



ENVIRONMENTAL COOPERATION FOR PEACEBUILDING FINAL PROGRAMME¹ NARRATIVE REPORT

Programme Title & Number

Programme Title: Environmental Cooperation for Peacebuilding

Programme Number: Joint Vision Programme 21

MDTF Office Atlas Number:

- UNDP 00075593

Country, Locality(s), Thematic Area(s)²

- Sierra Leone
- Nationwide
- Environmental Protection – cross-cutting peace & security, rural development and youth

Participating Organization(s)

- UNDP

Implementing Partners

- Sierra Leone Meteorological Department
- Ministry of Transport and Aviation
- United Kingdom Meteorological Office
- World Meteorological Organisation
- UNEP

Programme/Project Cost (US\$)

MDTF Fund Contribution:

- US\$ 405,400

Agency Contribution

- *by Agency (if applicable)*

Government Contribution
(if applicable)

Other Contribution (donor)
(if applicable)

TOTAL: US\$ 455,000

Programme Duration (months)

Overall Duration: 21 months

Start Date: 2
4 June 2010

Revised End Date:
31 March 2012

Operational Closure Date:
31 December 2012

Expected Financial Closure Date:
30 April 2013

Programme Assessments/Mid-Term Evaluation

Assessment Completed - if applicable *please attach*

Yes No Date: _____

Mid-Evaluation Report – *if applicable please attach*

Yes No Date: _____

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¹ The term “programme” is used for programmes, joint programmes and projects.

² Priority Area for the Peacebuilding Fund; Sector for the UNDG ITF.

FINAL PROGRAMME REPORT

I. PURPOSE

Given the significant role that natural resources played in the civil war and during the post-conflict reconstruction period in Sierra Leone in addition to the vital importance of natural resources to the economy, their effective management is essential to continued peace consolidation and sustainable development. Many of the conditions for conflict that existed before 1992 remain today, including youth estrangement and rural alienation, concerns about the unfair distribution of benefits, unclear governance processes, and inefficient and unsustainable practices. Significant opportunities exist however to harness natural resources and the environment for peace consolidation through investing in alternative livelihoods, collaborative Community-Based Natural Resource Management initiatives, and capacity building in the districts and in Freetown.

The Programme addressed these needs and focused on the following key components: 1) Capacity building for environmental governance; 2) Sustainable land and water resource management; and 3) Improved climate change adaptation planning and implementation.

Fragmented systems of environmental and natural resource management in Sierra Leone are an impediment to sustainable development and peacebuilding and the country has an important role to play in the global agenda concerning climate change. During the civil war, the majority of its observing and forecasting infrastructure at the Sierra Leone Meteorological Department (SLMD) was destroyed. Since the conflict ended in 2001, the Department has received little attention from the Government due to other development issues that have taken immediate priority in the post-conflict period. This has resulted in a shortage of specialist equipment and trained personnel in the Department, resulting in its inability to effectively undertake its mandated functions.

UNDP's objectives under Programme 21 are as follows:

- Sierra Leone's national institutional and human resource capacity to adapt and mitigate the effects of climate change improved.
- Digitisation of climate data using CLIMSOFT database system.
- Capacity development of the Meteorological Department data collection and analysis.

II. ASSESSMENT OF PROGRAMME/ PROJECT RESULTS

Objective 1: Sierra Leone's national institutional and human resource capacity to adapt and mitigate the effects of climate change improved

As part of capacity building support provided to the SLMD, UNDP facilitated a World Meteorological Organisation (WMO) mission to Sierra Leone in August 2010 to undertake a detailed capacity assessment of the Department and to recommend UNDP priority areas of intervention that will support the Department in carrying out its primary functions. The capacities of the SLMD with regard to staff capability and available equipment were

ascertained through visits to the Headquarter Office in Freetown as well as the Forecast Office located at Lungi International Airport. Additional visits to key Ministries, Departments and Agencies were carried out to develop an understanding of user needs for climate and weather services. With only three qualified meteorologists on board at the SLMD, vital instruments such as barometers, anemometers, automatic rain gauges, sunshine recorders, earth thermometers and so on, were found to not be available at the majority of the five remaining stations. The WMO recommended UNDP to support the SLMD with the provision of fully equipped weather stations, staff training and the digitisation of paper records into the WMO recommended software.

One of the key findings of the WMO mission was that the SLMD's staff is primarily administrative-focused as opposed to technical. An office performing tasks such as the provision of weather information, early warning and the interpretation of climate data requires more technical staff that are capable of forecasting and interpreting data and the vast knowledge on the available software. With this in mind, the UNDP and WMO held meetings with the Human Resource Management Office and the Minister of Transport and Aviation on possible additional recruitment by the Government. After the meeting, the Government agreed on the need to recruit additional technical SLMD staff to enable the department to perform its required national and international assignments. As a result, following the meeting, two vacancies for 30 WMO Class IV, four WMO Class II and five WMO class I Observers were advertised in September 2010. Twenty eight new staff were recruited by the end of 2010. This is a notable achievement, as it is the first recruitment of staff at the SLMD since 1994.

