



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Naoko Ishii
CEO and Chairperson

October 28, 2015

Dear LDCF/SCCF Council Member,

I am writing to notify you that we have today posted on the GEF's website at www.TheGEF.org, a Project Identification Form (PIF) for a full-sized project proposal from UNDP entitled ***Sierra Leone: Adapting to Climate Change Induced Coastal Risks management in Sierra Leone (GEF ID : 5902)***, for funding under the Least Developed Countries Fund (LDCF). This PIF has been posted for Council approval by mail. Council Members are invited to review the PIF and to submit their comments (in Word file) to the GEF Secretariat's program coordination registry at gcoordination@TheGEF.org by November 25, 2015.

Following the streamlined procedures for processing LDCF proposals, Council members are invited to approve the following decision:

*The LDCF/SCCF Council reviewed the PIF entitled **Sierra Leone: Adapting to Climate Change Induced Coastal Risks management in Sierra Leone (GEF ID : 5902)** (LDCF Project Grant \$9,975,000) (Agency Fee \$947,625), posted on October 28, 2015 and approves it on a no objection basis subject to the comments submitted to the Secretariat by November 25, 2015.*

The Council finds that the PIF (i) is, or would be, consistent with the Instrument and GEF policies and procedures, and (ii) maybe endorsed by the CEO for final approval by the GEF Agency, provided that the final project document fully incorporates and addresses the Council's and the STAP reviewer's comments on the PIF, and that the CEO confirms that the project continues to be consistent with the Instrument and GEF/LDCF/SCCF policies and procedures.

The final project document will be posted on the GEF website for information after CEO endorsement. If the GEF CEO determines that there has been a major change to the present scope and approach since PIF approval, the final project document shall be posted on the web for Council review for four weeks prior to CEO endorsement.

In accordance with this decision, if the Secretariat has not heard from you in writing by November 25, 2015 we will assume that you approve the PIF.

Sincerely,

Naoko Ishii
Chief Executive Officer and Chairperson

Copy to: Country Operational Focal Point, Alternates, GEF Agencies, STAP, Trustee



Project Identification Form (PIF)
PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND: LDCF

PART I: PROJECT INFORMATION

Project Title:	Adapting to climate change induced coastal risks management in Sierra Leone		
Country:	Sierra Leone	GEF Project ID: ¹	5902
GEF Agency:	UNDP	GEF Agency Project ID:	5178
Other Executing Partner(s):	Environment Protection Agency Sierra Leone (EPA-SL)	Submission Date:	May 2014
		Resubmission Date:	Oct. 10, 2014
GEF Focal Area(s):	Climate Change Adaptation	Project Duration (Months)	60
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>		Corporate Program: SGP <input type="checkbox"/>
Name of parent program:		Agency Fee (\$)	947,625

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CCA-1	LDCF	5,000,000	10,000,000
CCA-2	LDCF	2,000,000	8,000,000
CCA-3	LDCF	2,500,000	10,500,000
Project Management Costs		475,000	1,500,000
Total Project Cost		9,975,000	30,000,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: Strengthen the ability of coastal communities to systematically manage climate change risks and impacts on physical infrastructure and economic livelihoods					
Project Component	Financing Type	Project Outcomes	Trust Fund	GEF project Financing (\$)	Co-financing (\$)
1. Generating sound scientific knowledge and access to information	INV & TA	Enhance the availability of high quality climate risk information that is critical for development decision-making in the coastal zone through (i) the installation of Climate and oceanographic monitoring equipment's and related data processing systems, (ii) the probabilistic modelling and assessment of natural hazard risk and vulnerability; (iii) the economic impact modelling on the projected costs of climate change impacts and net benefits of adaptation options; and (iv) the design and implementation of a National Coastal Risk Information and Planning Platform that will facilitate decision-making on coastal development	LDCF	2,500,000	1,000,000
2. Climate information "internalized" into coastal development policy processes	TA	Develop appropriate protection measures (e.g. <i>Engineering Designs for Coastal Stabilization structures</i>), policy, budgeting /legal tools (<i>Integrated Coastal Management Plans, guidelines to revise EIA, infrastructures & properties norms, participatory budgeting</i>) and integrated coordination mechanisms to improve	LDCF	2,000,000	1,300,000

