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| Project/Programme Title: | Monrovia Metropolitan Coastal areas Resilience Project (MMCRP) |
| Country/Region: | Liberia / West Africa |
| Accredited Entity: | UNDP |
| National Designated Authority: | Environmental Protection Agency (EPA) |



Please submit the completed form to fundingproposal@gcfund.org[[1]](#footnote-2)

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| **A. Project / Programme Information** |
| A.1. Project / programme title | Monrovia Metropolitan Coastal areas Resilience Project (MMCRP) |
| A.2. Project or programme | Project |
| A.3. Country (ies) / region | Liberia / West Africa |
| A.4. National designated authority(ies) | Environmental Protection Agency (EPA) |
| A.5. Accredited entity | United Nations Development Programme |
| A.6. Executing entity / beneficiary | Executing Entity: United Nations Development ProgrammeBeneficiary: Government of Liberia (GoL) |
| A.7. Access modality | Direct [ ]  International [x]  |
| A.8. Project size category (total investment, million USD) | Micro (≤10) [ ]  Small (10<x≤50) [ ]  Medium (50<x≤250) [x]  Large (>250) [ ]  |
| A.9. Mitigation / adaptation focus | Mitigation [ ]  Adaptation [x]  Cross-cutting [ ]  |
| A.10. Public or private | public |
| A.11. Results areas *(mark all that apply)* | *Which of the following targeted results areas does the proposed project/programme address?* |
| Reduced emissions from: [ ]  Energy access and power generation (E.g. on-grid, micro-grid or off-grid solar, wind, geothermal, etc.)  [ ]  Low emission transport (E.g. high-speed rail, rapid bus system, etc.) [ ]  Buildings, cities, industries and appliances (E.g. new and retrofitted energy-efficient buildings, energy-efficient equipment for companies and supply chain management, etc.)  [x]  Forestry and land use (E.g. forest conservation and management, agroforestry, agricultural irrigation, water treatment and management, etc.) |
| Increased resilience of:[x]  Most vulnerable people and communities (E.g. mitigation of operational risk associated with climate change – diversification of supply sources and supply chain management, relocation of manufacturing facilities and warehouses, etc.)[ ]  Health and well-being, and food and water security (E.g. climate-resilient crops, efficient irrigation systems, etc.)[x]  Infrastructure and built environment (E.g. sea walls, resilient road networks, etc.)[x]  Ecosystems and ecosystem services (E.g. ecosystem conservation and management, ecotourism, etc.) |
| A.12. Project / programme life span | seven (7) years |
| A.13. Estimated implementation start and end date | Start: …MAY 2017……………………...End: …JUN 2024……………………. |

