



United Nations development Programme-

Sierra Leone

Project Title: Adapting to climate change induced coastal risks management in
Sierra Leone

Annual Progress Report, 2021

Acronyms

CC:	Climate Change
CVA:	Coastal Vulnerability Assessment
EPA:	Environmental Protection Agency
ICZM:	Integrated Coastal Zone Management
IPs:	Implementing Partners

LCs:	Local Councils
MDAs:	Ministry Department and Agencies
MFMR:	Ministry of Fisheries and Marine Resources
MRCG:	Media Reform Coordinating Group
NTB:	National Tourist Board
SLR:	Sea Level Rise
UNDP :	United Nations Development Programme
WA BiCC:	West Africa Biodiversity and Climate Change program
WG:	Working Group

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I. Project Status Information

Project title	Adapting to climate change induced coastal risks management in Sierra Leone
Project ID	00104509
Project start Date / end Date	April 2018/March, 2022
Implementing Modality	Direct Implementation Modality (DIM)
Implementing Partner(s)	EPA-SL, MFMR, NTB, IMBO
Cluster name	Sustainability & Local Economic Development Cluster
Donors	Global Environment Facility (GEF)

Project Objective	Strengthen the ability of coastal communities to systematically manage climate change risks and impacts on physical infrastructure and economic livelihoods
UNDP RPD outcome / UNDP Strategic Plan RRF outcome	<p>Output 1.3: Solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystem services, chemicals and waste.</p> <p>Output 1.4: Scaled up action on climate change adaptation and mitigation cross sectors which is funded and implemented.</p> <p>Output 1.5: Inclusive and sustainable solutions adopted to achieve increased energy efficiency and universal modern energy access (especially off-grid sources of renewable energy)</p> <p>Output 2.5: Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.</p>

Annual Budget (US\$)	Expenses as of: 31/12/21 (US\$)	expenses (% of annual budget)
3,009,500		

Project Budget (US\$)	Total expenses (US\$)	Project Balance (US\$)	Total expenses (% of total budget)
10,165,000	6,753,534	3,411,466	66.4%

II. Executive Summary

The coastal and marine ecosystems support a wide range of marine living resources that are vital in sustaining the livelihoods of coastal communities, contributing to food security and poverty reduction at the national level. It also supports the productivity of diverse ecosystems including mangroves which are known to contribute to the development of fisheries by serving as fish breeding grounds. The coastal area along the capital of Sierra Leone (Freetown) peninsular contains very beautiful beaches which enhance tourism development and holds substantial number of hotels and tourist resorts and contributes significantly to the national economy. However, the environmental and socio-economic impacts resulting from anthropogenic activity and green-house effect are becoming alarming and tremendous along the coastal zones of Sierra Leone affecting the livelihood of communities.

Adapting to climate change induced coastal risk management in Sierra Leone is a five-year GEF funded project implemented by UNDP aimed to strengthen the ability of coastal communities to systemically manage climate change risks and impacts on their physical infrastructure and economic livelihoods in Sierra Leone. The project identified four key partners (EPA, IMBO, MFMR & NTB) as primary stakeholders to implement project activities in the six locations (Lakka, Hamilton, Konakri-Dee, Tombo. Shenge and Turtle Island).

In 2020, the project installed 5 weather stations covering the 6 project locations. To ensure operationalization of the weather stations, the project in 2021 supported the refurbishment of the Meteorological server house where weather signal from the weather stations can be captured and disseminated to project communities. As such, the server house is now up and running. The project through IMBO strengthened the capacity of technical staff from partner institutions in Climate and Oceanographic/Marine Forecasting skills.

Having in mind the need to establish the ICZM working groups as a sustainability mechanism, the project supported EPA-SL to provide technical support to Local councils and stakeholders, training them mainly on how to integrate Climate change Adaptation issues into their District development plans and budget. The draft Coastal and Marine protected area regulation was reviewed to identify obsolete sections and replace them with relevant information that align with the prevailing context, to enhance its effectiveness in coastal and marine communities. Additionally, the project through EPA-SL provided capacity development training for partner technical staff in unmanned aerial vehicle (UAV) (drone) survey applications.

A scientific research studies on Seaweed sargassum dynamics was conducted to determine its value for alternative uses and livelihood creation.

