sense, the no-cost extension obtained until August 2018 was not sufficient, and given the margins remaining on project management costs, a longer extension would have allowed to consolidate project outputs and outcomes, and better prepare project exit. Sustainability of project results is therefore at risk if no strong leadership is taken by national institutions, and more specifically the SLMA and the ONS-DMD.

## Recommendations

R1. To achieve project results and ensure sustainability, finalise project interventions, including in particular:

- The need to ensure that the equipment procured is duly installed and utilized (MWR, SLMA). This includes in particular the re-installation of AWS on the ground and the finalisation of the installation of water stations by MWR ;
- The signature of SOPs between key institutions;
- The implementation of the MoUs signed and the signature of the draft MoUs produced by the project between the SLMA and key users of meteorological information, with a view to ensure additional financial resources to SLMA;
- The actual transfer of the CIDMEWS platform to national institutions, and the training of their staff for its use.

This requires additional funds or funding by other projects (for equipment installation) and follow-up interventions from UNDP CO and the MTA. If no such action is taken, many of the project achievements could be lost.

R2. In order to support sustainability and replication, and achieve a fully operational EWS in Sierra Leone, quickly move on the design of a follow-up project for GEF, Adaptation Fund or GCF funding. Given the delays in these processes, UNDP CO should take quick action for the preparation of a concept note.

R3. UNDP CO to improve the efficiency of procurement procedures, as difficulties in procuring equipment and consultants can cause important delays and put a project at risk. In the future, regarding meteorological equipment, consider improving engagement with Copenhagen office.

R4. UNDP CO to consider using more systematically a results-based management approach to monitor GEF-funded projects, and, if deemed necessary, consider training of UNDP staff on monitoring and evaluation and how M&E can support project management. In future projects, consider the systematic implementation of a baseline study to ensure that the project results-framework (indicators and baseline values) is a workable and appropriate tool to monitor project results. This includes risk management and monitoring of co-financing.

R5. The evaluation exercise revealed some weaknesses in filing and storing project information at UNDP CO. It is therefore recommended that project key documents, Steering Committee meetings



minutes, activity reports, monitoring visits reports, and all written products be duly stored, filed and backed-up within UNDP systems. If not an isolated case, consider reviewing current practices within UNDP CO and preparing and/or raising awareness on specific internal procedures for information management.

### Lessons learned

LL1. For this type of project, it is important to procure a baseline study at project start to (i) confirm the relevance of the proposed performance indicators in the Results Framework; (ii) develop a detailed Performance Measurement Framework (PMF) detailing SMART indicators at the output level, baseline values, responsible persons for informing indicators, means of verification and timing. Indeed, indicators proposed in the project document sometimes need adjustments, and baseline values must be confirmed/measured at project start. In addition, indicators are usually proposed only at Outcome level, which is not enough to ensure close monitoring of outputs. A detailed PMF is an efficient project management tool.

LL2. In GEF-funded projects, cofinancing interventions are important as they constitute the baseline situation on which the GEF is funding the additional cost of environmental protection. Therefore, cofinancing interventions and projects not only must be clearly identified in the project document, but must also be closely associated to project implementation, building on synergies in activities. It is therefore important to closely monitor cofinancing initiatives to ensure they do contribute to the LDCF project success.

LL3. Coordination of institutions and their active contribution are key to project success and buy-in. When this coordination is not optimal at project start, specific activities should be planned to reinforce working relationships during project implementation. However, strong engagement from top management should also be targeted, considering that an LDCF project cannot, alone, overcome institutional problems and habits rooted for years in the administration.

LL4. Although recognised as an important and capable organisation for implementing climate change projects in Sierra Leone, experience from this project has shown some limitations at UNDP regarding some administrative processes like procurement. A lesson from this project is that delays on procurement of equipment can cause major delays in project delivery, in addition to fuelling fatigue of partnering institutions, thus negatively impacting the project as a whole.

LL5. The leading institution of such LDCF projects must demonstrate leadership capabilities and strong commitment to the project. In this LDCF, the MTA is the executing partner, but it is actually the SLMA that played this role. However, the SLMA was not capacited at project start (which motivated the strong capacity development activities implemented by the project), and therefore was not necessarily the best choice for leading activities while its capacity was being developed, but yet insufficient. Support from the project coordinator based at UNDP was therefore crucial but could not replace the leadership role the institution should have played. The main lesson learned is to pay strong attention to the capacities of the institution supposed to play a lead institution role from project start and make sure management arrangements take due account of the actual situation of each institution. In this specific project, the MTA could have played a stronger role in coordinating the project, while the SLMA was in the process of building its capacities, recruiting and training its staff.





## Overall rating table

Criteria	rating	Comments
<b>1. Monitoring and Evaluation:</b> Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of M&E	MU	M&E did not allow precise and anticipative project management.
M&E design at project start up	MU	Project results framework insufficient to properly capture project achievements (choice of indicators).
M&E Plan Implementation	MS	Lack of an independent MTR and baseline study reviewing and detailing project indicators
<b>2. IA&amp; EA Execution:</b> Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall quality of Implementation / Execution	MS	Given the local context and the Ebola outbreak, overall implementation is rated MS
Quality of UNDP Implementation	MS	Implementation by UNDP enabled the achievement of major capacity building interventions and other project outputs. However, lengthy procurement processes, low quality of M&E and information management are important weaknesses.
Quality of Execution - Executing Agency	MU	MTA involvement relied mainly on the SLMD, which capacities were very limited at project start. Leadership from SLMA remained too limited.
<b>3. Outcomes:</b> Highly Satisfactory (HS), Satisfactory (S) Moderately Satisfactory (MS), Moderately Unsatisfactory (MU), Unsatisfactory (U), Highly Unsatisfactory (HU)		
Overall Quality of Project Outcomes	S	Overall quality is satisfactory but some of the outputs need to be completed to ensure sustainability of project results.
Relevance: relevant (R) or not relevant (NR)	R	The project is relevant to Sierra Leone priorities, as well as GEF and UNDP objectives
Effectiveness	MS	A lot was done in terms of capacity building (Infrastructure, equipment, training and awareness raising), but a lot remains to be done to complete the project outputs and outcomes and ensure their usefulness and sustainability

## TERMINAL EVALUATION REPORT

Efficiency	S	Rating considers time constraints, the Ebola crisis and the fact that the project used financial resources wisely and limited project management costs
<b>4. Sustainability:</b> Likely (L); Moderately Likely (ML); Moderately Unlikely (MU); Unlikely (U).		
<b>Overall likelihood of risk to sustainability</b>	<b>ML</b>	Overall, risks to project sustainability are moderate. Environmental and socioeconomic risks are limited, but financial and governance risks are significant and should be duly considered in the exit strategy
Financial resources	MU	The SLMA budget has increased but there is currently no financial plan to ensure sustainability of project achievements. The main strategy adopted is (i) to fund remaining installation of equipment with another ongoing project; and (ii) to design a follow-up project for Green Climate Fund funding. Whereas this could be promising, the time lapse between GCF project design and actual project start will be of minimum 2 years, so there is a need to ensure project achievements are sustained in the meantime.
Socio-political	L	Risk to sustainability is rather low on the socio-political side. There is sufficient public and stakeholder awareness in support of the project's long-term objectives.
Institutional framework and governance	MU	There is a risk of lack of leadership after the project end. The SLMA was the main project implementer and should take a strong lead in pursuing project achievements and coordinating EWS and climate information activities with other relevant institutions, in particular the ONS-DMD, MWR and the EPA.
Environmental	L	Project outcomes mostly aim to increase resilience to environmental risks, so there is no new threat on this aspect.
<b>5. Impact:</b> Significant (S), Minimal (M), Negligible (N).		
Environmental Status Improvement	M	
Environmental Stress Reduction	M	
Progress towards stress/status change	M	
<b>Overall Project Results</b>	<b>MS</b>	



# ANNEXES

---

Annex 1: Terminal Evaluation matrix

Annex 2: List of documents and websites consulted

Annex 3: List of people interviewed

Annex 4: Schedule of mission

Annex 5: Interview protocols

Annex 6: Terms of reference of the TE

Annex 7: Rating scales

Annex 8: Matrix for assessing the achievement of outcomes

Annex 9: Updated Tracking tool

Annex 10: Audit trail



## Annex 1. Terminal Evaluation matrix

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
<b>A- Project Design / Formulation</b>				
Analysis of LFA/Results Framework (project logic /strategy; Indicators)	<ul style="list-style-type: none"> <li>Were the project's objectives and components clear, practicable and feasible within its time frame?</li> <li>Were monitoring indicators from the project document effective for measuring progress and performance? Were they SMART?</li> </ul>	<ul style="list-style-type: none"> <li>Coherence/difference between stated objectives and progress to date</li> <li>Quality of monitoring indicators in the project document</li> <li>Implementing entities' staff understanding of objectives, components, timeframe</li> <li>Local implementing partners' understanding of objectives, components, timeframe</li> </ul>	<ul style="list-style-type: none"> <li>Project planning documents</li> <li>UNDP Staff (managers)</li> <li>Local (Sierra Leone) executing team and executing partners (at the national, regional and district levels)</li> </ul>	<ul style="list-style-type: none"> <li>Documentation Review: planning and strategy documents</li> <li><b>Interviews</b> with UNDP and project staff and executing partners</li> </ul>
	<ul style="list-style-type: none"> <li>Is the M&amp;E plan well-conceived and sufficient to monitor results and track progress toward achieving objectives?</li> </ul>	<ul style="list-style-type: none"> <li>Existence and quality of baseline assessment, performance measurement framework/logframe, methodology, roles and responsibilities, budget and timeframe/workplan in planning documents</li> </ul>	<ul style="list-style-type: none"> <li>Planning documents</li> <li>Monitoring and reporting documents</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk Review</li> <li><b>Interviews</b> with implementing and executing staff</li> </ul>
Assumptions and Risks	<ul style="list-style-type: none"> <li>Were the project assumptions and risks well articulated in the PIF and project document?</li> </ul>	<ul style="list-style-type: none"> <li>Assumptions and risks stated in planning documents, with corresponding response methods/measures</li> </ul>	<ul style="list-style-type: none"> <li>PIF and project document</li> <li>Review procedures/planning meeting minutes/emails</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> </ul>
	<ul style="list-style-type: none"> <li>Did stated assumptions and risks help to determine activities and planned outputs?</li> </ul>	<ul style="list-style-type: none"> <li>Quality of risk management system(s) in place at appropriate levels of reporting, accountability</li> <li>Use of assumptions or noted risks to tailor or adjust planned activities and outputs</li> </ul>	<ul style="list-style-type: none"> <li>Project planning documents</li> <li>Monitoring reports</li> <li>UNDP Staff</li> <li>Local executing team and executing partners</li> </ul>	<ul style="list-style-type: none"> <li>Documentation Review: planning and monitoring documents</li> <li><b>Interviews</b> with project staff and executing partners</li> </ul>
	<ul style="list-style-type: none"> <li>Have externalities (i.e. effects of climate change, global economic crisis, etc.) that are relevant to the findings been duly considered?</li> </ul>	<ul style="list-style-type: none"> <li>Degree and nature of influence of external factors on planned activities</li> <li>Extent to which planning documents anticipated or reflected</li> </ul>	<ul style="list-style-type: none"> <li>Project planning documents</li> <li>Monitoring reports</li> <li>UNDP Staff</li> <li>Local executing team and executing partners</li> </ul>	<ul style="list-style-type: none"> <li>Documentation Review: planning and monitoring documents</li> <li><b>Interviews</b> with project staff and executing partners</li> </ul>