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

Project Objective: Strengthen the ability of coastal communities to systematically manage climate change risks and impacts on physical infrastructure and economic livelihoods					
Project Component	Financing Type	Project Outcomes	Trust Fund	GEF project Financing (\$)	Co-financing (\$)
		/support policy design and implementation in dealing with current and long-term coastal challenges			
3. Reduce socioeconomic losses due to coastal erosion	TA & INV	Piloting adaptation investments in high risks areas [e.g. <i>relevant and profitable climate resilient alternative livelihoods, urgent and priority medium-scale soft (non structural) and hard (structural) coastal adaptation works</i>] to protect coastal infrastructure and communities assets while enhancing public awareness for better adhesion of communities and policy makers on adaptation.	LDCF	5,000,000	26,200,000
Subtotal				9,500,000	28,500,000
Project Management Cost (PMC) ²				475,000	1,500,000
Total Project Cost				9,975,000	30,000,000

C. INDICATIVE SOURCE OF COFINANCING FOR THE PROJECT BY SOURCE AND NAME CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE IF AVAILABLE, (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Recipient Government	Environment Protection Agency Sierra Leone, Institute of Marine Biology and Oceanography, Sierra Leone Meteorological Department (SLMET), Disaster Management Department.	In-kind	2,300,000
Recipient Government	Road Maintenance Fund, Women and Youth Empowerment Fund	Grant	2,700,000
Donor Agencies	World Bank, European Commission, AfDB, IDB, Kuwait Fund, Saudi Fund, and OFID, all through Sierra Leone Ministry of Finance and Economic Development	Grant	19,000,000
Other (Diaspora Sierra Leonean)	Ministry of Finance and Economic Development	Grant	3,000,000
GEF Agency	UNDP	Grant	3,000,000
Total Co-financing			30,000,000

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b)	Total (\$) c=a+b
UNDP	LDCF	Climate Change	Sierra Leone	9,975,000	947,625	10,922,625
Total Grant Resources				9,975,000	947,625	10,922,625

E. PROJECT PREPARATION GRANT (PPG)³

Is Project Preparation Grant requested? Yes **X** No ☐ If no, skip item E.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁴ (b)	Total c = a + b
UNDP	LDCF	Sierra Leone	Climate Change Adaptation	(select as applicable)	200,000	19,000	219,000
Total PPG Amount					200,000	19,000	219,000

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁵

N/A.

PART II: PROJECT JUSTIFICATION**A- PROJECT OVERVIEW****A.1 Project Description**

Studies relating to climate change and National Adaptation Programme of Action revealed that rainfall and temperature patterns of the country have been changing. Projections of mean annual rainfall averaged over the country from different models in the ensemble project show a wide range of changes in precipitation for Sierra Leone, but tend towards overall increases, particularly in JAS and OND. Rainfall in JAS is projected to change by -27 to +29% by the 2090s, and -19 to +33% in OND. An increase in rainfall could lead to an increase in surface runoff, resulting in flooding. Several reports⁶ have shown that a number of areas along the coast of the country experience frequent flooding during this period with attendant loss of lives and property resulting from inundation. The northern areas of Sierra Leone along parts of the Kambia district, various bay communities along parts of the Freetown Peninsular as well as the coastal strip of Pujehun district in the south close to the border with Liberia are frequently affected by storms and flooding. These events are particularly severe when reinforced by high and spring tides.

Climate change is expected to impact on sandy beaches in two ways: (i) acceleration of the rate of recession on sandy shores due to the rise in sea level; and (ii) increases in littoral transport capacity arising from increases in the intensity and duration of storms. Estimated recession due to sea level rise of 1m varies between 75m and 120m. This translates to land loss of between 10km² to 18km². The effects of sea level rise is clearly manifested in the south along Turners' Peninsula where the church at Ma-Bap which was some 100m inland about 20 years ago is now almost in the sea. A rough estimate indicates that sea level has been rising at a rate of between 0.2 – 0.5cm/yr. A total of 26.4 km² of land is estimated to be lost if nothing is done. The northern coast around Kambia and the low beaches of the Western area are particularly vulnerable. The land at risk includes significant areas that are currently wetland and substantial amounts of mangroves. In addition to loss of properties and beaches, coastal erosion and sea level rise's consequences include population displacements, coastal flooding and saline intrusion, which threaten coastal aquifers, fresh water resources and agricultural water resources, undermining subsistence of local communities.