Moreover, MFMR, NTB developed and implemented 2 (1 each) additional outreach communication strategies, designed to promote community awareness on climate change risks and mitigation that would increase local level awareness toward the dangers that are associated with sand mining and indiscriminate mangrove wood cutting. These awareness

raising activities mounted by the project brought about behavioural change in project communities thereby reinforcing climate resilient behaviours.

As part of the project climate change adaptation strategies, the project designed and implemented series of strategies that promoted and supported alternative Livelihood options.

In promoting Sierra Leone as an attractive travel destination, the project supported NTB and conducted Training workshop on digital Promotion and Rebranding Messaging Development for creating effective tourism digital messaging. The objective is to promote sustainable tourism and advancing the SDG and climate change risks and mitigation measures for civil society and media practitioners

During the project implementation, coordination among IPs remains challenging especially regarding timely implementation and liquidation of resources provided by the project. The project will continue to increase the level of engagement to enhance effective and efficient coordination and collaboration mechanism among IPs.

III. Indicators Based Performance Assessment

Indicators	Baseline	Target	Achieved Target (current Status)	Reasons for Variance	Source of Verification
Project Results 1: Enhance the availability of high quality climate risk information that is critical for development decision-making in the coastal zone					
Output 1.1: Climate and oceanographic monitoring network (with 6 automated oceanographic monitoring systems) and related data processing systems installed					
# of automated oceanographic monitoring & related data processing systems procured & installed & operational at project sites.	0	At least 5 of the Automated Oceanographic Monitoring system operationalized by Dec. 2021	The project refurbished the marine server house & developed all the communications, transmission & data exchange interventions & integrated them into existing CIDMEWS network	No variance	Progress reports, photos
Project Results 1: Enhance the availability of high-quality climate risk information that is critical for development decision-making in the coastal zone					
Output 1.2: Institutional capacity of MFMR, EPA-SL, SLMD, ONS, SLMA and IMBO for assessing coastal hazard risks and vulnerability to climate change through probabilistic modelling is strengthened					
# of staff from targeted institutions capacitated in coastal hazard risks & vulnerability assessment	0	By Dec. 2021, at least 30 additional Technical staff capacitated	Have capacitated additional 32 (M:24; F: 8) technical staff from MDAs for assessing coastal vulnerability. Cumulatively 215 (M:157; F:58) staff have been capacitated	None	Participants list; training report

Output 1.3: systematical link between the collected data and the existing CIDMEWS is established					
Extent to which OMS data integrated into existing CIDMEWS. (1=Not integrated; 2=partly integrated; 3=fully integrated)	(1=OMS data Not integrate d into existing CIDMEWS)	3=OMS data fully integrated into the existing CIDMEWS	3=Through INTEGEMS, the project has fully integrated OMS data into the existing CIDMEWS	None	INTEGEMS/SL MET report
Output 1.4: The human capacity of MFMR, EPA-SL, and IMBO is strengthened, skilled and trained on Coastal Vulnerability Assessment techniques.					
#. of key staff from MFMR, IMBO capacitated in GIS & Risk/vulnerability mapping disaggregated by sex	Targeted institutions lack adequate GIS & Risk mapping skills	4 key staff (2 each from EPA & IMBO) trained in GIS, Risk & storm surge planning	The project capacitated 26 (M:24; F:2) Staff from relevant Agencies and EPA in UAV using GIS technology	None	Participant's list
Output 2.1: Sea Level Rise and coastal erosion profiles developed for the six target pilot sites to support the strengthening of Coastal Zone Management Plans at both urban and district levels					
# of SLR and Coastal Erosion profile developed	1	1	1 SLR and Coastal Erosion profile developed by EPA-SL	No variance	Assessment Report
Output 2.2: Ecosystem based adaptation design guidance to support future climate resilient planning and development in place					
# of Ecosystem based	1	At least 2 adaptation	3 ICZM intervention action	None	Plan documents

