







STRENGTHENING CLIMATE SERVICES AND EARLY WARNING SYSTEMS IN THE GAMBIA FOR CLIMATE RESILIENT DEVELOPMENT AND ADAPTATION TO CLIMATE CHANGE - 2nd Phase of the GOTG/GEF/UNEP LDCF NAPA Early Warning Project.

UNDP PIMS No. 5156

# FINAL DRAFT MIDTERM REVIEW (MTR) REPORT

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# Abbreviations and Acronyms

DWR Department of Water Resources

GEAP Gambian Environmental Action Plan

GEF Global Environment Facility
GoTG Government of the Gambia

GRTS Gambia Radio and Television Services

IP Implementing Partners

LDCs Least Developed Countries

MDFTs Multidisciplinary Facilitation Teams

MTR Mid-term Review

NAPA National Adaptation Programme of Action

NCSA National Capacity Self-Assessment

NHMS National Hydrological and Meteorological Services

NIM National Implementation Modality NMA National Meteorological Agency

PAGE Programme for Accelerated Growth and Employment

PIF Project Identification Form

PIR Project Implementation Report

PPG Project Preparation Grant
PSC Project Steering Committee
RLGs Radio Listening Groups

UNDAF United Nations Development Assistance Framework

UNEP UN Environment Programme

UNFCCC United Nations Framework Convention on Climate Change

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# Declaimer

This report is the work of an independent midterm review consultants and does not necessarily represent the views, or policy, or intentions of the United Nations Development Programme (UNDP), Global Environment Facility (GEF), UN Environment Programme (UNEP) or The Government of the Gambia.

## **EXECUTIVE SUMMARY**

# A. Project Information Table

Project Information	
UNDP PIMS ID	5156
GEF ID	5071
UNEP ID	00901
Title	Strengthening Climate Services and Early Warning Systems in The Gambia for Climate Resilient Development and Adaptation to Climate Change - 2nd Phase of the GOTG/GEF/UNEP LDCF NAPA Early Warning Project.
Country	The Gambia
UNDP-GEF Technical Team	Climate Change Adaptation
Project Implementing Partner	Government of Ethiopia – Department of Water Resources (DWR) under Ministry of Water Resources, Fisheries & National Assembly Matters
Joint Agencies	(not set or not applicable)
Project Type	Full Size

# B. Project Description

Many countries in Africa suffer from low rates of development. In particular, Gambia is in the lowest 20% of countries worldwide, ranked by both Gross National Income (GNI per capita) and the 2011 United Nations Human Development Index (ranked 168 out of 187 countries). These countries are particularly vulnerable to climate-related shocks (either to the economy or to unprotected populations), which threaten to undo years of development assistance and asset accumulation, especially within poor populations. One way to help mitigate the impact of these climate-related shocks is to warn populations, businesses and governments in advance of an impending or likely damaging event through an Early Warning System (EWS).

The fundamental problem in many LDC countries such as Gambia is that a complete EWS, which generates knowledge of the risks (vulnerability and hazard), has capacity to monitor, analyse and forecast hazards, provides communication and dissemination of alerts and warnings, either does not exist or does not function as well as it ought to be relevant and useful for long-term planning, management and risk reduction activities. In the Gambia, this status unnecessarily imperils lives and assets, recently for flood victims nationwide and for farmers suffering from drought impacts on cereal production. Reasons for this situation involve a lack of both hard and soft technologies and the capacity to utilize those technologies in an appropriate manner. This results in: i) a limited understanding of current and future risks; ii) limited monitoring and forecasting of climate-related hazards; iii) inappropriate communication and packaging of warnings; iv) restricted responses to impending disasters and v) constrained planning for slow-onset changes due to climate change that will require a transformational shift in economic development and risk reduction efforts. The infrastructure and technology on which to build a fully operational EWS for the Gambia including these services could not be fully met from the initial GOTG/GEF/UNEP Project on the development of an effective national early warning system which set the foundations for an EWS in the Gambia. An assessment of needs for EWS in the Gambia under the above project did show that the initial GEF/LDCF funding was inadequate to provide the required institutional and human capacities needed for a national early warning system. Without investing in the capacity to generate information, especially the monitoring and forecasting of climate-related hazards, the proposed EWS under the initial funding would never function as optimally as it could. The aim of the current EWSP 2 is, therefore, to invest in strengthening the EWS of Gambia, largely through improving national capabilities to generate and use climate information in the planning for and management of climate induced hazard risks. The EWSP 2 has been designed to achieve the above by way of implementing the transfer of appropriate technology, and development of appropriate infrastructure and skills.

The EWSP 2 responds to priorities and actions identified in the National Adaptation Programme of Action (NAPA) of Gambia which articulate the need for securing, transferring and installing critical technologies, as well as developing the necessary systems for climate change-related information to permeate into decision-making processes. The technologies required to achieve these aims will increase the capacity of the national early warning network to forewarn and rapidly respond to extreme climate events.

The NAPA clearly identifies a priority project on Early Warning Systems (EWS) along with projects associated with Food security, Coastal Zones, Energy, Health, Water

resources and Terrestrial ecosystems. Following the completion of the NAPA, the Gambia developed a first LDCF Early Warning project, but due to resource constraints at the time (2008), only a very limited budget of USD 1,028,000 was allowed, which enabled only minimal functionality and implementation on a pilot basis. Needs assessments developed through the first LDCF project did clearly outlined the need for increased functionality of the national level EWS, and did confirm that the budgetary allocation under the project was inadequate to meet the needs identified.

The need assessment indicated that project funding and coverage need to be scaled up to cover the whole country and to procure the technologies, develop and strengthen the infrastructure and provide the needed institutional and human capacity to develop and operationalise an effective climate change early warning system, this how the current EWSP 2 was conceptualised. The current EWSP 2 is not associated with any one particular sector, but it is expected to be relevant to multiple sectors, including food/agriculture, water management, health and energy. The EWSP 2 is expected to also bridge the budget gap between the investments achieved in the first LDCF project and attain a fully functional EWS as identified in the needs' assessment report. The total amount of funding requested for the EWSP 2, not including PPG and agency fees is USD 8,000,000.

The project outcomes are closely aligned and coordinated with efforts already underway within Gambia to promote development which is resilient to climate change at the national and local levels. The project is focused on strengthening the capacity of national and sub-national entities to monitor climate change, generate reliable hydro-meteorological information (including forecasts) and to be able to combine this information with other environmental and socio-economic data to improve evidence-based decision-making for early warning and adaptation responses as well as planning. The EWSP2 is being implemented at the country level by the lead Ministry mandated to advance climate monitoring including management of climate data in full collaboration with other relevant line Ministries who rely on the information for planning purposes (Disaster Management, Agriculture, Water, Finance and Planning etc). Sub national authorities (Provincial and/or District officers, Municipalities, civil society (women and youth associations, NGOs, media, farmers' associations) and the private sector whom are also important stakeholders (as end users).

The Goal of the EWSP 2 is to strengthen the climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change. This project's 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 The Gambia.

The project seeks to transfer weather and environmental observation technology, as well as to build capacities for climate data analysis and modelling, and to effectively communicate early warnings and advisories to stakeholders and local populations. This will be done so by delivering four complementary outcomes:

- (i) Outcome 1: The Gambia National Meteorological Services is supported in its transition to becoming a financially sustainable Meteorological Agency;
- (ii) Outcome 2: Hydro-meteorological infrastructure is upgraded / installed and maintained that will cover the full needs for 'optimal performance of EWS' as identified by recent needs assessment reports in the Gambia;
- (iii) Outcome 3: A critical mass of skilled human resources is able to operate the Gambia Early Warning System and perform medium and long-term climate adaptation planning beyond the project; and
- (iv) Outcome 4: Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans

UNEP and UNDP are the GEF EWSP2 implementing agencies. UNEP and UNDP are responsible for different aspects of the Project and do provide technical assistance for selected outputs as per their comparative advantage. UNDP is responsible for implementing Outcome 2 and the midterm and final evaluation. UNEP is responsible for implementing Outcomes 1, 3 and 4 and all other project management costs. The rationale of this division is based on the agencies' areas of comparative advantage.

Both UNEP and UNDP are responsible for overseeing and monitoring project implementation, receiving feedback and reports from the project team and providing technical guidance and support as needed. UNEP and UNDP are the implementing agencies for the Project. The Gambia Department of Water Resources (DWR) is the national executing partner and in its roles have been executed in close contact with UNEP and UNDP in order to ensure ongoing collaboration and transparency. The Project is being executed according to the NIM modality, and National Execution for UNDP and UNEP respectively. Project finances do pass through the Ministry of Finance to ensure national accountability through the normal government procedures and according to UNEP and UNDP rules and regulations.

# C. Project Progress Summary

The MTR focused on project period between August 2015 to October 2019 and sampled various project sites in the seven administrative regions (Banjul City Council, Kanifing Municipal Council, West Coast Region, Lower River Region, North Bank Region, Central River Region and Upper River Region).

It is important to note that, in order to show the overall impact of the project as a whole, the PSC decided that the project should be evaluated in its entirety (UNEP & UNDP components) in 2019 to genuinely demonstrate its impact, relevance, effectiveness, efficiency and sustainability on the targeted beneficiaries or communities. The MTR Consultant was informed that a letter to that effect was dispatched to UNDP senior management for necessary action. Delays for the implementation of the Project were occasioned by the state of preparedness/different levels of preparedness of the two components of the Project (UNDP and UNEP) and also partly by the political uncertainties witnessed in the country in the year 2016 and 2017.

The review utilised data and information from both primary and secondary sources. Primary data was collected directly from key stakeholders through interviews, questionnaires, checklists, focus group discussions, and direct observation. Secondary data was obtained through the review of related literature.

In conducting the evaluation, purposive and random sampling approaches were adopted in the selection of the project sites that the MTR Consultant visited. The sampling approach considered core factors including spatial distribution of the interventions, the extent over which specific agencies have implemented project interventions and the UNDP's national implementation modality (NIM) and the Standard Basic Assistance Agreement (SBAA) between UNDP and the GoTG as well as the Country Programme. Based on the application of the above-mentioned methodology and the MTR Consultant assessment, the project has progressed well towards full realization of the end of project outcomes.

The Early Warning System Project 2 in The Gambia has achieved many of the expected outputs and many outcomes/targets are attained or in process at the time of the midterm review, which slightly undertaken in the period nearing end term of the Project.

As stated earlier, the Project's delays were occasioned by the state of preparedness/different levels of preparedness of the two components of the Project

(UNDP and UNEP) and also partly by the political uncertainties witnessed in the country in the year 2016 and 2017. Although many outputs and associated targets have been efficiently and effectively achieved to date, a few number of expected outputs are outstanding and are in a process of being achieved or planned for the next couple of months (example of these include supply of a few radio transmitters improvement of some specific aspects of the community radio stations installations [security perimeter walls and posts sound proof studios and microphones etc], establishment of NDMA call centre, supply of a few remaining items to GRTS as well as finalisation of installation of weather balloons associated among others). In addition, to the various outputs / targets that have been achieved so far (at slightly beyond actual Project Mid Term), there is a critical need to develop and effectively implement Project's contingency / continuity plan, fast track delivery of requisite / identified capacity building and training activities. Indeed, there is a strong 'business case' for a third phase of the EWSP2 in order to allow institutions and Early Warning System (EWS) to reach maturity and good level stability. As the Project nears the terminal stage, implementation should involve a strong message to all stakeholders and beneficiaries that the EWSP 2 is not only a means for installation of equipment and construction of National Hydrological and Meteorological Services (NHMS) infrastructure but also an intervention that should seek whole Early Warning System (EWS) management transformation through measurable results and effects. Having considered the current Project performance status against set targets and related indicators, the MTR Consultant do rate the Project Strategy and Progress Towards Results as well as Implementation, Adaptive Management and Sustainability as summarised in Table 1 and 2 respectively.

Table 1: Project Strategy and Progress towards Results Ratings and Achievement Assessment Summary

**Indicator Assessment Key** 

Green= Achieved Yellow= On target to be achieved Red= Not on target to be achieved
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Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
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 the Gambia.	Indicator 1: Level of capacity of agencies to monitor, assess and disseminate hydro-climate information for early warnings and long-term planning	60/135 points	not set or not applicable)	115/135 points	105/135 points	Moderately Satisfactory (MS)	The NHMS is now better equipped in terms of equipment and human capacity to generate climate and early warning information though a few installations are remaining and on the other hand the institutions envisioned should be supported to maturity. Key installations include: 9 automatic weather stations, 5 intellisense standby weather stations, a lightening detectors and various hydrological equipment. In addition, trainings have been provided on the operations and maintenance of these equipment - testing and calibration of some equipment are expected to be procured and installed soon.

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 1: The Gambia National Meteorological Services is supported in its transition to becoming a financially sustainable Meteorological Agency (UNEP component).	Amount of dedicated budget allocated for NHMS activities by end of project	There is currently no dedicated budget for the new agencies.  NHMS is currently under the Department of Water Resources in the Ministry of Fisheries and Water Resources and does not have an independent and dedicated budget, rather it filters through the umbrella ministry.	not set or not applicable)	A dedicated, predictable sufficient budget is allocated to NHMS activities to deliver timely and effective early warnings by end of project.	Bills establishing 3 semi- autonomous NHMS agencies are presently being reviewed awaiting enactment.  Construction of the new headquarters for the Meteorological Agency is progressing well and expected to be completed in 2019. Funds for the construction of this headquarters is provided by Government.	Moderately Satisfactory (MS)	Great progress has been made in sensitizing government agencies related to NHMS to establish predictable budgets and some like NDMA has allocated budgets. However, as at MTR; the bills supposed to establish 3 semi-autonomous NHMS were expected to be enacted by the National Assembly soon and a series of sensitization workshops are being organized with the Parliamentarians on the new bills prior to the bills reaching them and going to enactment.  There is a dedicated budget of almost US \$ 250,000.00 which is presently available for the Department of Water Resources, the parent Department of NHMS.
	Completion of business plan to support financial sustainability of hydrometeorolog ical services.	The potentially new hydrometeor ological agency does not have a business plan in place to ensure financial sustainability	not set or not applicable)	Hydrometeo rological agency with a business plan.	During the MTR, the Consultant was informed that the proposed National Meteorological Agency (NMA) Sustainability Business Plan has been prepared, including more input on how the services can be commercialized for private and public sectors.	Moderately Satisfactory (MS)	A business plan for the new NMA has been developed through another project and will be implemented once the bill establishing the new Agency are enacted.  The EWSP 2 has a plan to have the NMA sustainability business plan being reviewed and updated because the plan was prepared three years ago.

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 2: Hydrological / meteorological infrastructure is installed for optimal performance of national hydro- met monitoring system	Percentage of national coverage by monitoring network by end of project and percent of coverage by an automated network.	(50% is covered by a monitoring system at present, 0% of which is automated	(not set or not applicable)	At least 50% national coverage of which 100% is an automated network.	9 Automatic weather stations have been installed, 5 standby intellisense weather stations have also been installed. The MTR Consultant did however, got informed by Project Management that they plan to install all the 15 automatic and 15 intellisense weather station and replace all mercury containing conventional weather stations by end of 2020 in order to meet the Minamata Convention on Mercury which deadline of compliance in 2020.	Satisfactory (S)	9 Automatic Weather Stations have been installed in the existing Meteorological Stations in the Country and transmitting data every 30 minutes to the Meteorological Headquarters. The stations are located in Yundum Airport, Janbanjelly and Sibanor (West Coast Region), Kerewan and Yallal (North Bank Region), Kuntaur and Sare Sofi (Central River Region), Basse (Upper River Region) and Jenoi (Lower River Region)  5 standby intellisense weather stations have been installed.  EWSP 2 Management has indicated that they will ensure full installation of procured automatic and standby intellisense weather station and ensure seamless operation of the infrastructure to provide meteorological data / information covering the entire country.  An Automated Lightening Detector Systems has been installed at the Banjul International Airport by earth Networks from the UKSA and it is helping the Central Forecast Office in generating forecasts and relaying early warning information for the country  Construction of a new Hydrological headquarters in Bansang is being finalized and work is expected to be completed by December 2019.  Surface water monitoring and downloading equipment have been procured and installed, and 15 Hydrological staff underwent intensive training on the operations and downloading data from this equipment.  Computers and other equipment have also been procured and installed at all Regional Meteorological Headquarters in the Country.  Computers and other equipment have also been procured and installed at all Regional Meteorological Headquarters in the Country.

