

**Annual Work Plan (AWP) for 2016**



Atlas Award ID: 74442  
Atlas Project ID: 86856

Project/Programme Title: Climate Information and Early Warning Systems

*Empowered lives.  
Resilient nations.*

UNDAF Outcome: PRSP Pillar 2 - Managing Natural Resources

Outcome A: By 2018, targeted Government institutions, the private sector, and local communities manage natural resources in a more equitable and sustainable way.

Outcome B: By 2018, communities within targeted districts demonstrate increased resilience to natural and man-made disasters.

Related CPD Outcome: 5: Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters, including from climate change

Expected Outputs  <i>And baseline, associated indicators and annual targets</i>	Planned Activities  <i>List activity results and associated actions</i>	Time Frame				Responsible Party	Planned Budget UNDP TRAC			
		2016					Funding Source	Budget Description	Amount (USD)	
		Q1	Q2	Q3	Q4					
	Output 1 Result The capacities of national hydro-meteorological (NHMS) and environmental institutions are enhanced to monitor extreme									
<b>Output 1: Transfer of technologies for climate and environmental monitoring infrastructure.</b>  Baseline: <ul style="list-style-type: none"><li>• 20% national coverage of climate/weather and hydrological monitoring infrastructure and reporting</li><li>• Limited skilled-based staff at the SLMD</li></ul> Indicators: <ul style="list-style-type: none"><li>• Frequency and timeliness of climate-related data availability</li><li>• # equipment for hydrological monitoring and weather/climate equipment procured installed</li><li>• # of technicians and observers trained</li></ul> Targets: <ul style="list-style-type: none"><li>• 12 River Gauges, 2 Water Level (Limnimetric Scale), 6 Groundwater data Logger, 2 Signal counter Rotations installed for Hydrological Monitoring</li><li>• 10 workstations, AMESD-PUMA e-station and SYNERGY system upgraded and Aviation Data International Service strengthened to support for tailored forecasting</li><li>• 16 staff trained as WMO Class IV certified technicians and observers</li><li>• 60% national coverage of climate/weather and hydrological monitoring infrastructure and reporting</li></ul>	<b>Output 1.1</b>  a. Re-assess needs for hydrological monitoring to support warning of flash floods  b. Procure and install (operationalization training) meteorological and hydrological monitoring equipment  c. Procure and Operationalise a mobile Hydromet Automatic Station (HAS) for sensor's field calibration  d. Develop a Plan and a National Framework for integrating Hydrological Monitoring of Watershed Projects  e. Support a programme in operational watershed monitoring and hydrological modelling for hydromet officers  f. Renew and purchase hydrological modelling licenses	X	X			SLMD  GEF	71300 (Local Consultant)	15,000.00		
		X	X				72100 (Contract Service)	529,000.00		
		X	X				71200 (International Consultant)	40,000.00		
		X	X	X			71200 (International Consultant)	70,000.00		
		X	X	X			72100 (Contract Service)	16,000.00		
	<b>Sub-Total</b>							670,000.00		
	<b>Output 1.2</b>  a. Assess installation sites for AWS and make necessary arrangements for hosting of AWS  b. Procure, install and operationalise meteorological monitoring equipment  c. Procure and operationalise a mobile AWS for sensor's field calibration  d. Procure, install and test Synoptic AWS with display systems at SLMD Freetown & Lungi Airport  e. Integrate recently installed and existing AWS with central data collection & storage systems  f. Establish mobile communications between AWS and central servers through NATCOM  g. Procure technical services for the refurbishment of the of SLMD premises at SLMD Tower Hill  h. Conduct viability studies and recommendations on proposed AWS installation sites	X				SLMD  GEF	72100 (Contract Service)	19,000.00		
		X	X				72200 (Equipment and Furniture)	440,000.00		
		X	X				72100 (Contract Service)	100,000.00		