adaptation design guidance in place		guidance developed & shared with stakeholders	plans & 1 EBA guidance manual have been developed (Reports are available)		
Output 2.3. Marine spatial framework to compliment with ICZM is developed					
# of Marine Spatial plan framework in place	0	At least 1 Marine spatial plan framework developed.	Marine spatial plan framework developed and its in place	No variance	Marine spatial plan Report and implementation plan
Output 2.4. Sierra Leone ICZM is strengthened with the establishment of SL-ICZM-WG and sustainability					
# of SL-ICZM-WG & Sustainability mechanisms established	0	4	4 LCs capacitated in Climate change adaptation modules to enable them integrate CCA issues into District Development plan. 354 (M:305; F:49) Technical staff benefitted	Working group to be formed in 2022 implementation year	Participants list, partner report, photos
Output 3.1. An outreach communication, information and awareness strategy designed and implemented to enhance decision-making and foster public awareness and safety about the potential impacts of climate change					
# of outreach communication, information & awareness strategy formulated & implemented.	2	2	8	NA	CC. stickers, partner reports, CC awareness raising T-Shirt, Radio drama audios
Output 3.2. Adaptation strategies for alternative livelihoods are designed to strengthen women and sand miner youth association's resilience to CC impact on the coastal zone so as to reduce pressure on natural resources.					
# of Adaptation strategies for	1	3	Have designed and implemented	N/A	partner report, Photos,

alternative livelihoods designed and implemented			at least 9 adaptation strategies to support CC adaptation in Coastal Communities		participants list
Output 3.3: CSEB practices are introduced to mitigate the risk of unregulated sand mining in Sierra Leone.					
# of Pilot sites where CSEB practices are introduced	0	1	0	Little or no clay deposit at proposed sites	
Output 3.4: Participatory implementation of urgent and priority medium-scale soft (non-structural) and hard (structural) coastal adaptation works undertaken to protect coastal community at risk					
degraded coastal areas (Ha) rehabilitated & restored	210	100Ha	310Ha	None	Partner report
#. of protection measures in place in Coastal communities disaggregated by type.	1	8	4 (3 by NTB and 1 by ENFORAC); -NTB constructed boardwalk, did beach cleaning & tree planting in project locations); -Mangrove rehabilitation by ENFORAC	Ongoing	Participant list, partner report
Output 3.5: Early Warning Systems are extended to target sites in the coastal zone to protect fishing and farming communities					
# of project sites with Early warning mechanism in place	0	At least 6 sites have early warning mechanism in place	The six project sites are covered under improved weather monitoring for early warning	None	Photos of weather stations, list of EW training participants

IV. Results

Section 1: Overall results achieved against the outcome

About 30% project beneficiaries now receive high quality weather information in project communities. The project has installed Five weather stations covering the Six coastal communities as prescribed in the project document. The installation was done with technical support from the Sierra Leone Meteorological Agency (SLMET). The installation and operationalization of the OMS equipment have enhanced the collection of real time climatic and oceanographic data which will enable early warning and response planning.

Additionally, the project refurbished the Government Marine server house where the server supporting the OMS is located for receiving signals from the weather stations and disseminating it to the wider community for Early Warning.

To enhance the operationalization of the Five weather stations, the project established a server system that enables the transmission of Climatic weather data from the OMS into the existing CIDMEWS as well as facilitate its integration into the global monitoring system.

Additionally, Four (4) ICZM related plans that integrated Climate Change adaptation and SLR induced risks have been developed. They consist of; Action plan for coastal protection measures, Ecosystem Based Adaptation (EBA) guidance manual, Regulations on coastal protection, the Coastal Climate Change Adaptation plan and the Marine Spatial Plan and Implementation framework. These documents are available as knowledge products of the project, and they provide guidance to practitioners and Local councils on the type of interventions to include in their development plans ensuring the incorporation of Climate change adaptation actions into development plans and promote sustainable management of coastal communities. Moreover, EPA had conducted combined CVA studies for the six coastal sites and MSP studies had also been conducted by IMBO.

Awareness raising efforts by the project have been done by three of the project IP's and one NGO in the six project locations. Each of these partners had reached out to several project beneficiaries including government practitioners and community members. The project through EPA-SL capacitated 354 (M:305; F:49) Local Government technical staff in four (4) Local Councils; Portloko, Bonthe, Moyamba and Western Rural Districts increasing their knowledge on how to disseminate information on the ICZM. The trainings have provided guidance to

technical staff of Local Councils on actions to incorporate in their programmes that support climate resilience initiatives in coastal zones.