A critical mass of skilled hydrometeorological staff recruited and retained by NHMS by the end of the project (disaggregated by sex)  Satisfactory (HS)  A critical mass of skilled hydrometeorological staff recruited and retained by NHMS by the end of the project (disaggregated by sex)  Satisfactory (HS)  Satisfactor	Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achieveme nt Rating	Justification for Rating
meteorologists and focus group discussions interviews.  various training on EWS carried out at the relevant agencies.  Human resource management plan has been prepared for the DWR.  Three students are undergoing Bachelor's Decretor's Decretor's Decretor's Decretor's Decretor's Decretor at the University of The Gambia.  warious beneficiaries dur focus group discussions interviews.  Water Resources Training School has been rehabilitated and upgrace in order to provide basic intermediate requisite with the provide basic intermediate requisite inter	A critical mass of skilled human resources is able to operate the Gambia Early Warning System and perform long-term climate planning beyond the pilot	Number of skilled hydro- meteorological staff recruited and retained by NHMS by the end of the project (disaggregated by	92 staff of which 12 are	(not set or not	NHMS is able to recruit 15 staff per year and retain 80% of them by end of project (of which 50%	There was quick and initial training of meteorologists and hydrologists at the start of the project.  36 students have been trained at UTG Farafenni Campus on postgraduate diploma.  38 students trained at WRTS on basic-intermediate requisite skills for entry-mid level meteorologists and hydrologists.  various training on EWS carried out at the relevant agencies.  Human resource management plan has been prepared for the DWR.  Three students are undergoing Bachelor's Degree training in Environmental Science at the University of The Gambia.  One student has graduated with a Bachelor's Degree in Biology and presently working at the	Highly Satisfactory	In 2017-2018, 8 students (5 males and 3 females) undertook postgraduate training in agrometeorology, meteorology and hydrology at the University of The Gambia – Farafenni Campus. In 2018-2019 period, 28 students were admitted to the program.  There has been various training on EWS carried out at the relevant agencies, these training have been very effective as reported by various beneficiaries during focus group discussions and interviews.  Water Resources Training School has been rehabilitated and upgraded in order to provide basic-intermediate requisite skills for entry-mid level meteorologists and hydrologists.  There has been Water Resources Training School (WRTS) training batches; batch 1 was in 2018 for 19 students (F=4, M=15), and batch 2 in 2019 for 19 students (F=6, M=13)  EWSP 2 training has enabled Gambia Meteorological Services to achieve WMO requirements and standards, more especially qualifications of meteorological technicians and weather

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 4: Efficient and effective use of hydro- meteorological and environmental information for making early warnings and long-term development plans	Percentage of population with access to improved climate information in pilot sites (disaggregated by gender)	No information	(not set or not applicable)	At least 75% more people have access to early warnings and climate information by end of project in pilot sites (disaggregat ed by gender)	Most of the equipment procured for the early warning system have been installed and are effectively collecting, analyzing and disseminatin g data to various users, however there are several gaps that need to closed in order to enable seamless access and use of EWS data / information.	Moderately Satisfactory (MS)	About 60% of the people in the target sites have access to early warning and weather information through the National Media, Community Radios, Weather Display Boards located at strategic places and through Radio Listening Groups (RLGs) formed at the 14 pilot sites.  14 pilot communities have been trained on Early Warning Information reception and dissemination.  Equipment such as Radios, Mobile Phones, PA systems etc. have been procured and supplied for the 14 pilot communities to undertake the Early Warning Information reception and dissemination in their communities  2 Transmitters, a tower and four transmitter link systems have been procured and installed for GRTS to increase their coverage countrywide for early warning message dissemination.  Broadcasting Equipment have been procured and installed for 6 community Radios to also partake in the Early Warning Message dissemination.  The whole populations in the 14 pilot sites have access to weather.

Table 2: Ratings for Project Implementation, Adaptive Management and Sustainability

Measure	Achievement Rating	Justification for Rating
Project Implementation & Adaptive Management	Satisfactory (S)	Implementation of all the 4 components has illustrated proper management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications and is leading to reasonably efficient implementation of the Project. There are however some shortcomings in terms of lack of a contingency plan for the EWSP 2 implementation. The MTR Consultant noted several adaptive management processes underway or already implemented (a good example is the continuous engagement with beneficiaries like DWR, NDMA and GRTS among others in establishing critical gaps in realizing the expected results and addressing the most feasible extra interventions).
Sustainability	Moderately Likely (ML)	The infrastructure and installations made for the EWS should be continuously maintained and upgraded, failure to which the EWS will be at risk. On the other hand, continuous training/capacity building and financing is required for sustainability of the EWS. In this regard, the EWS would have moderate risks and that at least critical outcomes should be sustained due to the progress towards results on outcomes at the Midterm Review.

# D.Summary of Conclusions

The EWSP 2 has been well designed to tackle the 5 challenges usually encountered during EWS implementation; these are:

- a) Institutional and legal capacity development
- b) Technology deployment
- c) Community outreach and community-based solutions
- d) Private sector engagement --though this can be enhanced
- e) International co-operation and data sharing

The Gambia is extremely vulnerable to intrusion of saline water to water ways, receding of coast line, floods, droughts and tropical storms. Indeed, recurrent of these climate-related shocks negatively affect the highly sensitive livelihoods and economies in the country, and erode communities' ability to fully recover, leading to increased fragility and vulnerability to subsequent disasters. The nature and pattern of weather-related disasters is shifting, becoming unpredictable, and increasing in frequency, intensity and magnitude as a result of climate change. Vulnerability in the Country is further compounded by prevailing negative socio-economic factors, such as HIV, extreme poverty, demographic growth and trends (including intra-regional migration and increasing urbanization).

The EWSP 2 is actually supporting multi-sectorial disaster risk reduction (DRR) interventions in food security and agriculture, infrastructure and adapted architecture, information and knowledge management, water, sanitation and hygiene,

and health. Essentially, as per the MTR Consultant assessment, the EWSP 2 is operating with two inherent themes, namely:

- (i) Emergency preparedness by building local capacities for sustainable climate and weather-hazard preparedness and management, including seasonal preparedness plans, training, emergency stocks and rescue equipment, as well as Early Warning Systems.
- (ii) Empowering agencies and communities through multi-sectorial and multilevel approaches with DRR mainstreamed as a central component and improved hydrological, meteorological and environmental information and data management which would in turn enable response to health, environmental, food and nutrition emergencies as an outcome.

Largely, the EWSP 2 has been greatly supported by the National, Regional and Local Government Administrations. This was evident during the field survey were most of the representatives from institutions being represented in the Project Steering Committee (PSC) as well as other representatives of beneficiaries attended the consultative meetings and contributed generously on their experience on the project and suggested creative / innovative ways of fast tracking the project outcomes.

The entire Project planned interventions are all beyond the midterm targets and are above the expected 50% achievement compared to the end term targets. What is remaining is to supply and installation of the few outstanding equipment, repair and maintain earlier supplied and installed equipment, finishing of infrastructures which are at advanced stages of completion, fast track creation of the key hydro-met agencies and continue in creating requisite capacity building and training.

As per MTR Consultant, the overall EWSP 2 rating is that it SATISFACTORY. This is based on the evidence that a large number of the equipment were procured and installed, infrastructure built and nearing completion, weather forecasting is in progress, capacity building and training for various key stakeholders have been undertaken, as well as professional training for hydrology and meteorology technicians have been undertaken and continuing. It is worth noting that there were delays in the procurement of certain meteorological equipment due to difficulties in getting correct specifications. As at MTR, the Consultant noted that there are a few planned procurements of material and equipment that was on going.

For the EWSP2 to continue realising the expected outcomes; the following key actions should be undertaken:

- (i) Preparation of a contingency plan that will clearly address the issues of EWS continuity. Key aspects of the contingency plan should include dealing with hydro-meteorology technology risk management like obsolete of technological installations, other issues that should be addressed by the contingency plan would include insurance of installations, installations protection and recovery from extreme events, inspection, testing, calibration, training and capacity building (though the equipment suppliers have a contractual requirement to undertake some of these aspects). The contingency plan should also address issues of EWS financing.
- (ii) EWSP2 financing and implementing partners should consider a third phase of the EWSP in order to enable a smooth transition of the EWS from the formative stage that it is now to a more mature stage when key agencies shall be semi-autonomous (generating some incomes from the products and services they offer) and well supported by the government.

# E. Recommendation Summary Table

No.	Key Aspects	Brief Description	Responsibility
1.	Contingency and continuity of the established EWS	Meteorological, hydrological, environmental and climate information / services do support disaster risk reduction (DRR) and early warning systems (EWS) in Gambia and hence a contingency / continuity plan for these essential services should be developed to ensure functioning of EWS at all times.  Key aspects of the contingency plan should include dealing with hydro-meteorology technology risk management like obsolete of technological installations, other issues that should be addressed by the contingency plan would include insurance of installations, installations protection and recovery from extreme events, inspection, testing, calibration, training and capacity building (though the equipment suppliers have a contractual requirement to undertake some of these aspects). The contingency plan should also address issues of EWS financing.	-DWR/PMU -PSC -NDMA -Ministry of Finance -Ministry of Agriculture -Key beneficiaries
2.	Supporting EWS to maturity.	EWSP2 financing and implementing partners should consider a third phase of the EWSP in order to enable a smooth transition of the EWS from the formative stage that it is now to a more mature stage when key agencies shall be semi-autonomous (generating some incomes from the products and services they offer) and well supported by the government.	-DWR/PMU -PSC -NDMA -Ministry of Finance

3.	Sustainability	The EWS agencies that should be established by the law should be supported in becoming specific service focused institutions / Agencies (SFA) with inbuilt self-sustaining capabilities through income generation from services and products they provide. Private and public sectors players should be widely consulted on the income generation proposals by the EWS agencies.	- Specific semi- autonomous EWS related agencies. -Financing and implementing partners -DWR/PMU -PSC -Ministry of Finance
4.	Training and capacity building	Farafenni post graduate diploma programme should be upgraded to provide Bachelors and Master degrees in hydrology and meteorology, as well as other related areas in order to create sustainable local human resource for the EWS in the Gambia. A target of training at least 4 bachelors and 3 master degree students before project ends should be realised.	- The University of the Gambia -Ministry of Education -DWR/PMU -PSC
5.	Transportation during the EWSP 2 and after.	Some of the critical mobility impediments for key agencies and beneficiaries should be considered (e.g. giving motor bikes or a few motor vehicles). Areas to be considered include Project's outcome inspection capability e.g. meteorology and hydrology stations and installations.	-Specific agencies / beneficiaries -Financing and implementing partners -DWR/PMU -PSC
6.	Robustness of the meteorological infrastructure.	The meteorology services capability should be aimed at having all the 15 traditional meteorology centres be equipped with both Intellisense (as standby) and Automatic Weather Stations. All the conventional weather stations should be faced out before end of year 2020 in order to comply with mercury instrument discontinuation by Minamata Convention on Mercury.	-Financing and implementing partners -DWR/PMU -PSC
7.	Design and development of a GIS enabled and integrated environmental, hydrological, meteorological and climate information management system.	During the MTR, the Consultant visited NEA and was informed that The National Environment Agency (NEA) is the Focal Point for both GEF and UNEP and initially signed a MoU with various key agencies (like DWR, ministry of agricultures, Bureau of statistics, soil conservation and management and cadastral department) to host and provide integrated environmental information (EI) to users for early warning information – it did not work well. The EI was managed in the GIS Unit.  The Consultant do recommend robust institutional discussions and lobbying in order to establish an effective and robust environmental (including all other EWS related information) information system (EIS) in a GIS platform and to be hosted by NEA or any other agency the stakeholders will identify as most suitable. The EIS should also plug in institutions like research agencies (e.g. climate change institute at the UTG. The EIS should also be a driving lever for the EWS.	-NEA -Other relevant agencies -Financing and implementing partners -DWR/PMU -PSC
		In integrated and GIS enabled EIS should also help farmers to access and interpret data and also to act as a	

climate education tool / portal. The recommended EWSP phase 3 can be involved in building upon a practical designed EIS.	
The NDMA call centre and EIS should form platforms that can enable communities to use GSM phones in accessing environmental, climate, meteorological, hydrological and actually synthesised/analysed early warning (EW) data and information.	

## 1.0 INTRODUCTION

# 1.1 Purpose of the MTR and Objectives

# 1.1.1 Purpose of the Midterm Review

A mid-term review / evaluation is conducted for an ongoing programme or project. It serves two immediate purposes: decision-making and taking stock of initial lessons from experience. Specifically, a mid-term evaluation provides a programme or project manager with a basis for identifying appropriate actions to: (a) address particular issues or problems in design, implementation and management, and (b) reinforce initiatives that demonstrate the potential for success. In relation to EWSP 2, the key aim of the Mid-Term Review (MTR) was to examine the performance of the Project since the beginning of its implementation, in this regard, the MTR included the following:

- the evaluation of the progress in project implementation, measured against planned outputs set forth in the Project Document in accordance with rational budget allocation
- the assessment of features related to the process involved in achieving those outputs
- the initial and potential impacts of the project, and
- the underlying causes and issues contribution to targets not adequately achieved.

The MTR is intended to identify weaknesses and strengths of the project design and execution, and to come up with recommendations for any necessary changes in the overall design and orientation of the project and on the work plan for the remaining project period, after evaluating the adequacy, efficiency, and effectiveness of its implementation, as well as assessing the project outputs and outcomes to date. It also shall assess early signs of the project success or failure and prompt necessary adjustments.

# 1.1.2 Evaluation Objectives

The MTR was to assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The MTR was also to review the project's strategy and its risks to sustainability.

# 1.1.3 Evaluation Scope

The MTR Consultant was to assess the following four (4) categories of project progress. The team was to refer on the Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects for extended descriptions. The four categories of performance aspects to be assessed include:

## i. Project Strategy

- Project design
- Results Framework/Logframe

### ii. Progress Towards Results

• Progress Towards Objectives and Outcomes Analysis

### iii. Project Implementation and Adaptive Management

- Management Arrangements
- Work Planning
- *Finance and co-finance*
- Project-level Monitoring and Evaluation Systems
- Stakeholder Engagement
- Reporting
- Communications

#### iv. Sustainability

- Financial risks to sustainability
- *Socio-economic risks to sustainability*
- Institutional Framework and Governance risks to sustainability
- Environmental risks to sustainability

After the MTR, the Consultant was to prepare the main report as per the outlined guidelines in the TOR and also include Conclusions & Recommendations.

Conclusions & Recommendations section of the MTR report was supposed to set out the MTR's evidence-based conclusions, in light of the findings. Recommendations were to be succinct suggestions for critical intervention that are specific, measurable, achievable, and relevant. A recommendation table was to be put in the report's executive summary. The MTR Consultant is however, expected to make no more than 15 recommendations in total.

# 1.2 Methodology of Data Collection and Analysis

# 1.2.1 Sample and Sampling Frame

In project or programme evaluations, sampling is concerned with the selection of a subset of individuals from within a population to estimate characteristics of the whole population within the constraints of time, human and financial resources. This MTR utilized purposive sampling and random sampling approaches. Purposive sampling was applied to select project sites to be visited in the field.

The purposive sampling approach considered core factors including spatial distribution of the interventions, the extent over which specific stakeholders have implemented project interventions and the UNDP's national implementation modality (NIM) and the Standard Basic Assistance Agreement (SBAA) between UNDP and the Government of the Gambia, and the Country Programme.

#### 1.2.2 Data Collection

The MTR was to provide evidence based, credible and reliable information. The MTR Consultant set-up a collaborative and participatory approach in order to ensure close commitment with the Project Management Unit (PMU), government counterparts (the GEF and UNEP Operational Focal Points), the UNDP Country Office, UNDP Regional Technical Advisor and other key stakeholders.

The MTR utilised data and information from both primary and secondary sources. Primary data was collected directly from key stakeholders through interviews, questionnaires, checklists, focus group discussions and direct observation techniques. Secondary data was obtained various literature sources through desk review. The following data collection methods and instruments were utilised (see table 3):

#### Table 3: Data Collection Procedures and Instruments

#### **Desk Review**

The evaluators sourced for documents in possession of the various key stakeholders. The documents were analysed for secondary data and information. Some of the documents reviewed include: Project Identification Form (PIF), UNDP Initiation Plan, UNDP Project Document, UNDP Environmental and Social Screening results, All Project Implementation Reports (PIR's), Quarterly progress reports and work plans of the various implementation task teams, Audit reports, Finalized GEF focal area Tracking Tools at CEO endorsement and midterm of the EWSP 2, Oversight mission reports, All monitoring reports prepared by the project, Financial and Administration guidelines used by Project Team

During the MTR process, the MTR Consultant constantly made reference to the following key documents: Project operational guidelines, manuals and systems, UNDP country programme document(s), Minutes of the EWSP 2 Board Meetings and other meetings (i.e. Project Appraisal Committee meetings) and Project site location maps.

#### **Key Informant Interviews (KII)**

Semi-structured questions were asked to the stakeholders in order to address the study objectives. The questions aimed at obtaining both qualitative and quantitative data depending on the role of the stakeholder. KII were held with stakeholders both at the national and regional/local levels. The KII involved face-to-face consultations with a wide range of stakeholders, using "semi-structured interviews" with a key set of questions in a conversational format (see Annex 3 – the questionnaire that was used in the field). Triangulation of results, i.e. comparing information from different sources, such as documentation and interviews, or interviews on the same subject with different stakeholders, was used to corroborate or check the reliability of evidence. Key stakeholders that were interviewed included the following amongst others: Staff of PMU, UNDP Gambia Office Representatives, Representatives of the DWR, Project's Steering Committee (PSC) and Various Project Beneficiaries (within project sites) and other government agencies representatives.

#### **Focus Group Discussions (FGD)**

FGDs were used to direct our discussion meetings with beneficiaries of the sampled project sites to obtain their perspectives on the impact of the project on the community climate change adaptation and resilience.

#### Marking of Checklists

Checklists were used to gauge the project's relevance, effectiveness, efficiency, impact and sustainability (REEIS).

#### **Field Observations**

The evaluator also collected data by direct observation of the interventions of the project in the sampled project sites.

# 1.2.3 Data Analysis

The information collected, including documentary evidence, interviews and observations was compiled and organized according to the questions asked in the assessment (see **Annex 3**).

The MTR team assessed the following four (4) categories of project progress:

## i. Project Strategy

- Project design
- Results Framework/Logframe

#### ii. Progress Towards Results

• Progress Towards Objectives and Outcomes Analysis

## iii. Project Implementation and Adaptive Management

- Management Arrangements
- Work Planning
- Finance and co-finance
- Project-level Monitoring and Evaluation Systems
- Stakeholder Engagement
- Reporting
- Communications

#### iv. Sustainability

#### I. Project Strategy

### a) Project design:

The MTR team reviewed / assessed the following components:

- The problem addressed by the project.
- The effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.
- The relevance of the project strategy and assess whether it provides the most effective route towards expected/intended results. Whether lessons from other relevant projects were properly incorporated into the project design?

- The extent to which the project idea/conceptualization had its origin within national, sectorial and development plans/priorities and focuses on national environment and development interests.
- Decision-making processes: Assess information dissemination, consultation, and "stakeholder" participation in design stages.
- The extent to which relevant gender issues were raised in the project design.