LDCF resources will be used to complement these baselines to enable coastal communities to reduce its detrimental impacts from climate changes. It will support to remove significant policies, institutional, financial, technical and informational barriers stand in the way of improving Sierra Leone's ability to systematically manage coastal risks in the face of a changing climate.

³ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF upto \$1 mil; \$100k for PF up to \$3 mil; \$150k for PF up to \$6 mil; \$200k for PF up to \$10 mil; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁴ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

⁵ Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

⁶ R.G. Johnson (2006): Sierra Leone Coastal Vulnerability Assessment

- **Barrier #1: Informational constraints with low availability and use of coastal risk information:** current understanding of coastal processes is till poor, in particular, the ability to predict erosion both in the short and long term, and the prediction of shoreline dynamics or morphology with time have a profound influence on shoreline management. The availability of topographic, and long-term extreme event data and complex numerical modelling techniques are quite inexistent and required specific modelling capabilities and expertise are not available.
- **Barrier #2: Weak institutional and policy capacities to address Integrated Coastal Risk Management:** In Sierra Leone, there is a large number of scattered legislation and regulations that are designed to directly or indirectly protect the coastal zone. But, the enforcement of these sectoral legislations have generally been very poor. There is limited use of climate data and incorporation of risks and opportunities to improve policy design and implementation. There is an ineffective coordination mechanism, including lack of coherent administrative jurisdictions, over-centralized system of planning, lack of effective linking mechanisms and the absence of any coastal zone planning. About 15 institutions, from central ministries (e.g. Lands Country Planning & Environment, Fisheries& Marines Resources, Water resources, etc.), to local NGO (e.g. Conservation Society of Sierra Leone), passing through specialised agencies (e.g. EPA), research institutes (e.g. IMBO), local government (districts councils) and private sector (Tourism industries), are intervening in the coastal zone without coherent administrative jurisdictions and effective linking mechanisms.
- **Barrier #3: Inadequate awareness programme on coastal risk & human activities along the coast.** Existing DRM public sensitization, education and research interventions are still limited, inadequate regarding risks associated to climate changes in the coastal area.

Drawing from priorities identified in Sierra Leone NAPA, the LDCF financed project will: (i) enhance the availability of high quality climate risk information that is critical for development decision-making in the coastal zone (ii) develop appropriate protection measures, policy/legal tools and integrated coordination mechanisms to improve policy design and implementation in dealing with current and long-term coastal challenges; (iii) reduce socioeconomic losses due to coastal erosion through the piloting adaptation investments in high risks areas to protect coastal infrastructure and communities assets while enhancing public enhancing public awareness for better adhesion of communities and policy makers on adaptation.

Component 1

Without GEF intervention, the environmental monitoring and assessment programmes relevant to the Coastal and Marine environments have been rather low keyed restricted to research activities of the **Institute of Marine Biology and Oceanography (IMBO) and the Department of Geography, Fourah Bay College**. But, these institutions are facing some constraints related to the availability of high quality data. The only existing tidal gauge installed at Aberdeen Point is not functional for many years and the meteorological station network in the coastal area is very weak (2 stations). The topographic, and long-term extreme event data are not available. The **Environment Protection Agency Sierra Leone (EPA-SL)** is undertaking a coastal sensitivity mapping with the support of the Regional Programme for Coastal and Marine Conservation (PRCM) and the United Nations Development Programme (UNDP- Prevention Development Programme). But the sensitivity mapping exercise is not targeting climate changes risks. Even not yet fully operational, the **Sierra Leone Meteorological Department (SLMET)** is ensuring regular weather and climate monitoring and warning. The new UNDP project on EWS will enhance the capacity of hydro-meteorological services and networks to predict climatic events and associated risks. But no investment on marine meteorological stations are planned and the staffs are no equipped to realise climate modelling of sea level rise and coastal storm predictions. The expected co-financing of the GOS in undertaking baseline actions is estimated to be **1 million USD**.