The project has designed and supported over Eight (8) Climate change adaptation strategies which includes; the construction of raised platforms in Five (5) project communities to improve fish value chain and hygiene; strengthened the capacity of 400 women fish mongers to improve their skills in fish processing; constructed and completed a 150 Meter long jetty/fish landing site at Shenge to facilitate access and improve socio-economic situation in the community. Additionally capacitated 10 youth groups in Fisheries regulations; supported 5 groups with 5 fishing boats, 5 out board engines and with dozens of recommended fishing nets.

Since the project have not been able to establish a brick making training center, the project has funded the construction of a youth training center which aims to provide environmentally friendly skills to sand miner youth in Hamilton and Lakka to enhance alternative livelihoods in these two communities. The Environmental Forum for Action (ENFORAC) has rehabilitated a total of 300 ha of degraded mangroves in the six project communities. The project is sure to achieve its target of 500 ha by end of project.

Section 2: results achieved against Outputs

Output 1.1: Climate and oceanographic monitoring network (with 6 automated oceanographic monitoring systems) and related data processing systems installed

Activity Results 1.1:

The project procured six (6) oceanographic monitoring system (OMS), complete with remote data transmission; four remote sensing image processing software packages and equipment to assist climate and oceanographic monitoring. Installation of 5 of the weather stations has been completed in Five coastal locations covering the Six project sites. To enhance the effective operationalization of the weather stations, including the effective collection and dissemination of weather data across project locations, the project through the Meteorological Agency developed an Early Warning App through which data is collected on mobile phones given to community representatives. Additionally, the project refurbished the Government central server house where weather data is collected for wider dissemination. To reinforce the overall generation of quality, timely and accurate Climatic data and for broader coverage, the project have integrated OMS data into the existing CIDMEWS and is now in the process of incorporating same into the Global Meteorological server system. Over the years, Sierra Leone has mostly dependent on international global sources providing information on offshore wave climate including extreme wave heights. This equipment facilitates the generation of accurate data on the country's nearshore wave climates and Early warning information for disaster prevention and preparedness. The equipment also provides information to better determine nearshore wave

heights that are more relevant to designing coastal structures/interventions and also to help improve the knowledge on coastal safety aspects for the fishing industry as well as the well-being of local fishermen.

Output 1.2: Institutional capacity of MFMR, EPA-SL, SLMD/A, ONS, SLMA and USL-IMBO for assessing coastal hazard risk and vulnerability to climate change through probabilistic modelling is strengthened

Activity Result 1.2.

Cumulatively, the project has capacitated 209 (M: 154; F: 55) technical staff & has enhanced their skills in undertaking coastal hazard risk/vulnerability assessment through probabilistic modelling. The capacity of technical staff from the relevant institutions were enhanced by IMBO on; i) Drivers of Global Climate change and Remote sensing Applications; ii) Climate & weather/marine forecasting and iii) Oceanographic & marine meteorological data collection & observing systems. These trainings were timely as there has been limited institutional capacity among technical staff of the various MDAs for effective assessment of coastal hazard risks to climate change. It is hoped that these trainings will enhance to a large extent the capacity of participants in collecting reliable and accurate weather/marine forecasting data that will inform decision makers to undertake measures against vulnerability to climate change and develop appropriate adaptation measures.

Output 1.3: A systematic link between the collected data and the existing CIDMEWS is established

Activity Result 1.3.

Under this output, the project worked with a consultancy firm-INTEGEMS to design and establish a server system for the Oceanographic Monitoring System (OMS) and to integrate the OMS data into the CIDMEWS. In this regard the necessary communication, transmission and exchange intervention protocols, including data gathering, integration, transformation, publishing, data product and data sharing procedures have been developed. Following these guidelines, the project through INTEGEMS has developed the necessary APIs that facilitate an automated data integration process for connecting and routing OMS data from the on-premise server (through the telemetry gateway) to the existing CIDMEWS.

Output 1.4: The human capacity of MFMR, EPA-SL, and IMBO is strengthened, skilled and trained on Coastal Vulnerability Assessment techniques.

Activity Result 1.4.