## b) Results Framework/Log-frame:

The MTR team reviewed / assessed those following components:

- Project's log-frame indicators and targets. Checked how "SMART" the midterm and end-of- project targets are (Specific, Measurable, Attainable, Relevant, Time-bound), and suggest specific amendments/revisions to the targets and indicators as necessary.
- Whether the project's objectives and outcomes or components are enough, clear, practical, and feasible within the time frame.
- Potential beneficial development effects (i.e. income generation, gender equality and women's empowerment, improved governance etc...) that should be included in the project results framework and be monitored on an annual basis, with a specific focus on gender aspect.

#### II. Progress towards Results

The MTR Consultant did review the logframe indicators against progress made towards the end-of-project targets using the Progress towards Results Matrix developed and presented in the Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects; the following Matrix template was used:

Project Indica Strategy	tor3 Baseline Level4	Level in 1 <sub>st</sub> PIR (self- reported)	Midterm Targets	End-of- project Target	Midterm Level & Assessment	Achievement Rating <sup>7</sup>	Justification for Rating
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This Matrix did highlight the following key assessments indicators, based on the level of progress achieved.

Indicator Assessment Key		
Green= Achieved	Yellow= On target to be achieved	Red= Not on target to be achieved

The MTR Consultant did hence propose analysis and recommendations to 1) understand the "red rating" and 2) raise bottlenecks. In addition to the progress towards outcomes analysis:

- Compared and analyse the UNDP-GEF Tracking Tool at the Baseline with the one completed right before the Midterm Review.
- Identified remaining barriers to achieving the project objective in the remainder of the project.
- By reviewing the aspects of the project that have already been successful, MTR Consultant identified ways in which the project can further expand established benefits.

## III. Project Implementation and Adaptive Management

- a) Management arrangement
- MTR Consulatant did review the overall effectiveness of project management as outlined in the Project Document. The Consultant examined whether changes have been made and if yes, assessed whether they were effective. Assessed whether responsibilities and reporting lines were clear, whether decision-making was transparent and undertaken in a timely manner. The MTR Consultant did recommend areas for improvement.
- Review the quality of execution of the Executing Agency/Implementing Partner(s) and recommended areas for improvement.
- Review the quality of support provided by the GEF Partner Agency (UNDP) and recommended areas for improvement.
- b) Work planning
- Reviewed any delays in project start-up and implementation, and identified the causes and examined if they have been resolved.
- The MTR Consultant also assessed whether work-planning processes were results-based. In addition, the MTR team also examined the use of the project's results framework/ logframe as a management tool and reviewed any changes made to it since project start.

## c) Finance and co-finance

- Considered the financial management of the project, with specific reference to the cost- effectiveness of interventions.
- Reviewed the changes to fund allocations as a result of budget revisions and assessed the appropriateness and relevance of such revisions.
- The team also assessed whether the project have the appropriate financial controls, including reporting and planning, that allow management to make informed decisions regarding the budget and allow for timely flow of funds.
- Informed by the co-financing monitoring table that was filled out, MTR Consultant did provide commentary on co-financing.
- d) Project-level Monitoring and Evaluation Systems:
- MTR Consultant reviewed the monitoring tools currently being used.
- Examined the financial management of the project monitoring and evaluation budget.
- e) Stakeholders engagement

This included assessments of the mechanisms for information dissemination in project implementation and the extent of stakeholder participation in management, emphasizing the following:

- The production and dissemination of information and lessons generated by the project.
- Local resource users and NGOs participation in project implementation and decision making and an analysis of the strengths and weaknesses of the approach adopted by the project in this arena.
- The establishment of partnerships and collaborative relationships developed by the project with local, national and international entities and the effects they have had on project implementation.
- Involvement of governmental institutions in project implementation, the extent of governmental support of the project.

#### f) Reporting

 Assessed how adaptive management changes have been reported by the project management and shared with the Project Board.

- Assessed how well the Project Team and partners undertake and fulfil UNDP-GEF reporting requirements.
- Assessed how lessons derived from the adaptive management process have been documented, shared with key partners and internalized by partners.

#### g) Communications

- Reviewed internal project communication with stakeholders.
- Reviewed external project communication.

## IV. Sustainability

MTR Consultant validate whether the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module are the most important and whether the risk ratings applied are appropriate and up to date.

In addition, the MTR Consultant assessed the following risks to sustainability:

- Financial risks to sustainability
- Socio-economic risks to sustainability
- Institutional Framework and Governance risks to sustainability
- Environmental risks to sustainability

## 1.2.3.1 Methods of Data Analysis and Information Assessment

Data entry, cleaning, and analysis were a continuous process during and after data collection. Field notes and transcripts of interviews and qualitative information were analysed and validated while conducting data collection. The following tools and techniques were adopted (see table 4):

Table 4: Summary of Techniques used to Analyse Data

Technique	Description
Statistical Analysis	<ul> <li>Statistical tools and techniques were applied to analyze both quantitative and qualitative data. Quantitative data was analyzed using SPSS and Microsoft Excel</li> </ul>
Experts' panel/ Internal peer review	<ul> <li>This method involved leveraging on the knowledge of independent experts who on the basis of collected information and data assessed various aspects of the EWSP 2. The evaluator engaged peers who play a role in EWSs in Gambia to validate the findings of the data analysis phase.</li> </ul>
Benchmarking	The findings of the study have been reported in view of lessons learnt from similar projects in the Gambia and globally.
Case study analysis	During the evaluation, cases that demonstrated unique approaches to implementing the project as well as success stories in the implementation were documented

# 1.2.4 MTR Approach and Methodology Rationale

The MTR approach and methodology were participatory, hence ensuring that there was full participation and ownership of both the evaluation process and MTR Report by all stakeholders. Stakeholders included Government, UNDP Gambia Country Office Representatives, implementing partner (IP) staff, other organization partners, project beneficiaries etc.

On the other hand, the MTR involved use of mixed- methods research process (that is both quantitative and qualitative methods). The mixed- methods approach enabled the MTR Consultant to mix or combine quantitative and qualitative research techniques, methods, approaches, concepts or language in the MTR process.

Essentially, mixed-methods research was comprised of the following 13 distinct steps:

- 1) determining the goal of the study/review,
- 2) formulating the research objective(s),
- 3) determining the research/mixing rationale(s),
- 4) determining the research/mixing purpose(s),
- 5) determining the research question(s),
- 6) selecting the sampling design,
- 7) selecting the mixed-methods research design,

- 8) collecting the data,
- 9) analysing the data,
- 10) Validating/legitimating the data and data interpretations,
- 11) interpreting the data,
- 12) writing the final report, and
- 13) Reformulating the research question(s).

The use of mixed methods for the MTR enabled the MTR Consultant to obtain data and information that had the following characteristics: trustworthiness, credibility, dependability, legitimation, validity, plausibility, applicability, consistency, neutrality, reliability, objectivity, conformability, and/ or transferability.

Further, the application of mixed methods for the MTR was combined with simultaneous data and information triangulation – this involved the concurrent use of qualitative and quantitative methods with limited interaction between the two sources of data during the data collection stage, although the findings complemented one another at the data interpretation stage. Using data and information triangulations obtained from the application of mixed methods, had the following advantages for the MTR process; the MTR Consultant was able to:

- a) obtaining thicker, richer data;
- b) be more confident of the interpretation of results;
- c) synthesize or integrate multiple theories;
- d) develop creative ways of collecting data;
- e) uncover contradictions; and
- f) use triangulation as a test for competing theories / findings

Some of the limitation of the MTR approach and methodology included:

- a) Due to time and resource limitations, the MTR adopted sampling approaches in arriving at the specific project sites level from which generalised conclusions and recommendations have been made. When done correctly, a sample can provide results that are very close to the population characteristics. However, a sample, no matter how well its selection, cannot provide the exact representation of all the population characteristics.
- b) Application of mixed methods approach had some limitation in that, utilization of mixed-methods investigations in MTR was labour intensive compared to mono-method approaches (i.e., quantitative or qualitative evaluation). In reality, mixed-methods inquiries tend to require more time, resources, and effort to organize and implement. Further, they require expertise in designing

and implementing both the qualitative and quantitative phases. In particular, a researcher with more of a qualitative orientation would likely find it more difficult to design the quantitative component of a mixed-methods study than would a researcher with a more quantitative orientation, and vice versa.

## 1.2.5 Work Plan

The MTR team followed the work schedule shown below.

Region Sub-region		Group/s to Meet	Key Tasks	Date (2019)	No. of Days	
Nairobi, Kenya	Banjul, the Gambia	UNDP Gambia / Consultant's office	Preparing the MTR Team (contract signing, briefing telephone call, sending / emailing of relevant Project Documents)	Thu 31st Oct	1	
Nairobi, Kenya	Banjul, the Gambia	UNDP Gambia / Consultant's office	Document review and preparing MTR Inception Report	Wed 6th Nov	2	
Nairobi, Kenya	Banjul, the Gambia	Consultant's office / PMU and UNDP Gambia Office	Finalization and Validation of MTR Inception Report	Fri 8th Nov	2	
Nairobi, Kenya	Banjul, the Gambia	UNDP Gambia Official/s	Consultant travel from Nairobi to Banjul	Mon 11th Nov	1	
Banjul, the Gambia	Banjul, the Gambia			Tue 12th Nov	1	
Banjul, the Gambia	Banjul, the Gambia	Department of Water Resources (National Meteorological Services), Ministry of Fisheries and Water Resources, Ministry of Agriculture and Department of Parks and Wildlife Management	Meeting and brief discussions	Wed 13 <sup>th</sup> Nov	1	
Banjul, the Gambia	Banjul, the Gambia	Gambia Radio and Television Services, National Disaster Management Agency, National Environment Agency and University of The Gambia	Meeting and brief discussions	Thu 14 <sup>th</sup> Nov	1	
Gambia	Yundum and Janbanjelly	DWR Training School, Central Forecast Office, Yundum Pilot Balloon Station and Janbanjelly Meteorological Station	Field visit	Fri 15 <sup>th</sup> Nov	1	
Gambia	Jappineh and Bansang	Soma Community Radio, Jappineh Pilot Site and Bansang Hydrological Headquarters	Field visit	Sat 16th Nov	1	
Gambia	Basse	Basse Meteorological Station, Basse Automatic Weather Station, Basse Pilot Balloon Station and Gambia Radio and Television Services Basse	Field visit	Sun 17 <sup>th</sup> Nov	1	
Gambia	Dingiri, Kuntaur and Kaur	Dingiri Pilot Site, Kuntaur Automatic Weather Station and Kaur Meteorological Station	Field visit	Mon 18th Nov	1	
Gambia	Farafeni	Post Graduate Training at University of The Gambia Farafeni Campus, Farafeni Community Radio and Kerr Ardo Pilot Site	Field visit	Tue 19 <sup>th</sup> Nov	1	
Banjul, the Gambia	Banjul, the Gambia	PMU and UNDP Gambia Office Officials	Mission wrap-up meeting & presentation of initial findings	Fri 22 <sup>nd</sup> Nov	3	

# 1.3 Structure of the MTR Report

This MTR Report consists of six (6) main areas. Before the introduction is the brief overview of the key findings, conclusions and recommendations encapsulated in the executive summary area. After the executive summary, the report contains the following areas in sequence: introduction, EWSP 2 description and its context, findings, conclusions and recommendations as well as key lessons learnt and final area of the report contains requisite annexes that complement the information provided in the main body of the MTR report.

# 2.0 PROJECT DESCRIPTION AND BACKGROUND CONTEXT

The Full-Sized Project titled "Strengthening climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change- 2nd phase of the GoTG/GEF/UNEP LDCF NAPA early warning project in the Gambia", Ref UNDP PIMS # 5156 is being implemented through the Ministry of Environment, Climate Change and Natural Resources (MECCNAR). The Project started on the 13th August 2015 and is in its 5th year of implementation.

The project was designed to: (strengthen the climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change.

Climate change impacts in The Gambia are likely to include increased upstream migration of saltwater, increased salinization of coastal ecosystems, reduction in yield of major crops and receding coastline. The limited availability of climate information is leading to increased challenges in managing, planning and coordinating the response to severe weather events such as droughts and floods in The Gambia. An insufficient coverage by observational infrastructure (both climate and hydrological stations) combined with low capacity to analyze and model the climate and environmental data, have resulted in inadequate information to support decisionmaking processes at short and long-term ranges. In addition, this prevents the creation of an effective and comprehensive early warning system that helps protect people and productive assets. This weak observational and analytical capability compounds the difficulty to foresee and manage extreme weather events, and to mitigate long term impacts of climate change on various sectors of the economy. Assessments by the National Climate Committee of The Gambia have revealed that the sub-national systems and communities are highly vulnerable to the negative impacts of climate change and at the same time they lack the capacity to adapt to climate change.

In essence, the Goal of the project is to strengthen the climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change. On the other hand, the Project's 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 The Gambia. The project seeks to transfer weather and environmental observation technology, as well as to build capacities for climate data analysis and modelling, and to effectively communicate early warnings and advisories to stakeholders and local

populations. The above-mentioned activities have been undertaken within the dimensions of four complementary outcomes:

- 1) Outcome 1: The Gambia National Meteorological Services is supported in its transition to becoming a financially sustainable Meteorological Agency,
- 2) Outcome 2: Hydro-meteorological infrastructure is upgraded / installed and maintained that will cover the full needs for 'optimal performance of EWS' as identified by recent needs assessment reports in the Gambia,
- 3) Outcome 3: A critical mass of skilled human resources is able to operate the Gambia Early Warning System and perform medium and long-term climate adaptation planning beyond the project, and
- 4) Outcome 4: Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans.

In essence, the project has been designed to strengthen and mainstream Early Warning System into national, regional and local-level planning processes so that local communities across the Gambia are more resilient to climate change and extreme weather events. It is a 4 years project (2015 – 2020) with a total budget envelop of USD 31,510,000 mobilized from Government of the Gambia, UNEP, GEF and UNDP. The Project is being implemented in seven administrative regions: Banjul City Council, Kanifing Municipal Council, West Coast Region, Lower River Region, North Bank Region, Central River Region and Upper River Region.

The Project implementation is following the UNDP's national implementation modality (NIM), in accordance with the Standard Basic Assistance Agreement between UNDP and the GoE, and the Country Programme Framework.

The Implementing Partners (IPs) for this Project are UNEP (for components 1, 3 and 4) and UNDP (for component 2). The Executing Agency (EA) is the Department of Water Resources (DWR) under the Ministry of Water Resources, Fisheries & National Assembly Matters. The Executing Agency (DWR) is responsible and accountable for managing the project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of resources.

Both UNEP and UNDP are responsible for overseeing and monitoring project implementation, receiving feedback and reports from the project team and providing technical guidance and support as needed.

The National Steering Committee (NSC) is responsible for making by consensus, management decisions when guidance is required by the Project Manager, including recommendation for UNDP and UNEP approval of project plans and revisions.

The same Project Steering Committee (PSC) that was appointed under the first phase of the EWSP 1 was retained for EWSP second phase. The PSC has been playing an oversight role, and providing support, policy guidance and supervision of the Project implementation. PSC has been specifically considering, approve and validate the Project's annual work plans, budgets and procurement plans, as well as all progress, monitoring, evaluation and final reports. The PSC is multidisciplinary and multistakeholder in its composition and includes members with disciplinary expertise required by the Project and representatives of NGO, CBO, the Private Sector, the university and government institutions and departments such as the NEA, NDMA, the Ministries of Finance, Agriculture; and Economic Planning and Industrial Development, the UNCCD and the UNCBD focal points; and the media.

The implementing agencies (UNEP and UNDP) are full-fledged member of the PSC whose members do facilitate the implementation of the project activities in their respective agencies as appropriate, and ensure that activities are implemented in a timely manner and facilitate the integration of project-inspired activities into existing programmes and practices.

Both the Project Coordinator (PC) and the Project Director PD are members of the PSC with the latter serving as its chair, while the PC is serving as its secretary.

Project Director, who is the Director of the DWR is serving as the Project Director (PD). The PD has been ensuring a continued cohesion between the Project and the DWR mandate as well as providing linkages and interactions with high level policy components within the Government. The PD has been following up, supervising and coordinating the contributions of the GOTG.

Project Coordinator (PC) has been leading and directing the PCU. The PC has brought in administrative experience and technical expertise and is responsible for the day-to-day implementation and management including financial management of the Project, and the preparation of all due reports. The PC has been serving as the focal point for the expected multi-dimensional interactions between the project and various partners. The PC has been carrying out all of the above functions under the direct supervision of the PD.

In summary, the PSC has been holding regular sessions throughout the Project implementation. The PSC have authority to hold extra meetings if necessary, authority to establish subcommittees or Task Teams in order to provide sectoral or thematic guidance to project implementation.

The Project Management Unit (PMU) is responsible for running the Project on a day-to-day basis.

#### 3.0 FINDINGS

The key findings of the MTR did crystallise from a thorough assessment of both qualitative and quantitative performance of the EWSP 2 along the project phases or building blocks (Strategy, Progress towards Results [PTR], Implementation and Adaptive Management and the eventually Sustainability of the Project). The Key Findings were also illuminated by the Project's essential performance characteristics defined by the principles or pillars of project Relevance, Effectiveness, Efficiency, Impact and Sustainability [REEIS], in essence, SUSTAINABILITY was evaluated and assessed as both a BUILDING BLOCK and a PILLAR of the Project. More on findings based on REEIS criteria will be discussed in section 3.2.1 "Progress towards outcomes analysis" and a few field observations and comments will be highlighted in section 3.2.1.2 "Field Observations and Comments", this sections also identifies a few bests in class case studies of the EWSP 2. The MTR Consultant believes that this approach brings more clarity in terms of outlined findings based on evaluation on key project phases or "building blocks".

# 3.1 Project Strategy

# 3.1.1 Project Design

It was found out that the EWSP 2 is based or founded on the understanding that there is a need to implement an EWS in that Gambia that moves from the traditional framework of early warning systems (EWSs) which essentially is composed of three phases:

- Monitoring of precursors,
- Forecasting of a probable event, and
- The notification of a warning or an alert should an event of catastrophic proportions take place.