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
		risks/externalities already faced during implementation to date		
Lessons from other relevant projects (e.g., same focal area) incorporated into project design	<ul style="list-style-type: none"> <li>Were lessons from other relevant projects properly incorporated in the project design?</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of planning documents utilizing lessons learned/ recommendations from previous projects as input to planning/strategy process</li> </ul>	<ul style="list-style-type: none"> <li>Planning documents</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> </ul>
Planned stakeholder participation	<ul style="list-style-type: none"> <li>Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval?</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of local partnership (lack of) understanding of roles and responsibilities prior to and following project approval</li> <li>Coherence between nature and extent of Project Steering Committee (SC) responsibilities and roles, and project needs and objectives</li> </ul>	<ul style="list-style-type: none"> <li>Local executing team (Project staff)</li> <li>UNDP staff</li> <li>Local executing partners (at the national, regional and district levels; governmental and non-governmental stakeholders)</li> <li>Planning documents</li> <li>Initial workshops/planning meetings</li> <li>Minutes of SC meetings</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> </ul>
Replication approach	<ul style="list-style-type: none"> <li>Was a replication approach clearly set?</li> </ul>	<ul style="list-style-type: none"> <li>Replication approach clearly stated in planning documents, and means of enhancing replication during implementation stated</li> </ul>	<ul style="list-style-type: none"> <li>Planning documents</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> </ul>
Linkages between project and other interventions within the sector	<ul style="list-style-type: none"> <li>Were other interventions within the sector clearly identified?</li> </ul>	<ul style="list-style-type: none"> <li>Other interventions within the sector duly described and their possible linkages with the project analysed</li> </ul>	<ul style="list-style-type: none"> <li>Planning documents</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> </ul>
UNDP comparative advantage	<ul style="list-style-type: none"> <li>Is UNDP comparative advantage clear on this project?</li> </ul>	<ul style="list-style-type: none"> <li>Extent to which UNDP comparative advantage is justified</li> </ul>	<ul style="list-style-type: none"> <li>Planning documents</li> <li>UNDP staff</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
Management arrangements	<ul style="list-style-type: none"> <li>Were the capacities of the executing institution and its counterparts properly considered when the project was designed?</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of scoping activity or assessment of executing agency's capabilities with respect to executing this project</li> <li>Number, extent and types of gaps between planned and available capacities by executing agencies</li> </ul>	<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team and executing partners</li> <li>Meeting minutes/emails leading to planning documents</li> </ul>	<ul style="list-style-type: none"> <li>Interviews with UNDP and project staff and executing partners</li> <li>Desk review</li> </ul>
	<ul style="list-style-type: none"> <li>Were counterpart resources (funding, staff, and facilities), enabling legislation, and</li> </ul>	<ul style="list-style-type: none"> <li>Coherence/extent of gap in timing between counterpart resource and</li> </ul>	<ul style="list-style-type: none"> <li>Project staff</li> <li>UNDP staff</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
	adequate project management arrangements in place at project entry?	institutional readiness and project commencement	<ul style="list-style-type: none"> <li>Local executing partners (at the national, provincial and council levels; governmental and non-governmental stakeholders)</li> </ul>	<ul style="list-style-type: none"> <li>Field visit</li> </ul>
<b>B- Project Implementation</b>				
Adaptive management (changes to the project design and project outputs during implementation)	<ul style="list-style-type: none"> <li>What (if any) follow-up actions, and/or adaptive management taken in response to monitoring reports (PIRs)?</li> </ul>	<ul style="list-style-type: none"> <li>Evidence of management response/changes in project strategy/approach as a direct result of information in PRR(s) for AF and PIR(s) for LDCF</li> </ul>	<ul style="list-style-type: none"> <li>PRRs</li> <li>PIRs</li> <li>Workshops/Meeting minutes from technical group, steering committee, staff, stakeholders</li> <li>AF management responses</li> <li>LDCF management responses</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews with EA/IA Staff</li> </ul>
	<ul style="list-style-type: none"> <li>Did the projects undergo significant changes as a result of recommendations from workshops, the steering committee, or other review procedures?</li> </ul>	<ul style="list-style-type: none"> <li>Number and quality of mechanisms for feedback and re-adjustment of project strategy or approach</li> <li>Responsiveness of project team/ respective implementing bodies to recommendations made through review processes (including changes after the baseline report)</li> <li>Origins of suggestions for significant project changes (e.g. sources of recommendations)</li> </ul>	<ul style="list-style-type: none"> <li>Local executing team</li> <li>UNDP staff</li> <li>Local executing partners (particularly government stakeholders)</li> <li>Workshop/planning meeting minutes and action items</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
	<ul style="list-style-type: none"> <li>If the changes were extensive, did they materially change the expected project outcomes?</li> </ul>	<ul style="list-style-type: none"> <li>Nature and degree of change in project outcomes (activities, outputs) as a result of recommendations from review procedures</li> </ul>	<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team</li> <li>Local executing partners (particularly government stakeholders)</li> <li></li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Were the project changes articulated in writing and then considered and approved by the project Steering Committee?</li> </ul>	<ul style="list-style-type: none"> <li>Number and type of approved project changes that were put in writing for Steering Committee consideration (number and type that were not put into writing and/or not approved)</li> </ul>	<ul style="list-style-type: none"> <li>Project monitoring and reporting documents (annual and quarterly reports)</li> <li>Workshop/planning meeting minutes and action items</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> </ul>



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
Partnership arrangements (with relevant stakeholders involved in the country/region) and stakeholders' engagement	<ul style="list-style-type: none"> <li>To what extent were effective partnership arrangements established for implementation of the project with relevant stakeholders involved in the country/regions/ districts?</li> </ul>	<ul style="list-style-type: none"> <li>Number and types of partnerships developed between project and local bodies/organizations</li> <li>Extent and quality of interaction/exchange between project implementers and local partners</li> </ul>	<ul style="list-style-type: none"> <li>Meetings/workshop minutes (Steering Committee)</li> <li>Local executing partners</li> <li>Project beneficiaries</li> <li>Local executing team</li> <li>UNDP Staff</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews with project staff, executing partners and communities</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Did the project involve the relevant stakeholders through information sharing and consultation and by seeking their participation in project design, implementation, and M&amp;E? For example, did the project implement appropriate outreach and public awareness campaigns?</li> </ul>	<ul style="list-style-type: none"> <li>Number, type, and quality of stakeholder engagement at each stage of project design, implementation and M&amp;E</li> <li>Changes in public awareness as a result of outreach/ communication by project</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, including community members and groups, government stakeholders and other local stakeholder groups (non-government)</li> <li>Local executing team</li> <li>UNDP staff</li> <li>Workshop/planning meeting minutes and action items</li> </ul>	<ul style="list-style-type: none"> <li>Desk Review</li> <li>Interviews</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Did the project consult with and make use of the skills, experience, and knowledge of the appropriate government entities, nongovernmental organizations, community groups, private sector entities, local governments, and academic institutions in the design, implementation, and evaluation of project activities?</li> </ul>	<ul style="list-style-type: none"> <li>Quality of consultations / feedback mechanisms/ meetings/ systems in place for project implementers to learn the opinions of 1. Community groups 2. Local government 3. National government 4. Non-government groups 5. Other</li> <li>Number and frequency of engagement with local stakeholders for consultation</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, including community members and groups, government stakeholders and other local stakeholder groups (non-government)</li> <li>Local executing team</li> <li>UNDP staff</li> <li>Workshop/planning meeting minutes and action items</li> </ul>	<ul style="list-style-type: none"> <li>Desk Review</li> <li>Interviews</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Were the 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 taken into account while taking decisions (including relevant vulnerable groups and powerful supporters and opponents)?</li> </ul>	<ul style="list-style-type: none"> <li>Extent of beneficiary needs integrated into project design (appropriateness of strategies chosen, site selection, degree of vulnerability of targeted project sites, etc)</li> <li>Evidence of participation from a wide range of stakeholder groups (in support and opposed to the project)</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, including community members and groups, government stakeholders and other local stakeholder groups (non-government)</li> <li>Workshop/planning meeting minutes and action items</li> </ul>	<ul style="list-style-type: none"> <li>Desk Review</li> <li>Interviews</li> <li>Field Visit</li> </ul>



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
Project Finance:	<ul style="list-style-type: none"> <li>What are annual costs for implementation and what proportion is co-financing?</li> </ul>	<ul style="list-style-type: none"> <li>Budget execution per year, activity</li> <li>Amount of co-financing per year, activity</li> <li>Amount of resources that project has leveraged since inception (and source(s))</li> </ul>	<ul style="list-style-type: none"> <li>Financial Audits</li> <li>Annual reports, quarterly reports</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
	<ul style="list-style-type: none"> <li>Is there any variance between planned and actual expenditures? If there is, what is the explanation?</li> </ul>	<ul style="list-style-type: none"> <li>Planned budget per year, activity</li> <li>Actual budget execution per year, activity</li> </ul>	<ul style="list-style-type: none"> <li>Financial Audits</li> <li>Annual reports, quarterly reports</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
	<ul style="list-style-type: none"> <li>Is there any variation between expected and actual co-financing? If there is, what is the explanation?</li> </ul>	<ul style="list-style-type: none"> <li>Planned co-financing per year, activity</li> <li>Actual amount of co-financing per year, activity</li> </ul>	<ul style="list-style-type: none"> <li>Financial Audits</li> <li>Annual reports, quarterly reports</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
	<ul style="list-style-type: none"> <li>What resources has the project leveraged since inception? (Leverage resources can be financial or in-kind and they may be from other donors, NGOs, foundations, governments, communities or the private sector)</li> </ul>	<ul style="list-style-type: none"> <li>Amount of resources that project has leveraged since inception (and source(s))</li> </ul>	<ul style="list-style-type: none"> <li>Financial Audits</li> <li>Annual reports, quarterly reports</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
	<ul style="list-style-type: none"> <li>What effect does co-financing have on project performance, effectiveness?</li> </ul>	<ul style="list-style-type: none"> <li>Number and extent of discrepancies between planned and actual executed activities, budget</li> <li>Degree of integration of externally funded components into overall project strategy/design</li> </ul>	<ul style="list-style-type: none"> <li>Financial Audits</li> <li>Annual reports, quarterly reports</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
Monitoring and evaluation: design at entry and implementation	<ul style="list-style-type: none"> <li>Was the logical framework used during implementation as a management and M&amp;E tool?</li> </ul>	<ul style="list-style-type: none"> <li>Extent of management use of the log frame (number and type of usage)</li> </ul>	<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team and executing partners</li> </ul>	<ul style="list-style-type: none"> <li>Documentation Review: planning and monitoring documents</li> <li>Interviews with project staff and executing partners</li> </ul>
	<ul style="list-style-type: none"> <li>Was the M&amp;E plan sufficiently budgeted and funded during project preparation and implementation?</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of executed M&amp;E budget against planned amount</li> </ul>	<ul style="list-style-type: none"> <li>Planning documents</li> <li>Planning meeting minutes/review procedures</li> </ul>	<ul style="list-style-type: none"> <li>Desk Review</li> <li>Interviews with implementing and executing staff</li> </ul>





TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
		<ul style="list-style-type: none"> <li>Degree of adherence of the implementation of the M&amp;E plan to intended timeline</li> <li>Evidence of external factors that have affected M&amp;E budget or timeline (and extent to which they were addressed in risk management plan)</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring and reporting documents (quarterly, annual reports)</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	
	<ul style="list-style-type: none"> <li>Are monitoring indicators from the revised logical framework effective for measuring progress and performance?</li> </ul>	<ul style="list-style-type: none"> <li>Coherence between reported results (activities, outputs) and actual activities and outputs on the ground</li> </ul>	<ul style="list-style-type: none"> <li>Local executing staff and partners</li> <li>UNDP staff</li> <li>Community stakeholders</li> <li>Direct observation</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Does the project comply with the progress and financial reporting requirements/ schedule, including quality and timeliness of reports?</li> </ul>	<ul style="list-style-type: none"> <li>Proportion and types of reporting materials submitted a) correctly and b) on time</li> <li>Quality of M&amp;E/reporting materials</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring and reporting documents (quarterly, annual reports)</li> <li>UNDP staff</li> <li>Local executing team</li> <li>GEF/UNDP reporting requirements</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> </ul>
	<ul style="list-style-type: none"> <li>Were monitoring and evaluation reports discussed with stakeholders and project staff?</li> </ul>	<ul style="list-style-type: none"> <li>Number and quality of meetings, workshops or other mechanisms used to share M&amp;E materials with stakeholders and project staff</li> <li>Number of stakeholder and staff aware of M&amp;E materials generated and/or lessons/findings they contain</li> </ul>	<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team and partners</li> <li>Minutes and attendance list of project staff and stakeholders for meetings on M&amp;E</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> </ul>
	<ul style="list-style-type: none"> <li>Was feedback from M&amp;E activities used for adaptive management?</li> </ul>	<ul style="list-style-type: none"> <li>Uptake of M&amp;E/reporting information into management decision-making</li> <li>Consistency of APR/PIR self-evaluation ratings with MTR and TE findings</li> <li>Example of discrepancies identified by the project steering committee and addressed</li> <li>Examples of changes made to project implementation as a result of the MTR recommendations</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring and reporting documents</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews with UNDP and project staff</li> </ul>



## TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
UNDP (Implementing Agency - IA) and Executing Agency (EA) / execution (*) coordination, and operational issues	<ul style="list-style-type: none"> <li>Have the IA and EA, respectively, placed sufficient resources on achieving project results?</li> </ul>	<ul style="list-style-type: none"> <li>Differences in actual and planned amount of budget and staff time devoted to the project</li> <li>Quality of supervision of IA and EA, respectively</li> <li>Suitability of chosen executing agency for project execution</li> <li>Difference in actual and planned timetable for project execution</li> </ul>	<ul style="list-style-type: none"> <li>Project team members</li> <li>UNDP staff</li> <li>Local executing partners</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Have management teams provided quality and timely inputs/responses to the project team?</li> </ul>	<ul style="list-style-type: none"> <li>Perceived timeliness of management response to project team members' inquiries, needs</li> <li>Perceived quality of management response to project team members' inquiries, needs</li> <li>Perceived quality of risk management by IA and EA</li> <li>Evidence of quality (candor and realism) in annual reporting</li> </ul>	<ul style="list-style-type: none"> <li>Project team members</li> <li>UNDP staff</li> <li>Local executing partners</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Field Visit</li> <li>Desk review</li> </ul>
<b>C- Project Results</b>				
<b>C1. Relevance: How does the project relate to the main objectives of the GEF focal areas, and to the environment and development priorities at the national level?</b>				
Is the project relevant the GEF climate change focal area?	<ul style="list-style-type: none"> <li>How does the project support the GEF CC focal area and strategic priorities</li> </ul>	<ul style="list-style-type: none"> <li>Existence of a clear relationship between the project objectives and GEF CC focal area</li> </ul>	<ul style="list-style-type: none"> <li>Project documents</li> <li>GEF focal areas strategies and documents</li> </ul>	<ul style="list-style-type: none"> <li>Documents</li> <li>Analyses</li> <li>GEF website</li> <li>Interviews with UNDP and project team</li> </ul>
Is the project relevant to Sierra Leone's environment and sustainable development objectives? (see also C5)	<ul style="list-style-type: none"> <li>How does the project support the environment and sustainable development objectives of Sierra Leone?</li> <li>Is the project country-driven?</li> <li>What was the level of stakeholder participation in project design?</li> <li>What was the level of stakeholder ownership in implementation?</li> </ul>	<ul style="list-style-type: none"> <li>Degree to which the project supports national environmental objectives</li> <li>Degree of coherence between the project and national priorities, policies and strategies</li> <li>Appreciation from national stakeholders with respect to adequacy of project design and implementation to national realities and existing capacities</li> </ul>	<ul style="list-style-type: none"> <li>Project documents</li> <li>National policies and strategies</li> <li>Key project partners</li> </ul>	<ul style="list-style-type: none"> <li>Documents analyses</li> <li>Interviews with UNDP and project partners</li> </ul>



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
	<ul style="list-style-type: none"> <li>Does the project adequately take into account the national realities, both in terms of institutional and policy framework in its design and its implementation?</li> </ul>	<ul style="list-style-type: none"> <li>Level of involvement of government officials and other partners in the project design process</li> <li>Coherence between needs expressed by national stakeholders and UNDP-GEF criteria</li> </ul>		
Is the project addressing the needs of target beneficiaries at the local and regional levels?	<ul style="list-style-type: none"> <li>How does the project support the needs of relevant stakeholders?</li> <li>Has the implementation of the project been inclusive of all relevant stakeholders?</li> <li>Were local beneficiaries and stakeholders adequately involved in project design and implementation?</li> </ul>	<ul style="list-style-type: none"> <li>Strength of the link between expected results from the project and the needs of relevant stakeholders</li> <li>Degree of involvement and inclusiveness of stakeholders in project design and implementation</li> </ul>	<ul style="list-style-type: none"> <li>Project partners and stakeholders</li> <li>Needs assessment studies</li> <li>Project documents</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews with relevant stakeholders</li> </ul>
Is the project internally coherent in its design?	<ul style="list-style-type: none"> <li>Are there logical linkages between expected results of the project (log frame) and the project design (in terms of project components, choice of partners, structure, delivery mechanism, scope, budget, use of resources etc)?</li> <li>Is the length of the project sufficient to achieve project outcomes?</li> </ul>	<ul style="list-style-type: none"> <li>Level of coherence between project expected results and project design internal logic</li> <li>Level of coherence between project design and project implementation approach</li> </ul>	<ul style="list-style-type: none"> <li>Program and project documents</li> <li>Key project stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Key interviews</li> </ul>
How is the project relevant with respect to other donor-supported activities?	<ul style="list-style-type: none"> <li>Does the GEF funding support activities and objectives not addressed by other donors?</li> <li>How do GEF-funds help to fill gaps (or give additional stimulus) that are necessary but are not covered by other donors?</li> <li>Is there coordination and complementarity between donors?</li> </ul>	<ul style="list-style-type: none"> <li>Degree to which program was coherent and complementary to other donor programming nationally and regionally</li> </ul>	<ul style="list-style-type: none"> <li>Documents from other donor supported activities</li> <li>Other donor representatives</li> <li>Project documents</li> </ul>	<ul style="list-style-type: none"> <li>Documents analyses</li> <li>Interviews with project partners and relevant stakeholders</li> </ul>



## TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
Does the project provide relevant lessons and experiences for other similar projects in the future?	<ul style="list-style-type: none"> <li>Has the experience of the project provided relevant lessons for other future projects targeted at similar objectives?</li> </ul>		<ul style="list-style-type: none"> <li>Data collected throughout evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Data analysis</li> </ul>
<b>C2. Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?</b>				
Has the project been effective in achieving the expected outcomes and objectives?	<ul style="list-style-type: none"> <li>Has the project been effective in achieving its expected outcomes?</li> </ul>		<ul style="list-style-type: none"> <li>Project documents</li> <li>Project team and relevant stakeholders</li> <li>Data reported in project annual and quarterly reports</li> </ul>	<ul style="list-style-type: none"> <li>Documents analysis</li> <li>Interviews with project team</li> <li>Interviews with relevant stakeholders</li> </ul>
How is risk and risk mitigation being managed?	<ul style="list-style-type: none"> <li>How well are risks, assumptions and impact drivers being managed?</li> <li>What was the quality of risk mitigation strategies developed? Were these sufficient?</li> <li>Are there clear strategies for risk mitigation related with long-term sustainability of the project?</li> </ul>	<ul style="list-style-type: none"> <li>Completeness of risk identification and assumptions during project planning and design (see A)</li> <li>Quality of existing information systems in place to identify emerging risks and other issues</li> <li>Quality of risk mitigations strategies developed and followed</li> </ul>	<ul style="list-style-type: none"> <li>Project documents</li> <li>UNDP, project team, and relevant stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Documents analysis</li> <li>Interviews</li> </ul>
What lessons can be drawn Regarding effectiveness for other similar projects in the future?	<ul style="list-style-type: none"> <li>What lessons have been learned from the project regarding achievement of outcomes?</li> <li>What changes could have been made (if any) to the design of the project in order to improve the achievement of the project's expected results?</li> </ul>		<ul style="list-style-type: none"> <li>Data collected throughout evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Data analysis</li> </ul>
<b>C3. Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?</b>				
Was project support provided in an efficient way?	<ul style="list-style-type: none"> <li>Was adaptive management used or needed to ensure efficient resource use?</li> <li>Did the project logical framework and work plans and any changes made to them use as management tools during implementation?</li> </ul>	<ul style="list-style-type: none"> <li>Availability and quality of financial and progress reports Timeliness and adequacy of reporting provided</li> <li>Level of discrepancy between planned and utilized financial expenditures</li> <li>Planned vs. actual funds leveraged</li> </ul>	<ul style="list-style-type: none"> <li>Project documents and Evaluations</li> <li>UNDP Project team</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Key interviews</li> </ul>

TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
	<ul style="list-style-type: none"> <li>• Were the accounting and financial systems in place adequate for project management and producing accurate and timely financial information?</li> <li>• Were progress reports produced accurately, timely and responded to reporting requirements including adaptive management changes?</li> <li>• Was project implementation as cost effective as originally proposed (planned vs. actual)</li> <li>• Did the leveraging of funds (co-financing) happen as planned?</li> <li>• Were financial resources utilized efficiently? Could financial resources have been used more efficiently?</li> <li>• Was procurement carried out in a manner making efficient use of project resources?</li> <li>• How was results-based management used during project implementation?</li> </ul>	<ul style="list-style-type: none"> <li>• Cost in view of results achieved compared to costs of similar projects from other organizations</li> <li>• Adequacy of project choices in view of existing context, infrastructure and cost</li> <li>• Quality of results-based management reporting (progress reporting, monitoring and evaluation)</li> <li>• Occurrence of change in project design/ implementation approach (i.e. restructuring) when needed to improve project efficiency</li> <li>• Cost associated with delivery mechanism and management structure compare to alternatives</li> </ul>		
How efficient are partnership arrangements for the project?	<ul style="list-style-type: none"> <li>• To what extent partnerships/ linkages between institutions/ organizations were encouraged and supported?</li> <li>• Which partnerships/linkages were facilitated? Which ones can be considered sustainable?</li> <li>• What was the level of efficiency of cooperation and collaboration arrangements?</li> <li>• Which methods were successful or not and why?</li> </ul>	<ul style="list-style-type: none"> <li>• Specific activities conducted to support the development of cooperative arrangements between partners</li> <li>• Examples of supported partnerships</li> <li>• Evidence that particular partnerships/linkages will be sustained</li> <li>• Types/quality of partnership cooperation methods utilized</li> </ul>	<ul style="list-style-type: none"> <li>• Project documents and evaluations</li> <li>• Project partners and relevant stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Document analysis</li> <li>• Interviews</li> </ul>



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
Did the project efficiently utilize local capacity in implementation?	<ul style="list-style-type: none"> <li>Was an appropriate balance struck between utilization of international expertise as well as local capacity?</li> <li>Did the project take into account local capacity in design and implementation of the project?</li> <li>Was there an effective collaboration between institutions responsible for implementing the project?</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of expertise utilized from international experts compared to national experts</li> <li>Number/quality of analyses done to assess local capacity potential and absorptive capacity</li> </ul>	<ul style="list-style-type: none"> <li>Project documents and evaluations</li> <li>UNDP</li> <li>Beneficiaries</li> </ul>	<ul style="list-style-type: none"> <li>Document analysis</li> <li>Interviews</li> </ul>
What lessons can be drawn Regarding efficiency for other similar projects in the future?	<ul style="list-style-type: none"> <li>What lessons can be learnt from the project regarding efficiency?</li> <li>How could the project have more efficiently carried out implementation (in terms of management structures and procedures, partnerships arrangements etc...)?</li> <li>What changes could have been made (if any) to the project in order to improve its efficiency?</li> </ul>		<ul style="list-style-type: none"> <li>Data collected throughout evaluation</li> </ul>	<ul style="list-style-type: none"> <li>Data analysis</li> </ul>
<b>C4- Country Ownership (relevance)</b>				
Does the project fit within stated sector development priorities?	<ul style="list-style-type: none"> <li>Was the project concept in line with development priorities and plans of the country? (see C1)</li> </ul>	<ul style="list-style-type: none"> <li>Coherence between project objectives and national development objectives</li> </ul>	<ul style="list-style-type: none"> <li>Government strategy and planning documents relative to DRR, adaptation, land-use/land management, development, MDGs</li> <li>Project planning documents</li> <li>Government partners</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
	<ul style="list-style-type: none"> <li>Were the relevant country representatives from government and civil society involved in project implementation, including as</li> </ul>	<ul style="list-style-type: none"> <li>Coherence between project objectives and community-level (voiced) needs</li> <li>Number and titles of representatives from a) government, b) civil society, present at workshops, planning meetings</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, particularly community members, CSOs and local non-government stakeholders, and local government stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Desk Review</li> <li>Interviews</li> <li>Field Visit</li> </ul>



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
	part of the project steering committee?	Proportion of steering committee members who represent a) government, b) civil society	<ul style="list-style-type: none"> <li>Project monitoring and reporting information (workshop summaries, attendance lists, action items etc)</li> </ul>	
	<ul style="list-style-type: none"> <li>Was an intra-governmental committee given responsibility to liaise with the project team, recognizing that more than one ministry should be involved</li> </ul>	<ul style="list-style-type: none"> <li>Existence of a communications/coordination body within the government to oversee and link various government offices relevant to project planning, implementation and intended outcomes</li> <li>Extent of influence and control of coordinating body to prompt/encourage convening or decision-making</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, particularly governments partners</li> <li>Project monitoring and reporting information (workshop summaries, attendance lists, action items etc)</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk Review</li> <li>Interviews</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Has the government enacted legislation, and/or developed policies and regulations in line with the project's objectives?</li> </ul>	Number and type of regulations, policies or other government initiatives that support project activities/objectives	<ul style="list-style-type: none"> <li>Local executing partners, particularly governments partners</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> <li>Interviews</li> </ul>
<b>C5- Mainstreaming (relevance)</b>				
Project terminal evaluations must assess how these projects are successfully mainstreaming other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and women's empowerment				
Does the project successfully mainstream other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and women's empowerment.	<ul style="list-style-type: none"> <li>Is it possible to identify and define positive or negative effects of the project on local populations?</li> </ul>	<ul style="list-style-type: none"> <li>Clear links between project's intended outcomes and (potential) changes in local population perception of the links between disasters and CC</li> <li>Evidence that intended outcomes (could/will) contribute to communities' ability to deal with natural disasters</li> </ul>	<ul style="list-style-type: none"> <li>Local communities, partners</li> <li>UNDP staff</li> <li>Local executing team</li> <li>Monitoring and reporting docs</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Is there evidence that the project outcomes have contributed to better preparations to cope with natural disasters.</li> </ul>	<ul style="list-style-type: none"> <li>Examples of disasters mitigated as a result of project activities and outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Local communities, partners</li> <li>UNDP staff</li> <li>Local executing team</li> <li>Monitoring and reporting docs</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field Visit</li> </ul>
	<ul style="list-style-type: none"> <li>Does the project sufficiently incorporate gender issues?</li> </ul>	<ul style="list-style-type: none"> <li>Proportion of executing partners, and participants of workshops, trainings or knowledge exchange who are female</li> </ul>	<ul style="list-style-type: none"> <li>Agendas, attendance lists and other documentation</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field Visit</li> </ul>



## TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
		<ul style="list-style-type: none"> <li>Disaggregation of appropriate indicators by gender/sex</li> <li>Evidence of activities that uptake gender issue into community or national level planning or activities as a result of the project</li> </ul>	<ul style="list-style-type: none"> <li>from workshops, planning meetings and trainings</li> <li>Project planning documentation</li> <li>Monitoring and reporting docs</li> <li>Local executing partners</li> <li>Workshop/training participants</li> </ul>	
	<ul style="list-style-type: none"> <li>Does the project align with the priorities set in the UNDAF in Sierra Leone, and the UNDP Country Programme Action Plan (CPAP) and its evaluation plan? (see C1)</li> </ul>	<ul style="list-style-type: none"> <li>UNDAFF/CPAP priorities</li> <li>Project objective and outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Project planning documentation</li> </ul>	<ul style="list-style-type: none"> <li>Desk review</li> </ul>
<b>C6- Sustainability</b>				
Sustainability is considered to be the likelihood of continued benefits after the GEF 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; socio-economic risk; institutional framework and governance risks; and environmental risks. Each should be separately evaluated and then rated on the likelihood and extent that risks will impede sustainability.				
To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?	<ul style="list-style-type: none"> <li>Did the project devise a robust sustainability strategy (in the planning stages)? Did it include a specific exit strategy?</li> </ul>	<ul style="list-style-type: none"> <li>Existence of a plan for managing each: Financial risks; socio-economic risk; institutional framework and governance risks; and environmental risks</li> <li>Number and extent of unforeseen barriers to sustainability that arose during implementation</li> <li>Existence of an exit strategy</li> </ul>	<ul style="list-style-type: none"> <li>Project planning documents</li> <li>UNDP staff</li> <li>Local executing team</li> <li>Local executing partners</li> <li>Project monitoring and reporting docs/data (quarterly and annual reports)</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
	<ul style="list-style-type: none"> <li>Did the project implement its sustainability strategy?</li> </ul>	<ul style="list-style-type: none"> <li>Degree of coherence between actions taken during implementation to avert sustainability risks and intended plan</li> </ul>	<ul style="list-style-type: none"> <li>Project planning documents</li> <li>UNDP staff</li> <li>Local executing team and partners</li> <li>Project monitoring and reporting docs/data (quarterly and annual reports)</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
	<ul style="list-style-type: none"> <li>What factors are in place that are likely to enable or hinder</li> </ul>	<ul style="list-style-type: none"> <li>Number and type of institutional arrangements, regulations, or policy</li> </ul>	<ul style="list-style-type: none"> <li>Project planning documents</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>





TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
	achievement of sustainable outcomes?	<ul style="list-style-type: none"> <li>changes that support the continuation of project activities or results</li> <li>Extent of project outcomes' incorporation into community/household activities/planning</li> <li>Use of expertise of trained individuals/ workshop participants/ implementation partners</li> <li>Evidence of follow-on champions, funding or other sources of continuation</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners (workshop participants, community members, etc.)</li> <li>Project monitoring and reporting docs/data (quarterly and annual reports)</li> </ul>	
<b>C7- Catalytic Role</b>				
The evaluator should consider the extent to which the project has demonstrated: a) production of a public good, b) demonstration, c) replication, and d) scaling up. Replication can have two aspects, replication proper (lessons and experiences are replicated in different geographic area) or scaling up (lessons and experiences are replicated within the same geographic area but funded by other sources).				
Production of public good (lowest level of catalytic result)	<ul style="list-style-type: none"> <li>Were any new technologies and approaches promoted?</li> <li>Was the catalytic effect left to 'market forces'?</li> </ul>	<ul style="list-style-type: none"> <li>Examples of new technologies and approaches promoted and used during project implementation</li> <li>Evidence of no action taken as regards the catalytic effect of the project</li> </ul>	<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team</li> <li>Local executing partners (workshop participants, community members, etc.)</li> <li>Project monitoring and reporting docs/data</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
Demonstration	<ul style="list-style-type: none"> <li>Have any steps been taken to catalyse the public good, for instance through the development of demonstration sites, successful information dissemination and training?</li> </ul>	<ul style="list-style-type: none"> <li>Number and type of dissemination activities implemented</li> <li>Number of demonstration sites</li> <li>Number of trainings organised and number/type of participants in those trainings</li> </ul>	<ul style="list-style-type: none"> <li>Agendas, attendance lists and other documentation from workshops, planning meetings and trainings</li> <li>Project communications documentation</li> <li>Monitoring and reporting docs</li> <li>Local executing partners</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
Replication	<ul style="list-style-type: none"> <li>Are any activities, demonstrations, and/or techniques being repeated within or outside the project, nationally or internationally?</li> </ul>	<ul style="list-style-type: none"> <li>Examples of activities/projects/techniques used in the project and replicated in other projects/initiatives (other geographical areas and/or funded by other funding partners)</li> </ul>	<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team</li> <li>Local executing partners (workshop participants, community members, etc.)</li> <li>Project monitoring and reporting docs/data</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>



## TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
Scaling up	<ul style="list-style-type: none"> <li>Are any approaches developed through the project taken up on a regional / national scale, becoming widely accepted, and perhaps legally required?</li> </ul>	<ul style="list-style-type: none"> <li>Examples of laws and regulations inspired by project outcomes</li> <li>Examples of large scale initiatives building on project outcomes or methods</li> </ul>	<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team</li> <li>Local executing partners (workshop participants, community members, etc.)</li> <li>Project monitoring and reporting docs/data</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
<b>C8- Impact</b>				
The evaluator should discuss the extent to which projects are achieving impacts or are progressing toward the achievement of impacts among the project beneficiaries. Impacts in the context of adaptation projects refer to the extent to which vulnerability to climate change has decreased, as measured by the indicators included in the Results Framework, and other quantitative and qualitative information. Process indicators, such as regulatory and policy changes, can also be used to measure impact				
Are there indications that the project has contributed to, or enabled progress toward, reduced vulnerability to climate change?	<ul style="list-style-type: none"> <li>Is the project progressing toward achievement of intended impacts among project beneficiaries?</li> </ul>	<ul style="list-style-type: none"> <li>Number and extent of achievement of milestones toward achieving <b>process</b> indicators (regulatory, policy changes)<sup>40</sup>.</li> <li>Number and extent of achievement of milestones toward meeting <b>impact</b> indicators (reduction in vulnerability)<sup>41</sup></li> <li>Evidence and extent of barriers <i>or</i> enabling conditions toward achievement of each key outcome</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring and reporting documents (quarterly and annual work plans)</li> <li>UNDP staff</li> <li>Local executing team</li> <li>Local executing partners</li> <li>Local stakeholders</li> <li>Direct observation</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
	<ul style="list-style-type: none"> <li>Have there been any unintended results (positive or negative) and what were they?</li> </ul>	<ul style="list-style-type: none"> <li>Number and type of co-benefits and/or other unplanned consequences from project activities or outputs to date</li> <li>Extent and nature of external factors' influence on project progression toward intended results</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring and reporting documents (quarterly and annual work plans)</li> <li>UNDP staff</li> <li>Local executing team</li> <li>Local executing partners</li> <li>Local stakeholders</li> <li>Direct observation</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
	<ul style="list-style-type: none"> <li>Were the project concepts in line with development priorities and plans of the country?</li> </ul>	<ul style="list-style-type: none"> <li>Coherence between project objectives and national development objectives</li> </ul>	<ul style="list-style-type: none"> <li>Government strategy and planning documents relative to DRR, adaptation, land-use/land management, development, MDGs</li> <li>Project planning documents</li> <li>Government partners</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> </ul>

<sup>40</sup> All indicators defined in the results framework are process indicators.

<sup>41</sup> There are no impact indicators.



TERMINAL EVALUATION REPORT

Evaluative criteria	Evaluation questions	Indicators	Information Source	Data Collection Method
			<ul style="list-style-type: none"> <li>UNDP staff</li> <li>Local executing team</li> </ul>	
	<ul style="list-style-type: none"> <li>Were the relevant country representatives from government and civil society involved in project implementation, including as part of the project steering committee?</li> </ul>	<ul style="list-style-type: none"> <li>Coherence between project objectives and community-level (voiced) needs</li> <li>Number and titles of representatives from a) government, b) civil society, present at workshops, planning meetings</li> <li>Proportion of steering committee members who represent a) government, b) civil society</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, particularly community members, CSOs and local non-government stakeholders, and local government stakeholders</li> <li>Project monitoring and reporting information (workshop summaries, attendance lists, action items etc)</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
	<ul style="list-style-type: none"> <li>Is there a functional intra-governmental committee to liaise with the project team and connect various ministries/government offices involved in or affected by the project?</li> </ul>	<ul style="list-style-type: none"> <li>Existence of a communications/ coordination body within the government to oversee and link various government offices relevant to project planning, implementation and intended outcomes</li> <li>Extent of influence and control of coordinating body to prompt/encourage convening or decision-making</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, particularly governments partners</li> <li>Project monitoring and reporting information (workshop summaries, attendance lists, action items etc)</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> <li>Field visit</li> </ul>
	<ul style="list-style-type: none"> <li>Has the government enacted legislation, and/or developed policies and regulations in line with the project's objectives?</li> </ul>	<ul style="list-style-type: none"> <li>Number and type of regulations, policies or other government initiatives that support project activities/objectives</li> </ul>	<ul style="list-style-type: none"> <li>Local executing partners, particularly governments partners</li> <li>UNDP staff</li> <li>Local executing team</li> </ul>	<ul style="list-style-type: none"> <li>Interviews</li> <li>Desk review</li> </ul>



## Annex 2. List of documents and websites consulted for the TE

---

ALHAJI MUSTAPHA JAVOMBO (2017). REPORT ON UNDP STAKEHOLDERS' WORKSHOP ON EARLY WARNINGS FOR CLIMATE CHANGE ADAPTATION IN KENEMA AND MAKENI, 16TH JUNE 2017 AND 23RD JUNE 2017.

Bumbuna Watershed Management Authority (2016). Completion of Siren Installations for Emergency Response in the Bumbuna Dam Affected Communities in Northern Sierra Leone. Project Proposal.

Capacity building of staff of the ministry of water resources to implement climate information and early warning system (2017). Training report on the installation of hydrological monitoring equipment- staff gauge.

Capacity building of staff of the ministry of water resources to implement climate information and early warning system (2016). Training course report.

DFID (2016). Supporting the Government of Sierra Leone to implement its National Water Supply and Sanitation Strategy. Project Completion Review - Top Sheet.

Environment Protection Agency (2013). Minutes of the local project appraisal committee meeting for the UNDP/GE project on strengthening climate information and early warning systems in western and central Africa for climate resilient development and adaptation to climate change – Sierra Leone.

Environmental Protection Agency (2018). Climate Information Integrated into Development Plans and Early Warning System (EWS): Review of Relevant Laws in Sierra Leone and Recommendations for the Integration of Climate Risk into National Policies and Plans. Michael Imran Kanu, Ebunoluwa Finda Tengbe, February 2018.

European Union, AECOM (2017) Final Evaluation of the Environmental Governance and Mainstreaming Project (EGMP) in Sierra Leone, November 2017.

Excel File. 2014 Annual Work Program (GEF 2014 EWS AWP).

Excel File. 2017 Annual Work Program (2017 CIEWS AWP26117).

Excel File. SLMD. Station Coordinates.

Fourah Bay College, Chemistry department (2017). Water quality training report for water quality technicians in the ministry of water resources, government of Sierra Leone.

GEF (2010). Integrating Adaptation to Climate Change into Agricultural Production and Food Security in Sierra Leone. REQUEST FOR CEO ENDORSEMENT. IFAD, Ministry of Lands, Country Planning and Environment; and Ministry of Agriculture, Forestry and Food Security.

GEF (2012a). GEF SECRETARIAT REVIEW FOR FULL/MEDIUM-SIZED PROJECTS (GEF Review Sheet).

GEF (2012b). Strengthening climate information and early warning systems in Western and Central Africa for climate resilient development and adaptation to climate change – Sierra Leone. Project Identification Form (PIF).

GEF (2012c). Strengthening climate information and early warning systems in Western and Central Africa for climate resilient development and adaptation to climate change – Sierra Leone. PROJECT PREPARATION GRANT (PPG).

GEF (2013). Strengthening climate information and early warning systems in Africa for climate resilient development and adaptation to climate change. REQUEST FOR CEO ENDORSEMENT. UNDP, Ministry of Transport and Aviation.

Government of Sierra Leone (2003). SIERRA LEONE VISION 2025: "SWEET-SALONE". STRATEGIES FOR NATIONAL TRANSFORMATION, AUGUST 2003

Government of Sierra Leone (2012). The Agenda For Prosperity, Road to middle income status. Sierra Leone's Third Generation Poverty Reduction Strategy Paper (2013-2018).

Government of Sierra Leone (2015). Pre-assessment visit to the proposed meteorological stations sites. Meteorological Department.

Government of Sierra Leone (undated). National Climate Change Policy Framework Document.

Government of Sierra Leone, Ministry of Transport and Aviation (2007). National Adaptation Programme of Action (NAPA).

Government of Sierra Leone, UNDP (2013). Country Programme Action Plan between the Government of Sierra Leone and UNDP, 2013-2014.

Government of Sierra Leone, UNDP (undated). Sierra Leone National Climate Change Strategy and Action Plan.

Hydro UNDP Specs. Schedule of Requirements and Technical Specifications (2017).

Imran Kanu, Michael and Finda Tengbe, Ebunoluwa (2018). Climate Information Integrated into Development Plans and Early Warning System (EWS): Review of Relevant Laws in Sierra Leone and Recommendations for the Integration of Climate Risk into National Policies and Plans.

INTEGEMS (2017a). Climate Information, Disaster Management and Early Warning System-Sierra Leone.

INTEGEMS (2017b). Update of Sierra Leone Hazard Profile and Capacity Gap Analysis.