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| **B. Project/Programme Details** |
| The Fund requires the following preliminary information in order to promptly assess the eligibility of project/programme investment. These requirements may vary depending on the nature of the project/programme. |
| B.1. Project / programme description (including objectives) | **Project Summary**The proposed project supports Government of Liberia and the Montserrado County Government and greater capital Monrovia area to strengthen the resilience of vulnerable population in the (Monrovia Metropolitan Area – MMA) coastal area which is facing increasing risks of coastal erosion and climate related extreme events. The impact of changing seasons, increased floods and droughts and high temperatures are affecting the lives and livelihoods of poor, coastal communities. Sea level rise impacts are severely compromising existing housing, as well as the availability and quality of water for hygiene and drinking use, further eroding the coping capacity of poor coastal communities.The **objective of the project** is to strengthen the resilience of MMA communities through an integrated and climate resilient coastal management. To do this, the project will invest in improving the resilience of community basic infrastructure (drinking water and sewerage systems) and associated coastal road structure, scaling-up coastal defence system, strengthening the production and use of climate information for decision making, enhancing the institutional, regulatory and policy framework for coastal management as well as climate finance and promote the diversification of livelihoods to enhance the resilience of most vulnerable coastal communities to climate-related impacts.The expected Fund Level impact is *1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions*. The direct beneficiaries include approximately 562.000 people[[2]](#footnote-3) in the coastal areas of eight MMA towns (New Kru Town, Clara Town, West Point, Central Monrovia, Sinkor, Old road, Congo Town and Paynesville), with improved basic infrastructure systems, climate-resilient livelihoods, drinking water management, and forecasting. Around 500,000 additional people living in the MMA will indirectly benefit from the improved service provision for resilient coastland, and provision of climate and weather information.Considering the Fund’s Project/programme level outcomes for adaptation, the project will contribute to the indicator: *7.0 Strengthened adaptive capacity and reduced exposure to climate risks*. The project promotes a paradigm shift through its integrated and holistic approach to enhancing coastal communities, infrastructure, and assets through four inter-linked Outputs:(i) natural coastal defence systems are strengthened to reduce the exposure of coastal communities and key infrastructures to climate risks, (ii) the climate resilience of key coastal socio-economic infrastructures and community assets is enhanced; (iii) the policy, institutional and regulatory framework for the implementation of an integrated coastal zones management is enhanced, and (iv) climate resilience of coastal communities’ livelihoods is strengthened.**Strategic Context****Country background:** Liberia covers an area of 111 370 km2, of which 15 050 km2 is water and the remaining 96320 km2 land. Administratively, Liberia is divided into 15 counties. Liberia can be roughly divided into four geographical zones: the coastal plain, the rolling hills, the plateau and tablelands, and the northern highlands. The coastal plain of Liberia is 579 km long and is characterized by lagoons, mangrove wetlands, river-deposited sandbars, riparian and coastal vegetation. This zone extends up to 65 km inland with a maximum altitude of 50 m. Monrovia the capital city belongs to the coastal plain region and the County of Montserrado. **Weak MMA’s coastal development : high poverty and vulnerability of coastal communities** After 14 years of civil war where most of the basic infrastructure has been ruined and slow recovery of the economy, Liberia in general and the MMA in particular are facing multiple development problems. Key social indicators in the MMA – such as access to health, education and employment – are very low, and the gender situation is not egalitarian[[3]](#footnote-4). The overall problem that the project is addressing is the vulnerability of Monrovia Metropolitan area (MMA) and its communities to combined impacts of sea level rise and other climate induced disasters. A large proportion of the MMA coastal community lives in temporary and/or poorly-constructed dwellings with little protection from sea or storm surges. For this combination of reasons, the community’s vulnerability to climate change and climate triggered disasters is very high. In the baseline, climate change induced sea-level rise combined with increasing storms and sea-surges could have catastrophic impacts in terms of destroying livelihoods and human lives. At the same time, high poverty profile, limited array of skills, and general low education levels, denote of low adaptive capacity of these communities ...**MMA’s Baseline coastal development situation and investments** Liberia has four seaports: Monrovia, Harper, Greenville and Buchanan. Monrovia currently handles almost all of Liberia’s seaborne trade. The Government of Liberia counts on the port of Monrovia to …. Also, the principal corridors which are driving Liberia’s economic output at present, namely the corridors Monrovia- Ganta, Monrovia-Buchanan, Monrovia-Tubmanburg, Monrovia-Bo Waterside and Monrovia-Bong, leading into and out of Monrovia are predominantly centred on the coast[[4]](#footnote-5). This concentration clearly reinforces the central triangle and underlines the need for a more inclusive infrastructure plan to mirror the objectives of the inclusive growth transformation strategy under AFT. The coastal zone of the MMA is the host of key infrastructures of high economic importance such as the industrial park, port of Monrovia and the freezone industrial area. This industrial areas support industries for manufacturing/packaging of cement, paint, aluminium, rubber polymers and household supplies. The coastal zones hosts also historical sites (Providence Island), commercial and residential zones (Paynesville, Sinkor, Congo Town, Duala) etc. Within the MMA are key infrastructures of national significance including Executive Mansion and other government buildings, foreign diplomatic missions and embassies (USA, EU, France, Ghana, Nigeria, UK etc) J.F.K Hospital (primary referral hospital in the country), James Spriggs Payne Airport, the University of Liberia and several hotels (Royal, Mamba Point, Cape, Corina etc). Planned or ongoing developments in the area include rehabilitation of the container terminal of the Free Port of Monrovia; construction of power generation, transmission, distribution and supplies for the Mt. Coffee Hydro Project, Liberia Energy Efficiency and Access Project and West African Power Project; rehabilitation of the 13.2 km Paynesville-Somalia Drive road and other roads within Monrovia suburbs; a Ministerial Complex in Congo Town; a river transport project from Paynesville to Central Monrovia; a master plan study on urban facilities rehabilitation and improvement in Monrovia by Japan International Cooperation Agency (an implementation plan for roads, waterworks, sewers and rainwater drainage) **Climate change and vulnerability of the baseline development scenario:** The Environment Protection Agency[[5]](#footnote-6) has projected that with a one-meter SLR, parts of the capital city of Monrovia and its environs - including West Point and New Kru Town, but also cities of River Cess, Buchanan and Robertsport - would be submerged and about USD 250 million worth of land and infrastructures (such as Hotel Africa) would be lost. Inundation would be followed by shoreline retreat which would vary along the coast from 10 meters in the higher cliff zone between Mamba Point and Sinkor to about 20 meters in the lowlands on the Bushrod Island (Monrovia’s port and industrial zone). Key economic sectors are clearly under threat from accelerated SLR and displacement of people from Monrovia (main city for the economic growth and development of Liberia ) is already increasing. Furthermore, climate change projections for the year 2050 suggest that rising sea levels will intensify the abrasive effects of residual currents. The coastal plains are increasingly exposed to saline intrusion and acidification, causing significant degradation. Recent observations clearly corroborate these long-term trends: coastal soil productivity has suffered a marked decrease, resulting in significantly decreased incomes for communities in the area[[6]](#footnote-7). As for many west Africa coastal cities, industries, infrastructure and tourist facilities of the MMA will be hard to protect. These key economic and social assets, are close to mean sea level, and very vulnerable to erosion and rising sea level. Rapid construction, destruction of mangrove swamps and inadequate refuse management compound the risks posed by climate change for the important economic centres in the Gulf of Guinea[[7]](#footnote-8) including Monrovia.The major root-causes for the growing vulnerability of coastal areas include: (i) uncontrolled and unplanned urbanization along the coast; (ii) unsustainable agricultural and other livelihoods practices leading to clearing of mangroves and degradation of coastal vegetation systems; (iii) sand mining; and (iv) oil pollution and illegal solid and sewage wastes dumps. These non-climate driven pressures result in reduction of natural buffering functions of coastal ecosystems and dangerously limit their capacity to adapt to emerging threats. Combined with these baseline stressors, climate change effects are likely to impede achievement of the SDGs and economic and social aspirations of MMA coastal communities, if no risks reduction measures are immediately taken. Recognizing the above issues, reducing climate change risks in costal zones has been retained by Liberia as the most urgent adaptation intervention in the NAPA (2007), the INC (2013) and the INDCs (2015). **Adaptation alternative for MMA’s coastal development**The adaptation alternative is to implement an integrated and climate resilient coastal management strategy that will promote a paradim shift towards a climate resilient coastal development pathway. This new adaptive system will be characterized by: (i) the reinforcement of the institutional frameworks governing costal development and ICZM; (ii) adoption of costal management practices more consistent with the threats from SLR; (iii) increased information flows on climate change, including variability, between producers and users; (iv) strengthened abilities to design and implement early adaptation actions and long-term resilience plans; and (v) well managed and disseminated adaptation knowledge and lessons to stimulate a sector-wide change towards resilience.[[8]](#footnote-9)**Key barriers addressed by the project**: a number of barriers exist that prevent Liberia from implementing the necessary resilience-building corrective strategies. These include: (a) inadequate policy, legal and regulatory environments that do not account for climate risks , and do not provide sufficient incentives for key stakeholders to adopt climate-resilient ICZM strategies and practices; (b) low awareness of policy-makers on increasing climate risks and limited capacities of staff in line ministries to manage these risks; (c) important spatial and quality gaps in the climate information supply chain that result in under-performance of climate warning systems and adaptation decisions; (d) low technical and financial capacitiy of costal stakeholders and communities to implement cost-effective adaptive measures; and (e) insufficient codification and dissemination of knowledge on successful climate risks management models. In the absence of integrated interventions aiming at removing these barriers, and simultaneously addressing the non climate drivers of the vulnerability of the MMA’s coastal communities compounded by the situation of acute poverty the MMAs costal communities would hardly be able to cope with the climate risks.[[9]](#footnote-10)**Project Description** The project objective is to support Government of Liberia and the Montserrado County to strengthen the resilience of vulnerable population in the MMA’s coastal area which is facing increasing risks of, coastal erosion and climate related extreme eventsFund Level impact is *1.0 Increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions*.*.* *Fund level Indicator: 7.0 Strengthened adaptive capacity and reduced exposure to climate risks*.To achieve this objective, the proposal will pursue the achievement of the following outputs :Output 1: Natural coastal defence systems are strengthened to reduce the exposure coastal communities and key infrastructures to climate risks. This will include combined soft (mangrove/wetland enhancement and management plans) and hard (offshore dolosse, beach nourishment, sea wall) coastal protection measures. The Output 1 will include the following activities:* Activity 1.1. Strengthening Climate Resilience of Mesurado Wetland/Mangrove Area
* Activity 1.2. Implementation of Combined Engineering and Ecosystem Based Adaptation for Coastal Erosion Sites

Output 2: The climate resilience of key coastal socio-economic infrastructures and community assets is enhanced: This will include climate proofing the infrastructures and integrated climate information in the management of the infrastructures and the required capacity building. The Output 2 will include the following activities:* Activity 2.1. Climate Proofing of Basic Infrastructure Systems of MMA
* Activity 2.2. Climate Proofing of Coastal Road Structure of MMA

Output 3: Strengthening the policy, institutional and regulatory framework for the implementation of an integrated coastal zones management. This will include the development of an ICZM, and required policy and regulations for the implementation of the ICZM and the master plan of development. (to address illegal coastal housing, sand beach meaning, MMA master plan). The Output 3 will include the following activities:* Activity 3.1. Strengthening National and Sub-national Entities for Climate Resilient Land Use and Planning and Policy Landscape Improvement
* Activity 3.2. Support to University of Liberia for Development of Curricula on Sustainable Development and Integrated Coastal Zone Management
* Activity 3.3. Strengthening Capacity of the National Meteorological Service (NMS) for coastal meteorological, sea and climate data improvement