<b>Sub-Total</b>							<b>559,000.00</b>
<b>Output 1.3.</b>							
a. Procure and install 10 workstations for tailored forecasting	X	X				72200 (Equipment and Furniture)	92,000.00
b. Re-install AMESD-PUMA e-station and upgrade SYNERGY system to support tailored forecasting		X	X	X			
c. Procure and install Aviation Data International Service to strengthen forecasting capacity		X	X	X			
d. Re-assess the need for acquisition and installation of LIGHTNING DETECTOR system based		X				72100 (Contract Service)	10,000.00
e. Procure and install all standard equipment for SLMD Forecasting Centre and provincial outer stations		X	X	X		72200 (Equipment and Furniture)	85,300.00
f. Develop partnership between SLMD and MAFFS for collaboration in AMESD-PUMA e-station at SLMD.	X	X	X			75700 (Meeting)	1,000.00
g. Conduct needs assessment on the rehabilitation of the SLMD Forecasting Centre and provincial outer stations	X	X	X			71300 (Local Consultant)	10,000.00
							<b>198,300.00</b>
<b>Sub-Total 1.3</b>							
<b>Output 1.4</b>							
a. Develop in-service and on-the-job capacity development programme for 16 gender sensitive Met. Technicians (WMO Class IV)	X	X	X			75700 (Training )	5,000.00
b. Establish partnership with University of Sierra Leone and Fourah Bay College to develop a national advanced education programme	X	X				75700 (Workshop )	25,000.00
c. Establish partnership with WMO Regional Meteorological Centres for regional or in-country gender sensitive capacity development	X	X					
d. Deliver regional or in-country education weather forecasting capacity development programme for graduate pupils		X				75700 (Training )	15,000.00
e. Develop a capacity development programme for the training of other technical personnel for SLMD						71300 (Local Consultant)	15,000.00
e. Rolling out (training) of developed capacity programme for technical personnel for SLMD	X	X	X			75700 (Training )	35,000.00
							<b>95,000.00</b>
<b>Sub-Total</b>							
<b>Output 1.5</b>							
a. Re-assess the need for strengthening of outer Meteorological Stations Communications facilities for data collection and transmission	X	X	X			71300 (Local Consultant)	10,000.00
b. Provide the MWR, SLMD & ONS a reliable, direct and fast data and information communication system		X	X	X		72200 (Equipment)	25,000.00
c. Establish formal partnership with NATCOM towards the sustainable utilization of mobile communication and internet signal for EWS dissemination/response network	X	X	X			75700 (Meeting )	4,000.00
d. Develop an efficient communication network between SLMD and ONS and all DM Committee Members		X	X	X		75700 (Meeting )	5,000.00

	e. Procure and install a Television and Radio Weather Broadcast equipment for forecast dissemination	X	X	X			72200 (Equipment)	61,000.00
	f. Review partnership agreement with the Sierra Leone Broadcasting Cooperation (SLBC), for broadcasting of climate	X	X				75700 (Meeting )	20,000.00
	<b>Sub-Total</b>							125,000.00
<b>Total of Output 1</b>								<b>1,647,300.00</b>
	Output 2 result: Efficient and effective use of hydro-meteorological and environmental information for making early warnings and long-term							
<b>Output 2: Climate information integrated into development plans and early warning systems</b>	<b>Output 2.1</b>							
	a. Establish a reliable communication system for SLMD	X	X	X			72100 (Contract Services)	10,000.00
	b. Develop, install and operationalise a Nowcast, Medium, Short term and seasonal forecasting system	X	X	X			72200 (Equipment)	35,000.00
	c. Develop a capacity programme in sector tailored weather forecasting techniques and information packaging	X	X				72100 (Contract Services)	70,000.00
	d. Develop capacity programme in hydrological modeling and sector tailored hydrological forecasting techniques and information packaging	X	X	X				
	e. Develop sector oriented seasonal forecast to support community based EWS for selected communities	X	X	X				
	f. Carry out systematic assessment of future climate change scenarios and impacts	X	X					
	<b>Sub-Total</b>							<b>115,000.00</b>
	<b>Output 2.2</b>							
<b>Baseline:</b> <ul style="list-style-type: none"><li>• 35% men, 25% women of Sierra Leone with access to improved climate information (CIEWS project document).</li><li>• 0 GoSL Development Plans and land-use plans at National/District that integrate climate information in their formulation of poverty reduction strategies and links between poverty and the environment at local levels</li><li>• No Climate Change Data Management System</li><li>• 0 Sector-specific EW products and strategies that integrate climate risks mining, tourism, and land management sectors</li><li>• No Public-private cost-recovery partnership and service level agreement</li><li>• No community based early warning system (CBEWS) nationwide</li></ul>	a. Establish a multi-disciplinary and Inter-institutional Technical Committee (EWS-MITEC) to develop SOPs & EWS Products	X	X				75700 (Workshop)	5,000.00
	b. Conduct scoping study to assess existing situation against international best practice leading to establishment of a National EWS	X					71300 (Local Consultant)	25,000.00
	c. EWS-MITEC to review current legal framework supporting EWS for issuing a warning & identifying gaps and shortfalls	X	X	X			71300 (Local Consultant)	18,000.00
	d. Conduct training on climate change risk assessment for key stakeholders	X	X				75700 (Training)	35,000.00
	e. Develop capacity of SL Disaster Management Committee to understand tailored warning generation/response	X	X	X			75700 (Training)	5,000.00
	f. Convene an interagency capacity development sessions for exchange of skills and experiences on SOPs	X					75700 (Workshop)	5,000.00
	<b>Sub-Total</b>							<b>93,000.00</b>
<b>Indicators:</b> <ul style="list-style-type: none"><li>• # of sector-specific EW products and strategies that integrate climate risks</li></ul>	<b>Output 2.3</b>							
	a. Establish & operationalise a Climate Change Data Management System	X	X	X	X		72100 (Service Contract)	175,000.00
	b. Establish partnership between CC-DAMAS and CIESIN at SLEPA for systematic streamlining of digital information	X	X	X	X			
	c. Build on ACMAD data recovery programme by providing CLIMSOFT facilities for data treatment and quality control	X	X	X	X	EPA-SL	GEF	