Indeed, the EWSP 2 strategy is to improve on the traditional approach to EWSs and adopt a four-step framework which is currently being promoted by national emergency agencies and risk management institutions. The framework includes an additional fourth phase: the onset of emergency response activities once the warning has been issued. The purpose of this fourth element is to recognize the fact that there needs to be a response to the warning, where the initial responsibility relies on emergency response agencies. On the other hand, EWSP 2 strategy has taken in consideration that an effective early warning system (EWS) require strong technical

foundations and good knowledge of the risks and the EWS must be strongly (that is being people / community centred) – with clear messages, dissemination systems that reach those at risk, and practiced and knowledgeable responses by risk managers and the public. Project implementation has also emphasised on public awareness, training and capacity building for the various stakeholders and beneficiaries. Further, the Projects strategy has ensured that the early warning system is well embedded in an understandable manner and relevant to the communities which it serves.

The project design has been found to emphasis both for centralisation and decentralisation of EWS for the Gambia.

During the MTR, the Consultant found out that when analysing who executes the two initial phases of the early warning systems, namely, monitoring and forecasting, one can see two trends, centralised systems where a national-type agency (DWR -National Meteorological Services) carries out these functions, and decentralised systems where these tasks are carried out by other agencies e.g. NGO, international organizations, Ministries of Agriculture, Health and Transportation. Currently the Gambia National Meteorological Agency (which needs to be enacted) do operate early warning systems for drought and floods, including the dissemination of the warning to the media. From the information and data gathered from Gambia National Meteorological Agency, there is a nascent trend where by various Gambia's national disaster risk reduction (DRR) agencies, international organisations, and nongovernmental organisations have been implementing decentralised systems in small basins, where communities carry out all phases, including the response. In such systems, regional administrations are coordinating most of the activities, and are connected to the National Disaster Management Agency (NDMA) via national and community radio networks that is used to communicate all information within the system.

While decentralised systems operate using much simpler equipment and are thus less precise, such systems rely on a network of people-operated radios (Radio Listening Groups) to transmit information regarding precursors to events or warnings. The trade-off gained from losing precision to monitor and forecast events is gained by being able to transmit other very useful information, generally related to social issues, such as medical needs, information regarding relatives or processes, or the solution of such problems as the fixing of power lines when they fail, or acquiring machinery for socio-economic activities (the community radios were found to be quite effective). So far, community-operated systems have been mostly applied in the case of storms, floods, droughts, outbreak of animal diseases and lighting strike warning among others.

Table 5 below highlights evaluation findings regarding the EWSP 2 design.

Table 5: A summary of the findings on the EWSP 2 Project design

Design Aspect	Findings
Problem addressed by EWSP 2.	It is clear the Project is addressing the 5 key challenges encountered during EWS implementation; these are:
	<ul> <li>Institutional and legal capacity development</li> <li>Technology deployment</li> <li>Community outreach and community-based solutions</li> <li>Private sector engagement - though interventions in this area should be strengthened</li> <li>International co-operation and data sharing.</li> </ul>
	The baseline problem facing The Gambia today is that hydro-climate services, which generate knowledge of risks, along with the capacity to monitor, analyse and forecast hazards and to communicate alerts and warnings, either do not exist or do not function as well as they ought to in order to be relevant for long-term planning, management and risk reduction activities. In the Gambia, this status unnecessarily imperils lives and assets, a good example is the recent flood victims nationwide and for farmers suffering from drought impacts on cereal production. The above situations on Gambia 's EWS results in: i) a limited understanding of current and future risks; ii) limited monitoring and forecasting of climate-related hazards; iii) inappropriate communication and packaging of warnings; iv) restricted responses to impending disasters and v) constrained planning for slow-onset changes due to climate change. All this imply a critical and transformational shift in economic development and risk reduction efforts in the Country, and indeed, the EWSP 2 is geared towards addressing the above challenges.
	In the Gambia, there became a number of baseline projects that are beginning to address the afore stated challenges, by providing new technologies and infrastructure for climate monitoring, supporting reforms in the water sector policies, strategies and plans, supporting agricultural and fisheries development through investment, planning and extension services support. The EWSP 2 is hence seeking to address the fundamental needs of local populations in terms of water mobilization and management, agricultural productivity and commercialization, and provide needed support to national, provincial and district-level administrations for planning in these two crucial sectors.
	Whereas inadequacy of hydro-climate services creates a problem for development planning today, climate change will exacerbate the need for adequate hydro-climate services in the country, including the capacity to anticipate and react quickly to climate extremes and variability. Based on the above, the preferred solution to the challenges related to inadequate EWS is the design and implementation of an effective early warning system, along with development planning processes that are based on accurate and reliable climate and hydrological services.
	EWSP 2 offers a foundational adaptive measure, that is, the deployment of effective hydro-meteorological services and early warning systems benefits the poorer segments of society, who do not necessarily benefit from large protective infrastructure projects.

EWSP 2 will also provides benefits for long term planning and helps the NHMS and other institutions build capacity to service other needs e.g. for land-use and agricultural planning, hydro-electric power, etc., in the face of a changing climate.

In summary, the EWSP 2 does provide solutions that will enhance the country's capacity to gather and analyse climate and environmental information through:

- (i) Establishment of a functional network of meteorological and hydrological monitoring stations and associated infrastructure to better understand climatic conditions and changes at short, mid-term and long-term ranges;
- (ii) Strengthening the skills, competencies, standards and procedures required to run an effective hydro-meteorological system, and early warning network;
- (iii) Developing and disseminating tailored weather and climate information to government entities, private sector, civil society, development partners and local communities; and
- (iv) Supporting the uptake of climate information and integration of climate knowledge into local development plans.

Certainly, the project design phase led to a more thorough understanding of the barriers to address in order to achieve the project objective. The specific barriers addressed by the project are as follows:

- a) The lack of a central, legally and financially autonomous meteorological services (addressed through Outcome 1)
- b) Inadequate or insufficient infrastructure, technologies, equipment and human resources (addressed through Outcome 2)
- c) A shortage of skilled hydro-meteorological staff (addressed through Outcome 3)
- d) Ineffective communication of climate information at all levels (Addressed through Outcome 4)
- e) Inability to integrate climate information into development planning (Addressed through Outcome 4)

In regard to the project's Theory of Change (ToC), it is the opinion of MTR Consultant that a more detailed ToC needs to be developed, however, from the EWSP 2 result frame, the Consultants did find that the Projects clearly and effectively articulates and explains the process of change by outlining causal linkages in the interventions, i.e., outputs, direct outcomes, 'intermediate states', and longer-term outcomes. The identified changes are mapped as a set of interrelated pathways with each pathway showing the required outcomes in logical relationship with respect to the others, as well as chronological flow. The Result Frame illustrates well that the project's objective is to strengthen climate services (CS) and early warning system (EWS) for climate resilient development (CRD) and adaptation to climate change (ACC) in the Gambia. The Result Frame also articulates that the key component of intervention will be institution, infrastructure, people and information (IIPI).

The Projects Result Frame / Log Frame also identifies the Project "drivers" and "assumptions" underlying the results chain logic, and Projects components are well described for clarity on the specific interventions / actions under each component. The Result Frame do have a summary of risks and associated management measures.

The project also targets the correct people / beneficiaries. An advanced EWS do consist of the following key elements: Element 1 - Risk knowledge; Prior knowledge of the risks faced by communities. Are the hazards and the vulnerabilities well known? What are the patterns and trends in these factors? Are maps and data widely available? **Element 2 -** Warning service; Technical monitoring and warning service. Are the right parameters being monitored? Is there a sound scientific basis for making forecasts? Can accurate and timely warnings be generated? **Element 3:** Dissemination; Dissemination of understandable warning to those at risk. Do the warnings reach those a t risk? Do people understand the warnings? Do they contain relevant and useful information? Element 4: Response capability; Knowledge and preparedness to act by those threatened. Do communities understand their risks? Do they respect the warning service? Do they know how to react? Are plans up to date and practiced? The four elements clearly involve the following key target institutions and people as defined by the EWSP 2: Element 1: Communities, public and private sector agencies / actors Element 2: NHMS Element 3: NHMS, NDMA, Communities, public and private sector agencies /actors Element 4: NHMS, NDMA, Communities, public and private sector agencies /actors

Design Aspect	Findings
Context and assumptions made.	The EWSP 2 has been placed in the best context of the country's push and motivations towards addressing extreme weather, climate and environmental events through strengthened climate services (CS) and early warning system (EWS) for climate resilient development (CRD) and adaptation to climate change (ACC) in the Gambia. The Project was also designed within the realm of plausible and feasible assumptions that "Department of Water Resources under the Ministry of Water Resources, Fisheries & National Assembly Matters, as well as other National, Regional and Local Governments and private entities are committed to improving the Country's Early Warning and Response Systems (EWRSs) in the country and the various stakeholders in the country had expressed concern at the lack of up-to-date information, skills and technologies to tackle the challenges presented by climate change and variability, as well that both public and private sectors are willing and committed to finding sustainable and climate resilient solutions". These assumptions have been proved to be true and empowering to the Project implementation because both beneficiaries and government representatives are highly motivated to see that the Project succeeds.
Effectiveness of the route/s towards expected/ intended results.	The Project Design was found to be effective because it takes the route of empowerment; both to the government agencies and to the beneficiaries in tackling the risks posed by extreme weather conditions, changing climate and environmental challenges. The empowerment interventions are also well inclined towards the most vulnerable (women, youth and children). The Project clearly integrates the four critical EWS, these are: Institutions, infrastructure, people and information (IIPI).
	It is also evident that lessons from EWSP 1 and other relevant projects were properly incorporated into the project design; however, the Project stakeholders should continue

seeking to learn more from the EWSP 2 implementation as well as from other ongoing related projects in the Gambia.

Alignment with the Country priorities and ownership of the Project. The project is well aligned in addressing the priorities identified in the NAPA and specifically. The Gambia's number one priority NAPA intervention is related to EWS, titled, "Rehabilitation of Early Warning Systems on Climate Related Natural Hazards."

This project is designed to deliver immediate adaptation benefits by making available real-time climate data, building local and national adaptive capacities through various institutional and community level capacity-building exercises (most notably strengthening hydro-meteorological capacity, increasing climate change and adaptation training for extension workers/MDFTs to be delivered at the local level), and to incorporate climate knowledge to promote long-term climate benefits by creating the necessary institutional structures and policy tools, as well as assess the adaptation needs revealed through more complete climate information.

The project supports the Gambian Environmental Action Plan (GEAP), which integrates the obligations associated with the Rio conventions into a national planning framework. The GEAP was adopted by Government in July 1992 to provide the overall national environmental policy framework. The 2008 GEAP recommends a focus on climate change through actions that: deliver immediate adaptation benefits; contribute to building local and national adaptive capacities; and build foundations for maximising long-term adaptation benefits.

The project also addresses one of the main issues identified in The Gambia's National Capacity Self-Assessment (NCSA) in regards to implementation of the UNFCCC. The NCSA notes that there are inadequately developed environmental information systems, and the national meteorological and hydrological service that monitor the climate systems, need to be improved. Relevant priority actions include: To replace and upgrade the conventional equipment to digital equipment; to provide continuous recording of the meteorological, hydrological and climatological elements and phenomena; to rehabilitate and expand the existing station networks for more representative monitoring of weather, climate and other environmental issues; to provide better and bigger capacity data processing and storage equipment for the upgrading, networking and inter connectivity of the various data systems of the DWR and other collaborating institutions. This project fulfils all of these relevant priority actions and has a strong ownership by the government and beneficiary communities.

The project also conforms to a number of national policy instruments such as the PAGE, which discusses the need to mainstream environmental issues as one of its five main priority areas. It also addresses Priority Area 1 of the UNDAF on Poverty Reduction and Social Protection whose main outcome is: "Poverty reduction and social protection strategies and systems are established that enable the poor, vulnerable, women and youth to increase their productive capacities and generate sustainable livelihoods while protecting the environment" Specifically the project will contribute to the country programme outcome 1.3.3: Establishment of a national Early Warning system, national Emergency preparedness and relief plans development and implementation supported.

Design Aspect	Findings
Decision-making processes.	The Project Design was also found to be effective in such a way that it offered a participatory, collaborative and bottom up approach to decision making. A part from the initial project conceptualization, management design and financial resource mobilization by Project sponsors (UNDP, UNEP, GEF and Government of the Gambia), the process of decision making in terms of priority areas, identification of interventions as well as beneficiaries was inclusive. The PSC is well represented by the National, Regional and Local public, private and civil society organisations. The PSC has been working seamlessly with the UNEP, UNDP and GEF Project Focal Points, EWSP 2 Project Management Unit (PMU) and DWR Project Director. In consultation with PSC, the PMU/DWR has been able to prepare work plans and budgets and there has been proper decision making at the National to the Local Levels. The Project communication and decision-making channels are working effectively. The PSC is being supported by requisite technical committees (TCs) in making any technical decisions related to the Project.
	Decision making processes for the EWSP 2 have been effectively assisted by the following management aspect of the Project:
	<ol> <li>Stakeholders were engaged in the Project's planning and design stages, and the prospects of stakeholders to adopt interventions beyond the duration of the project were also maximised.</li> <li>The project M&amp;E plan is consistent with the GEF Monitoring and Evaluation policy. The Project Results Framework includes SMART indicators for each expected outcome as well as midterm and end-of-project targets. These indicators along with the key deliverables and benchmarks were developed in more detail and fine-tuned during the inception phase of the project and now they the main tools for assessing the EWSP 2 implementation progress and whether project results are being achieved.</li> <li>The Project Steering Committee (PSC) receives periodic reports on progress and do make recommendations concerning the need to revise any aspects of the Results Framework or the M&amp;E plan. Project oversight is the responsibility of the Task Managers of UNEP and UNDP. Task Managers do review the quality of draft project outputs, provide feedback to the project partners and establish peer review procedures to ensure adequate quality of scientific and technical outputs and publications.</li> <li>A second Project Implementation Reports (PIR) was prepared in year 2018.</li> <li>There has been periodic monitoring through site visits: Relevant staff from UNEP do conduct visits to project sites based on the agreed</li> </ol>
	schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress on the activities for which UNEP is responsible. Similarly, UNDP staff have conducted site visits for activities for which it is responsible. Other members of the Project Steering Committee have been joining the above visits. Field Visit Reports have been prepared by both UNDP and UNEP after the visit to the Project.  6) GEF tracking tools have been validated/updated at inception and midterm and are expected to be validated at the end of the Project. Project

	risks and assumptions will be regularly monitored both by project partners and UNEP.  7) Key financial parameters have been monitored quarterly to ensure costeffective use of financial resources.  8) Audit: The Project has been audited in accordance with UNEP & UNDP Financial Regulations and Rules and applicable audit policies.  9) Monitoring and Evaluation Intervals. This has been done on quarterly basis where Project Steering Committee meet (2018 met twice and 2019 they have met ones), Project progress made is also monitored in the UNDP Enhanced Results Based Management Platform and by the UNEP task manager.
Level of consideration of gender issues in the Project Design.	The project is designed with realistic and ambitious targets for female inclusion and participation in the acquisition of climate information (enhancing female hydrometeorological staff and level of skills), dissemination of climate information and recommended adaptative interventions (enhancing female extension workers/MDFTs training); and ensuring that women at the local level receive capacity building. Female stakeholders have also played a key role in the design of the project through various consultations.  It is the opinion of the MTR Consultant that the Project has done well in involving both gender at the local levels for example training and capacity building, as well as access to EWS information through local radio stations, GRTS, display boards, local communicators among others. Whoever, at the professional level capacity building / training, more need to be done in order to increase female technical training and post graduate training. Good efforts were noted at Farafenni UTG Campus Post Graduate Training, where female students are given further stipends for six months after graduating and they are giving a lap-top computer after studies as an incentive.
Design Aspect	Findings
Major areas of concern	There were no major areas of concern in the Project Design.

# 3.1.2 Results Framework/Log frame

The MTR Consultant reviewed the appropriateness of the project result framework / log frame and had the following findings (see table 6 below):

Table 6: Provisions of the Result Framework and Suitability

Provisions of	Findings on Suitability							
the Result								
Framework								
Indicators and targets	The 6 key indicators and corresponding 5 end of project targets are largely "SMART" towards realisation of the expected outcomes.							
	In order to briefly illustrate the adequacy of indicators for the 4 EWSP 2 components, the MTR Consultant has briefly described the appropriateness of indicators based on the Intergovernmental Panel on Climate Change (IPCC) five categories of indicators which can be used to track progress toward climate resilience planning, these are:							
	Governance and Institutional     Environmental     Social and Cultural							
	4. Economic systems 5. Infrastructural							
	Below, the MTR Consultant does indicate which focus or category the 6 indicators address.							
	<ul> <li>Indicator 1: Level of capacity of agencies to monitor, assess and disseminate hydro-climate information for early warnings and long-term planning (institutions and governance).</li> <li>Indicator 2: Amount of dedicated budget allocated for NMS activities by end of project (economic systems, institutional and infrastructure)</li> <li>Indicator 3: Completion of business plan to support financial sustainability of hydrometeorological services (economic systems, institutional, governance and infrastructure).</li> <li>Indicator 4: Percentage of national coverage by monitoring network by end of project and percent of coverage by an automated network (institutional and infrastructure)</li> <li>Indicator 5: Number of skilled hydro-meteorological staff recruited and retained by NMS by the end of the project [disaggregated by sex] (governance and institutional)</li> <li>Indicator 6: Percentage of population with access to improved climate information in pilot sites [disaggregated by gender] (social, economic systems and environmental)</li> </ul>							
	The indicators are properly targeted and are not too many, however, they can be increased. On the other hand, it seems the project design intended to have a snowballing effect – where by achievement of targets against these indicators will mean that once agencies and communities achieve enhanced capacities in EWS, the region and national targets will be realised.							