Output 4: Strengthening coastal communities’ livelihoods resilience against climate risks: this will include promotion of alternative and resilient livelihoods, and sources of energy, improving housing in coastal areas (providing top up resources to improve housing). The Output 4 will include the following activities:* Activity 4.1. Increasing Climate Resilience of Endangered Coastal Communities Housing (West Point, JFK Hospital and New Kru Town communities)
* Activity 4.2. Development of Climate Finance Incentives System for Climate Resilient Housings, Renewables, Energy Efficiency and Eco-entrepreneurship
* Activity 4.3. Improving livelihoods of coastal communities through establishment of Community Training Centres (CTC)
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| B.2. Background information on project/programme sponsor | The **Environmental Protection Agency of the Republic of Liberia (EPA)** is the principle authority for implementing the national environmental and sustainable management and climate change policy and law in Liberia. The Government of Liberia established the EPA in 2003 under the EPA Act. The entity core mandates includes monitoring, coordinating and supervisory of the sustainable management of the environment in partnership with regulated Ministries, Agencies and organizations and in close and responsive relationship with the people of Liberia and to provide high quality information and advice on the state of the environment and matters connected therewith” (EPA act of 2003). EPA administrative organogram comprises of the Policy Council, Board of Directors and Management headed by an Executive Director. The Agency reports directly to the president of the Republic.The Agency financial support comes from budgetary allocation from the Government of Liberia, revenues generated from fees charged to investors, programs, projects or activities affecting the environment within the Liberian boarder. Over the past years EPA budget in aggregate falls between $3,5 million to 4,3 million USD per annum. In addition, the Agency has during the last y years managed 70 million USD donor funding from the Global Environment Facility (GEF) Trust Fund, Least Developed Countries Fund (LDCF), Adaptation Fund, UNCCD, TEEB etc..  |
| B.3. Market overview | Only some of the projects results can fall under “market” category as most of the project results cannot be easily market defined as they are into category of public goods (such as basic infrastructure, roads, off-shore breakwaters, etc.) or they are soft measures (trainings, skills, education, etc.). Although, they are protecting Government controlled assets and thus helping at the budget level. However, there are three products which can be market characterised and those are: solar fish drying facility, briquette charcoal production facility with adjacent energy forest and eco-revolving fund for climate finance. Dry fish and charcoal have excellent market niche and are both in great demand and there should be even possible to run it with private partner through public-private-partnership. With certain logistic alignments there is even prosperity for these products to be exported on regional West African or African market. Eco-revolving fund is a new product on Liberian market and with proper marketing, it could steer a lot of attention as it would offer cheap credits for housing resilience improvement, energy efficiency, renewable energy, etc., to those in needs (under certain conditions). The fund can be also used for development of new micro-businesses and all together it can be a factor of changes for many families. |
| B.4. Regulation, taxation and insurance | There are no applicable licenses or permits for the implementation of the project. In addition, there are no tax implications applicable to village irrigation development, community water supply, and domestic rainwater harvesting systems or agriculture development. Agrarian Development Act stipulates the regulatory environment for development of village irrigation systems and water management therein (including water sharing among multiple users). There is no licensing or permitting authority for hydromet infrastructure in the country. For activities related to procurement of services, including training, through UNDP, according to the SBAA signed with the GOSL, taxes are not applicable. Section 7 of the Convention on the Privileges and Immunities of the United Nations provides, inter alia, that the United Nations, including its subsidiary organs, is exempt from all direct taxes, except charges for utilities services, and is exempt from customs duties and charges of a similar nature in respect of articles imported or exported for its official use. If the services are procured directly by the GOSL implementing partners, then the national procedures apply, which entail the payment of the Domestic Tax (VAT) amounting to 12.5% where applicable (e.g. venue and food for training). There are no applicable licenses or permits for the implementation of the project. In addition, there are no tax implications applicable to coastal defense infrastructure in the country.  |
| B.5. Implementation arrangements | **Implementation arrangements**The project will be implemented over a period of 7 years according to UNDP’s National Implementation Modality (NIM). The Environmental Protection Agency (EPA) will be the National Implementing Partner in this project, with UNDP Country Office support. The Project implementing partner, EPA, will have full responsibility under the NIM arrangements to ensure accountability, transparency, timely implementation, management and achievement of results. The EPA will appoint a full-time National Project Director (NPD) to oversee the coordination of project activities through different line Ministries, and hire a Project Manager to oversee actual implementation and the operational aspects of the project. UNDP will have responsibility for overseeing the implementation of the project.The NPD will ensure a continued cohesion between the project and the government development plan and programs and provide additional linkages and interactions with high level policy components within the Government. In this way, the EPA will be in a good position to assume responsibility and follow up on, supervise and coordinate the contributions from stakeholders.A Project Board shall be established to provide guidance and support for the smooth implementation of the project. The Project Board approves project annual work plan (AWP), and authorizes any major deviation from the agreed work plan. It arbitrates on any conflicts within the project or negotiates a solution to any problems between the project and external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities The Project Board will be chaired by the Executive Director of the Environmental Protection Agency, and will comprise UNDP, the senior representative of GoL, and the senior representative of the Monrovia City Corporation (MCC). The PB’s constitution will be reviewed and recommended for approval during the Local Project Appraisal Committee (LPAC)meeting[[10]](#footnote-11). Representatives of other stakeholder groups may be included in the PB, as considered appropriate and necessary. The PB will meet at least twice per annum (or more often if required). Specific Roles of the Project Board include:1. The Board shall set strategic direction, reinforce government leadership of the program and coordinates all interventions;
2. Provide guidance and agree on possible countermeasures/management actions to address specific risks;
3. Agree on Project Manager’s tolerances in the Annual Work Plan (prior to approval by UNDP) and quarterly plans when required;
4. Conduct regular meetings to review the Project Progress and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to the approved Annual Work Plan;
5. Provide ad-hoc direction and advice for exception situations when project manager’s tolerances are exceeded;
6. Review and approve all activities that are supported by the program based on the program objectives, work plan and availability of funding;
7. Provide technical advice to create synergy and uniformity between program supported activities and policy;
8. Guide and support program delivery at sectoral level;
9. Provide support in resource mobilization to support program funding gaps;
10. Monitoring and evaluation of program activities through periodic meetings and occasional site visits;
11. Receive reports on all activities supported by the program to serve as an additional basis to assess and monitor the program performance and delivery.