Javombo, Alhaji Mustapha (2017). Report on UNDP stakeholders' workshop on early warnings for climate change adaptation in Kenema and Makeni, 16th June 2017 and 23rd June 2017.

Kaifala, Francis. Lakoh, Kepifri (2016). SUSTAINABILITY PLAN & FINANCIAL FRAMEWORK FOR METEOROLOGICAL SERVICES IN SIERRA LEONE.



Kaifala, Francis (2017). Legal Framework Supporting Early Warning Systems and Establishment of Partnerships for the Dissemination of Climate Information to End-Users.

Memorandum of Understanding between Ministry of Water Resources and AGRHYMET Regional centre for the implementation of a Program of Support to build the capacity of staff of Ministry of Water Resource (MWR) to implement Climate Information and Early Warning System project (2016). Final report by AGHRYMET regional centre.

MEMORANDUM OF UNDERSTANDING BETWEEN THE SIERRA LEONE METEOROLOGICAL SERVICE AND THE SIERRA LEONE BROADCASTING CORPORATION. Template.

MEMORANDUM OF UNDERSTANDING BETWEEN THE SIERRA LEONE METEOROLOGICAL AGENCY AND THE OFFICE OF NATIONAL SECURITY OF SIERRA LEONE. Template.

MEMORANDUM OF UNDERSTANDING BETWEEN THE SIERRA LEONE METEOROLOGICAL SERVICE AND THE SIERRA LEONE BROADCASTING CORPORATION. Template.

Ministry of Energy, Bumbuna Watershed Management Authority (2016). PROJECT IMPLEMENTATION REPORT. Community Based Early Warning Systems Project for Disaster-Prone Communities in the Bumbuna Watershed.

Ministry of Water Resources (2017). Joint site inspection for the construction of twelve (12) hydrological station report.

Ministry of Water Resources, Interhydro Consultancy Service, ICS (undated). UNDP/GEF professional firm to support the strengthening of hydrological monitoring network in Sierra Leone.

Nigeria Meteorological Agency (2018). Notification of course completion for seven Sierra Leonean personnel at the Regional Meteorological Research and Training Institute Oshodi, Lagos.

Partners Coordination Meeting, Climate Information and Early Warning Systems (CIEWS) Project 25/02/16.

President of Sierra Leone (2018). PRESIDENTIAL ADDRESS DELIVERED BY HIS EXCELLENCY THE PRESIDENT DR. JULIUS MAADA BIO on the Occasion of the State Opening of the First Session of the Fifth Parliament of the Second Republic of Sierra Leone In the Chamber of Parliament Building, Thursday, 10th May, 2018.

Republic of Sierra Leon (2012). Second Poverty Reduction Strategy (PRSP II) 2008-2012.

Sierra Leone National Water Resources Management Agency (NWRMA) Study tour to Ghana (2017).

The Sierra Leone Meteorological Agency Act, 2017.

THE UNITED NATIONS DEVELOPMENT ASSISTANCE FRAMEWORK (UNDAF) SIERRA LEONE, January 2015 - December 2018.

UNDP – SIERRA LEONE (2017a). – Quarterly Project Progress Report, April – June 2017 (2nd QTR)

UNDP – SIERRA LEONE (2017b). – Quarterly Project Progress Report, July – Sept. 2017 (3rd QTR)

UNDP – SIERRA LEONE (2017c). – Quarterly Project Progress Report, Oct – Dec. 2017 (4th QTR)



UNDP (2013). Strengthening climate information and early warning systems in Africa for climate resilient development and adaptation to climate change – Country: Sierra Leone. Project Document.

UNDP (2015). Steering Committee Meeting, 24th November 2015, CIEWS Project Management Unit, Sierra Leone Meteorological Department (SLMD), Freetown. Meeting minutes.

UNDP (2016a). BACK TO THE OFFICE REPORT, Bumbuna Mission, Joseph Kaindaneh, 23 June 2016.

UNDP (2016b). Strengthening Climate Information And and Early Warning Systems In Western And Central Africa For Climate Resilient Development And Adaptation To Climate Change in Sierra Leone. 2016 Annual Progress report. Energy Environment & Natural Resources Management Unit.

UNDP (2016c). BACK TO THE OFFICE REPORT, Monitoring & Communications Mission, Bumbuna. Joseph Kaindaneh, 18 November 2016.

UNDP (2016d). Steering Committee Meeting, 5th April, 2016, CIEWS Project Management Unit, Sierra Leone Meteorological Department (SLMD), Freetown. Meeting minutes.

UNDP (2016e). Partners Coordination Meeting, Climate Information and Early Warning Systems (CIEWS) Project 25/02/16.

UNDP (2016f). Steering Committee Meeting, 27th June, 2016, CIEWS Project Management Unit, Sierra Leone Meteorological Department (SLMD), Freetown. Meeting minutes.

UNDP (2017a). CIEWS Project Results, Standard Progress Report, November 2015 – December 2017.

UNDP (2017b). Meetings to discuss the No-Cost Extension and fast tracking delivery of the Climate Information and Early Warning System(CIEWS) Project.

UNDP (2017c). BACK TO OFFICE REPORT, Assess of Outer Stations Facilities, Joseph Kaindaneh, 10 May 2017.

UNDP (2017d). REPORT: BI-ANNUAL WORKSHOP/DIALOGUE SESSION FOR SENIOR POLICY MAKERS TO RAISE AWARENESS ON CLIMATE CHANGE ISSUES IN SIERRA LEONE. 15TH – 16TH JUNE 2017. KENEMA DISTRICT, SIERRA LEONE

UNDP (2017e). Strengthening Climate Information And Early Warning Systems In Western And Central Africa For Climate Resilient Development And Adaptation To Climate Change in Sierra Leone. 2017 Annual Progress report. Energy Environment & Natural Resources Management Unit

UNDP (2017d). BACK TO THE OFFICE REPORT, Bumbuna-Dodo Mission, Joseph Kaindaneh, 7 June 2017

UNDP (2017f). Meetings to discuss the No-Cost Extension and fast tracking delivery of the Climate Information and Early Warning System(CIEWS) Project.

UNDP (2017g). Steering Committee Meeting, 14th July, 2017, CIEWS Project Management Unit, Sierra Leone Meteorological Department (SLMD), Freetown. Meeting minutes

UNDP Sierra Leone (2014) Strengthening climate information and early warning systems in Africa for climate resilient development and adaptation to climate change. Inception Report.



UNDP-GEF (2016a). Strengthening Climate Information And Early Warning Systems In Western And Central Africa For Climate Resilient Development And Adaptation To Climate Change in Sierra Leone. 2016 Project Implementation Review (PIR)

UNDP-GEF (2016b). Briefing notes on the status of implementation of the climate information and early warning systems project for March 2016

UNDP-GEF (2017). Strengthening Climate Information And Early Warning Systems In Western And Central Africa For Climate Resilient Development And Adaptation To Climate Change in Sierra Leone. 2017 Project Implementation Review (PIR)

UNDP-GEF (2018). Strengthening Climate Information And Early Warning Systems In Western And Central Africa For Climate Resilient Development And Adaptation To Climate Change in Sierra Leone. 2018 Project Implementation Review (PIR)

UNDP-GEF. Annual work programme 2016.

UNDP-GEF. Annual work programme 2017.





### Annex 3. List of people interviewed and met during the mission

	Name	Position/Title	Institution
1	John V. Rogers	Director, Disaster Management Department	Office of National Security (ONS)
2	Mustapha Bonnie	Research Officer	
3	Mohamed Sahr E Juanah	Head, Department of Water Resources	Ministry of Water Resources (MWR)
4	Abdul Bakarr Salim	Deputy Director, Climate Change Secretariat	Environment Protection Agency (EPA)
5	Tanzila Watta Sankoh	Programme Specialist – Environment Cluster	United Nations Development Programme (UNDP) Sierra Leone Country Office
6	Samuel Doe (PhD)	Country Director	
7	Roseline Mammah	Program Associate, Logistics & Finance	
8	Margret Dauda	Project Officer, Disaster Management Project	
9	Dorsla Facarthy	Standing-in Officer for Tanzila	
10	Julius Mattai	Managing Director / Principal consultant	Integrated Geo-information and Management Services (INTEGEMS)
11	Samuella Faulkner	Senior Consultant / Operations Manager	
12	Ibrahim Kamara	Director General	Sierra Leone Meteorological Agency (SLMA)
13	Gabriel Kpaka	Deputy Director	
14	Hawa Sesay	Team Leader	Bumbuna Watershed Management Authority (BWMA)
15	David Koroma	Technical Adviser	
16	Brima Kebbie	Permanent Secretary	Ministry of Transport and Aviation (MTA)
17	Usman Banya	Deputy Secretary	
18	Bai Bai Sesay	M & E Officer, MAFFS	Ministry of Agriculture & Food Security-MAFFS
19	Mustapha Nyallay	Senior M & E Officer	
20	Umaru M Sankoh	Senior M & E Officer	
21	Margaret Bangura	M & E Officer	
22	Edward Kargbo	Senior Planning Officer	
23	Sidikie Koroma	Head, Internal Audit	



## TERMINAL EVALUATION REPORT

24	Komba Yamba	Finance Management	Sierra Leone Civil Aviation Authority (SLCAA)
25	Gibril Kamara	Head of Administration	
26	Roland N Moore	Director Shipping & Marine	Sierra Leone Maritime Administration (SLMA)
27	Mohamed Kanu	Retired staff, Magbauraka	Sierra Leone Water Company (SALWACO)
28	Rexson Keingo	District Supervisor, Bo District	Ministry of Water Resource (MWR)
29	Mr Tia	Manager	Chico Company
30	Mohamed Tarawally	Field Assistant (Chinese Company Managing the Water Supply Project in Kenema)	
31	Mohamed Kabba	Power Plant Engineer	Bumbuna Hydro Power Plant
32	Michael Williams	Head Suprintendent	Goma Hydro Power Station
33	Usman Alimu	Suprintendent II	
34	Tamba Mahoney	Senior Electrical Engineer	
35	Ishmael Jalloh	Emmergency Action Unit Field Staff	Bumbuna Watershed Management Authority (BWMA)
36	Mohamed Jabbie	Emmergency Action Unit Field Staff	
37	Senesie Gbewa	Forest Ranger	Dodo Community
38	Sorie Sesay	Town Chief. A cross section of the surrounding communities attended numbering about fifty (50) people including women and youths	Kagbagona Community, Tonkolili District
39	Idrisa Amara	Town Chief, Guala. In a Town Hall meeting, about Eighty (80) people attended with full participation of Women and Children observing	Dodo Chiefdom, Kenema District
40	Joseph Kaindaneh	Environmental Adviser	World Bank (WB)
41	Filippo Pongelli	Programmes	World Food Programme (WFP)
42	William Hopkins	Programme Officer	
43	Abu Bakar Kamara	Fishermen Head	Lumley Beach Fishermen Union
44	Nabeela Tunis (Mrs)	Minister	Ministry of Planning & Economic Development (MODEP)