IMBO provided capacity building to technical staff from MFMR, EPA, NTB, SLMET, and Marine Times Administration with a range of skills to carry out Participatory Community CVAs including

participatory mapping, vulnerability and risk assessment, climate models, GPS mapping techniques, coastal vulnerability map interpretation. The project has also procured four (4) advanced workstations including high performance computers with licenses for data archiving from multiple systems. The project capacitated 26 (M:24; F:2) Staff from relevant Agencies and EPA in UAV using GIS technology

Output 2.1: Sea Level Rise and coastal erosion profiles developed for the six target pilot sites to support the strengthening of Coastal Zone Management Plans at both urban and at district level

Activity Results 2.1:

The activities under this output aims at developing coastal erosion profile for the 6 (Six) project sites to support the strengthening of coastal zone management plans. For this purpose, the project supported EPA-SL to conduct the following activities; a survey to determine current shoreline erosion rates along the targeted coastlines of Sierra Leone; developed Sea Level Rise (SLR) and climate change scenarios to determine the future shoreline position and the extent of coastal areas that could be affected by natural hazards over time. EPA-SL also conducted community participatory assessment on selected coastal areas at municipal and chiefdom levels to determine the level of vulnerability within the targeted project areas. These assessments report will provide a guidance for policy makers on the design of coastal zone management plans.

In line with the same objective, the project contracted INTEGEN consulting firm to conduct an in-depth and comprehensive assessment on the extent of Climate Change vulnerability in Coastal communities. The study highlighted the extent of vulnerability that exists in targeted coastal communities as are induced by climate change and their underlining factors. The study provides critical information for the formulation of National coastal policy for resilience building in coastal communities.

Output 2.2: Ecosystem based adaptation design guidance to support future climate resilient planning and development in place

Activity Result 2.2.

EPA conducted a preliminary assessment on the six project sites to understand the level of coastal assets and infrastructures vulnerable to coastal storms. The assessment report informed decisions on further studies to be carried out on the project and assist in designing appropriate protection measures necessary for dealing with climate change induced risks along the coastal zones. In 2020, the project also collaborated with USAID funded project WABICC to develop and validated the coastal climate change adaptation plan. Aside from that, EPA-SL has developed additional One (1) Ecosystem based Adaptation design guidance manual which covers the 6 coastal communities. Moreover, Three ICZM intervention action plans (coastal

protection measures, integrated coastal and marine environmental protection regulations) were developed & are available as reference documents. This resource documents provide the necessary guidance to government, national and international practitioners and policy makers to address the challenges of coastal climate change and support to climate resilience planning for the protection of coastal communities.

Output 2.3. Marine spatial plan framework to compliment with ICZM is developed

The current marine use planning policies and guidelines with the help of IMBO have been reviewed. As a result, options for marine spatial plan governance arrangement have been developed. The project also undertook gap analysis of the National Development Plan and policies to determine critical component that had been left out for integration into the plan for national development. These processes subsequently led to the development of the Marine Spatial Planning Framework.

Output 2.4. Sierra Leone ICZM is strengthened with the establishment of SL-ICZM-WG and sustainability

Activity Results 2.4.

To achieve this result, EPA trained 121 Technical staff in four LCs (Moyamba:31; Port Loko: 29; , Bonthe: 31 and WARDC: 30) on climate change adaptation modules in order to broaden their understanding on the approaches for integrating climate change adaption into their District Development plans. In 2020, the project capacitated additional 125 (M:112; F: 13) Local Council officials. This will support the formation of an ICZM working group which will review district development plans to ensure the incorporation of climate change adaptation measures into district development plans, thus providing preparedness and protection measures for coastal communities. Also in 2021, the capacity of 103 (Male:83; Female:20) technical staff were strengthened to guide them identify key Climate change Adaptation options to be integrated in their District work plans. In total, the project has capacitated 354 (M:305; F:49) technical staff from Four District local councils to enable them incorporate climate change measures into their District development plans.

Output 3.1. An outreach communication information and awareness strategy designed and implemented to enhance decision-making and foster public awareness

Activity Result 3.1

NTB and MFMR over the past years have developed and implemented 4 outreach communication strategies which were used to conduct training of trainers' workshop and conducted public awareness raising, targeting community stakeholders and members on the causes and impact of climate change induced risks especially along the coastal zones. Against this backdrop, a total of

1,907 participants (M: 999; F:906) were trained by NTB 1,057(M:575; F:480) and MFMR 550 (M:321; F: 229) respectively.