The day- to- day management of the project shall be entrusted to the Project Management Unit (PMU) which will be accountable to the National Project Director and Board for the performance of the project. The PMU will be based in Monrovia. The PMU will be manned by a Project Manager (PM), Project Finance and Administration Assistant, and a Technical Advisor financed from the GCF grant. The PM is accountable to the National Project Director for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. Sites interventions will be supported by the relevant government executing agencies including the Ministries of Public Works, of Lands, Mines and Energy, of Transport, The representatives of these technical agencies shall form the Project Implementation Technical Support Team (PITST) in order to provide technical advice and guidance to the PMU. The PITST will be supported by experts (both national and international) who will be contracted to perform specific tasks as required by the project. The PMU will produce Annual Project Performance Report (PPR) and Budget and Work Plans (ABWP), to be approved by the PB at the end/beginning of each year to be submitted to the GCF secretariat after having passed to all the UNDP clearance steps. **Project assurance**The UNDP (Country Office and Regional Support unit) will provide oversight of the project’s implementation to ensure the proper use of GCF resources and the project progress towards achieving the project expected outputs, outcome and development objective outcomes As requested by the Government of Liberia, the UNDP Country Office will provide the following support services for the implementation of this project, and recover the actual direct and indirect costs incurred by the Country Office in delivering such services as stipulated in the Letter of Agreement (LOA) between the Government of Liberia and UNDP and following the Universal Prices List:* Payments, disbursements and other financial transactions
* Recruitment of staff, project personnel, and consultants
* Procurement of services and equipment, including disposals
* Organization of training activities, conferences, and workshops, including fellowships
* Travel authorization, Government clearances ticketing, and travel arrangements
* Shipment, custom clearance, and vehicle registration.
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| **C. Financing / Cost Information** |
| C.1. Description of financial elements of the project / programme | **GCF grant**A grant financing mechanism is sought to support the prioritised interventions of this project. The Government of Liberia seeks maximum concession for the proposed urgent adaptation actions The targeted populations’ already suffering from high poverty, war displacement, livelihood insecurity and weak access to WATSAN services and repeated cycles of political instability, and gradual erosion of health (Ebola outbreak), will be further stressed by climate risks,. The poorest and most climate vulnerable districts (i.e. West Point, New Kru Town, JHK Hospital) contain large numbers of female-headed households, unemployed youth and children. Post-war investments in WATSAN infrastructure, roads, education/schools, hospitals and housing is struggling to deliver the required development benefit due to the economic weakness of the country, continued livelihood vulnerability and increasing exposure to impact of climate variability and related processes (i.e. increased coastal erosion). The adaptation interventions in this project target public goods – such as; Monrovia Metropolitan Area (MMA) basic infrastructure systems (drinking water supply, sewerage and drainage system), important coastal roads, enhancing climate resilience of housing (i.e. for West Point, New Kru Town and JFK Hospital area residents), engineered shore protection against erosion, eco-based solutions i.e. replanting of waterfront areas managed by the community groups, and meteorological and sea level monitoring systems. As the project targets the very poor, there is no scope for end users to pay for the services generated through the project. The additional investment required to build resilience to climate change in MMA coastal zones is prohibitive for a government such as the GoL that is constrained by heavy debt and an unfavourable balance of payments. Domestic financing is inadequate to meet recurrent costs and debt repayments. Additionally, there is no short or medium term prospect of private sector investment in such public goods In Liberia. Furthermore, revenue generated as a result of project interventions applies directly to the beneficiaries (for instance, improved incomes and savings from road maintenance and infrastructure resilience building, or drinking water related expenditures). Therefore, the interventions do not lend themselves to reflows back to the government or the GCF, requiring maximum grant financing. Therefore the project seeks concessional adaptation financing as a grant to upscale best practices in coastal adaptation and resilience-building in MMA. .**Co-Financing for the Project**The Government of Liberia has committed a total amount of US$ 5.5 million towards the proposed project. This adds to US$ 10 million for enhancing climate resilience of housing for the resettled most-vulnerable communities.*]*Liberia as a country and its public institutions alike, as well as community organisations and NGO’s, have very limited possibilities for cash co-financing, however, in-kind co-financing for office space, monitoring/supervision of activities implementation, transport and labour (excluding meals incentives) are foreseen and will be committed by each of named entity. This would amount up to 10% of project cost for each activity. These in kind contributions are committed by EPA, MCC, LWSC, PCC, BCC, NGO’s and communities.

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| **Outputs**  | **Output (USD mil.)** |
| Output 1: Natural coastal defence systems are strengthened to reduce the exposure coastal communities and key infrastructures to climate risks | 41.205 |
| Output 2: The climate resilience of key coastal socio-economic infrastructures and community assets is enhanced | 14.5 |
| Output 3: Strengthening the policy, institutional and regulatory framework for the implementation of an integrated coastal zones management | 1.75 |
| Output 4: Strengthening coastal communities’ livelihoods resilience against climate risks | 15.17 |
| **Total Amount (USD mil)** | **72.625** |

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| C.2. Project financing information |  | **Financial Instrument** | **Amount** | **Currency** | **Tenor** | **Pricing**  |
| **Total project financing****(a) = (b) + (c)** |  | ………72.625 | million USD ($) |  |  |
| (b) Requested GCF amount | (i) Senior Loans(ii) Subordinated Loans(iii) Equity(iv) Guarantees(v) Reimbursable grants \*(vi) Grants \* | ……………………………………………………………………………………………………………61 | OptionsOptionsOptionsOptionsOptionsmillion USD ($) | ( ) years( ) years | ( ) % ( ) % ( ) % IRR |
| *\* Please provide detailed economic and financial justification in the case of grants.* |  |  |
| **Total Requested****(i+ii+iii+iv+v+vi)** | ……………..61 | million USD ($) |  |  |
| (c) Co-financing | **Financial Instrument** | **Amount** | **Currency** | **Name of Institution** | **Seniority** |
| GrantGrantGrantOptions | …………..…5.5……………3.5…………2.625………………… | million USD ($)million USD ($)million USD ($)Options | Gov of Liberia (GoL)Conservancy Intl (CI)UNDP |  OptionsOptionsOptions |
| Lead financing institutions: Government of Liberia (GoL), Conservancy International (CI), UNDP |
| (d) Covenants |  |
| (e) Conditions precedent to disbursement |  |