The MTR Consultant found out that there are a few adjustments to the indicators and targets that will further enhance the appropriateness of the indicators and targets, these include:

- Indicator 1 (under objective): Level of capacity of agencies to monitor, assess and disseminate hydro-climate information for early warnings and long-term planning. This indicator should be on the specific number of agencies that carry out monitoring, assessment and dissemination of information rather than the level.
- Indicator 5 (under outcome 3): Number of skilled hydro-meteorological staff recruited and retained by NMS by the end of the project (disaggregated by sex). This indicator should also capture the number trained / capacitated.

In brief, most of the indicators and targets have been well aligned towards capturing and disaggregation of results in terms of gender, however, the indication of youth in data reporting has been minimal, going forward youth disaggregated indicators and targets should be incorporate along all outcomes, and more especially training, capacity building and employment creation, as well as their involvement in management committees.

The MTR Consultant found out that there are few Project's mid-term targets that were set. This situation can be addressed by revising the end of project targets and make them capture the complexity and expected performance of the entire project. More indicators and targets that address realization of UNSDGs should be identify and included in the monitoring and evaluation framework.

Appropriateness and clarity of Project objectives and outcomes The Project Objective is to strengthen the climate monitoring capabilities, early warning systems and available information for responding to climate shocks and planning adaptation in the Gambia. In order to strengthen and mainstream EWS at the national, regional and local level; government agencies and beneficiaries should be empowered in terms of access to skill, experience, knowledge, information, technologies, finance and institutional management. Based on the above, first, the objective of the Project is clear and straight forward, the EWSP 2 aims to involve multi-sectoral approach in implementing the EWS for the country. The four components or expected outcomes are well placed towards ensuring an effective and robust EWS is designed and established. The 4 components focus on empowering and strengthening the key pillars of an effective EWS, these pillars are institution, infrastructure, people and information (IIPI).

The overall finding on the Project's objective and outcomes / components, is that they are clear, practical, and are feasible and achievable within the Project 4 years' time frame.

Beneficial development effects that should be included in the project results framework. The EWSP 2 has created a good environment for increased social security, cohesion and peace, skills in project management, increased private and public organization governance, improved institutional partnerships and collaborations, improved food security and nutrition levels, hygiene and sanitation as well as climate smart agriculture technological and skill transfers. All these beneficial outcomes, among other UN sustainable development goals

	(SDGs) related outcomes can be measured by introducing new indicators and						
	target for the Project monitoring and evaluation framework.						
Effectiveness of	The MTR team found out that most of the Projects identified indicators and						
monitoring	targets are well disaggregated in terms of gender and there are clear targets to						
development	measure development towards women development empowerment.						
and gender							
aspects of the							
project.							

# 3.2 Progress towards Results

The MTR Consultant reviewed the Project log-frame indicators against progress made towards the end-of-project targets using the Progress Towards Results Matrix and following the Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects; colour coded the progress in a "traffic light system" based on the level of progress achieved; then assigned a rating on progress for each outcome (based on the 6 point Rating Scale: HS, S, MS, MU, U, HU); and made recommendations from the areas marked as "Not on target to be achieved" (red). See figure 1below for illustration. More detailed analysis in section 3.2.1 "Progress towards Outcomes Analysis"

Figure 1: Indicator Assessment Key

Green= Achieved Yellow= On target to be achieved Red= Not on target to be achieved
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However, before making the general project performance rating, the MTR team made a thorough assessment of the data and information gathered from interview, focus group discussion and filed visits. The information given by various beneficiaries and stakeholders was well assessed and ascertained by the MTR Consultant by way of cross-referencing the information and data given from various sources (among them the PIR, GEF Tracking Tools, Prodoc, PIF, Government Reports and Project Initial Situation Assessment Reports). The MTR Consultant believes this will give more impetus to results rating and proper justification for the specific rating. In additional to gathering and ascertaining data and information (both primary and secondary sources), the MTR Consultant did carry out as an analysis of field survey that sought to measure the beneficiaries and stakeholders opinion of the project performance on the five key aspects (Relevance/Strategy/Design of the project, Effectiveness, Efficiency, Impact and Sustainability - REEIS). The Consultant measured the participants opinion of a scale of 1-6 and which aligned with the 6 point/marks rating scale (Highly Satisfactory [6], Satisfactory [5], Moderately Satisfactory [4], Moderately Unsatisfactory [3], Unsatisfactory [2] and Highly Unsatisfactory [1]. The REEIS analysis also gave indications of the Project's Strategy, Progress Towards Results,

Implementation and Adaptive Management as well as Project's Sustainability. After this section of detailed analysis, the MTR Consultant presents the entire project rating and then after that, the MTR Consultant does highlight some of the critical observations he made in the field in section 3.2.1.2 "Field Observations and Comments". This is believed to bring out the complete picture of the project midterm performance and progress towards end of project expected results.

As stated, in addition to analysing the level of achievement of indicators and outcomes (Progress towards Results) for EWSP 2, the MTR Consultant did carryout a quick survey through key informant interview and assessed the perception of the beneficiaries and representatives in the Project Steering Committee. Their perception of the Project's Relevance, Effectiveness, Efficiency, Impact and Sustainability (REEIS) showed the following outcomes as shown in table 7 (shows average score / marks for each aspect measured, and hence assisted in the rating of the Project performance later. The REEIS analysis also gave indications of the rating of the Project's Strategy, Progress Towards Results, Implementation and Adaptive Management as well as Project's Sustainability (see table 8).

Table 7: REEIS and SRMS analysis for EWSP 2 the Gambia

Aspect	Average Mark for REEIS	Average Mark for SRMS	Aspect
Relevance /Strategy	5.21	5.21	Strategy
Effectiveness (E <sub>1</sub> )	5.34	5.39	Progress Towards Results (average of E <sub>1</sub> E <sub>2</sub> I)
Efficiency (E <sub>2)</sub>	5.50	5.42	Implementation & Adaptive Management (average of E <sub>1</sub> E <sub>2</sub> I)
Impact (I)	5.34		
Sustainability (S)	4.63	4.63	Sustainability
Overall Project Average – Objective (O)	5.20		

Key:

SRMS = Strategy, Results, Management and Sustainability

Table 8: Rating of Project in terms of SRMS Aspects

Aspect	Rating
Strategy	Satisfactory (S)
Progress Towards Results	Satisfactory (S)
Implementation & Adaptive Management	Satisfactory (S)
Sustainability	Moderately Satisfactory (MS) / Moderately Likely (ML)
Overall Project Average – Objective	Satisfactory (S)

From Tables 7 and 8 above, it is evident that no Project's aspect (REEIS and Project's Strategy, Progress Towards Results, Implementation and Adaptive Management as well as Project's Sustainability) that was averagely rated as Moderately Unsatisfactory, Unsatisfactory or Highly Unsatisfactory. Most of the participants surveyed rated the Project's aspects as Satisfactory – which is the overall Project's rating by the MTR Consultant. The survey's analytical results illustrated in table 7 and 8 hence further justify the achievement rating of the Project as outline in section 3.2.1.

# 3.2.1 Progress towards Outcomes Analysis

Table 9: Project Strategy and Progress towards Results Ratings and Achievement Assessment Summary

**Indicator Assessment Key** 

Green= Achieved Yellow= On target to be achieved Red= Not on target to be achieved

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
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 the Gambia.	Indicator 1: Level of capacity of agencies to monitor, assess and disseminate hydro-climate information for early warnings and long-term planning	60/135 points	not set or not applicable)	115/135 points	105/135 points	Moderately Satisfactory (MS)	The NHMS is now better equipped in terms of equipment and human capacity to generate climate and early warning information though a few installations are remaining and on the other hand the institutions envisioned should be supported to maturity. Key installations include: 9 automatic weather stations, 5 intellisense standby weather stations, a lightening detectors and various hydrological equipment. In addition, trainings have been provided on the operations and maintenance of these equipment – testing and calibration of some equipment is needed. The remaining equipment are expected to be procured and

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 1: The Gambia National Meteorological Services is supported in its transition to becoming a financially sustainable Meteorological Agency (UNEP component).	Amount of dedicated budget allocated for NHMS activities by end of project	There is currently no dedicated budget for the new agencies.  NHMS is currently under the Department of Water Resources in the Ministry of Fisheries and Water Resources and does not have an independent and dedicated budget, rather it filters through the umbrella ministry.	not set or not applicable)	A dedicated, predictable sufficient budget is allocated to NHMS activities to deliver timely and effective early warnings by end of project.	Bills establishing 3 semi- autonomous NHMS agencies are presently being reviewed awaiting enactment.  Construction of the new headquarters for the Meteorological Agency is progressing well and expected to be completed in 2019. Funds for the construction of this headquarters is provided by Government.	Moderately Satisfactory (MS)	Great progress has been made in sensitizing government agencies related to NHMS to establish predictable budgets and some like NDMA has allocated budgets. However, as at MTR; the bills supposed to establish 3 semi-autonomous NHMS were expected to be enacted by the National Assembly soon and a series of sensitization workshops are being organized with the Parliamentarians on the new bills prior to the bills reaching them and going to enactment.  There is a dedicated budget of almost US \$ 250,000.00 which is presently available for the Department of Water Resources, the parent Department of NHMS.
	Completion of business plan to support financial sustainability of hydrometeorolog ical services.	The potentially new hydrometeor ological agency does not have a business plan in place to ensure financial sustainability	not set or not applicable)	Hydrometeo rological agency with a business plan.	During the MTR, the Consultant was informed that the proposed National Meteorological Agency (NMA) Sustainability Business Plan has been prepared, including more input on how the services can be commercialized for private and public sectors.	Moderately Satisfactory (MS)	A business plan for the new NMA has been developed through another project and will be implemented once the bill establishing the new Agency are enacted.  The EWSP 2 has a plan to have the NMA sustainability business plan being reviewed and updated because the plan was prepared three years ago.

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 2: Hydrological / meteorological infrastructure is installed for optimal performance of national hydro- met monitoring system	Percentage of national coverage by monitoring network by end of project and percent of coverage by an automated network.	(50% is covered by a monitoring system at present, 0% of which is automated	(not set or not applicable)	At least 50% national coverage of which 100% is an automated network.	9 Automatic weather stations have been installed, 5 standby intellisense weather stations have also been installed. The MTR Consultant did however, got informed by Project Management that they plan to install all the 15 automatic and 15 intellisense weather station and replace all mercury containing conventional weather stations by end of 2020 in order to meet the Minamata Convention on Mercury which deadline of compliance in 2020.	Satisfactory (S)	9 Automatic Weather Stations have been installed in the existing Meteorological Stations in the Country and transmitting data every 30 minutes to the Meteorological Headquarters. The stations are located in Yundum Airport, Janbanjelly and Sibanor (West Coast Region), Kerewan and Yallal (North Bank Region), Kuntaur and Sare Sofi (Central River Region), Basse (Upper River Region) and Jenoi (Lower River Region) 5 standby intellisense weather stations have been installed.  EWSP 2 Management has indicated that they will ensure full installation of procured automatic and standby intellisense weather station and ensure seamless operation of the infrastructure to provide meteorological data / information covering the entire country.  An Automated Lightening Detector Systems has been installed at the Banjul International Airport by earth Networks from the UKSA and it is helping the Central Forecast Office in generating forecasts and relaying early warning information for the country  Construction of a new Hydrological headquarters in Bansang is being finalized and work is expected to be completed by December 2019.  Surface water monitoring and downloading equipment have been procured and installed, and 15 Hydrological staff underwent intensive training on the operations and downloading data from this equipment.  Computers and other equipment have also been procured and installed at all Regional Meteorological Headquarters in the Country.  Computers and other equipment have also been procured and installed at all Regional Meteorological Headquarters in the Country.

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achieveme nt Rating	Justification for Rating
Outcome 3: A critical mass of skilled human resources is able to operate the Gambia Early Warning System and perform long-term climate planning beyond the pilot project.	Number of skilled hydrometeorological staff recruited and retained by NHMS by the end of the project (disaggregated by sex)	92 staff of which 12 are women	(not set or not applicable)	NHMS is able to recruit 15 staff per year and retain 80% of them by end of project (of which 50% are women)	There was quick and initial training of meteorologists and hydrologists at the start of the project.  36 students have been trained at UTG Farafenni Campus on postgraduate diploma.  38 students trained at WRTS on basic-intermediate requisite skills for entry-mid level meteorologists and hydrologists.  various training on EWS carried out at the relevant agencies.  Human resource management plan has been prepared for the DWR.  Three students are undergoing Bachelor's Degree training in Environmental Science at the University of The Gambia.  One student has graduated with a Bachelor's Degree in Biology and presently working at the Water Quality Laboratory	Highly Satisfactory (HS)	5 students (4 males and 1 females) have completed class II training in Nigeria and are presently serving as forecasters at the Central Forecast Office.  In 2017-2018, 8 students (5 males and 3 females) undertook postgraduate training in agrometeorology, meteorology and hydrology at the University of The Gambia – Farafenni Campus. In 2018-2019 period, 28 students were admitted to the program.  There has been various training on EWS carried out at the relevant agencies, these training have been very effective as reported by various beneficiaries during focus group discussions and interviews.  Water Resources Training School has been rehabilitated and upgraded in order to provide basic-intermediate requisite skills for entry-mid level meteorologists and hydrologists.  There has been Water Resources Training School (WRTS) training batches; batch 1 was in 2018 for 19 students (F=6, M=13)  EWSP 2 training has enabled Gambia Meteorological Services to achieve WMO requirements and standards, more especially qualifications of meteorological technicians and weather forecasters/analysts.

Measure	Description of Indicator	Baseline Level	Midterm target level	End of project target level	Midterm Level & Assessment	Achievement Rating	Justification for Rating
Outcome 4: Efficient and effective use of hydro- meteorological and environmental information for making early warnings and long-term development plans	Percentage of population with access to improved climate information in pilot sites (disaggregated by gender)	No information	(not set or not applicable)	At least 75% more people have access to early warnings and climate information by end of project in pilot sites (disaggregat ed by gender)	Most of the equipment procured for the early warning system have been installed and are effectively collecting, analyzing and disseminatin g data to various users, however there are several gaps that need to closed in order to enable seamless access and use of EWS data / information.	Moderately Satisfactory (MS)	About 60% of the people in the target sites have access to early warning and weather information through the National Media, Community Radios, Weather Display Boards located at strategic places and through Radio Listening Groups (RLGs) formed at the 14 pilot sites.  14 pilot communities have been trained on Early Warning Information reception and dissemination.  Equipment such as Radios, Mobile Phones, PA systems etc. have been procured and supplied for the 14 pilot communities to undertake the Early Warning Information reception and dissemination in their communities  2 Transmitters, a tower and four transmitter link systems have been procured and installed for GRTS to increase their coverage countrywide for early warning message dissemination.  Broadcasting Equipment have been procured and installed for 6 community Radios to also partake in the Early Warning Message dissemination.  The whole populations in the 14 pilot sites have access to weather.

# 3.2.1.1 Ratings for Project Implementation, Adaptive Management and Sustainability

Table 10: Ratings for Project Implementation, Adaptive Management and Sustainability

Measure	Achievement Rating	Justification for Rating
Project Implementation & Adaptive Management	Satisfactory (S)	Implementation of all the 4 components has illustrated proper management arrangements, work planning, finance and cofinance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications and is leading to reasonably efficient implementation of the Project. There are however some shortcomings in terms of lack of a contingency plan for the EWSP 2 implementation. The MTR Consultant noted several adaptive management processes underway or already implemented (a good example is the continuous engagement with beneficiaries like DWR, NDMA and GRTS among others in establishing critical gaps in realizing the expected results and addressing the most feasible extra interventions).
Sustainability	Moderately Likely (ML)	The infrastructure and installations made for the EWS should be continuously maintained and upgraded, failure to which the EWS will be at risk. On the other hand, continuous training/capacity building and financing is required for sustainability of the EWS. In this regard, the EWS would have moderate risks and that at least critical outcomes should be sustained due to the progress towards results on outcomes at the Midterm Review.

### 3.2.1.2 Some Field Observations and Comments

To further illuminate and make more clarity into the Progress towards Outcomes Rating in section 3.2.1, and Ratings for Project Implementation, Adaptive Management and Sustainability in section 3.2.1.1, this section highlights some of the key field observations that the MTR Consultant made in the Project's sites visited. At the end of this section, the MTR team does highlight some of the best in class case studies of project interventions that were observed in the field (see section 3.2.1.2.1).

Project	Intervention/s	Observations	Photo evidence
site/s visited			
Ministry of Agriculture	Institutional strengthening	The meeting with Ministry of Agriculture illustrated how institutions strengthening can go along way in ensuring robust EWS for the country. The staff of the ministry have been capacitated to using various tools (including GIS) for food security planning and early warning.	Photo 1
DWR and streets in Kanifing area.	Infrastructure for dissemination of EWS information	There are various infrastructures for dissemination of EWS information. Photo 2 shows the LED display board at the DWR. Photo 3 shows an LED displays board at one of the road roundabouts.	Photo 3

Project sites visited	Intervention/s	Observations	Photo evidence
DWR Training School	Repair and upgrade of DWR training school, as well as training of class iv – ii of hydrological and mereological technicians.	The repair and upgrade work at the DWR have been successful. The trainings are going well - this is commendable.	Photo 4
			Photo 5
Meteorological services at the Bunjul Airport and Basse Meteorological Centre	Installation of intellisense standby weather station and Automatic weather stations	The installations are very critical for strengthening the EWS capability in the Gambia. The MTR Consultant has recommended that the 15 traditional sites that were initially installed with conventional mercury instrument weather stations be installed with both intellisense as standby weather station and automatic weather stations.	Photo 6
			Photo 7

Project site/s	Intervention/s	Observations	Photo evidence
Jenoi Meteorological Centre	EWS infrastructure installations	The Jenoi Meteorological Station is one of the examples of the meteorological centers that need extra connection cables (other equipment) and small office to house intellisense weather stations, for now, Jenoi Meteorological Centre is housed at the regional agricultural directorate offices which are a crossed the road.	Photo 9  Photo 9

Project sites visited	Intervention/s	Observations	Photo evidence
Kuntaur Meteorological Centre	EWS infrastructure installations.	Kuntaur Meteorological Centre do require repair / rehabilitation of the nearby office. The Automatic weather station was also not well protected with a chain link or any other material perimeter wall – this should be addressed urgently.	Photo 10  Photo 11
Kaur Meteorological Centre	EWS infrastructure installations.	Kaur Meteorological Centre has a small building that house the intellisense standby weather station. A slightly large office building could be constructed for each of the meteorological stations that require installation of intellisense weather station.	Photo 12

#### 3.2.1.2.1 Best in Class Case Studies for EWSP 2

#### Case Study Highlight

# Case Study 1: GRTS Station in Basse. The EWSP 2 has enabled the station to be installed with high capacity transmitter (2000watts) with a capability of 70 Kms radius in coverage, this is in additional to the supply and installation of other essential ICT and furniture equipment. The MTR Consultant however, noted that the facility requires a chain link perimeter wall and a security post.