<p>mining, tourism, and land management sectors</p> <ul style="list-style-type: none"> <li>• % of population with access to improved climate information and flood, drought, strong wind and coastal warnings</li> <li>• # of GoSL Development Plans and land-use plans at National/District that integrate climate information in their formulation of poverty reduction strategies and links between poverty and the environment at local levels</li> <li>• # of CBEWS established</li> <li>• # of PPP agreements established</li> </ul> <p>Targets:</p> <ul style="list-style-type: none"> <li>• 50% women and 50% men with access to improved climate information and early warning</li> <li>• Establish and operationalize a Climate Change Data Management System</li> <li>• Establish a Public-private cost-recovery partnership and service level agreement between the SLMD, DWR and national internet service</li> <li>• Establish a CBEWS in 3 communities</li> </ul>	d. Integrate climate change risk into national policies and plans	x	x	x				
	e. Developed within CC-DAMAS a project Website	x	x	x				
	f. Establish partnership with University of Sierra Leone and Fourah Bay College to develop capacity for systematic data	x	x					
	<b>Sub-Total</b>							<b>175,000.00</b>
	<b>Output 2.4</b>							
	a. Carry out needs assessment of ONS-DMD communication network	x	x					71300 (Local Consultant) 10,000.00
	b. Develop communication channels between SLMD and ONS-DMD for dissemination of forecasting products	x	x	x				72100 (Contract Service) 4,000.00
	c. Develop and deliver training for gender sensitive ONS-Sectoral Task Forces to harmonise agreements and inter-agency protocols	x	x					75700 (Training) 15,000.00
	d. Establish institutional mechanisms for collection of feedback from the community end-users on the usefulness of warning	x	x	x				72100 (Contract Service) 10,000.00
	e. Develop a communication and awareness raising strategy, pilot application and implementation of local level responses	x	x					75700 (Meeting) 30,000.00
	f. ONS-DMD in partnership with local NGO's and CBO's to communicate and disseminate response plans	x	x	x				75700 (Workshop) 13,000.00
	g. Procure 6 "sms-FrontLine" communication system to support emergency dissemination response mechanisms of ONS-DMD	x	x					72200 (Equipment) 18,000.00
	h. Field visits and stakeholder consultations undertaken to understand how users of early warning advisories and warnings	x	x					71600 (Travels) 5,000.00
	<b>Sub-Total</b>							<b>105,000.00</b>
	<b>Output 2.5</b>							
	a. EWS-MITEC to support SLMD to carry out a comprehensive needs assessment for climate services	x	x					71300 (Local Consultant) 5,000.00
	b. Establish a plan and a financial framework for SLMD sustainability in the context of forthcoming transformation	x	x	x				71200 (International Consultant) 48,000.00
	c. Engage in consultations with private sector to build partnerships based on cost-recovery service provision		x	x				75700 (Workshop) 4,000.00
	d. Establish a public-private cost-recovery partnership and service level agreement between the SLMD, DWR and national internet service provider with regards start-up costs for servers and modems		x	x				75700 (Workshop) 25,000.00
	e. Organize bi-annual workshops, seminars and dialogue sessions for senior policy makers to raise awareness of the climate change issues	x						75700 (Workshop) 8,000.00
	<b>Sub-Total</b>							<b>90,000.00</b>
	<b>Output 2.6</b>							
	a. Establish CBEWS at Bumbuna Watershed, Guma Valley and IVS Farms in Easter Districts under a "Cash-for-Work" scheme	x	x					75700 (Workshop) 15,000.00
	b. Strengthen infrastructure and technical capacity of local community radios for warning dissemination in areas of pilot demonstration sites	x	x	x				72100 (Contract Service) 25,000.00