LDCF resources will focus on the core tasks of improving the availability of Sea Level rise and climate change related-data that make information accessible and useful as possible to the broadest possible range of user (Component 1). Following actions will be undertaken: (i) climate and oceanographic monitoring equipment's (e.g. *tidal gauging, Kalesto radar gauge; pressure sensors, DCP satellite transmitter for the Meteosat, weather monitoring network, etc.*) and related data processing systems will be installed along the coastal zone for measuring climate and sea level rise parameters to improve the knowledge base for future climate risks; (ii) probabilistic

modelling and assessment of natural hazard risk and vulnerability to climate change impacts undertaken. The Climate Change Data Management System (CC-DAMAS) established under the UNDP –EWS would be an important tools that help to generate extreme weather data and information to produce vulnerability and risk maps; (ii) design and implement a National Coastal Risk Information and Planning Platform that will facilitate decision making on coastal development based on objective assessment of natural hazards and climate change risk criteria.

Component 2

In term of **policy and institutional initiatives**, Sierra Leone has national policies and legislation related to the environment, land management, mining, sustainable agriculture, fisheries and marine resources in order to promote effective environmental and natural resources management and achieve food security. The expected co-financing of the GOS in undertaking baseline policy actions (both from government and partner) is estimated to be **1.3 million USD**. Target ministries included in their budgets actions for the implementation or monitoring of such policies and legislations. However, there non/weak enforcement of laws and/or policies in key Sectors, particularly in the areas of urban land use planning, construction of houses in disaster-prone areas, depletion of forests reserves, uncontrolled sand mining and the enforcement of building regulations and other laws to protect Sierra Leone's natural environment. **EPA–SL** is leading the development of coherent environmental policies, regulations and standards on environment and climate change through EU support. However, EPA has limited tools to guide key planning, regulatory and policy instruments through the steps of internalizing coastal risks investment and governance issues. Finally the **UNDP- Preventive Development project** is supporting the integration of disaster risk reduction concerns into development plans and helped to establish Disaster Management Committees to encourage proactive risk reduction strategies at the community-level.

With LDCF resources, measures will be taken to improve policy design and implementation will be also improve to deal with current and long-term coastal challenges through the development of appropriate protection measures, policy/legal tools and establishment of integrated coordination mechanisms. In this framework, (i) engineering Designs for Coastal Stabilization structures will be realised for further integration into the coastal urban planning and tourism development plan on the basis of technical, climatic, environmental and socioeconomic criteria to protect areas against inundation, tidal flooding, the effects of waves on infrastructure, properties, etc. (ii) Based on risks assessment undertaken under component 1, Emergency and Preparedness Plans to sea level rise and coastal erosion impacts for area with high risks will be developed for further integration into Urban and districts development plans; (iii) guidelines & recommendations developed to revise the EIA procedures taking into account climate risks and coastal erosion assessments. In this context, research development on alternatives use of sand in the construction of houses (as pilots) will be conduct to reduce stress on the coast. It will be ensured that future development are themselves resilient ant their environment impacts do not exacerbate climate change's effects on human or natural systems; and (iv), it will be ensure a budget for the realization and sustainability of the Coastal Stabilization structures. A strategy will be developing to access funds from national and international sources, the private sector for coastal infrastructures maintenance and funding.

Component 3

This component builds on the efforts made by the Government of Sierra Leone to boost key economic sectors such as road, agriculture, manufacturing, fisheries, and tourism under the Agenda of Prosperity (PRSP 2013-2018 (<http://www.sierra-leone.org/Agenda%20Prosperity.pdf>)).