#### Illustrative Photos



Case Study 2: The 9 Installed Automatic Weather Stations around the country. This demonstrates the determination of EWSP 2 management to ensure that the EWS is robust in capturing weather data. MTR Consultants do recommend that the remaining 6 Meteorological Stations be installed with Automatic Weather Stations as well as standby intellisense weather stations.



Case Study 3: DWR and UTG Training Programs. These are very innovative interventions in creating sustainable EWS human resources capability. The interventions should be up scaled and upgraded to the next levels.



#### Case Study Highlight

Case Study 3: DWR and UTG Training Programs. These are very innovative interventions in creating sustainable EWS human resources capability. The interventions should be up scaled and upgraded to the next levels

#### Illustrative Photos

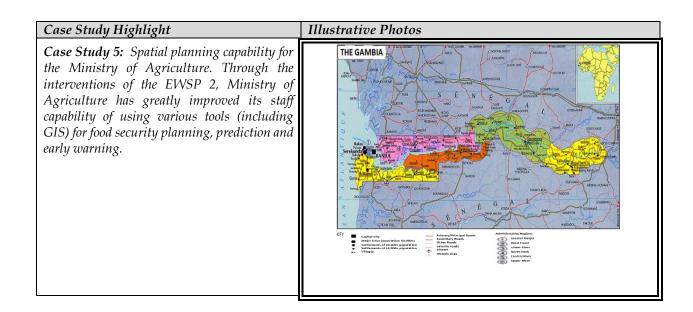


Case Study 4. Radio Listening Groups (RLGs). These are very good avenues to make the EWS a truly community based. The RLGs should be made more sustainable by way of encouraging communities to form saving and credit societies as well as starting climate smart enterprises.



Case Study 5: Hydrology Head Quarters at Bansang. These is a huge milestone in enabling the EWS to incorporate capability of research and analysis of the hydrological quality and quantity for both strategic and contingent purposes in the country.





# 3.2.2 Remaining Barriers to Achieving the Project Objective

After assessing and rating the performance of Project in regard to realising the expected outcomes and indicators, the MTR Consultant did identify the following remaining challenges / barriers to achieving the project objective in the remainder of the Project time frame.

- i. Procurement delays and strict bureaucracies
- ii. Lack of transportation /mobility for a few critical agencies / activities like installations inspections and data collection from remote areas. Entities
- iii. Lack of enough follow up trainings, instrument inspection and maintenance of equipment

# 3.2.3 Ways to Further Expand Project's Benefits

Having evaluated the project aspects that have been successful, the MTR Consultant did identify the following ways in which the project can further expand these aspects and further realise more benefits to the beneficiaries.

- a) Design and implement the EWS contingency plan.
- b) Fast track follow-up trainings, instrument testing and calibration, inspection and maintenance of equipment.
- c) Provision of either motor vehicle or motor cycle to feasible entities in order to ease transportation /mobility for a few critical agencies / activities like installations inspections and data collection from remote areas.

# 3.3 Project Implementation and Adaptive Management

## 3.3.1 Management Arrangements

The MTR Consultant did review the overall effectiveness of project management as outlined in the Project Document. The MTR assessed whether changes have been made and how effective they have been. The MTR team also evaluated whether responsibilities and reporting lines are clear and whether the decision-making processes are transparent and undertaken in a timely manner. Based on the above, the MTR team Consultant found the following:

- a) The EWSP 2 is being implemented within the framework of UNDP's national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of the Gambia, and the Country Programme.
- b) The executing agency for the project has been the DWR and it has effectively been responsible and accountable for managing the project, including the monitoring and evaluation of project interventions, achieving project outcomes, and for the effective use of Government, UNEP, UNDP and GEF resources.
- c) The Project Steering Committee (PSC) has been responsible for making decisions by consensus; PSC has been assisting the Project Coordinator / Manager on making critical decisions for the project like recommendation for UNDP/Implementing Partner approval of project plans and revisions. To great extent, the MTR Consultant found out that PSC decisions were made in accordance with standards that ensure management for development results, best value for money, fairness, integrity, transparency and effective procurement processes. The PSC has been comprised of individuals representing the following institutions:
  - Representatives of the Ministry of Fisheries, Water Resources and Parliamentary Matters - Department of Water Resources as executing institution;
  - Ministry of Environment, Parks and Wildlife;
  - Ministry of Finance and Economic Affairs;
  - Ministry of Agriculture;
  - Representative(s) of the Local Government Authorities representing the interests of project beneficiaries;

- Representatives of Academia;
- Representative of the Women's Bureau serving the interests of Gender;
- Representative of Youth Groups serving the interest of youths;
- Representative(s) of Civil Society Organizations;
- Representative(s) of the private sector in Gambia; and
- Focal Points of GEF and the Multilateral Environment Agreements (NEA, DoF, DoPWM); and
- Representative(s) of UNDP and UNEP as GEF implementing agencies of the Project.
- d) The meetings of the PSC had been required to meet at least four times per year (quarterly meetings for reviewing project performance, work plan and budget and addressing any challenges experienced in the field, however, the MTR Consultant found out that due to unavoidable circumstances, the PSC met twice in 2018 and have met ones in year 2019.
- e) The MTR Consultant did visit the Ministry of Fisheries, Water Resources and Parliamentary Matters office and met the Permanent Secretary and DWR Director. During the interviews with the Permanent Secretary, DWR Director and Project Manager, it was evident that the Project Management Unit (PMU) under the DWR has been effectively been able to run the EWSP 2 on a day-to-day basis on behalf of the Implementing Partner and within the guidelines laid down by the PSC, UNEP, UNDP and GEF. It was also found out that the PMU was constituted of the following key personnel: The National Project Director (NPD), Project Manager /Coordinator; Climate Change and Development Expert (CCDE), Chief Technical Adviser (CTA) and the following support staff; Accounting Officer, Administration Assistant and two Drivers.
- f) The MTR Consultant found out that GEF Partner Agencies (UNDP and UNEP) have been offering timely, quality and appropriate support to the executing agency (EA) as well as other relevant stakeholders. UNDP and UNEP focal point person has been attending all the PSC performance review meetings which are done quarterly at DWR head quarter office.
- g) It was also evident that EWSP 2 assurance was effectively provided by the UNDP Country Office specifically and also additional quality assurance was provided by the UNDP Regional Technical Advisor where it was needed.
- h) In regard to the assessment of UNDP's performance in the following aspects: candor and realism in reporting, the quality of risk management and

responsiveness of the managing parties to significant implementation problems / challenges; the MTR Consultant found out the following:

#### Candor and Realism in Reporting

The MTR Consultant found out that UNDP CO has been performing thorough analysis of all project assessments, monitoring, tracking and evaluation reports. The analysis of the integrity of project's reports has been in form of meta-analysis approach that combines data from multiple studies in order to ascertain the reports (e.g. project's initial assessments, PIR, GEF tracking tools, PIF, UNDP Initiation Plan, Project Document, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for evidence-based reviews) position in bringing out the both positives and negatives of the project performance and realism of the reports. In testing the realism of the project's reports, UNDP CO has been testing whether all the information provided in reports represent the project baseline for monitoring and eventually for impact assessment at project closure.

#### • Quality of Risk Management

In regard to quality of risk management, the MTR Consultant did find out that UNDP CO has good follow up and emphasis in the application of UNDP Environmental & Social Safeguard Policy at the sub-project activities. UNDP CO has trained Project Execution Agency (DWR) on the implementation of the E&S Safeguard Policy. In conducting risk management activities, the MTR Consultant found out that UNDP CO has been effectively establishing the project risk context, carrying out proper risk assessment, identifying ways to manage the risks, ensuring that risk management processes is monitored and reviewed and where appropriate communicate and consult with relevant stakeholders. The focal areas of risk management by UNDP CO have been well balanced and essentially have been in the following critical areas of project performance: Environmental, Financial, Operational, Organizational, Political and Regulatory.

# • Responsiveness of the Managing Parties to Significant Implementation Problems / Challenges

Whereas, the MTR Consultant did not identify significant problem / challenge with the EWSP 2 implementation, the MTR Consultant did find out that UNDP CO and the executing agency (DWR) have established seamless process of

consultation and communication from UNDP CO, DWR, Regional Governments, Local Governments, Project Beneficiaries and other relevant stakeholders. Two of the instances that illustrated UNDP CO capability to addressing challenges included: one, where the PMU was able to liaise with Regional Administrations in addressing challenges of allocating land and premises for installation of weather stations.

# 3.3.2 Work planning

In regard to work planning for the EWSP 2, the MTR Consultant found out the following:

- a) There were some delays in the EWSP a start-up and implementation. This was due to various requirements by GEF in terms of preparatory phase and disbursement of funds. The issue of delays in implementation of the project has been addressed by the PSC through fast tracking the implementation of the various interventions. In 2016 and 2017, there delays occasioned by the political impasse in the country.
- b) The Project work-planning processes were found to be results-based which was fully discussed and accepted by the project beneficiaries.

The Project management has applied effectively the Project's Results Framework/ log-frame as a management tool. There are however, a need to make the GEF Tracking Tools and PIR more robust in capturing specific interventions quarterly data and information so that there can be a seamless and accurate transfer of data and information from local project levels to the National level for effective monitoring, evaluation, reporting and timely correction of any inconsistencies.

#### 3.3.3 Finance and Co-finance

According to Project Documents, the total cost of the project is USD 31,510,000. This is financed through a GEF-LDCF grant of USD 8,000,000 and USD 23,510,000 in parallel government co-financing. UNDP and UNEP, as the GEF Implementing Agencies, are responsible for the execution of the GEF resources and the cash co-financing transferred to UNDP bank account. In regard to parallel co-financing, the actual realization of project co-financing was to be monitored during the mid-term review and terminal evaluation process and then reported to the GEF. The planned co-financing and grants is as follows:

#### Sources of Confirmed co-financing for the Project by Source and By Name

National Government	Government of The Gambia	Grant	21,910,000
National Government	Government of The Gambia	In-Kind	1,000,000
Multilateral Agency	UNEP	Grant	600,000
Total Co-financing	23,510,000		

Trust Fund Resources Requested by Agency, Focal Area and Country

	Type of Facel Area Country		(in \$)			
GEF Agency	Type of Trust Fund	Focal Area	Name/ Global	Grant Amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
UNDP	LDCF	CCA	The Gambia	3,000,000	300,000	3,300,000
UNEP	LDCF	CCA	The Gambia	5,000,000	500,000	5,500,000
Total Grant Resources				8,000,000	800,000	8,800,000

The MTR team did find out that the finance and co-financing arrangement of the project has been working well and all the specific Project's interventions allocated finances have been used efficiently and effectively and there are no remaining finances for the allocated interventions.

Further, the MTR Consultant found out that, the project financial management and controls are appropriate and a thorough national and regional process for reporting and planning is in place. At the Project interventions and PSC committee level, the Project Management in consultation with relevant stakeholders have been able to make informed decisions regarding the budget and allow for timely flow of funds. There has been effective co-financing monitoring and all the co-financing components have been used strategically to help the objectives of the Project. There has been various project management team (PSC) meetings which has been held with all co-financing partners, this have been for basically aligning financing priorities and annual project work plans.

Further, the MTR Consultant made the following observation regarding the Government of Gambia co-financing management. As per the project agreement document, the co-financing which has been released from the Government of Ethiopia can be estimated based on the supports provided by government staff working at national, regional and local levels plus other construction and installation done during the Project implementation. Government has covering salaries of the abovementioned staff during the period under review and this could be considered as one the co-financing arrangement. The other cost areas covered by government as a co-finance are office space and vehicle support, which has reduced vehicle hiring cost during peak seasons of the project implementation.

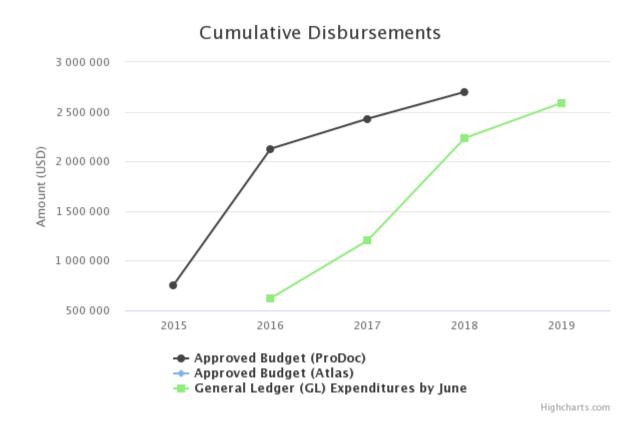
The EWSP 2 financial planning is relatively simple because the project is sub-divided in only four key components which have clearly defined activities being managed by DWR and implemented various agencies and beneficiaries. The project budget as shown in UNDP/GEF Project Document provides for the allocation of GEF and partner contributions for all activities over the 4 years project period. This includes both cash and in-kind contributions.

According to the PIR (June 2018), the status of co-financing indicates no significant changes. Details on actual financing are given in table 11 below. It can be stressed that there was no extra cash input from any other source of finance for the EWSP 2 that MTR Consultant found. Having evaluated the financing arrangement for the project and the efficiency aspects illustrated by figure 2 (as per PIR of June 2018) which shows planned / approved budget lines and the actual utilizations, as well as years 2017, 2018 and 2019 Physical and Financial Performance Reports which were reviewed, the MTR Consultant's opinion is that the project implementation has been efficient in utilization of financial resources and hence rate the project's financial planning as highly satisfactory.

Table 11: Project Co-Financing Arrangement as per PIR June, 2018

Sources of Co-financing  Select one: -GEF Agency -Donor AgencyRecipient Country Government -Private Sector -Civil Society Organization -Beneficiaries -Other	Name of Co-financer	Type of Co- financing  Select one: -Grant -Loan -Equity - Investment -Public - Investment -Guarantee -In-Kind -Other	Planned Co- financing Amount for entire project cycle (US\$)	Actual Co- financing Amount at MTR (US\$)	Investment mobilized* indicate one of two choices: -investment mobilized or -recurrent expenditures
GEF Agency	UNDP	Grant (cash)	200,000	37,500	Recurrent expenditures
Recipient Country Government	Government of the Gambia	Grant (cash)	23,510,000	23,660,000	Both Investment mobilized and Recurrent expenditures
GEF	Cash	Grant (Cash)	8,000,000	3,000,000	Investment mobilized
	Total		31,710,000	26,697,500	

Figure 2: Budget Lines Performance as per PIR June 2018



Cumulative GL delivery against total approved	74.5%
amount (in prodoc):	
Cumulative GL delivery against expected delivery	82.77%
as of this year:	
Cumulative disbursement as of 30 June 2018	2,234,901
,	

### 3.3.4 Project-Level Monitoring and Evaluation Systems

The MTR Consultant found out that there is a robust and effective monitoring system and a plan. Generally, the following were found regarding the existing Project Monitoring System (PMS):

- a) The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager has been ensuring that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager has been continuously been informing the Project Steering Committee, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during project implementation. The Project Manager has been preparing annual work plans based on the initially approved 4 years work plan.
- b) During the MTR, the Project Manager did ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. The Project Manager also did provide the MTR Consultant with GEF Tracking Tools and PIR.
- c) The Project Manager has been ensuring that project risks are monitored and the various plans/strategies have been developed to support project implementation.
- d) The PSC have been also taking corrective action as needed to ensure the project achieves the desired results. The PSC have been holding project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year.
- e) During the MTR, the Project Executing Partner (DWR) did provide all required information and data necessary for timely, comprehensive and evidence-based project review, this included Project's results and financial data.
- f) It was also clear that DWR M&E was taking into consideration national guidelines on M&E as well as aligning the reporting with national systems so that the data used by and generated by the project supports national systems.
- g) The UNDP Country Office has been supporting the Project Manager as needed, and more especially during annual supervision missions. In addition, UNDP Country Office did initiate and organized key GEF M&E activities including the annual GEF PIR, and in deed this current independent mid-term review (MTR) and it is expected to also support the Project's independent terminal evaluation in 2020. The MTR team have been following the UNDP GEF M&E requirements and guidelines for this evaluation.

### 3.3.5 Stakeholder Engagement

Regarding stakeholder engagement (SE), the MTR Consultant did find out the following:

- a) The entire Project implementation has been based on strong collaboration, partnership and engagement with all relevant stakeholders. The project implementation mechanism continues to support and develop necessary and appropriate partnerships with direct and tangential stakeholders in ensuring realisation of expected outcomes.
- b) The EWSP 2 is a UNDP-GEF supported and financed project, however, the Government of the Gambia has co-financed the project and there is a government ownership of the Project right from the national to local levels. By and large, the project implementation is driven by the holistic stakeholders' participation and following the country-driven public project implementation processes. During the field survey, it was evident that the local and national government stakeholders do support the objectives of the project and they continue to have an active role in project decision-making that supports efficient and effective project implementation.
- c) One of components of the project is to build capacity in EWS, and the key targets is to create effective public awareness, first about the project and secondly on increasing human resource capacity in designing, implementing and managing a versatile EWS for the Gambia. The MTR Consultant observed that, awareness creation, training and capacity building cuts across all the projects components and in this regard, the project implementation and design has ensured proper stakeholders' participation as well as public awareness. Based on the above, the MTR Consultant did ascertain that to great extent stakeholders' involvement and public awareness has contributed to the progress towards achievement of project outcomes.