The project in 2019 and 2020 also collaborated with the Inclusive governance cluster within UNDP and supported the Media Reform Coordinating Group (MRCG) to develop media messages in the form of Audio-visual documentation, stickers, T-Shirts etc. to document climate risks messages in the coastal zones which highlighted adaptation benefits. The documentaries produced was used to showcase the trend of destructions that had occurred over the years as a result of human activities (sand mining, mangrove wood cutting etc.). This substantially increased the knowledge on climate change risks among stakeholders and communities who gained vital understanding of the negative impact of their over reliance on sand mining as a livelihood and the effect of unsustainable fisheries and land management. This knowledge will help stakeholders to design appropriate adaptation measures/policies to booster the resilience of coastal zones against climate change risk.

The project also worked with Premier media consultancy who developed and implemented season 2 of the Climate change awareness raising programme-Watasai stone. This is a 24 episode radio drama series which was developed by the media firm and broadcasted on 5 local radio stations in 4 Local languages covering the Six project sites.

Additionally, the MRCG developed and undertook climate change risk and mitigation awareness raising campaign to market women, established 17 climate change awareness school clubs, and helped to disseminate radio drama series produced by Premier Media to increase community awareness which aims at changing behaviors toward bad environmental practices.

Output 3.2. Adaptation strategies for alternative livelihoods are designed to strengthen women and sand miner youth association's resilience to CC impact on the coastal zone so as to reduce pressure on natural resources.

Activity Result 3.2

Activities under this output aimed at designing alternative livelihood strategies for women and sand miner youth groups in coastal communities to reduce pressure on natural resources. In this regard, the project conducted rapid assessment to identify appropriate alternative livelihood options that support adaptation within the various locations in the targeted coastal areas. The report serves as a reference document for developing/designing environmentally friendly alternative livelihood activities in the various project locations.

Consequently, the project has designed and supported Eight (8) adaptation strategies which included, construction of raised platforms in Four (4) project communities; designed and constructed a 150 Meter long jetty/fish landing site at Shenge to improve fish value change and hygiene; strengthened the capacity of 400 fisher women to improve their skills in fish

processing; trained 20 fisher youth groups (men) in Fisheries regulation; waste management, 400 Coastal women in entrepreneur skills, procured and supported 5 Youth groups with 5 Fishing boats including board engines, installation of Fish processing complex (5 solar powered cold rooms with storage & water facilities, ice flake machines) and provided dozens of recommended fishing nets (to support two youth groups at Lakka and Hamilton) and also funded the construction of youth training centre aimed at providing environmentally friendly skills to sand miner youth in Hamilton and Lakka to enhance alternative livelihoods aside from sand mining. The project established, trained and supported with micro grants 18 Village Savings and Loan Associations which has benefitted 532 (M:181; F:351) young people, including women to undertake alternative businesses for alternative livelihood creation.

More than 5000 fishing community members will benefit from the fish landing site constructed in Shenge by the project which has been completed. These supports will help to improve the fish value chain and provide improved livelihoods for more than 5000 fishing community members.

Moreover, 400 (M:211; F:189) youth and other community members have been capacitated in Sustainable waste management techniques, including plastic recycling, bio-charcoal briquetting, aluminum waste cans recycling, and eco-stove, and are now able to recycle plastics and produced bio-charcoal briquetting. The project has procured and supported beneficiary communities with the required equipment to help them produce needed materials or products from waste. The Ministry of Tourism was also supported to conduct training for 400 women entrepreneurs in CC risk & awareness raising in coastal communities of Sulima, Banana Island and Kent.

Output 3.4: Participatory implementation of urgent and priority medium-scale soft (non-structural) and hard (structural) coastal adaptation works undertaken to protect coastal community at risk

Activity Result 3.4

Activities under this output aimed at developing appropriate protection measures to enable coastal communities manage their natural resources sustainably.