Current investment from the Diaspora Sierra Leoneans will help to boost the tourism sector (Pillar I) by establishing a five star hotel at Cape Sierra and Luawa Resort in Kailahun, Eastern Province of Sierra Leone. The co-financing expected will be **3 millions USD**. However, there will be significant impacts on Sierra Leonean coastal tourism from direct impacts of extreme events on tourist infrastructure (e.g. beach resorts, roads), indirect impacts of extreme events (e.g. coastal erosion) and short-term tourist-adverse perception after the occurrence of extreme events (e.g. flooding, storm surges, etc.). The changes caused by SLR and resulting coastal erosion could negatively affect an area's value for tourism.

The LDCF financed project is also designed to take opportunities of current support provided by multilateral partners (e.g. the European Commission, AfDB, IDB, Kuwait Fund, Saudi Fund, and OFID) to address the

lack of road infrastructures. Investments include the Kenema-Pendembu, the Pendembu-Kailahun, Port Loko-Lungi, Matotoka-Yiye, and Yiye-Sefadu, the Moyamba Junction-Moyamba and the Bandajuma-Mano River Union Bridge, Makeni-Kabala, Lumley Beach, Rue de La Paix and the widening of bridges along the Masiaka-Bo road. Expected co-financing is to be **15 millions** from the infrastructure Programme. Co-financing is also expected from the Government (at least **2.5 Millions**) under the Road Maintenance Fund. However, some of these roads are located immediately behind the shoreline, and hence the erosion and/or failure of coastal protection structures would have a significant adverse effect on transport corridors.

The government of Sierra Leone is also allocating at least **US\$ 200,000** for the establishment of a Women and Youth Empowerment Fund (Pillar 8). Ministries, Departments and Agencies of Government would have to come up with innovative projects to support women and youth empowerment to access this Fund. The Ministries of Gender and Children's Affairs and Youth Affairs will manage this Fund in collaboration with the Ministry of Finance and Economic Development. By the way, the UNDP « Youth empowerment and employment » a least 200 youth-led businesses were assisted to develop their enterprises through business management skills and entrepreneurship trainings led by technical coaches and advisor. Under the WB «Youth employment support project», approximately 25,000 male and female youths have been involved in the Cash for Work. However, with unemployment high and jobs scarce, sand mining is an attractive option for many living on the poverty line in Sierra Leone, especially youth, who are battling an unemployment rate of 70%. Co-financing from youth programmes supported by UNDP and WB are expected to be **US\$ 5.5 millions**.



Many jobless youths within the Peninsular Area have reverted to sand mining for their livelihoods. The activity is terrible for the environment, but also for the local fishermen and new tourist business that have been developed on this beach over the last couple of years. Sierra Leone's coastline is eroding by up to 6 metres per year, most of which is sadly used to reconstruct roads and housing that have been destroyed by the sea. The coastline is being stripped of its primary defence. Apart from eroding the beaches and structurally endangering the homes of communities living near the beaches, the removal of the sand is driving the marine life, like sea turtles, away from the shores and this is a problem for a tourist board aiming to promote upmarket and eco-tourism. An alternative source of income is needed to reduce the pressure on coastal area and limit the extension of coastal erosion.

Finally, contribution are also expected from the countrywide public awareness raising interventions are carried out by DMD/ONS with support from partners and through consultative meetings, jingles and skits, radio and TV debates. Structure like the National Early Warning System (EWS) on Food Security and Nutrition, the Ministry of Health are informing about existing and potential hazards status but also about vulnerability and capacity regarding those hazards: e.g. Crop forecast, Market information Forecast; Agro-meteorological Forecast; Nutrition Forecast; Food Security Forecast; Forestry Product Forecast, Environmental Monitoring data, etc.). Despite efforts and achievements, existing DRM public sensitization, education and research interventions are still limited, inadequate regarding risks associated to climate changes in the coastal area. To get support on climate change adaptation efforts, there is need to generate relevant information to inform the public and policy-makers about the potential impacts, vulnerabilities, and adaptive responses.