# 3.3.6 Reporting

The MTR Consultant did assess the reporting mechanism for the project and found out that the established systems and frameworks for the continuous monitoring, reporting and review of interventions did have the following characteristics:

- a) The Project Manager is ensuring that all project staff maintain a high level of transparency, responsibility and accountability in M&E and accurately reporting of project results. The Project Manager is also ensuring that the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies are developed to support project implementation.
- b) DWR/PMU has been providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary and appropriate.
- c) The PSC and partners have established proper channels and mechanisms for effectively undertaking and fulfilling GEF reporting requirements.
- d) In quarterly meetings, PSC has been taking into consideration lessons derived from project implementation and likely adaptive management processes / approaches for the project performance enhancement.

#### 3.3.7 Communications

The MTR team found out that there has been effective communication within the various government ministries (Ministry of Fisheries, Water Resources and Parliamentary Matters, Ministry of Environment, Parks and Wildlife, Ministry of Finance and Economic Affairs and Ministry of Agriculture) and across national, regional and local administration levels. From various documents (meeting minutes, reports and email communications), the MTR Consultant found out that the PSC has been enabling effective communication by arranging members' meetings at least quarterly. The Program Specialist (GEF)-Climate Change Adaptation (CCA) Unit of UNDP has been having effective communication with the Project Manager at the DWR Officers – this was ascertained through various group discussion and key informant interviews. Decisions at the UNDP CO have been properly communicated to the PMU and PSC, and then to regional and local levels. Most of the beneficiaries interviewed were happy with the effectiveness of communication from top to bottom and vice versa.

In addition, the MTR Consultant did ascertain the following:

a) There are proper means of communication established to express the project progress and intended impact to the public. The EWSP 2 has a publicly accessible internet web site. Before and during the Project implementation, there have been various initiatives geared towards outreach and public awareness regarding the Project interventions.

- b) PSC and the PMU have been in regular telephonic / email or other forms of contact in order to ensure that communication over project management and implementation is clear.
- c) Participating duty-bearers have been identified and clarified. Throughout project implementation, duty-bearers have been in regular communication with the PMU in order to ensure that tasks are understood and conducted effectively. It was also evident that capacity gaps have been identified and addressed through adaptive management by proposing cost effective strategies and approaches to addressing these needs during project implementation.
- d) It was also found out that PMU has effectively been able to facilitate communication and meetings of the PSC in order to review activities achieved, and discuss activities planned for approval and implementation; ensuring PSC report periodically and on schedule regarding progress/performance/budget execution against the M&E framework and budget of the project. The MTR Consultant however, recommend that PMU should enhance the coordination and liaison with other donor and government project managers to ensure that synergies are built and that there is no overlap of tasks.

# 3.4 Sustainability

First, the MTR Consultant did assess whether the risks identified in the Project Document were the most important and whether the risk ratings applied are appropriate and up to date. It was found out that the risks identified were the most applicable and the rating was appropriate. In the following section, the MTR Consultants outlines briefly how the following risks apply to project sustainability; financial, socio-economic, institutional framework and governance as well as environmental risks.

# 3.4.1 Financial Risks to Sustainability

Given the push for creating semi-autonomous EWS agencies in the country and the willingness of various government officer in the supporting the EWS, it is the MTR Consultant opinion that the project does not face a greater likelihood of lack of financial and economic resources once the GEF assistance ends.

### 3.4.2 Socio-economic Risks to Sustainability

There are no major social or political risks identified during the MTR that may jeopardize sustainability of project outcomes. Given the project design and the actual implementation, the MTR did indicate that the project has a high level of both public and private sector stakeholders' ownership and hence project implementation will allow project outcomes/benefits to be sustained even after end of the project implementation term. From the various interview conducted during the MTR, it was evident that various key stakeholders see that it is in their interest that the project benefits continue to flow. Throughout project design to implementation, there has been sufficient public / stakeholder awareness in support of the long-term objectives of the project. Through the various level of project monitoring, evaluation and reporting process, lessons learned are being documented by the Project Team on a continual basis and shared/ transferred to appropriate parties who in turn are learning from the project and can effectively replicate and/or up-scale the project outcomes in the future. The MTR team, however, did find a few residual socioeconomic risks to project sustainability, but by large these risks can be sufficiently be mitigated.

### 3.4.3 Institutional Framework and Governance Risks to Sustainability

The MTR review found out that there are no legal frameworks, policies, governance structures and processes that significantly pose risks that may jeopardize continuity of the project's benefits. The assessment found out that there are requisite project management systems/ mechanisms for accountability, transparency, and technical knowledge transfer are in place. However, during the MTR team discussion with a few of PSC members, there were sentiments that some of the institutional capacity and relationships between government departments are not sufficient to provide effective solutions to climate and environmental information management, but it is the opinion of the MTR Consultant that this risk can me overcame by proper training, sensitization and good political will.

# 3.4.4 Environmental Risks to sustainability

The MTR Consultant did not find any significant environmental risks that may jeopardize continuity of the project outcomes. Indeed, under the EWSP 2, the resilience of local communities will be increased by implementing a robust EWS that ensure disaster risk management, reduction and response. Furthermore, the capacity of local communities to design and implement EWS will be enhanced. These interventions will increase the capacity of local communities to adapt to climate change and other extreme weather conditions.

# 4.0 CONCLUSIONS, RECOMMENDATIONS AND LESSONS LEARNT

In this section, the MTR Consultant outlines key evidence-based conclusions or overarching statements, in light of the findings described in section 3.0 above. Further, these section lists a few recommendations that are precise, accurate, and succinct and include suggestions that offer critical intervention that are specific, measurable, achievable, and relevant and time bound (SMART).

### 4.1 Conclusions

Having considered the MTR findings, the evaluation Consultant do make the following conclusions regarding the performance of EWSP 2:

- 1) The EWSP 2 has been well designed to tackle the 5 challenges usually encountered during EWS implementation; these are:
  - Institutional and legal capacity development
  - Technology deployment
  - Community outreach and community-based solutions
  - Private sector engagement --though this can be enhanced
  - International co-operation and data sharing
- 2) The EWSP 2 is supporting multi-sectorial disaster risk reduction (DRR) interventions in food security and agriculture, infrastructure and adapted architecture, information and knowledge management, water, sanitation and hygiene, and health. Essentially, as per the MTR Consultant assessment, the EWSP 2 is operating with two inherent themes, namely:
  - a) Emergency preparedness by building local capacities for sustainable climate and weather-hazard preparedness and management, including seasonal preparedness plans, training, emergency stocks and rescue equipment, as well as Early Warning Systems.
  - b) Empowering agencies and communities through multi-sectorial and multilevel approaches with DRR mainstreamed as a central component and improved hydrological, meteorological and environmental information and data management which would in turn enable response to health, environmental, food and nutrition emergencies as an outcome.

- 3) Largely, the EWSP 2 has been greatly supported by the National, Regional and Local Government Administrations. This was evident during the field survey were most of the representatives from institutions being represented in the Project Steering Committee (PSC) as well as other representatives of beneficiaries attended the consultative meetings and contributed generously on their experience on the project and suggested creative / innovative ways of fast tracking the project outcomes.
- 4) The entire Project planned interventions are all beyond the midterm targets and are above the expected 50% achievement compared to the end term targets. What is remaining is to supply and installation of the few outstanding equipment, repair and maintain earlier supplied and installed equipment, finishing of infrastructures which are at advanced stages of completion, fast track creation of the key hydro-met agencies and continue in creating requisite capacity building and training.
- 5) As per MTR Consultant, the overall EWSP 2 rating is that it SATISFACTORY. This is based on the evidence that a large number of the equipment were procured and installed, infrastructure built and nearing completion, weather forecasting is in progress, capacity building and training for various key stakeholders have been undertaken, as well as professional training for hydrology and meteorology technicians have been undertaken and continuing. It is worth noting that there were delays in the procurement of certain meteorological equipment due to difficulties in getting correct specifications.

### 4.2 Recommendations

The MTR Consultant does make the following recommendations in order to make the project realise set outputs, outcomes and achieve desired impacts:

No.	Key Aspects of the	Recommendation Brief Description	Responsibility
	Recommendation		
1.	Contingency and continuity of the established EWS	Meteorological, hydrological, environmental and climate information / services do support disaster risk reduction (DRR) and early warning systems (EWS) in Gambia and hence a contingency / continuity plan for these essential services should be developed to ensure functioning of EWS at all times.  Key aspects of the contingency plan should include dealing with hydro-meteorology technology risk management like obsolete of technological installations, other issues that should be addressed by the contingency plan would include insurance of installations, installations protection and recovery from extreme events, inspection, testing, calibration, training and capacity building (though the equipment suppliers have a contractual	-DWR/PMU -PSC -NDMA -Ministry of Finance -Ministry of Agriculture -Key beneficiaries
		requirement to undertake some of these aspects). The contingency plan should also address issues of EWS financing.	
2.	Supporting EWS to maturity.	EWSP2 financing and implementing partners should consider a third phase of the EWSP in order to enable a smooth transition of the EWS from the formative stage that it is now to a more mature stage when key agencies shall be semi-autonomous (generating some incomes from the products and services they offer) and well supported by the government.	-DWR/PMU -PSC -NDMA -Ministry of Finance
3.	Sustainability	The EWS agencies that should be established by the law should be supported in becoming specific service focused institutions / Agencies (SFA) with inbuilt self-sustaining capabilities through income generation from services and products they provide. Private and public sectors players should be widely consulted on the income generation proposals by the EWS agencies.	- Specific semi- autonomous EWS related agencies. -Financing and implementing partners -DWR/PMU -PSC -Ministry of Finance
4.	Training and capacity building	Farafenni post graduate diploma programme should be upgraded to provide Bachelors and Master degrees in hydrology and meteorology, as well as other related areas in order to create sustainable local human resource for the EWS in the Gambia. A target of training at least 4 bachelors and 3 master degree students before project ends should be realised.	- The University of the Gambia -Ministry of Education -DWR/PMU -PSC

No.	Key Aspects of the	Recommendation Brief Description	Responsibility
5.	Recommendation Transportation during the EWSP 2 and after.	Some of the critical mobility impediments for key agencies and beneficiaries should be considered (e.g. giving motor bikes or a few motor vehicles). Areas to be considered include Project's outcome inspection capability e.g. meteorology and hydrology stations and installations.	-Specific agencies / beneficiaries -Financing and implementing partners -DWR/PMU -PSC
6.	Robustness of the meteorological infrastructure.	The meteorology services capability should be aimed at having all the 15 traditional meteorology centres be equipped with both Intellisense (as standby) and Automatic Weather Stations. All the conventional weather stations should be faced out before end of year 2020 in order to comply with mercury instrument discontinuation by Minamata Convention on Mercury.	-Financing and implementing partners -DWR/PMU -PSC
7.	Design and development of a GIS enabled and integrated environmental, hydrological, meteorological and climate information management system.	During the MTR, the Consultant visited NEA and was informed that The National Environment Agency (NEA) is the Focal Point for both GEF and UNEP and initially signed a MoU with various key agencies (like DWR, ministry of agricultures, Bureau of statistics, soil conservation and management and cadastral department) to host and provide integrated environmental information (EI) to users for early warning information – it did not work well. The EI was managed in the GIS Unit.  The Consultant do recommend robust institutional discussions and lobbying in order to establish an effective and robust environmental (including all other EWS related information) information system (EIS) in a GIS platform and to be hosted by NEA or any other agency the stakeholders will identify as most suitable. The EIS should also plug in institutions like research agencies (e.g. climate change institute at the UTG. The EIS should also be a driving lever for the EWS.  In integrated and GIS enabled EIS should also help farmers to access and interpret data and also to act as a climate education tool /portal. The recommended EWSP phase 3 can be involved in building upon a practical designed EIS.  The NDMA call centre and EIS should form platforms that can enable communities to use GSM phones in accessing environmental, climate, meteorological, hydrological and actually synthesised/analysed early warning (EW) data and information.	-NEA -Other relevant agencies -Financing and implementing partners -DWR/PMU -PSC

# 4.3 Key Lessons Learned During the MTR

- I. It is very easy to forget developing a contingency plan of an Early Warning System (EWS). This is because, designers, developers and implementers of an EWS might wrongly take that they are geared towards implementing a system which by itself is to manage emergencies and create capacity to respond.
  - However, during the review of the EWSP 2, it was evident that an EWS should be supported by implementation of a well thought out Contingency Plan that factors aspects of people, technology and processes. The Contingency Plan of an EWS should focus on how to ensure financial sustainability, insuring the equipment installation, managing aspects of technological obsolescence (that is when ICT or other equipment become obsolete or outdated and no longer used), equipment maintenance, testing and calibration, as well as continuous training and capacity building on the EWS technological and operational aspects.
- II. An effective EWS should be buttressed with an integrated weather, climate, environmental, hydrological and meteorological data and information management system (mostly GIS enabled) that can be both centralised and decentralised. Continued research would also strengthen the EWS.
- III. In order to implement an effective and robust EWS, the key stakeholders and experts should understand the following:
  - a) Apart from a small number of NHMS agencies, essentially, early warning systems are non-structural disaster mitigation measures designed to save human lives by enabling local authorities and the communities to plan and to act accordingly in the event of a disaster. For example, if an EWS is applied to the flood hazard, such an early warning would require facilities to measure rain data and upstream catchment and river behaviour so that timely warnings from a possible flood can be provided to the downstream communities. Hence, the design of the early warning system on flood should adopt a river basin or a watershed approach to essentially account for the upstream, midstream and downstream aspects of the basin. Hence, within the framework of disaster management system, emphasis should be made on "self-reliance", "self-help" and "mutual assistance" at the local level, particularly in the utilization of resources. It is against this backdrop that for example a community-based flood early warning system (CBFEWS) can be developed and anchored on the existing local disaster

coordinating council that is inherent in the institutional set-up of every local government unit (LGU).

b) The EWS implementation would need people, technological and operational capability that would provide impact-based forecasting and risk-based warnings, in particular for secondary hazards such as coastal flooding and flash floods. As the EWS implementation progress, there is an increasing demand to create capacities and standardizing the operational procedures between NMHSs and disaster risk management institutions. In addition, there would be a need to ensuring that the EWS information dissemination can reach those that need them the most in a manner that leads to effective action.

#### **ANNEXES**

# Annex 1: MTR Terms of Reference

#### 1. INTRODUCTION

This is the Terms of Reference (ToR) for the UNDP-GEF Midterm Review (MTR) of the Full-Sized Project titled "Strengthening climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change- 2<sup>nd</sup> phase of the GoTG/GEF/UNEP LDCF NAPA early warning project in the Gambia". UNDP PIMS # 5156 implemented through the Ministry of Environment, Climate Change and Natural Resources (MECCNAR) which is to be undertaken in 2019. The project started on the 13<sup>th</sup> August 2015 and is in its 5<sup>th</sup> year of implementation. In line with the UNDP-GEF Guidance on MTRs, this MTR process was initiated before the submission of the second Project Implementation Report (PIR). This ToR sets out the expectations for this MTR. The MTR process must follow the guidance outlined in the document Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects (insert hyperlink).

### 2. PROJECT BACKGROUND INFORMATION

The project was designed to: (strengthen the climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change.

Climate change impacts in The Gambia are likely to include increased upstream migration of saltwater, increased salinization of coastal ecosystems, reduction in yield of major crops and receding coastline.1 The limited availability of climate information is leading to increased challenges in managing, planning and coordinating the response to severe weather events such as droughts and floods in The Gambia. An insufficient coverage by observational infrastructure (both climate and hydrological stations) combined with low capacity to analyse and model the climate and environmental data, have resulted in inadequate information to support decision-making processes at short and long-term ranges. In addition, this prevents the creation of an effective and comprehensive early warning system that helps protect people and productive assets. This weak observational and analytical capability compounds the difficulty to foresee and manage extreme weather events, and to mitigate long term impacts of climate change on various sectors of the economy. Assessments by the National Climate Committee of The Gambia have revealed that the sub-national systems and communities are highly vulnerable to the negative impacts of climate change and at the same time they lack the capacity to adapt to climate change.

The Goal of the project is to strengthen the climate services and early warning systems in the Gambia for climate resilient development and adaptation to climate change.

This project's 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 The Gambia. The project seeks to transfer weather and environmental observation technology, as well as to build capacities for climate data analysis and modelling, and to effectively communicate early warnings and advisories to stakeholders and local

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<sup>&</sup>lt;sup>1</sup> First National Communication, 2003

populations. This will be done so by delivering four complementary outcomes: Outcome 1: The Gambia National Meteorological Services is supported in its transition to becoming a financially sustainable Meteorological Agency, Outcome 2: Hydro-meteorological infrastructure is upgraded / installed and maintained that will cover the full needs for 'optimal performance of EWS' as identified by recent needs assessment reports in the Gambia, Outcome 3: A critical mass of skilled human resources is able to operate the Gambia Early Warning System and perform medium and long-term climate adaptation planning beyond the project, Outcome 4: Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term development plans The project started on the 13th August 2015 (project document signature date). In line with the UNDP-GEF Guidance on MTRs, this MTR process is initiated before the submission of the second Project Implementation Report (PIR). This ToR sets out the expectations for this MTR. The MTR process must follow the guidance outlined in the document Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects (insert hyperlink).