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| **D. Expected Performance against Investment Criteria** |
| Please explain the potential of the Project/Programme to achieve the Fund’s six investment criteria as listed below. |
| D.1. Climate impact potential *[Potential to achieve the GCF's objectives and results]* | With its all-inclusive holistic approach, the project has potentials to contribute to all four **initial Fund level impacts** but in terms of most direct impact to society these three initial Fund level impacts will be the most important: *(1.0) Increased resilience and enhanced livelihoods of the most vulnerable people, communities and regions* (specially targeting the most venerable communities of West Point, New Kru Town and JFK Hospital area (ca. 80.000 inhabitants)[[11]](#footnote-12), planned Community Training Centre will offer new skills development for improving the livelihood); (3.0) Increased resilience of infrastructure and the built environment to climate change threats (ca. 20.000 people of New Kru Town, entire population of West Point with ca. 47.470 inhabitants and ca. 10.000 inhabitants of JFK Hospital area will benefit with climate resilient enhanced housing and basic infrastructure improvement works-including water service; planned road infrastructure climate resilient works will benefit entire population of Monrovia ca. 1 mil. as those are main city arteries with high community, economical and public transportation importance); and, (4.0) Increased resilience of ecosystem and ecosystem services (rehabilitation, conservation and clean-up activities for threatened Mesurado wetland/mangrove area of 6760 ha[[12]](#footnote-13)). According to 2008 National Census approximately half of population is of female gender and the same is applicable to before mentioned figures (in total more than 70.000 females) |
| D.2. Paradigm shift potential*[Potential to catalyze impact beyond a one-off project or programme investment]* | The **theory of change (ToC)** indicates that solution to address the climate vulnerability of Monrovia coastal areas and communities requires the strengthening of natural coastal defense systems to reduce the exposure coastal communities and key infrastructures to climate risks, the enhancement of the climate resilience of key coastal socio-economic infrastructures and community, the strengthening of the policy, institutional and regulatory framework for the implementation of an integrated and climate resilient coastal zones management, the strengthening coastal communities’ livelihoods resilience against climate risks. Furthermore, the ToC describe how each of the four outputs of the proposed project contribute to the long-term objective and how the resulting project impacts can be sustained, replicated and scaled to contribute to climate-resilient development of the entire coastal areas of Liberia.**Paradigm shift potential** lies in the long term impact that the project will bring not only to MMA but to the country as whole, due to comprehensive and thorough approach that will reach down to the root causes of the problem. Project will offer new innovative solutions for the Liberia’s problems such as introduction of off-shore breakwaters dolosse that were never used in West Africa before, to ensure superior protection of coast against sea erosion with minimal impact on environment and without destroying a very resource that one tries to protect (as so far done by covering beaches with rock boulders and thus sealing the beach resource against any further development possibility, i.e. tourism, recreation or use of beach by traditional fishermen communities).**Potential for scaling up and replication:** The Output 1 invests in strengthening of natural coastal defense systems to reduce the exposure coastal communities and key infrastructures to climate risks. This will include the combination of soft (mangrove, coastal forests, coral reef, fishing areas, wetland and river basin enhancement and management plans) and hard (offshore dolosse, beach nourishment, sea wall) coastal protection measures. The project will facilitate dissemination of such coastal defenses practices and technics through a participatory approach and capacity building targeting the line ministries, the Montserrado and the other coastal counties, the private institutions, NGOS/CSOs and communities members involved in the management of coastal areas. This capacity building will aim at strengthening the capacity and skills of the aforementioned institutions and groups on the design, building and maintenance of combined coastal defenses systems. The project will furthermore assure long-term sustainability and potential for scale up and replication of these investments through additional capacity building of all the coastal counties administrations and communities in: i) the development of yearly and multiyear coastal adaptation investment plans, ii) the integration of these plans in the coastal counties development plans and iii) climate finance to ensure the mobilization of additional resources required for the efficient implementation of these coastal adaptation investment plans. The Output 2 will support the climate proofing of key coastal socio-economic infrastructures and community assets and the integration of climate information in the management of these infrastructures and assets and the required capacity building. The project will assures long-term sustainability and potential for scale up and replication of these investments by strengthening the policy, institutional and regulatory framework for the implementation of an integrated coastal zones management. Indeed, by improving the institutional arrangement for the strengthening of national and sub-national entities for climate resilient land use and planning and policy landscape improvement, supporting the creation of national expertise on sustainable development and integrated coastal management and strengthening the capacity of the National Meteorological Service (NMS) and other line institutions for coastal dynamics monitoring, the project will lay the foundation for the replication and upscaling throughout the entire Liberia coastal zone of the investments planned under the output 2. Furthermore, the climate finance capacity building planned under the output 1 will support the mobilization of the required resources for the upscaling and replication of these investments in other areas of the Liberia coastal stretch. The output 4 invests in the strengthening of coastal communities’ livelihoods resilience against climate risks. This will include promotion of alternative and resilient livelihoods, and sources of energy, providing top up resources to improve housing in coastal areas. The project will facilitate dissemination of such livelihood practices through both enhanced technical capacity of coastal communities and facilitation of market linkages to sustain these practices. Indeed, the project will support the creation of Community Training Centres (CTC) and these CTC will be open to the communities from other coastal counties. Additionally, the project will support the GoL to remove the barriers for the house building and financing private sector to participate in the program for improving housing in the coastal areas of Monrovia and to replicate and upscale this experience throughout the entire Liberia coastal zone. This will be done through a set of policy, regulations and taxes and duties abatements to reduce the costs of credits for housing and incentivize the cost of houses construction. Overall, the project’s integrated approach can be scaled up in at least 20 other identified vulnerable river basins in areas the country- these include Deduru Oya in the north-west, Kala Oya in the north-centre and Menik Ganga and Kumbukkan Oya in the south-east. The project impact potential can be replicated to around 11,500 village irrigation systems in these river basins with dry or dry-intermediate catchments to around 2,400,000 people and 1,840,000 farmers. Ultimately the integrated approach to climate-smart water management in the Dry Zone, could be replicated throughout the 30,000 small irrigation systems in the country, which includes small scale reservoirs, diversions and channels to ensure sustainable agricultural production and drinking water supply for approximately 5,000,000 people or around 25% of the total population of the country. Such strengthening of climate resilience of Mesurado wetland/mangrove area desires to be repeated to at least four (4) other Liberian wetland/mangrove locations along the Liberian coastland, including:- Gbedin Wetlands (25 hectares) is situated in Nimba county- Kpatawee Wetlands (835 hectares) in Bong county- Lake Piso wetland (the only Ramsar site, 76.091ha) in Grand Cape Mount County. - Marshall Wetlands (12,168 hectares) in Margibi County, and **Potential for knowledge and learning** The project facilitates improved knowledge generation and iterative learning among community members, technical agencies coping with coastal defense and infrastructure systems, national and sub-national entities for climate resilient land use and planning, and climate data generation and interpretation, and new generation of students which will learn upon some of project outputs (such as new curricula developed). The project will generate substantive knowledge on climate-related aspects of coastal zone management. The project will develop a number of knowledge products including new curricula for undergraduate and graduate students on sustainable development and ICZM, new management system for Mesurado wetland, new ways of coastal defense techniques (i.e. dolosse system) new local small scale climate finance incentive system for citizens. The top of the list is surely new livelihood improvement program of new skills development through CTC’s. The knowledge that is generated will address some of the key technical and infrastructure issues of including defense of the coast from sea erosion and improvement of safer and healthier life through improved basic infrastructures in a way that makes them resilient to climate change. It will support new technologies for fish drying and charcoal production that can be easily scaled up and managed by communities with guidelines from managing project implementation sources and later from local governmental institutions.**Contribution to the creation of an enabling environment****Enabling effective and sustained participation of private and public sector actors:** The project invests in improved technical capacity and knowledge of government agencies and community organizations on coastal zone management and enhances coordination among government agencies, community based organisations, and private sector actors. The project will build on existing experiences of community participation (from past projects and otherwise) and strengthen a range of rural CBOs and public-private-partnership development. Sustained participation of various actors is ensured through training and investments including for farming communities to develop energy forests and briquette charcoal facility(ies), for mangrove adjacent communities to carry out climate-smart awareness rising and improved use of ecosystem services, women’s organisations to manage community fish drying systems, youth organisations to participate in new skills development, public institutions to strengthen its technical capacity (expertise and technology) and to contribute to delivering, restoring and maintaining of resilient basic infrastructure systems and coastal road.