Under the present initiative, actions will be undertaken to reduce socioeconomic losses due to coastal erosion through the piloting adaptation investments in high risks areas to protect coastal infrastructure and communities assets while enhancing public enhancing public awareness for better adhesion of communities and policy makers on adaptation. LDCF resources will be used to (i) design and implement an outreach program to improve decision-making, strengthen information access and data resources for key stakeholders, disseminate project-generated data and information, and foster public awareness about the potential impacts of climate change; (ii) provide means and capacities to at least 2 sand miner youth associations on the Western Area Peninsula (*business development & management skills, access to micro-credit, etc.*) to pursue relevant and profitable climate resilient alternative livelihoods (ecotourism, agro-business, beach rehabilitation, etc.) to reduce pressure on the beach; and (ii) to implement urgent and priority medium-scale soft (non structural)

and hard (structural) coastal adaptation works to protect coastal community at risks. According to the NAPA and the coastal erosion assessment study⁷, the most affected areas are within the northern and southern coasts. The northern coast around Kambia and the low beaches of the Western area are particularly vulnerable. Priority investment will target these areas and specific sites will be identified during project preparation phase. Following works could be financed under the LDCF resources: beach restoration (small-scale) and/or re-vegetation, beach revetments and other shore/off-shore protection structures, River bed dredging and embankment construction, River bank revetments, etc. Priority investments will be identified when designing Coastal Stabilization structures (Component 2) that will identify and prepare a priority list of engineering works for coastal erosion control and flood control in high risks areas.

In term of adaptation benefits,

- The activities undertaken in Component 1 & 2 will support to advance the National Adaptation Process in Sierra Leone by
 - Providing necessary preparatory elements for integrating climate change adaptation for coastal sector into national and subnational development plan (analysing current climate and future climate change scenarios, assessing climate vulnerabilities and identifying adaptation options at the sector, subnational, national and reviewing and appraising adaptation options);
 - Developing implementation Strategies through prioritizing climate change adaptation in disaster risks plans, enhancing capacity for planning and implementation of adaptation and promoting coordination and synergy under the National Coastal Risk Information and Planning Platform.
- Coastal communities will get necessary information to cope with climate changes. They will access to climate scenarios, historical climate data and information on climate change impacts will be a major asset to aid in development decision-making processes enhanced.
- Strengthening in-country capability to manage coastal and marine resources under the adverse conditions exacerbated by climate change with the provision of relevant databases, access to climate information to better manage risks in the coastal area. In addition, capacity and inter-agency coordination in reviewing and monitoring the sustainability of proposed developments in the coastal zone
- Women and men will be equally involved in the process to review and update risk data, identify key adaptation solutions, and include information on any new or emerging vulnerabilities and hazards. The conditions of living of Young and employment improved through climate resilient alternatives livelihoods. Public awareness and education campaigns are tailored to the specific needs and concerns of women and men. Public awareness strategies and programs are evaluated at least once per year to determine if women are effectively involved in the response process.

In term of sustainability, the project builds mainly upon existing institutional structures of the government and will increase their capacity through relevant trainings and engagement in developing key documents. A strong focus on building on local knowledge, capacities and incentives – as well as strong project focus on ensuring gender equity in all operational matters are expected to lead to social sustainability. The project will promote the protection of coastal and marine resources through appropriate adaptation planning. With the development of relevant planning tools, such Engineering Designs for Coastal Stabilization structures, the project would be promoting further investments in adaptation and engage private sector.

Innovativeness: The innovative caractere of the project come out from the mixte of approaches;

- the holistic approach integrating knowledge based on sea level rise and it's impacts, comined with the identification of key Coastal Stabilization structures will be realised for further integration into the coastal urban planning and tourism development plan; and finally demonstration of adaptation technologies to realise in high risks areas and promoting alternative activities for sand miners to reduce the pressure on the beach;

⁷ Johnson Raymond; Johnson, Reynolds (2007): Assessing the primary physical impacts of different climate change and sea level rise scenarios

- The identification and selection of coastal defence structures will be based on relevant assessment taking into account technical, climatic, environmental and socioeconomic criteria and will involve multiple stakeholders including government bodies, civil society, coastal communities and private sector;

A.2. Stakeholders.

Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

STAKEHOLDER	RELEVANT ROLES
Environmental Protection Agency	Coordination of the project through its specific directions, support the designing of the project
Disaster Management Department and SLMA (Sierra Leone Maritime Administration)	Support the designing of the project and ensure better coordination of activities in the coastal area
Government Ministries (including decentralized)	Support the designing of the project
Institute of Marine Biology and Oceanography Research Institute	Engaged in relevant studies, support the designing of the project
Women and young groups	Contribution on designing adaptation activities, support participation processes

A.3. Gender Considerations

The project aims at implementing adaptation measures in a very participative fashion, through the inclusion of all social groups, included marginalized, to guarantee maximum coverage of impact and structural consideration in planning adaptation intervention and early warning of the most vulnerable (and exposed to the impact of climate change) in the group receiving beneficial effects.

Gender considerations will be part of the formulation process. Women will be represented in all consultations fora. Women's participation in the identification and design of adaptation measure will ensure that their needs are met and that their constraints are addressed.

A.4 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design:

Risk	Level	Mitigation
Problems related to involvement and co-operation of stakeholders	M	A participatory plan and awareness plan will be develop to ensure that all key stakeholders are engaged in the all process
Limited capacity within relevant ministries/insufficient qualified human capacity.	M	Although this project intends to develop capacities of the technical structures regarding climate change, some prerequisites, in terms of institutional capacities, will form the basis of good implementation of institutional measures. However, a solid and sustained level of institutional support by consultants mandated under this project should mitigate this risk.
Coastal erosion, flooding and sea level rise adversely impact many in the target communities.	M	Development of Emergency and Preparedness Plan for communities at risks

Risk	Level	Mitigation
Potential Environmental and social risks mainly linked to activities to reduce sand mining	M	During the preparatory phase, the project will prepare an Environmental and Social Management Framework (ESMF), to be integrated in the project document, that describe and propose measures and plans to reduce, mitigate and/or offset adverse impacts and enhance positive impacts. Community organizations, associations of civil society, and producers groups will actively participate in the design and in the implementation of the ESMF. The overall environmental impact of the project is positive and the adopted ESMF will provide enough information for making decision on safeguards aspects during the implementation phase.
Ebola Virus Disease will jeopardize current country development and investments	M	On-going national and international responses is helping in containing the epidemic and mitigating aversion behaviour.

A.5. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

National Initiatives

The UNDP_GEF “*Building Adaptive Capacity to Catalyze Active Public and Private Sector Participation to manage the Exposure and Sensitivity of Water Supply Services to Climate Change*”; The objective of this project is to enhance the adaptive capacity of decision-makers in the public and private sector involved in water provision to plan for and respond to climate change risks on water resources. This project specifically aims at supporting infrastructure and capacity building in the urban setting (Freetown and Guma Valley Reservoir) and in the rural setting (Southern, Northern and Eastern regions). The project will also strategically support: (1) the strengthening of SLMD with an improved network of rainfall stations and increased human resource capacities to provide climate change related information and (2) the establishment of a Climate and Hydrological Monitoring System for Guma Valley Dam, to help build an Early Warning System for the main water supply to Freetown.

The IFAD/GEF_LDCF project: “*Sierra Leone: Integrating Adaptation to Climate Change into Agricultural Production and Food Security in Sierra Leone*”; The intervention of this LDCF is articulated around four components: (i) sustainable development of climate resilient inland valley swamp; (ii) integrated water and natural resource management for adaptation; (iii) capacity building and awareness raising on climate change and (iv) project management and M&E.

Regional Projects

The UNDP “*Strengthening Climate Information and Early Warning Systems for Climate Resilient Development and adaptation to climate change*» is supporting the development of Early Warning Systems (EWS) across Africa, Asia and the Pacific in order to help them respond to both short-term/rapid onset climatic hazards (e.g. cyclones, floods and storms), as well as long-term/slow onset hazards (e.g. drought and long-term climate change). In Sierra Leone, the project intervention (2014-2017) will strengthen the EWS of Sierra Leone, largely through improving national capabilities to generate and use climate information in the planning for and management of climate induced hazard risks. The EWS project will be implemented by the Sierra Leone under the Meteorological Department. The institution will be identified as responsible party of the proposed project, specifically regarding the Component 1. The roles and responsibility will be clarified during the Project Preparation phase.