### 3. OBJECTIVES OF THE MTR

The MTR will assess progress towards the achievement of the project objectives and outcomes as specified in the Project Document, and assess early signs of project success or failure with the goal of identifying the necessary changes to be made in order to set the project on-track to achieve its intended results. The MTR will also review the project's strategy and its risks to sustainability.

#### 4. MTR APPROACH & METHODOLOGY

The MTR must provide evidence-based information that is credible, reliable and useful. The MTR team will review all relevant sources of information including documents prepared during the preparation phase (i.e. PIF, UNDP Initiation Plan, UNDP Environmental & Social Safeguard Policy, the Project Document, project reports including Annual Project Review/PIRs, project budget revisions, lesson learned reports, national strategic and legal documents, and any other materials that the team considers useful for this evidence-based review). The MTR team will review the baseline GEF focal area Tracking Tool submitted to the GEF at CEO endorsement, and the midterm GEF focal area Tracking Tool that must be completed before the MTR field mission begins.

The MTR team is expected to follow a collaborative and participatory approach<sup>2</sup> ensuring close engagement with the Project Team, government counterparts (the GEF Operational Focal Point), the UNDP Country Office(s), UNDP-GEF Regional Technical Advisers, and other key stakeholders.

Engagement of stakeholders is vital to a successful MTR.<sup>3</sup> Stakeholder involvement should include interviews with stakeholders who have project responsibilities, including but not limited to: Ministry of the Environment, climate change & Natural Resources, Ministry of Water Resources, National Environment Agency, National Disaster Management Agency, Gambia Radio and Television Services, Departments of Forestry, Wildlife, Agriculture, Fisheries, relevant local government Authorities, Academia/University of the Gambia etc.;

<sup>&</sup>lt;sup>2</sup> For ideas on innovative and participatory Monitoring and Evaluation strategies and techniques, see <u>UNDP Discussion Paper:</u> <u>Innovations in Monitoring & Evaluating Results</u>, 05 Nov 2013.

<sup>&</sup>lt;sup>3</sup> For more stakeholder engagement in the M&E process, see the <u>UNDP Handbook on Planning, Monitoring and Evaluating for Development Results</u>, Chapter 3, pg. 93.

executing agencies, senior officials and task team/ component leaders, key experts and consultants in the subject area, Project Board/Steering Committee, project stakeholders, academia, local government and CSOs, etc. Additionally, the MTR team is expected to conduct field missions to Yundum Airport and Meteorological station, Bansang and Basse, including the following project sites: Chamois, Jenoi etc.

The final MTR report should describe the full MTR approach taken and the rationale for the approach making explicit the underlying assumptions, challenges, strengths and weaknesses about the methods and approach of the review.

#### 5. DETAILED SCOPE OF THE MTR

The MTR team will consist of two independent consultants - one team leader (with experience and exposure to projects and evaluations in other regions or globally) and one additional national expert, from the Gambia.

The MTR team will first conduct a document review of project documents (i.e. PIF, UNDP Initiation Plan, Project Document, ESSP, Project Inception Report, PIRs, Finalized GEF focal area Tracking Tools, Project Appraisal Committee meeting minutes, Financial and Administration guidelines used by Project Team, project operational guidelines, manuals and systems, etc.) provided by the Project Team and Commissioning Unit. Then they will participate in a MTR inception workshop to clarify their understanding of the objectives and methods of the MTR, producing the MTR inception report thereafter. The MTR mission will then consist of interviews and site visits to Bansang, Basse, Yundum Airport and other meteorological stations/substation in the country, and will as well talk to service users.

The MTR team will assess the following four categories of project progress and produce a draft and final MTR report. See the Guidance for Conducting Midterm Reviews of UNDP-Supported, GEF-Financed Projects (attached or hyperlinked) for requirements on ratings. No overall rating is required.

# Annex 2: MTR Evaluative Matrix

Evaluative	Indicators	Sources	Methodology	
Questions Project Strategy: To whathe best route towards ex	t extent is the project strategy relevance  spected results?	ant to country priorities,	country ownership, and	
How do you see the relevance of the project? To what level the project is relevant to the priority needs of the community?	Study conducted before start of project implementation, Baseline info documented, relevant government offices and communities consulted during the project life,	PRODOC, project staff, Government offices, Community leaders, beneficiaries	Doc. Review, In-depth interview (IDI) with project staff, members PSC <sup>4</sup> , discussion with community groups, analysis of data,	
How do you see the alignment of the project to policies, strategies, and priorities of the government?	Project priorities adhered to national policies and regulations, national policies and frameworks reviewed for the project design, Government officials consulted during project design,	PRODOC, project staff, Government offices, Community leaders, beneficiaries	Doc. Review, IDI with project staff, PSC members, discussion with community groups, analysis,	
How do you describe the level of joint planning, implementation, monitoring and evaluation of project activities among government offices and the project office?	All relevant government offices represented and participated in the project design, all relevant offices actively engaged at all stages and decisions in the project implementation	PRODOC, project staff, Government offices, Community leaders, beneficiaries Reports, Minutes,	Doc. Review, IDI with project staff & PSC members, discussion with community groups, analysis,	
Tell us the effect of any incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document.	Assumptions and risks clearly discussed in the project design, project implementers clearly understood risks and assumptions, mitigative measures clearly discussed, and implemented in the project implementation	PRODOC, project staff, Government offices, Community leaders, beneficiaries	Doc. Review, IDI with project staff, PSC members, discussion with community groups, analysis,	
Were lessons from other relevant projects properly incorporated into the project design?	Relevant exemplary previous projects reviewed and lessons drawn during project design, innovations included in the project activities,	PRODOC, project staff, Government offices, Community leaders, beneficiaries	Doc. Review, IDI with project staff, PSC members, discussion with community groups, analysis,	
Were gender issues raised? In what?	All data are gender disaggregated, Women are properly represented in the project,	PRODOC, project staff, Government offices, Community leaders, beneficiaries	Doc. Review, IDI with project staff, PSC members, discussion with community groups, analysis,	
Progress Towards Result achieved thus far?	s: To what extent have the expected	outcomes and objective	,	
How much the project achieved the planned outputs/results and its objectives so far?	Project plans achieved based on the plans, activities are implemented based on anticipated quality and standards,	Reports, M&E Tracking tools, Officials, beneficiaries, field observation	Report review, discussion with project staff, IDI with PSC members, discussion with the beneficiaries, analysis,	
On which expected results and objectives is the project more successful? Why?	Project plans achieved based on the plans, activities are implemented based on anticipated quality and standards,	Reports, M&E Tracking tools, Officials, beneficiaries, field observation	Report review, IDI with PSC members, discussion with project staff, discussion with the beneficiaries, analysis,	
What benefits do government institutions and community groups	Project implementation capacities improved,	Reports, M&E Tracking tools, Officials,	Report review, IDI with PSC members, discussion	

<sup>&</sup>lt;sup>4</sup> PSC = Project steering committee

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### Annex 3: Example Questionnaire or Interview Guide used for Data Collection

REGION:	LOCAL AREA:	ORGANIZATION:
NAME OF PARTICIPANT:	GENDER:	TEL:

### **Key Questions Guide**

Evaluation Aspect	Questions Gui	ide		Answer			Rating (1-6)
Relevance	important is the of the interver	the right thing? he relevance or a htion regarding of the rements and pri	significance local and				
Effectiveness	interventions the <b>effectiven</b> compared to to (Comparison:	ives of the devel being achieved? ess or impact of he objectives pla result -planning	How big is the project anned g)?				
Efficiency	Are the objectives being achieved economically by the development intervention? How big is the <b>efficiency or utilization ratio</b> of the resources used (Comparison: resources applied –results)?						
Impact	Does the development intervention contribute to reaching higher level development objectives (preferably, overall objective)? What is the <b>impact or effect</b> of the intervention in proportion to the overall situation of the target group or those effected?						
Sustainability	How is the <b>su</b> intervention a	stainability or p	eacts sustainable? ermanence of the be assessed <sup>5</sup> ?				
<b>Further Assess</b>	ment & Observa	ation					
Planned Activities / Projects	Allocated Released Utilized Finance Finance			Out Put	Outcome	Impact	

Participant Closing Remarks:						

# Annex 4: Ratings Scales

Use the 6-point Progress towards Results Rating Scale: HS, S, MS, MU, U, HU

Ra	Ratings for Progress Towards Results: (one rating for each outcome and for the objective)					
6	Highly Satisfactory (HS)	The objective/outcome is expected to achieve or exceed all its end-of-project targets, without major shortcomings. The progress towards the objective/outcome can be presented as "good practice".				
5	Satisfactory (S)	The objective/outcome is expected to achieve most of its end-of-project targets, with only minor shortcomings.				
4	Moderately Satisfactory (MS)	The objective/outcome is expected to achieve most of its end-of-project targets but with significant shortcomings.				
3	Moderately Unsatisfactory (HU)	The objective/outcome is expected to achieve its end-of-project targets with major shortcomings.				
2	Unsatisfactory (U)	The objective/outcome is expected not to achieve most of its end-of-project targets.				
1	Highly Unsatisfactory (HU)	The objective/outcome has failed to achieve its midterm targets, and is not expected to achieve any of its end-of-project targets.				

Ra	Ratings for Project Implementation & Adaptive Management: (one overall rating)					
6	Highly Satisfactory (HS)	Implementation of all seven components – management arrangements, work planning, finance and co-finance, project-level monitoring and evaluation systems, stakeholder engagement, reporting, and communications – is leading to efficient and effective project implementation and adaptive management. The project can be presented as "good practice".				
5	Satisfactory (S)	Implementation of most of the seven components is leading to efficient and effective project implementation and adaptive management except for only few that are subject to remedial action.				
4	Moderately Satisfactory (MS)	Implementation of some of the seven components is leading to efficient and effective project implementation and adaptive management, with some components requiring remedial action.				
3	Moderately Unsatisfactory (MU)	Implementation of some of the seven components is not leading to efficient and effective project implementation and adaptive, with most components requiring remedial action.				
2	Unsatisfactory (U)	Implementation of most of the seven components is not leading to efficient and effective project implementation and adaptive management.				
1	Highly Unsatisfactory (HU)	Implementation of none of the seven components is leading to efficient and effective project implementation and adaptive management.				

Ra	Ratings for Sustainability: (one overall rating)					
4	Likely (L)	Negligible risks to sustainability, with key outcomes on track to be achieved by the project's closure and expected to continue into the foreseeable future				
3	Moderately Likely	Moderate risks, but expectations that at least some outcomes will be sustained due to the				
(ML)  Moderately		progress towards results on outcomes at the Midterm Review  Significant risk that key outcomes will not carry on after project closure, although some				
2	Unlikely (MU)	outputs and activities should carry on				
1	Unlikely (U)	Severe risks that project outcomes as well as key outputs will not be sustained				

# Annex 5: MTR Mission Itinerary

Region Sub-region		Group/s to Meet	Key Tasks	Date (2019)	No. of Days	
Nairobi, Kenya	. , , , , , , , , , , , , , , , , , , ,		Preparing the MTR Team (contract signing, briefing telephone call, sending / emailing of relevant Project Documents)	Thu 31st Oct	1	
Nairobi, Kenya	Banjul, the Gambia	UNDP Gambia / Consultant's office	Document review and preparing MTR Inception Report	Wed 6th Nov	2	
Nairobi, Kenya	Banjul, the Gambia	Consultant's office / PMU and UNDP Gambia Office	Finalization and Validation of MTR Inception Report	Fri 8th Nov	2	
Nairobi, Kenya	Banjul, the Gambia	UNDP Gambia Official/s	Consultant travel from Nairobi to Banjul	Mon 11th Nov	1	
Banjul, the Gambia	Banjul, the Gambia	PMU and UNDP Gambia Officials	Consultant meet PMU and UNDP Gambia Key Officials	Tue 12th Nov	1	
		Meeting and brief discussions	Wed 13th Nov	1		
Banjul, the Gambia	Banjul, the Banjul, the Gambia Radio and Television Services, Meetin		Meeting and brief discussions	Thu 14th Nov	1	
,		Field visit	Fri 15 <sup>th</sup> Nov	1		
Gambia	Jappineh and Bansang	Soma Community Radio, Jappineh Pilot Site and Bansang Hydrological Headquarters	Field visit	Sat 16th Nov	1	
Gambia Basse Basse Meteorological Station, Basse Automatic Weather Station, Basse Pilot Balloon Station and Gambia Radio and Television Services Basse		Field visit	Sun 17 <sup>th</sup> Nov	1		
Gambia	Dingiri, Kuntaur and Kaur	Dingiri Pilot Site, Kuntaur Automatic Weather Station and Kaur Meteorological Station	Field visit	Mon 18th Nov	1	
Gambia Farafeni Post Graduate Training at University of The Gambia Farafeni Campus, Farafeni Community Radio and Kerr Ardo Pilot Site		Field visit	Tue 19 <sup>th</sup> Nov	1		
Banjul, the Gambia	Banjul, the Gambia	PMU and UNDP Gambia Office Officials	Mission wrap-up meeting & presentation of initial findings	Fri 22 <sup>nd</sup> Nov	3	

# Annex 6: List of Some of Persons Interviewed

S.	Name of person	Gender	Organization	Position
N	•			
1	Almamy Camara	M	UNDP CO	Focal Point Person
2	Jarjusey Ousman	M	DWR	Project Coordinator
3	Ousainou Touray	M	Department of the Parks and	Deputy Director
	•		Wildlife Management	
4	Dr. Gilbert Ouma	M	UTG	Senior Lecturer
5	Abu Salo	M	GRTS - Basse	Ag. Manager
6	Amadou Johnson	M	GRTS - Basse	Technical Officer
7	Abdan M.K Touray	M	GRTS - HQ	Director General
8	Kemo Jatta	M	GRTS - HQ	Director Marketing
9	Bakarys Dampha	M	Soma Community Radio	Manager
10	Foday Bakary	M	Soma Community Radio	Radio Presenter
11	Sainey Tofana	M	Soma Community Radio	Studio Manager
12	Dodou Trawalla	M	National Environment Agency	Executive Director
13	Bolong S. Jobartel	M	Directorate of Public Health	Director Public Health
			Services - ministry of Health	
14	Saiken Fatay	M	Directorate of Public Health	Program Manager,
			Services - ministry of Health	Environmental Health
15	Kebba Jawo	M	DWR Training School	Training Administrator
16	Sulayman Jabang	M	DWR Training School	QMS Auditor
17	Abdoule Sumareh	M	DWR Training School	QMS Auditor
18	Prof. Sidat Yaffa	M	UTG	Professor of Agronomy
19	Josephine Mendy	F	Ministry of Agriculture	Agricultural Officer
20	Seedy M. Demba	M	Ministry of Agriculture	Senior Planner
21	Arfang Samateh	F	Ministry of Agriculture	Agricultural Officer
22	Musa Jallow	M	Ministry of Agriculture	Information Officer
23	Sulayman Toury	M	Ministry of Agriculture	Documentation Officer
24	Momodou Tamba	M	Ministry of Agriculture	Planner
25	Ebruma Cham	M	Ministry of Agriculture	Senior Planner
26	Lanain Saidy	M	Ministry of Agriculture	Village Agricultural
			-	Development Promoter
27	Yusupha Bojang	M	DWR	Senior Hydrologist
				Superintendent
28	Tombong Komma	M	DWR	Principal Computer Engineer
29	Lamin Mai Touray	M	DWR	Director
30	Dr. Bamba A.M		Ministry of Fisheries and Water	Permanent Secretary
	Banja		Resources	
31	Sana Dahaba	M	NDMA	Executive Director
32	Modou Joof	M	NDMA	Deputy Executive Director
33	Lamin Mass	M	NDMA	Director Administration
34	James Bass		NDMA	Director Finance

NB: (The following list details those officials the MTR Consultant discussed with in hall meetings. The names and detail of people the MTR Consultant discussed at the field level is not included because of the larger size of the people the Consultant met).

# Annex 7: List of Documents Reviewed

**UNDP-GEF**, June 2014, Final ProDoc; Gambia: Strengthening Climate Services and Early Warning Systems in the Gambia for Climate Resilient Development and Adaptation to Climate Change "2nd Phase of the GOTG/GEFIUNEP LDCF NAPA Early Warning Project,

**UNDP-GEF**, June 2018, Project Implementation Report (PIR).

**AfDB-WB**, June 2017, The Gambia Fragility Risk and Resilience Assessment - A Joint AfDB-WB Report.

**UNEP, GEF and UNDP**, Early Warning Climate Forecasting - Phase I - 2011-2015 and Phase II - 2015-2019 of the Strengthening of the Gambia's Climate Change Early Warning System Report.

**Bukhari M S Sillah - Islamic Development Bank**, December 2013, *Agriculture and growth nexus in Gambia Report*.

**Munawwar Alam - United Nations Organization,** January 2009, *Decentralization in The Gambia*.

**OCHA & FAO,** 2014, Community-based Early Warning Systems.

**United Nations Development Assistance Framework (UNDAF),** July 2011, *UNDAF Gambia Country Report – 2012 – 2016.* 

# Annex 8: Midterm LDCF/SCCF Core Indicators

-Annexed in a separate file: midterm LDCF/SCCF Core Indicators

# Annex 9: MTR Audit Trail

-Annexed in a separate file: MTR Audit Trail

# Annex 10: Signed UNEG Code of Conduct Form

#### **Evaluators/Consultants:**

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

#### MTR Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:				
Name of Consultant: MR. STEPHEN NDIBOI				
Name of Consultancy Organization (where relevant):				
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.				
Signed at NAIROBI, KENYA(Place) on 20 <sup>TH</sup> December 2019 (DATE)				
Signature:				

# Annex 11: Signed MTR Final Report Clearance Form

(to be completed by the Commissioning Unit and UNDP-GEF RTA)

Midterm Review Report Reviewed and Cleared By:				
Commissioning Unit: Inclusive Growth and Sustainable Development				
Name:MR. ALMAMY CAMARA				
Signature:	Date:			
UNDP-GEF Regional Technical Advisor				
Name:				
Signature:		Date:		