The project has put in place series of protection measures in project communities in order to protect coastal communities from climate change risks and impacts. The measures that have been put in place so far by the project included, the rehabilitation of certain degraded portion of the Aberdeen creek where a boardwalk facility was constructed to improve recreation on the beach area. In the same context, the project rehabilitated 310 Ha. of degraded mangrove areas in the Six project communities and separately supported the National Tourist board “on a cash

for work” scheme to plant 1000 trees across the Six project site by engaging with youth and women in local communities. The project also supported the National Tourist board with sea barber machine and tractor and hired the services of 80(M:50; F:30) youth to clean major beaches that were invaded by seaweed Sargassum. This helped to protect major beaches from seaweed pollution and improved sanitation on the coastal beaches.

In a bid to ensure that project communities effectively manage waste along the coastal beaches, 15 rubbish bins were designed and distributed in the 6 targeted communities (2 in each community), including Lumley Beach (with 3 bins). Of the 15 rubbish bins, 12 were installed in the different locations.

A total of 302 Ha of degraded mangrove areas rehabilitated by ENFORAC & NTB. At least 4 protection measures implemented: They included; mangrove restoration, boardwalk constructed at mangrove site to prevent further depletion, beach cleaning using Seaweed barber machine provided by the project & constructed fish landing site at Shenge

Output 3.5: Early Warning Systems are extended to target sites in the coastal zone to protect fishing and farming communities

Five newly established climate information and early warning systems have been put in place and covers the Six project locations to enhance disaster preparedness in targeted coastal communities. The information gathered is disseminated through several channels such as, mobile applications, community focal points for climate information and radio stations. Part of the early warning information and disaster preparedness system put in place included, climate change radio drama series, climate change school clubs; face to face community engagement with climate change information.

UNDP supported to develop and broadcast through five local radio stations 24 episodes of season II of the climate change risk and mitigation awareness raising radio drama series, and produced and shared three short documentary films on climate change risk in coastal locations. This has helped to increase awareness on climate change risk behaviors and mitigation strategies and have reduced Climate risk behaviors, especially in project communities.

V. RISKS AND ISSUES

Project Risk and Issue Log

#	Description and Date Identified	Type	Probability and Impact	Countermeasures / Management response	Status
Risks					
	Description : Date Identified:	Environmental Financial Operational Organizational Political Regulatory Strategic Other <i>(select from list)</i>	Describe the potential effect on the project if this risk were to occur Probability (very likely=5, Likely=4, Moderate=3, unlikely=2, very unlikely=1) Impact on results (critical=5, severe=4, moderate=3, minor=2, negligible=1)	What actions have been taken/will be taken to counter this risk	e.g. dead, reducing, increasing, no change
1	Description: Weak coordination among project counterparts Date Identified: 15/8/18		Impact on results: Moderate=3 Probability: unlikely=2	Strong commitment from GoSL and project counterparts will minimize such risk	Reducing

2	<p>Description: Limited capacity among project counterparts to identify, install and maintain marine and weather equipment</p> <p>Date Identified: 15/8/18</p>		<p>Impact on results: critical=5</p> <p>Probability: Likely=4</p>	<p>Consultation is ongoing for national and international assistance in timely procurement and delivery of equipment</p>	No change
3	<p>Description: Community leaders unwilling to participate in public awareness training</p> <p>Date Identified: 15/8/18</p>		<p>Impact on results: Moderate=3</p> <p>Probability: unlikely</p>		Reducing

Issues					
		Request for Change Problem Other <i>(select from list)</i>	Describe the potential effect on the project Probability (very likely=5, Likely=4, Moderate=3, unlikely=2, very unlikely=1) Impact on results (critical=5, severe=4, moderate=3, minor=2, negligible=1)	What actions have been taken/will be taken to address this issue	e.g. pending, solved

VI. Partnerships

In ensuring timely project deliverables and the realization of desired project results, the project identified four implementing partners (IMBO_SL, EPA SL, MFMR & NTB) each responsible for the different project components. During the reporting period, effective coordination and collaboration was enhanced among IPs for successful implementation of project activities.

Innovative Initiatives

To maximize project efficiency, the project collaborated with the Governance cluster within UNDP and supported MRCG to disseminate audio visual messages on climate change risks and adaptation strategies in order to build synergy and create impact among coastal communities.

VII. Challenges Lessons learned and Recommendations

- Collaborating with public institutions enhances efficiency and ownership of the project by the Government and a potential for sustainability.
- Timely report and liquidation processes from IPs remain challenging.