c. Establish a community-based communication and information sharing tool using local languages	x	x		ONS-DMD	GEF	72100 (Contract Service)	10,000.00
d. Partner with local NGO's & CBO's in the development of a training-awareness programme for local communities	x	x				75700 (Workshop)	5,000.00
e. Conduct regular national drills involving all actors of future EWS and in particular women and youth associations	x					75700 (Meetings & Trainings)	15,000.00
f. Partner with NGO's, CBO's, local mobile phone provider and other institutions to develop community based warning dissemination systems	x	x				75700 (Workshop)	5,000.00
<b>Sub-Total</b>							<b>75,000.00</b>
<b>Total of Output 2</b>							<b>653,000.00</b>
<b>Direct Programme Cost</b>							<b>2,300,300.00</b>
<b>Output 3: Programme Management Costs</b>							
National Project Coordinator			SLMD/PIU	GEF		71400	20,000.00
Technical Advisor			SLMD/PIU	GEF		71400	131,000.00
M&E Officer			SLMD/PIU	GEF		71400	9,000.00
Office Supplies (Procurement of equipment & office Stationaries)			SLMD/PIU	GEF		72500	3,000.00
Management Costs (fuel, vehicle maintenance, etc)			SLMD/PIU	GEF		72200	7,000.00
CIDRA M&E consultant			SLMD/PIU	GEF		71200	5,000.00
M & E Missions (Travel)			SLMD/PIU	GEF		71600	10,000.00
M&E (UNDP cost) 2%			SLMD/PIU	GEF		74300	46,006.00
Travel (Conferences)			SLMD/PIU	GEF		71600	10,000.00
Steering Committee Meeting			SLMD/PIU	GEF		75700	500.00
Mid-term Evaluation			SLMD/PIU	GEF		74100	15,000.00
Communication			SLMD/PIU	GEF		72400	6,200.00
Communication - 1%			SLMD/PIU	GEF		74300	23,003.00
Common service			SLMD/PIU	GEF		73100	12,100.00
Security			SLMD/PIU	GEF		74300	520.00
Direct Project Cost (DPC) - 4.6%			SLMD/PIU	GEF		74300	105,813.80
<b>Total of output 3</b>							<b>404,143</b>
<b>Total 2016 Project Budget</b>							<b>2,704,443</b>

This Annual Work Plan (AWP) is based on Results Management Guidelines (RMG) of UNDP. Once signed by UNDP and the Implementing Partners, National Counterpart

UNDP Sierra Leone

Abubakarr Carew

Permanent Secretary  
Ministry of Energy

Date: 30/03/16

*Transport + Aviation*

Sudipto Mukerjee

Country Director  
UNDP Sierra Leone  
Date:

*29/03/16*

*J.*

*[Signature]*



**UN Development Programme**  
**Sierra Leone - Freetown**

**Project:** 00074442  
**Project Title:** Climate Information and Early Warning Systems  
**Start Year:** 2013  
**End Year:** 2017  
**Implementing Partner:** National Execution  
**Responsible Parties:** COL-CORPORACION AUTONOMA REGIO  
SIL-National Execution  
**Revision Type:** General Revision 5

<b>Budget (US\$) as of Last Revision on 29-March-2016</b>		
<b>Donor</b>	<b>Fund</b>	<b>Amount</b>
GEFTrustee	62160 GEF LDC/NAPA Programme Actv	3,116,482.00
	<b>Total Budget ( 2016 and Beyond )</b>	3,116,482.00
	<b>Total Utilization ( 2015 and Prior )</b>	418,376.79
	<b>Project Total</b>	3,534,858.79
	<b>Unprogrammed/Unfunded</b>	0.00