TERMINAL EVALUATION REPORT

45	Kabineh Kallon	Minister	Minister of Transport and Aviation (MTA)
46	Idriss Fofanah	Manager	Sierra Leone Airport Authority (SLAA)



## Annex 4. Schedule of mission

Date	Meeting/visit/task	Place/Venue/Location
Thursday 02-08-2018	Consultants @ 8:30	Golden Tulip
	Office of National Security @ 11am	Tower Hill
	Environmental Protection Agency (Abdul Bakarr Salim)	Brook Fields
	UNDP-Portfolio holder (Tanzila Sankoh)	UNDP Offices
	UNDP Country Director (Dr Samuel Doe)	Wilkinson Road
Friday 03-08-2018	Directorate Water Resources (Mohamed Sahr E Juanah )	Tower Hill
	Integrated Geo-information and Management Services-INTEGEMS (Julius Mattai)	Congo Cross
	Meteorological Agency (Ibrahim Kamara & Gabriel Kpaka)	Charlotte Street
	Bunbuna Livelihood (Hawa Sesay & David Koroma) of Bumbuna Watershed Management Authority	UNDP Offices
Saturday 04-08-2018	Documents review	
Sunday 05-08-2018	Follow up on appointments	
Monday 06/08/2018	Ministry of Transport and Aviation –MTA( Brima Kebbie)	Youyi Building
	Ministry of Agriculture, Forestry and Food Security-MAFFS (Tamba Sam)	Youyi Building
	Sierra Leone Civil Aviation Authority SLCAA (Sidkie Koroma)	Siaka Stevens St
	Sierra Leone Maritime Administration (Moore)	Government Wharf
Tuesday 07-08-2018	SLAA (Sierra Leone Airport Authority (Idrissa Fofanah)	Aberdeen
	Travel to Field (Makeni)	Makeni
Wednesday		

TERMINAL EVALUATION REPORT

08-08-2018	Visit to communities around Bumbuna Hydro Electric Dam including Kagbagona Community in Tonkolili District	Bunbuna
	Visit to Bumbuna Hydro Electric Plant	
Thursday 09-08-2018	Travel to Kenema	
Friday 10-08-2018	Visited communities around Goma Hydro Electric Dam Dodo Chiefdom, Kenema District	Dodo
	Return to Kenema	Kenema
Saturday 11-08-2018	Travel from Kenema to Freetown	
Sunday 12-08-2018	Visited Guma Valley Dam	
Monday 13-08-2018	World Bank (Joseph Kaindaneh)	Freetown
	Follow up with ONS	
	Water Resources Department	
Tuesday 14-08-2018	Meeting with Sierra Leone Civil Aviation Authority	Freetown
	Follow-up with Meteorological Agency	
	Meeting with Minister of Planning and Economic Development- MODEP (Minister Nabeela Tunis-Mrs)	
Wednesday 15-08-2018	UNDP: Mission debriefing with Country Director and Dorsla Facarthy	Freetown
	WFP: Meeting with Filippo and William Hopskins	
	Lumley Beach (Fishermen)	
	Follow-up with INTEGEMS	Freetown
Thursday 16-08-2018	Meeting with Transport and Aviation (Minister Kabineh Kallon)	Freetown
	Debriefing on entire mission (consultants)	
	Departure (Loivier)	

**Consultants:** Olivier BEUCHER and Momo TURAY

## Annex 5. Interview protocols

---

The interview protocols presented below will be adjusted to each interviewee, taking into account his/her specific position vis-a-vis the project, his/her expertise and function. Each interview will aim to be limited to a maximum of 15 questions, with the exception of the project team, which will play a more significant role in providing information

### A. Project Formulation

1. In your opinion was the project designed realistically? (E.g. with respect to timeframe, objectives, indicators/M&E plan, other design elements)
2. How were the capacities of the local executing institution and partners (other national institutions, regional and district governments, etc) assessed? Were there any gaps between expected and actual capacities (or cases of exceeding expectations) needed for project execution?
3. In your opinion, has the Steering Committee been responsive to the needs of the project? What would improve their respective contributions?
4. Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?
5. How do you understand your role in this project? Are you aware of any gaps reported between expected and actual capacities (or cases of exceeding expectations) needed for project execution or to fulfil your role?
6. What do you think are the main risks to the success of the project? Have these risks been anticipated and managed appropriately?

### B. Project Implementation

7. How would you describe the relationship between project executing organizations (Project management team at the MTA and other Sierra Leonean organizations)? How would you describe the nature and extent of interactions between the EA, the management team, the partner executing institutions (other national institutions, provincial and council governments...) and wider stakeholder groups?
8. Do you think the implementing agency (UNDP) has been sufficiently involved in ensuring the project is implemented as planned? What is your opinion of its role and supervision (e.g. responsiveness, timeliness, quality of oversight, etc)?
9. How well is the project managed by the team in place? Does it react appropriately to inquiries, difficulties, identified risks, and is it in a timely manner?
10. How were lessons learned from other past or on-going projects in the region (or in a similar focal area) incorporated into this project's design or management?



11. Do you know of any examples of lessons learned from other past or on-going projects in the region (or in a similar focal area) that have been incorporated into this project's design or management?
12. Do you think regular monitoring and reporting informs management decision-making? Can you give any examples of follow-up actions, and/or adaptive management taken in response to monitoring reports such as PIRs and MTR, for example?
13. How would you describe this project's M&E system, and do you think it has been sufficient and appropriate to project needs? Do you think M&E has been used according to plans (timeline, budget)? If not, why?
14. How were monitoring and evaluation reports disseminated and discussed with stakeholders and project staff? Were there any meetings, workshops or other mechanisms used to share M&E material?
15. Has the project prepared and submitted good quality reporting material, and to what extent has it been delivered on time?
16. How has monitoring and other reporting information been disseminated and discussed with stakeholders? Were there any meetings, workshops or other mechanisms used to share M&E material?
17. Did the project undergo significant changes as a result of recommendations from workshops, the steering committee, or other review procedures (internal or external)? Why were these changes recommended? Have the expected project outcomes (or the likelihood of achieving them) been modified as a consequence of these changes?
18. Work session with finance officer and project team:
  - Fill in tables on budget execution per year and activity:
    - Where do we stand as regards initial plans?
    - Do you have any figures on co-financing? How are co-financed activities integrated into project strategy and implementation?
    - Is there evidence of resources leveraged since inception?
  - Table of planned/achieved budget and staff time devoted to the project
  - Table of planned/achieved outputs
19. What are the differences in the anticipated set of stakeholders identified at project design, and those actually involved in project implementation? Do you think the project has reached a sufficient number of relevant stakeholders?



20. Have you participated to any stakeholder engagement activities conducted? How many? Can you think of examples of how public awareness (of climate change, of vulnerability, of resilience of rural communities, etc) has been improved by the project?

## C. Project Results

### *Relevance/Country ownership/mainstreaming*

21. In your opinion, was the project concept in line with development priorities and plans of the country? Does it respond to actual needs of the various categories of stakeholders 1. Community groups 2. Local government 3. National government 4. Non-government groups 5. Other donor-supported activities)?
22. Do you think all relevant stakeholders are actually involved in project implementation, including as part of the project steering committee? Are the expressed needs of communities sufficiently addressed by the project?
23. What body or persons are responsible for communication/coordination between the various project partners (among/between government entities/ministries, the project management team, etc) and can this body/person prompt convening and/or decision-making? How are the proceedings of ST meetings communicated to a wider set of project stakeholders?
24. To your knowledge, has the government enacted any regulations, policies or other initiatives that support project activities or objectives? Could you please provide us with further details (name(s) of legislation, dates, purpose(s), etc)?
25. In your opinion, what are the effects (+ or -) of the project on local populations in terms of understanding of the links between CC and ability to deal with natural disasters?
26. How are women and/or girls integrated into project implementation? (e.g. number of women in project team/workshops/trainings; examples of activities where gender issues are specifically considered)
27. Regarding financial aspects, is there any variance between planned and actual expenditures? If there is, what is the explanation? What resources has the project leveraged? What was the effect of co-financing on project performance

### *Effectiveness*

28. In your opinion, has the project been effective in achieving the expected outcomes and objectives?
29. How has risk and risk mitigation being managed
30. What lessons can be drawn regarding effectiveness for other similar projects in the future?





### *Efficiency*

31. In your opinion, was project support provided in an efficient way in terms of use of financial resources, project management and reporting?
32. Was project implementation as cost effective as originally proposed? Could financial resources have been used more efficiently?
33. Which partnerships/linkages were facilitated? What was the level of efficiency of cooperation and collaboration arrangements? Which ones can be considered sustainable?
34. Did the project efficiently utilize local capacity in implementation?
35. How could the project have more efficiently carried out implementation (in terms of management structures and procedures, partnerships arrangements etc...)? what lessons can be learnt from the project in this respect?

### *Sustainability*

36. What do you think are the main risks and barriers to sustainability of project results? Has the project sufficiently planned for and/or managed these variables/conditions? How/in what ways? (link with indicator: Evidence and extent of barriers or enabling conditions toward achievement of each key outcome)
37. Can you cite any examples of specific actions (institutional arrangements, regulations, incorporation of project activities into community/household activities/planning, identifying follow-on champions, financial allocations) taken to ensure sustainability of project activities or results?

### *Catalytic role*

38. Can you provide any examples of project activities or outputs that were replicated in a different geographic area, or scaled-up in close proximity to project sites?
39. Were there any capacity building activities for the purposes of replication? Have project-trained individuals, institutions, or companies participated in the replication of activities?

### *Impact*

40. What major regulatory or policy changes can be reported as a result of project outcomes?
41. Can you cite any examples of a reduction of vulnerability to climate change as a consequence of project activities?
42. Can you describe any other co-benefits and/or other unplanned consequences (+ or -) from project activities or outputs to date?



## Annex 6. Terms of reference of the TE

---



T\_\_proc\_notices\_notic  
es\_050\_k\_notice\_doc\_



## Annex 7. Rating scales

---

### RATING OF PROJECT OBJECTIVES AND RESULTS

Highly Satisfactory (HS): The Project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Satisfactory (S): The Project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Satisfactory (MS): The Project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Moderately Unsatisfactory (MU): The Project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Unsatisfactory (U) The Project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Highly Unsatisfactory (HU): The Project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Please note:** Relevance and effectiveness will be considered as critical criteria. The overall rating of the Project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a Project must have at least satisfactory ratings on both relevance and effectiveness.