VIII. Financial report 2021¹

Table 1: Overview of available resources for the project duration

Donor	contribution	Expenses (\$)				Total expenses (\$)	Balance (\$)
		Year 2018	Year 2019	Year 2020	Year 2021		
UNDP	200,000.00	50,000	50,000	-	50,000	150,000	50,000.00
GEF	10,922,625.00	246,939	1,561,161.09	2,725,466.72	2,221,667.23	6,755,234.04	4,167,390.96
TOTAL (\$)	11,122,625.00	246,939	1,561,161.09	2,725,466.72	2,221,667.23	6,755,234.04	4,217,390.96

¹ All financial information is an estimate reflecting the current financial situation. An adjusted financial report will be submitted after the closure of the financial year (March 2017).

Table 2: financial summary (Based on Project Transaction details)

Project Output	Planned Activities (Activity Results)	Budget	Total expenses	Commitments	Balance	% utilization
Atlas Activity 1:	Coastal risk info	767,860	351,292.62			
Atlas Activity 2:	Support to coastal	494,934	483,760.68			
Atlas Activity 3:	Public awareness	1,358,367	218,491.82			
Atlas Activity 4:	KM and M&E	56,000	-63,443.65			
Atlas Activity 5:	Project mdg	95,000	193,762.31			
Total		2,772,161	1,203,768.56			

Expenditure by outputs in % of total expenses

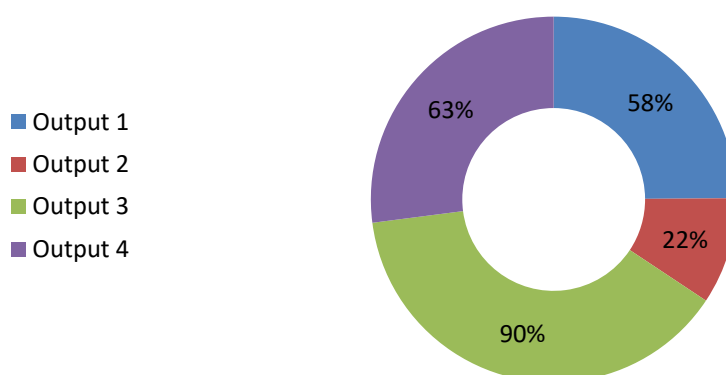


Table 3: financial utilization by donor (Based on Project Transaction details)

This table is optional

DONOR 1 DONOR 1 DONOR 1

Project Output	Planned Activities (Activity Results)	Expenditure
Atlas Activity 1:		
Atlas Activity 2:		
Atlas Activity 3:		
Atlas Activity 4:		
Total		

DONOR 2 DONOR 2 DONOR 2

Project Output	Planned Activities (Activity Results)	Expenditure
Atlas Activity 1:		
Atlas Activity 2:		
Atlas Activity 3:		
Atlas Activity 4:		
Total		

IX. Monitoring and Evaluation

Activities conducted during the year

List all M&E activities conducted during the year, including board meeting, field visiting, review meetings....

Date	Specify to which output it's linked to	M&E Activity carried out	Budget spent on this activity
01/2021	All	Developed project M&E Plan	
01/02/2021	All	Minute of Project board meeting	
29/09/2021	All	Developed M&E framework in 2021 AWP	
09/02/2021	All	1 st Technical committee meeting with implementing partners to review 2021 AWP	
30/05/2021	All	Technical committee meeting to come up with a realistic action plan by IPs to enhance effect delivery of project	
03-9/03/2021	Output 3.1	<i>Monitoring of NTB activities at project sites</i>	
25-30/06/2021	Output 3.2	Monitored activity under output 3.2, field visit, data collection, Analysis and reporting	
05/09/2021	Output 1.1	To monitor training activity undertaken by IMBO & SLMET	
06-11/12/2021	Output 3.1	To carry out monitoring on climate change awareness activity implementation at project sites	

Annexes

[Section 1: Planned activities for next year](#)

[Section 2: Combined Delivery Report](#)

[Section 3: Monitoring and Evaluation Plan for next year.](#)

[Annex 2: Links to Success stories, Press release, any other](#)