**Project Description:**

Establishment of 2016 budget for the implementation of the activity plan

**Agreed by:** UNDP Country Director *[Signature]*  
**Agreed by:** PMSU *[Signature]*  
**Agreed by:** TL (EENRM) *[Signature]*  
**Agreed by:** *P 30/03/16 PS MTA*



## Annual Work Plan

Project: 00074442  
Project Title: Climate Information and Early Warning Systems  
Year: 2016

Sierra Leone - Freetown

Report Date: 29/3/2016

Output	Key Activities	Timeframe		Responsible Party	Planned Budget			
		Start	End		Fund	Donor	Budget Descr	Amount US\$
000886856	Climate Information and Early	23/10/2013	31/12/2017	SIL-National Execution	62160	GEF Trustee	71600 Travel	5,000.00
	Integration of Climate inform			SIL-National Execution	62160	GEF Trustee	72100 Contractual Services-Companies	304,000.00
				SIL-National Execution	62160	GEF Trustee	72300 Materials & Goods	0.00
				SIL-National Execution	62160	GEF Trustee	71400 Contractual Services - Individ	80,000.00
				SIL-National Execution	62160	GEF Trustee	71200 International Consultants	48,000.00
				SIL-National Execution	62160	GEF Trustee	72200 Equipment and Furniture	60,000.00
				SIL-National Execution	62160	GEF Trustee	74500 Miscellaneous Expenses	0.00
				SIL-National Execution	62160	GEF Trustee	75700 Training, Workshops and Confer	1,939.00
				SIL-National Execution	62160	GEF Trustee	71300 Local Consultants	58,000.00
				SIL-National Execution	62160	GEF Trustee	74200 Audio Visual&Print Prod Costs	0.00
				SIL-National Execution	62160	GEF Trustee	74300 Contributions	87,672.00
	Project Management	23/10/2013	31/10/2017	COL-CORPORACION AUTONOM	62160	GEF Trustee	72100 Contractual Services-Companies	-47,500.00
				SIL-National Execution	62160	GEF Trustee	72500 Supplies	3,000.00
				SIL-National Execution	62160	GEF Trustee	75700 Training, Workshops and Confer	500.00
				SIL-National Execution	62160	GEF Trustee	73100 Rental & Maintenance-Premises	12,100.00
				SIL-National Execution	62160	GEF Trustee	74500 Miscellaneous Expenses	0.00
				SIL-National Execution	62160	GEF Trustee	71300 Local Consultants	0.00
				SIL-National Execution	62160	GEF Trustee	71600 Travel	20,000.00
				SIL-National Execution	62160	GEF Trustee	72100 Contractual Services-Companies	47,500.00
				SIL-National Execution	62160	GEF Trustee	74100 Professional Services	15,000.00
				SIL-National Execution	62160	GEF Trustee	71200 International Consultants	5,000.00
	Transfer of technologies	23/10/2013	31/12/2017	SIL-National Execution	62160	GEF Trustee	71400 Contractual Services - Individ	80,000.00
				SIL-National Execution	62160	GEF Trustee	71300 Local Consultants	5,281.00
				SIL-National Execution	62160	GEF Trustee	72200 Equipment and Furniture	703,300.00
				SIL-National Execution	62160	GEF Trustee	75700 Training, Workshops and Confer	174,993.00
				SIL-National Execution	62160	GEF Trustee	71200 International Consultants	110,000.00
				SIL-National Execution	62160	GEF Trustee	72300 Materials & Goods	0.00
				SIL-National Execution	62160	GEF Trustee	72100 Contractual Services-Companies	758,726.00



## Annual Work Plan

Sierra Leone - Freetown

Report Date: 29/3/2016

Project: 00074442  
Project Title: Climate Information and Early Warning Systems

Year:	2016	Output	Key Activities	Timeline		Responsible Party	Planned Budget			
				Start	End		Fund	Donor	Budget Descr	Amount US\$
			Transfer of technologies	23/10/2013	31/12/2017	SIL-National Execution	62160	GEF Trustee	72400 Communic & Audio Visual Equip	6,200.00
						SIL-National Execution	62160	GEF Trustee	74300 Contributions	87,671.00
										2,626,382.00
			TOTAL							2,626,382.00
			GRAND TOTAL							



Annual Work Plan

Sierra Leone - Freetown

Project: 00074442

**Project Title:**

Year: 2017

Report Date: 29/3/2016

Climate Information and Early Warning Systems