**Innovation, market development, and transformation***Integrated Approach:* The project has recognised that among the efficient ways to make a long term impact will be to make an integrated approach in order to offer long term solutions to root- and immediate causes of the problem. Problems will be addressed from various directions – in essence: strengthening of the natural coastal defence systems by help of innovative engineering solutions, enhancing climate resilience of the key socio-economic structures, strengthening the policy and institutional framework, and last but not least, strengthening livelihoods of local communities against climate risks. In conditions as present in Liberia today, this is the only way to long term success. If one of those segments would be omitted long-term stability will be lost. The project brings together many different stakeholders to provide an integrated solution for the Liberia’s most populated, and also the most vulnerable, Monrovia Metropolitan area. The project also responds to urgent adaptation needs of vulnerable slum people of West Point, New Kru Town and JFK Hospital area by topping-up GoL housing investments for upgrade to more climate resilient structures. All these together represent our project’s all-around comprehensive approach. *New adaptation technologies and practices*: The project adds value to existing traditional systems by combining them with modern technical and scientific knowledge and innovative practices that can deal with current issues such as erosion of coastland and unsustainable charcoal use. The project will promote use of ecosystem based adaptation wherever possible (i.e. through intensive re-planting of coconuts along the Monrovia waterfront area – in old times home to coconut plantations) but will not seize to use combined engineering and ecosystem based solutions where no other option exists. Such is a case with using dolosse offshore breakwaters to ensure protection against sea erosion and at the same time giving a chance to coconuts to root properly and then to take prime by natural defence way. A the same time beach is naturally re-nourished with sand in the area between dolosse and the coastline where sand is trapped, and on top of it, beach is still available as a resource for, i.e. recreational or tourism purposes, or as an special ecological habitat (i.e. as a breeding ground for sea-turtles). This was not a case with usual way of beach protection against erosion where huge rock boulders were used to anchor the beach and thus protect it against erosion – but at the same time a beach resource is completely lost.Lastly, the project invests in innovative information gathering, with development of automated climatic/meteorological and sea stations collection by using automated stations, and sea level data collection by using automated sea gauge station. **Contribution to the regulatory framework and policies**The proposed project makes an important contribution to Liberia’s national policies on development, disaster management and climate change. The outputs and activities detailed in this document make significant contribution to the implementation of recommendations of the national policies: Vision 2030, AfT, INDC, and NAPA. Those national strategies and policies focus on adaptive measures to avoid/minimize adverse impacts of climate change to the most vulnerable people regarding safety from hazards (i.e. floods), hygiene/health and basic infrastructure access. |
| D.3. Sustainable development potential*[Potential to provide wider development co-benefits]* | As a consequence of the institutional strengthening activities (strengthening of NMS, GIS/spatial planning units), **high-qualified jobs** will be created permanently at NMS, and GIS/spatial planning units of MLME, EPA, LISGIS. In addition certain number of **qualified lecturer position**s will be open at first for project duration time employment and then, as envisioned, as permanent positions with CTC as they it will become an institution for the life-long learning. Permanent positions will be open in briquette charcoal production facility and also soalr fish draying facility. Tree seedlings production, trees planting and care, as well as energy forest planting and care, will also bring **several semi-permanent to permanent positions**. The number for all positions of above will be verified as soon as the decision over the permanent institutional structure and particular activity scope is taken during project implementation. These jobs are equally open for men and women.Through the construction works on basic infrastructure, roads and houses building (that is, upgrading housing features for climate resilience), a number of **short-term and seasonal employment opportunities** will be created in the construction industry, probably mostly locally and low-skilled, with important impacts on poverty reduction. Taking into account the full duration of the project (6 years, if full-time is considered as 200 days per year), this all together will have a high impact on opportunities especially for unskilled and low-skilled local workforce. The infrastructure and roads construction works will provide significant **additional economic benefits** to the unemployed urban and semi-urban population in terms of all-year round access to the market and decreased risk of interruption of traffic, reduced travel time and reduced transport costs. This can have important impacts on the local economic development. Most probably, even school attendance could be improved and dropout rates reduced due to improved basic infrastructure and roads.The CTC built under this project will be used as life-long skills learning center and, thus, have important **educational benefits**. The entire mentioned job, economic and educational benefits will provide an important contribution to **poverty reduction**, as the basic infrastructure and roads improvements are intentionally targeted at some of the poorest districts in Monrovia (i.e. Clara Town, New Kru Town, new areas for resettled slum community of West Point) with some of the poorest, and most vulnerable communities.The project will as well have important **gender benefits**: Although reliable data is scarce on gender-specific vulnerabilities to natural disasters in coastal Liberia, experiences and performed project scoping indicate that women would suffer more from natural disasters than men. They are often those who are taking care and controlling fish drying business, they and children alike are most affected by lack of basic infrastructure - including scarce water and sanitation facilities, as they are more reluctant to use them due to fear of rape which are in Liberia still very high. In addition, pregnant women and lactating mothers are more sensitive to harsh slum environments, particularly when the rainy season starts. The project will promote community-strengthening inputs where community management groups will be formed that will require having an equal number of women representatives and will be responsible for the upkeep and maintenance of the common community areas. In the above mentioned employment opportunities, women will be employed with equal pay for equal work. The project operations will also have some **climate change mitigation benefits**, particularly through the conservation of Mesurado mangrove wetland and stabilization of road sides by the plantation of trees. If the trees are planted on average every two meters on both sides of the road, except for those areas where bridges, culverts, houses, existing trees etc. impede the plantation. From the estimated length of 15km of roads to be improved for climate resilience, with estimate that alongside ca. 50% of the road length trees will be planted, this means the plantation of an estimated total of 7,500 trees during the project. In addition, number of trees planted on ca. 100 acres of land for energy forest purpose would for some years (4-8 before cutting) add to certain CO2 reduction The specific species for all tree planting activities depend on local conditions and availability. The exception is Monrovia waterfront areas where coconut, sea almond and mango trees are planned in ration 8+1+1 respectfully. The exact planting area is estimated to ca.-- acres and estimated number of trees is ---. |
| D.4. Needs of recipient*[Vulnerability to climate change and financing needs of the recipients]* | According to the Census of 2008, Liberia’s population was put at 3.5 million in 2008 and it is projected to increase to 10.3 million by 2058, with more than 70% of the population living in coastal cities including Monrovia, the country’s capital. More than half of the country’s population lacks access to basic social and infrastructure services. Majority of Liberians use biomass as the primary source of energy. In 2004, it was estimated that over 95% of the population relied on firewood and charcoal for cooking and heating needs and palm oil for lighting. In 2009 it was estimated that 70% of the urban population use charcoal for cooking 21% is using firewood for cooking and the rest 8% mostly natural gas or electricity[[13]](#footnote-14). In spite of enormous recovery efforts since 2005, Liberia remains one of poorest countries. Liberia is part of the group of Least Developed Countries (LDCs) with more than 75% of unemployment rate, but has experienced impressive development in the past years. According to Vision 2030, Liberia would like to make an achievement by getting the middle income country status by 2030. In such case, the economy of Liberia until 2030 should maintain the GDP growth rate of 8.3% for two decades considering 2012 as the base year. However, the more recent assessment of the economy revealed that the real GDP growth for 2014 declined from 2.5% to 0.7% as a result of the slow pace of economic activities in the traditional sectors, and further worsened by the outbreak of the Ebola Virus Disease (EVD)[[14]](#footnote-15). With the gradual resumption of economic activities, the estimated GDP growth rate for 2015 is 4.5%. This promising path is at risk from the impacts of climate change. Liberia’s economic growth to a large extend relies on its natural resources, particularly agriculture, and non-renewable resources such as minerals and timber. Projections show that Liberia’s future climate will change in line with global changes. The changes will greatly affect the country due to its high vulnerability owing to its low economic base, dependence on rain-fed agriculture, increasing coastal erosion, exposure to epidemics and huge reliance on biomass energy, plus the low capacity to adapt at the community and national levels. Vulnerability and adaptation assessments conducted have revealed that Liberia is faced with climate change and variability leading to extreme events, which have negative impact on agriculture, forestry, health, energy and other sectors. Climate change impacts are marked by irregular patterns of rainfall, flooding, high temperature, and coastal erosion. These factors result to crops and livestock losses that intensify food insecurity and loss of income. In general, women and children are particularly vulnerable to the impacts of climate change. The limited supporting infrastructures increase the vulnerability of the population. Coastal areas in Liberia are the most populated and economically vibrant areas. Sea erosion continues to pose increasing threats to the shorelines of coastal cities including major infrastructures and investments. It already led to displacement, loss of lives and properties and has potentials to severely undermine national security in case of social disturbances (Figure 2)[[15]](#footnote-16). The Monrovia Metropolitan area coastal region due to population increase, various industry pressures and natural hazards (sea erosion, floods) can be considered by the far the most vulnerable part of the country to climate change. |
| D.5. Country ownership*[Beneficiary country ownership of project or programme and capacity to implement the proposed activities]* | This project is endorsed by the GCF National Designated Authority. **Coherence and alignment with the country’s national climate strategy and priorities in adaptation**The project is line with the different national policies that provide the policy framework for climate change adaptation in Liberia, and will contribute towards their implementation. Due to its high natural vulnerabilities to climate related hazards, there is in general a high political awareness in Liberia for natural disaster risk management and, probably less, on climate change adaptation. In 2012, Liberia took a significant step towards transforming the country into a middle income nation by adopting the Government’s political **Vision 2030**[[16]](#footnote-17). To achieve the Vision 2030, the **Agenda for Transformation** (AfT) [[17]](#footnote-18) was also adopted as a framework for meeting the country’s expectation for social development, sustained and accelerated growth, reflected in 5 pillars (Peace, Justice, Security and Rule of Law; Economic Transformation; Human Development; Governance and Public Institutions; Cross-Cutting Issues including environment and gender). The AfT recognizes climate change adaptation and mitigation under Pillar V as a cross cutting issue.Recognizing that climate change can severely constrain the country development, especially in the coastal areas such as MMA, which is also the most densely populated area, GoL in its **Intended Nationally Determined Contributions (INDC)** is committed to minimizing climate change impacts through prioritization of adaptation actions through several sectors. This project will answer on numerous actions planned by the INDC and thus will gain full GoL support. Adaptation actions planned by INDC and answered by this project include:*Coastal Zone** Develop and implement Coastal Zone policy, strategy and management plan.
* Construct hard structures such as sea walls or revetment.
* Manage and conserve coastal mangrove ecosystem.
* Facilitate technology transfer and training of institutional and local experts in coastal zone management and monitoring.