Articulation and complementarity will be ensuring in terms of climate information, trainings. Following contribution are identified:

- The proposed GEF project will contribute to the enhancement of the hydro-meteorological services and networks, specifically by providing climate and oceanographic monitoring equipment's (complementarity coastal and continental network);
- The Climate Change Data Management System (CC-DAMAS) established under the UNDP –EWS would be important tools that help to generate extreme weather data and information to produce vulnerability and risk maps;
- The capacity development of the Office of National Security (ONS) on warning analysts to understand tailored warning generation/response will facilitate the involvement of experts from the institution to guide the development of the Emergency and Preparedness Plans to sea level rise and coastal erosion impacts (Component 2). In addition, the Climate Change Data Management System (CC-DAMAS) will make available to government planners to identify major data gaps for a EWS climate risk reduction planning process in the coastal area.
- Finally, the package warning information, based on the tailored forecasts, to be developing under the EWS project will be use when designing the outreach programme under component 3.

B- DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes X). If yes, which ones and how: NAPAs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:

The project is linked to environmental policy and environmental assessment (EA) legislation and procedures of Sierra Leone such as : *The National Environmental Policy (NEP)*: Its relevance to climate change can be viewed in terms of the restraints that it poses to the uncontrolled use of forests, along with their natural resources;

The National Biodiversity Strategy and Action Plan (2003): Several of these priority actions relating mainly to such thematic issues as forest management, land degradation, and soil and water management have also been outlined among the key priority activities of the National Adaptation Plan of Action (NAPA).

The National Land Policy and Land Commission Act (2004): Its major influence on climate change is the power to minimise “the social and environmental implications” of the various types of land uses in the country (Government of Sierra Leone, 2005).

The National Disaster Management Policy (Draft): The Policy recognizes that disaster management and risk reduction are a multidisciplinary endeavour, and while it indicates the ONS as the lead agency in this process, it stipulates that this Office is to collaborate with the decentralized government institutions, the public and private sector, UN agencies and NGOs. Importantly gives strategic directives to the government on steps to be taken before, during and after disasters.

The project addresses the urgent and immediate activities identified in the NAPA, in particular the project will address NAPA adaptation priorities 2,3,4,14,16 and 17 and is in line with the priority sectors identified in GEF/LDFC (2006) on a global basis. Notably, this project focuses on urgently needed adaptive capacities in disaster risk reduction.

NAPA Priority Rank	Activity
2	Rehabilitation & Reconstruction of meteorological/climate Monitoring stations throughout the country
4	Sensitization and awareness raising campaigns on climate change impacts on women relating to the three conventions of biodiversity, desertification and UNFCCC
14	Development of an Integrated Coastal Zone Management Plan for Sierra Leone.
16	Development and enactment of appropriate policies and regulations relevant to the development of coastal communities, urban growth planning, and critical coastal ecosystems preservation
17	Establishment of a National Sea-Level Observing System in Sierra Leone


The Project is linked with the current UNDP Country Programme 2013-2014 that address natural resource management issues through capacity enhancement for improved environmental governance. It furthermore feeds into two environment related Outcomes of the new UNDAF 2014-2018 (**Outcome 1:** By 2018, targeted Government institutions, the private sector, and local communities manage natural resources in a more equitable and sustainable way; **Outcome 2:** By 2018, targeted communities demonstrate decreased vulnerability and increased resilience to natural and man-made disasters. The project supports UNDP Strategic Plan Outcome 3: Resilience-building. It will support the integration of disaster risk reduction with adaptation to climate change and address differentiated social and economic impacts; and preparedness for disaster management and recovery at the sub-national and national levels.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT:

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Dr Bangura Kolleh	Director	Environment Protection Agency-Sierra Leone	JUNE 19, 2014

B. GEF AGENCY CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Adriana Dinu, Executive Coordinator, UNDP/GEF		Oct. 10, 2014	Ms Mame Dagou Diop (GLECRDS)	+27 12 354 8115	mame.diop@undp.org