Eight Meteorological Department staff were trained by the United Kingdom Meteorological Office as technicians and forecasters in developing real-time weather forecasts and carrying out radio broadcasts in addition to operational processes of the automatic weather stations. These trainees will in turn serve as trainers as necessary in order to support the achievement of the sustainability strategy of the Programme. Importantly, training that has taken place has increased the capacity of the Department's personnel to carry out routine maintenance on equipment in-house rather than having to outsource. The intervention has therefore ensured that equipment maintenance and communications capacity is in place.

Objective 2: Digitization of climate data using CLIMSOF database system

The digitisation of the paper records of weather data was successfully carried out by a team of trained staff at the SLMD. UNDP hired the services of the CLIMSOF software developer to initiate the process of digitisation and trained the SLMD staff in developing the WMO recommended database. The CLIMSOF computer software programme is WMO-recommended and the internationally accepted standard software system specifically used to record meteorological data. Weather and climate data from the old weather stations across the entire country were digitised, with records dating as far back as the 1870s. The digitised data was sent to the UK Meteorological Office for further analysis to provide further information to support the SLMD in forecasting weather trends. As the Ministry of Agriculture, Forestry and Food Security (MAFFS) has an agricultural meteorology department, they had paper records that required digitisation. The training therefore also benefitted staff engaged in agricultural meteorology in the Planning, Evaluation, Monitoring and Statistics Division in the MAFFS and the CLIMSOF database was installed on-site.

Objective 3: Capacity development of the Meteorological Department data collection and analysis

The contract for the installation of six automatic weather stations and training of staff at the SLMD on the calibration and operations of the equipment was awarded to the United Kingdom Meteorological Office. This was followed by a visit of a two person team from the UK Office to Sierra Leone to conduct a pre-installation visit and site inspection. Accompanied by UNDP staff and the SLMD, six sites were selected for the installation of the stations: Fourah Bay College, Njala University, Kenema, Rokupr, Kabala and Lungi. The Lungi and Headquarter Office of the SLMD will be equipped with monitor displays where data from the other stations will be collected.

Through the Programme, UNDP supported the installation of operational satellites, aeronautical meteorology reception systems and forecaster workstations integrated with observation display in all six locations where the automatic weather stations were established. The automatic weather stations will generate tailored weather and climate services that will support the achievement of national development goals and timely, reliable and accurate forecast warning services of hazardous weather. In addition, these stations will increase resilience to the effects of climate change through a flexible system used in all the equipment that will strengthen linkages between the SLMD and other key Government actors such as the Airport Authority, MAFFS, the Ministry of Energy and Water Resources, and Emergency Responders within the Government, Community-Based Organisations and other groups.

III. EVALUATION & LESSONS LEARNED

A crucial lesson learned from the Programme is that there are very limited numbers of suppliers and expertise in meteorology in Sierra Leone, and this resulted in lengthy delays in the procurement process of automatic weather stations and the WMO-recommended software needed for the project. UNDP procurement also lacks technical expertise in the area of meteorology which also resulted in lengthy back and forth requests for clarifications on the specifications submitted by UNDP Sierra Leone to the global Procurement Support Office and interested bidders. Overall, there is need to:

1. Establish consistent support from the Government for the delivery of sustainable weather and climate services.
2. Develop closer and improved cooperation between the SLMD and other Government Departments and Agencies.
3. Exploit meteorological expertise from around the world to support development activities whilst new SLMD staff are trained.
4. Coordinate all weather and climate development-funded initiatives to maximise the benefit to the SLMD, government stakeholders and ultimately the Sierra Leonean public.
5. Further strengthen the SLMD forecast office for the provision of reliable and sustainable aeronautical meteorological services that meet International Civil Aviation Organisation requirements.

V. INDICATOR BASED PERFORMANCE ASSESSMENT

	Performance Indicators	Indicator Baselines	Planned Indicator Targets	Achieved Indicator Targets	Reasons for Variance (if any)	Source of Verification	Comments (if any)
Outcome 1. Strengthen the capacity of the Meteorological Directorate and associated government units to provide reliable data and forecasting							
Output 1.1 Sierra Leone's national institutional and human resource capacity to adapt and mitigate the effects of climate change improved	Indicator 1.1.1 WMO assessment of SLMD and recruitment and training of SLMD staff	No technical staff recruitment since 1994	Recruitment and training of 28 technical staff	100%	N/A	<ul style="list-style-type: none"> - Government Gazette - Training workshops - Reports 	
Output 1.2 Digitisation of climate data using CLIMSOFT database system	Indicator 1.2.1 Digitisation of weather and climate data at SLMD and MAFFS	No digitised weather data	Digitisation of weather data from all old weather stations in Sierra Leone	100%	N/A	<ul style="list-style-type: none"> - Installation of CLIMSOFT database at SLMD and MAFFS - SLMD report - Report by consultants 	
Output 1.3 Capacity	Indicator 1.3.1 Installation of	One fully operational	Six functional	100%	N/A	<ul style="list-style-type: none"> - Signed delivery notes by recipient 	

development of the Meteorological Department data collection and analysis	meteorology reception systems and forecaster workstations in six automatic weather stations	functional weather station at the Lungi Airport and partially functional stations in Bonthe, Bo, and Makeni	weather stations equipped with automatic weather stations			- Training and installation activities	
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