*Transport/Infrastructure** Implement and reinforce design standards and planning codes for roads and other infrastructure to cope with flooding, sea level rise and windstorm.
* Maintain and upgrade roads with appropriate drainage systems to cope with flooding.
* (Improve and enhance public transport services.) (indirectly by making a Mesurado river navigational in the delta area by stabilizing one side of a river bank (that is one side of sea erosion threatened West Point area) and Providence island banks with sea(river) wall)

The project will also support the following **National Adaptation Programme of Action (NAPA)** (2008) prioritiey:* Improved Monitoring of Climate Change
* Coastal Defence System for the Cities of Buchanan and Monrovia
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| D.6. Effectiveness and efficiency*[Economic and financial soundness and effectiveness of the proposed activities]* | The full **economic and financial soundness and effectiveness** of the proposed activities cannot be simply evaluated as the most expensive activities on the project are associated with coastal defence, basic infrastructure and housing climate resilience improvement, which all, in essence, are closely related with saving lives and with cost effective results that have to be monitored on a scale of decades. However, we consider this project still economically viable concerning its’ GCF-financed infrastructure components are based on the strong scientific evidence and methods used (i.e. off-shore dolosse) are shown to give best results to invested and intended.Total cost estimates of this project may appear to be high at first view, however, higher costs are the necessary price for an intended: a) higher quality of the infrastructure (shore and off-shore) that will deliver intended results without “killing” the very resource we are trying to protect, b) better and longer term sustainability of all project results, c) additional benefits regarding innovation, replicability and combination of ecosystem based with engineering solutions and d) targeting of some of the most vulnerable populations and regions of the country is simply not cheap. Any intervention in infrastructures in relation to coastal area is associated with more difficult access and therefore higher construction costs. The decision is only to do it properly at high (but realistic) costs or not to do it at all, as maladaptation can come at even costlier price.  |

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| **E. Brief Rationale for GCF Involvement and Exit Strategy** |
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| The GCF provides a stage, where project results become highly visible internationally. This international attention enables high-level commitments by governments that are necessary for the success of far-reaching paradigm shifts. As the GCF is expected to become the new international benchmark in the world of Climate Finance, a GCF supported mainstreaming project is more likely to exert the necessary convening power than a project only supported by an individual donor or even a multitude of donors. We do expect that the GCF support will enable the leveraging of even more additional co-financing for the project than currently planned. The chance for national institutions to gain direct access to the GCF will be significantly enhanced if they get the opportunity to prepare themselves by executing GCF funds through the international track and undergoing an institutional reform under the guidance and supervision of the GCF.As the project components are closely interlinked and interdependent, this project would not take place without involvement of the GCF as simply GoL cannot close budget gap necessary to address issues addressed by the project and it doesn’t seem to be able in the near future – even though in some cases, literally, human lives depends upon it. The intended structural change (change of real hard structures and change of socio-economic structures) would not occur and the significant infrastructure coverage gap in the Liberia’s most densely populated and most vulnerable coastal area would remain unsolved. This project is fundamentally different to any investment project implemented so far in Liberia, as it equalises investment measures to those of institutional development and mainstreaming the community livelihood component. The approach and the rationale for selecting measures, locations and sectors is primary demand and real-life problem driven and it is essentially born out of thorough grassroots’ fieldwork and it reflects present and root causes of the problems and offers solutions to demands given by local communities, institutions, CBOs and NGOs. *Exit Strategy:* The broad base of the project activities covering, at first view not directly related sectors (i.e., infrastructure works, institutional strengthening, finance incentives, trees planting, housing resilience, skills trainings…) is actually well thought of strategy to ensure long-life and mainstreaming of project results and to give a real paradigm shift and “a push” to the society (people and institutions) and the Government into the right direction – path to the declared value of the sustainable development. In simple terms it was necessary to establish several base conditions for any of those conditions to survive after the formal project closure, while at the same time project had to answer to urgent needs and problems (sea erosion at many sites). All project results will be taken over by national institutions, NGOs, CBOs, local Bank, Monrovia City structures and the communities itself. Acceptance and embracement of the project is the real value of the project outcome, and this will happen in case of this project as it is well balanced between wishes and needs of the stakeholders and the GoL and expertly crafted project design to take those stakeholders’ opinions ad incorporate it into purposely crafted project design.Ona a more precise level, being among the national agencies that receive most external funds in Liberia, EPA is increasingly required to integrate climate change in its projects. By opting now for an institutional mainstreaming, EPA prepares itself systematically for becoming a prime recipient of international climate finance in Liberia in the future.Results of strengthening of institutions will continue to exist and being used by the institutions (GIS/spatial planning units, meteorological units, new University curricula, etc.).Community Training Centre will be taken over by Liberia Opportunities Industrial Centre (LOIC) and Monrovia Vocational Training centre (MVTC).Housing with enhanced features for climate resilience would be taken care of by its occupants itself.Maintenance of roads falls under the maintenance responsibility of Ministry of Public Works and other MCC responsible local authorities. Maintenance of basic infrastructures falls under the different responsibilities of the relevant national, county or local government agencies and Ministries (i.e. Liberia Water and Sewer Corporation-LWSC). Regular budget allocations provided by the Government to Ministries for maintenance of infrastructure will be used for maintaining facilities. No recurring expenditure for manpower and equipment on local level will be required.Procedural and technical innovations in off-shore infrastructure maintenance shall be rolled out successively to all LGED infrastructures. |

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| **F. Risk Analysis** |
| These **risks** have the potentials to hamper the speed and effectiveness of achieving project goals and outputs:

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| **RISK** | **RISK LEVEL** | **MITIGATION MEASURE** |
| Health conditions in the country (i.e. another Ebola outbreak) deteriorate project climate and impede project activities  | Medium | Project will actively monitor situation development and consult with health agencies on possible health risks |
| The lack of adequately trained staff within Ministries and Agencies to support coordination work | Medium to high | Employment of professional advisor to steer the work on the Government side as well to give technical support to the Ministries and Agencies |
| Poor national institutional capacity of Ministries and Agencies may pose a challenge to organize complex logistic trainings, workshops, retreats | Medium to high | Support the Government with technical support staff if needed and when necessary provide some logistical assistance |
| Corruption (at any level) hampering activities and timely delivery of outputs | Medium | Strict tracking and monitoring of financial processesContract management and procurement shall be done over UNDP CO |
| Fall of support from project stakeholders during project time | Medium | Stakeholder shall be engaged at all level of project implementation (ideally from project proposal stage) |
| During construction of infrastructure and roads, unforeseen social and environmental risks may be discovered | Medium | Site-specific social and environmental risks will be assessed during the phase of specific site selection and preparation of detailed design |
| Risk of delay due to procurement, and risk of cost increase due to exchange rates fluctuations or price changes | Medium  | Sufficient contingencies should be included in budget estimates |
| Occurrence of extreme climate events during the implementation of the project that can negatively impact on work | Low to Medium | Project will undertake careful planning informed by weather and climate information and scheduling of the interventions in conjunction with forecasting information. |
| Availability of sufficient trained and equipped local masons to complete dolosse units | Low to Medium | There is a pool of trained masons available. However they may need to be initiated to make the design and construction of dolosse units |
| The selected off-shore areas for dolosse placement are too deep and/or difficult to access. This can cause difficulties in implementation and monitoring of construction quality. | Low | The project will provide sufficient capacity to supervise site selection and construction. External supervision will perform construction quality. |
| Adequate maintenance of infrastructure may not be provided after the end of the project. | Low | Responsibilities for infrastructure maintenance will be clearly set and the process will be monitored and tested during the project time. |
| Political instability in the country impedes project activities | Low | Liberia is considered to be in the stable phase.  |