### RATINGS ON SUSTAINABILITY

Sustainability is generally considered to be 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. Each should be separately evaluated and then rated as to the likelihood and extent that risks will impede sustainability. [Rating system for sustainability sub-criteria](#)

On each of the dimensions of sustainability of the Project, outcomes will be rated as follows.

Likely (L): There are no risks affecting this dimension of sustainability.

Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.

Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability

Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a Project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

### RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing Project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or

TERMINAL EVALUATION REPORT

completed Project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

Highly Satisfactory (HS): There were no shortcomings in the Project M&E system.

Satisfactory(S): There were minor shortcomings in the Project M&E system.

Moderately Satisfactory (MS): There were moderate shortcomings in the Project M&E system.

Moderately Unsatisfactory (MU): There were significant shortcomings in the Project M&E system.

Unsatisfactory (U): There were major shortcomings in the Project M&E system.

Highly Unsatisfactory (HU): The Project had no M&E system.

"M&E plan implementation" will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on "M&E plan implementation."



## Annex 8. Matrix for assessing the achievement of outcomes

GOAL/OBJECTIVE/Outcome	Performance Indicator	Baseline	End of project target	End of project status	TE comments	Rating
<p><b>Project Objective:</b></p> <p>To strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation to climate change in Sierra Leone.</p>	1.Capacity as per capacity assessment scorecard	<p>1.Limited capacity to generate EWS and CI on a national scale for extreme hydro-meteorological phenomena</p> <p>Limited disaster risk prevention capacity on local levels within ONS-DMD</p> <p>No Standard Operating Procedure (SOP) for alert communication by ONS-DMD with the support of NGOs/CSOs</p> <p>Current score: 45</p>	1. Capacity assessment TARGET score 161 for all combined EWS agencies	<p>- Improved capacity to generate EWS and CI on a national scale mainly through to the installation of 8 Automatic Weather Stations (AWS); the face-lifting of SLMA infrastructure; the training of SLMA and MWE staff and the development of the CIDMEWS online platform (although it still needs to be operated by the concerned institutions)</p> <p>- Improved disaster risk prevention capacity on local levels within ONS-DMD in Dodo and Bumbuna</p> <p>- Still no Standard Operating Procedures (SOPs) in place</p>	<p>Capacity assessment scorecard was been used by project management to measure indicator progress.</p> <p>A lot was done but capacity will really be improved on the long term when SLMA/ONS really engage in a close collaboration using the CIDMEWS platform, with the association of other relevant partners. In addition, installation of the remaining water monitoring stations (MWR) and other final adjustments to have the whole system work needs to be ensured in the coming months. Overall, given the very low capacities at project start-up, but the still-to-be-done investments and SOPs, attainment of the objective is rated as Moderately satisfactory.</p>	MS

# Strengthening Climate information and Early Warning Systems in Sierra Leone

## TERMINAL EVALUATION REPORT

	2.Domestic finance committed to the relevant institutions to monitor extreme weather and climate change	2.Existing budget plans do not have sufficient funds to maintain and operate environmental monitoring infrastructure Current budget: \$500,000	2. TARGET: 30% increase in domestic financing for equipment operation and maintenance across all institutions	SLMA budget increase reached +160% (from approx.US\$60,000 to 150,000) No information on other concerned institutions: MWR, ONS-DMD and EPA.	Baseline value is not confirmed. Budget increase of SLMA is substantial as it became an independent agency. It seems however that actual disposal of this money is problematic, but this is not in the hands of the project.	S
<b>Outcome 1</b>  Enhanced capacity of national hydro-meteorological (NHMS) and environmental institutions to monitor extreme weather and climate change.	1.% national coverage of climate/weather and hydrological monitoring infrastructure	1.Currently, there is 20 % national coverage for climate/weather monitoring with respect to the optimal arrangements defined in SLMD/DWR feasibility reports and WMO standards. Eighteen synoptic stations, 24 agro-meteorological stations, 13 climate stations, 35 rain gauges, 12 water level meters and 6 manual flow meters are in place.	1 Increase to 60 % national coverage to take steps in achieving NHMS optimal monitoring arrangements as defined in feasibility studies	National coverage of meteorological stations has increased to 66% hitting the target of 60% as nine out of the then 12 districts have optimal monitoring arrangements.  23 New Hydrometric Stations to bring the total to 55 with at least staff gauges in all the river basins were estimated to be necessary to meet the WMO hydrometric network standard <sup>42</sup> . 12 were partially installed by the project, which means a national coverage of 78% against 58% at project start. Most installed water monitoring stations are not operational, as connectivity and solar panel were not installed.	Important delays in procurement have delayed the installation of some equipment. AWS installation has not been validated by recent WMO mission as installation on cell phone tower is not acceptable to WMO standards. This is a major issue for sharing Sierra Leone's data internationally, and should have been detected prior the installation (by SLMD, UNDP or at least the equipment provider).  Unsatisfactory management of the installation of water monitoring stations: local community situation poorly assessed, risk of theft requiring fencing (non budgeted), data centralization on a server	MS

<sup>42</sup> Interhydro Consultancy Service, Ministry of Water Resources, January 2017. UNDP/GEF Professional firm to support the strengthening of hydrological monitoring network in Sierra Leone.



# Strengthening Climate information and Early Warning Systems in Sierra Leone

## TERMINAL EVALUATION REPORT

					not installed etc. Installation planned to be completed thanks to another ongoing project.	
	2.Frequency and timeliness of climate-related data availability (BASELINE: monthly);	2.Data from manual weather and hydrological stations is collected monthly and transmitted by post.	TARGET for data transmission frequency: daily	Data from installed automatic weather stations streams into the server on a daily basis. Data from Hydrometric Stations yet to be automated	Equipment procured is last generation and automatic measurement and transmission of data is now a standard that Sierra Leone will reach completely once installation is fully completed (see above)	S
Outcome 2 Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans.	1.% of population with access to improved climate information and flood, drought, strong wind and coastal warnings (disaggregated by gender)	1. There are existing EWS initiatives for regional dam management and famine alerts, however, a national alert system concerned with extreme hydro-meteorological phenomena is not available. There is a limited understanding of technical alert jargon (alerts are not translated into all national languages). No mechanism exists for most vulnerable populations to be involved in the alert process to ensure its sustainability. Current access to warnings: 35% men, 25% women	1. 50 % increase in both men and women who have access to improved EWS/CI Target: 50% men; 50% women	Improved climate information at national and district (in 8 districts out of 12) levels is now available to all Sierra Leoneans. PIR2018 estimates that 40% men and 60% women currently accessing improved climate information via TV stations, which is difficult to confirm. EW and alerts at national level are not operational yet. EW at local level in Dodo and Bumbuna are operational.	Difficult to assess how many men and women have access to climate information. Information is now available through different means online, but still needs to be better disseminated to all types of users, under different formats. Regarding EW, the information and responsibility channels have yet to be clearly defined between institutions. The project was not able to get MoUs signed and SOPs in place for an effective EWS in Sierra Leone. Lack of leadership from key institutions.	MS
	2. GoSL Development Plans and land-use plans at National/District that integrate climate	2.Development frameworks do not incorporate any EWS/CI products such as risk maps	2. At least 2 of the PRSP policy briefs incorporate analyses of risk maps and/or climate change	Development of the hazard profile, land policy and the drafted Climate Change Strategy and	Presidential Public State Opening Address and Ministry of Planning confirm the consideration	MS

## Strengthening Climate information and Early Warning Systems in Sierra Leone

### TERMINAL EVALUATION REPORT

information in their formulation of poverty reduction strategies and links between poverty and the environment at local levels (BASELINE: No integration; TARGET Integration of at least 1 National and 1 district development Plan and land-use Plan incorporates climate change risks into their design (revised in 2015)	or climate change predictions into long-term planning Current score: 0	projections influencing long-term planning proposals Target score: 2	Action Plan by the Environment Protection Agency of Sierra Leone are important steps, but there is no evidence of PRSP policy briefs incorporating risk maps.	given to disaster management and EW, to which the project strongly contributed and will continue contributing through the tools developed.
3. Sector-specific EW products and strategies that integrate climate risks (mining, tourism, and land management sectors)	3. Sector specific strategies do not include EWS/CI because the quality of weather forecasts and climate predictions are poor and not tailored for specific uses, particularly seasonal forecasts. Current score: 0	3. Development of at least 2 tailored climate products and presentation of market research plan on how to implement mobile phone based agricultural advisories, both supporting targeted weather/climate service delivery Target score: 2	Sector-specific EW products have not been developed yet	This is the next step to the MoUs to be signed between the SLMA and various institutions, in particular the ONS-DMD

#### Colour Coding

- Green: completed, indicator shows successful achievement
- Yellow: indicator shows expected completion by the end of the project
- Red: indicator shows poor achievement – unlikely to be completed by project closure

All other ratings will be on the GEF six point scale.





TERMINAL EVALUATION REPORT

GEF Performance Description		Alternative description on the same scale
HS	= Highly Satisfactory	Excellent
S	= Satisfactory	Well above average
MS	= Moderately Satisfactory	Average
MU	= Moderately Unsatisfactory	Below Average
U	= Unsatisfactory	Poor
HU	= Highly Unsatisfactory	Very poor (Appalling)



## Annex 9. Tracking Tool

---

Updated Tracing tool is provided in a separate Excel file



## Annex 10. Audit Trail

---

The Audit trail is provided in a separate file





baastel

**North American Office**

Le Groupe-conseil Baastel ltée  
92 Montcalm Street  
Gatineau QC J8X 2L7  
CANADA  
Tel: + 1 819 595-1421  
Fax: + 1 819 595-8586

**European Office**

Le Groupe-conseil baastel sprl  
Boulevard Adolphe Max 55  
B-1000 Brussels  
BELGIUM  
Tel: + 32 (0)2 893 0031  
Fax: + 32 (0)2 503 3183

**Representation North Africa**

Olivier Beucher  
Ghazoua KM8, 44 000 Essaouira  
MOROCCO  
Tel: +212 (0)6 96 61 80 61

**Representation Southeast Asia**

Michael Miner & Melinda MacDonald  
9 Soi Tonson, Ploenchit Road  
Bangkok, Thailand, 10330  
Tel: +66 (8)-1732-0822

Founded in 1989, Baastel's mission is to provide decision-makers, managers and implementation partners with the knowledge, tools and skills necessary to promote effective and efficient sustainable development. Baastel has earned its reputation as a consultancy firm fully committed to providing sound advice to development partners on how to strengthen the impacts of their policy and development efforts around the world

[www.baastel.com](http://www.baastel.com)