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| **G. Multi-Stakeholder Engagement** |
| Please refer to the section D5 under Stakeholder engagement and Annex of this document where Multi-Stakeholder Consultation Workshop report is attached.For the purpose of the full project proposal a detailed table of stakeholders against activities and its proposed function will be prepared. A draft stakeholder engagement plan is presented below and will be further revised during full proposal development:

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| **Output** | **Stakeholders** |
| Output 1: Natural coastal defence systems are strengthened to reduce the exposure coastal communities and key infrastructures to climate risks | Montserrado County, Monrovia City Corporation (MCC), Paynesville City Corporation (PCC), Conservancy International (CI), NGOs (SCNL, SADS, FACE), CBOs, Township of West Point, College of Agriculture & Forestry at the Uni. Of Liberia (CAFUL), Forestry Development Authority (FDA), Ministry of Public Works (MPW), Ministry of Transport (MT), Ministry of Information, Cultural Affairs and Tourism (MICAT),  |
| Output 2: The climate resilience of key coastal socio-economic infrastructures and community assets is enhanced | MPW, Montserrado County, MCC, PCC, Brewerville City Corporation (BCC), Liberia Water & Sewer Corporation (LWSC), National Housing Authority (NHA), FDA,  |
| Output 3: Strengthening the policy, institutional and regulatory framework for the implementation of an integrated coastal zones management | Environmental Protection Agency (EPA), Ministry of Land, Mines & Energy (MLME), Liberia Institute of Statistics and Geoformation Services (LISGIS), FDA, MPW, MCC, PCC, BCC, Uni. of Liberia, Uni. of Liberia-Graduate Program in Regional Planning, Uni. of Liberia-Undergraduate Program, Uni. of Liberia-Dept. of Geography, Uni. of Liberia-Engineering College, MT, MT-National Meteorological Service (NMS) |
| Output 4: Strengthening coastal communities’ livelihoods resilience against climate risks | Government of Liberia (GoL), NHA, MCC, Township of West Point, Township of New Kru Town, Montserrado County, Du River City Corporation (DCC), Liberian Bank for Development and Investment (LBDI), Monrovia Vocational Training Center (MVTC), Liberia Opportunities Industrial Center (LOIC), Rural and Renewable Energy Agency (RREA), Sabegna School of Travel & Tourism (SSTT), FACE, SADS, Cuttington University, Ministry of Agriculture (MA), Tubman National Institute of Medical Arts (TNIMA), Uni. of Liberia-Louis Arthur Grimes School of Law, Liberia Bar Association (LBA), Association of Female Lawyers of Liberia (AFELL), Catholic Justice & Peace Commission, Uni. Of Liberia-College of Business & Public Administration, Sustainable Development Institute (SDI), Bureau of National Fisheries (BNF), Fishermen Community Council, National Investment Commission (NIC), Gardnerville, Brewerville  |

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| **H. Status of Project/Programme** |
| 1. *A pre-feasibility study is expected to be completed at this stage. Please provide the report in section J.*
2. Please indicate whether a feasibility study and/or environmental and social impact assessment has been conducted for the proposed project/programme: Yes [ ]  No [x]

(*If ‘Yes’, please provide them in section J*.)1. Will the proposed project/programme be developed as an extension of a previous project (e.g. subsequent phase), or based on a previous project/programme (e.g. scale up or replication)? Yes [ ]  No [x]

(*If yes, please provide an evaluation report of the previous project in section J, if available.*)*COMMENT*: Although there is a predecessor of this project in terms of the topic (coastal defence against erosion) – a GEF funded coastal project, it is a pilot project that has based its activities of protection against coastal erosion on a pilot 600m long site in Buchanan area. The project preparation team for this project will not use it as base project for the reason that coastal defence method used in that pilot are not considered optimal in a view of this project proposal team. The previous project has used on-shore rock boulders breakwaters which are placed on the beach itself. Although they may be effective in beach protection against erosion, they destroy the very resource they try to protect. Even though that is a cheaper solution, we find it to be cost-ineffective on a long term period (decades) as the coast is essentially defended and adjacent houses saved, but the beach as a resource cannot be used for any purpose anymore and is, in essence, destroyed.  |

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| **I. Remarks** |
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| J. Supporting Documents for Concept Note |
| [x]  Map indicating the location of the project/programme (missing)[ ]  Financial Model[x]  Pre-feasibility Study (missing)[ ]  Feasibility Study (if applicable)[ ]  Environmental and Social Impact Assessment (if applicable)[ ]  Evaluation Report (if applicable[x]  **Gbarnga Stakeholders’ Consultation Workshop Report** (available)[x]  **List of stakeholders’ Meetings and Attendance List** (partly available, needs updating) |

1. Please use the following naming convention for the file name: “[CN]-[Agency short name]-[Date]-[Serial number]” (e.g. CN-ABC-20150101-1). [↑](#footnote-ref-2)
2. All population data are taken from Census 2008, however, they are at large incorrect and it is estimated that due to constant influx of rural people to the city the figures in 2016 can be up to 30-50% higher! [↑](#footnote-ref-3)
3. GEF, (2012), Liberia and the GEF**,** [www.thegef.org/gef/country\_profile/LR] [↑](#footnote-ref-4)
4. USAID “Developing Liberia’s Economic Corridors, Volumes 1 and 2”, August 2011 [↑](#footnote-ref-5)
5. Environmental Protection Agency, 2005*, ‘’Coastal zone vulnerability and adaptation to climate change in Liberia’’* [↑](#footnote-ref-6)
6. *Ibid* [↑](#footnote-ref-7)
7. Overseas Development Institute and Climate and Development Knowledge Network (2014): The IPCC’s Fifth Assessment Report | What’s in it for Africa? [↑](#footnote-ref-8)
8. *Ibid* [↑](#footnote-ref-9)
9. *Ibid* [↑](#footnote-ref-10)
10. Refers to a UNDP procedural and minuted meeting which allows the Resident Representative to sign off on a Project Document. [↑](#footnote-ref-11)
11. Most of the population figures are from the “Republic of Liberia 2008 Population and Housing Census”, however it is important to underline that existing number of inhabitants as of 2016 has almost doubled for some of those areas, including West Point slum area where it is estimated to ca. 70-100.000 inhabitants. [↑](#footnote-ref-12)
12. Ramasar: <http://www.ramsar.org/mesurado-wetlands> [assessed: 01.JUN 2016] [↑](#footnote-ref-13)
13. Republic of Liberia, (20--), Intended Nationally Determined Contributions (INDC) [↑](#footnote-ref-14)
14. *Ibid* [↑](#footnote-ref-15)
15. *Ibid* [↑](#footnote-ref-16)
16. Republic of Liberia, (2012), Liberia Rising National Vision 2030, National Reconciliation and Conflict-Sensitive national Long Term Vision for Sustainable Development [↑](#footnote-ref-17)
17. Republic of Liberia, (2013), Agenda for transformation; Republic of Liberia Agenda for Transformation: Steps For Liberia RISING 2013 [↑](#footnote-ref-18)