United Nations Development Programme
Country: Democratic Republic of Congo (DRC)
PROJECT DOCUMENT

Project Title: Strengthening Resilience of Muanda's communities from coastal erosion, Democratic Republic of Congo

UNDP Strategic Plan 2014-2017 Outputs:
Output 1.4. Scaled up action on climate change adaptation and mitigation across sectors which is funded and implemented
Output 2.5. Legal and regulatory frameworks, policies and institutions enabled to ensure the conservation, sustainable use, and access and benefit sharing of natural resources, biodiversity and ecosystems, in line with international conventions and national legislation.

UNDAF Effect / Country Programme:
Axis 2: Development Planning and inclusive Growth
Axis 3: The Congo improves management of its natural resources and related benefits along with mechanisms to manage disasters and engages into a green economy.

Expected 2013-2017 CPAP Outputs:
2.1: Policies and Programmes are better oriented at national and provincial levels and values chains are developed to create jobs;
3.2: DRC is engages into a green economy

Responsible Party: Direction for Sustainable Development (DDD)

Programme Period:	2015-2018
Atlas Award ID:	00084096
Project ID:	00092275
PIMS:	4965
Start Date:	February 2015
End Date:	February 2020
Management Arrangements	NIM
PAC Meeting Date	December 2014

Total resources required:	**$21,855,000**
Total resources allocated:	
• GEF/LDCF	**$ 5,355,000**
Others:	
Government (In Kind)	$ 1,000,000
Government (Grant)	$8,000,000
Private Sector (Grant)	$5,000,000
UNDP (Grant)	$ 2,100,000
UNDP (Cash)	$ 400,000

Executive Summary

According to the report of the second national communication on climate change (2010)[1], the Democratic Republic of Congo's coastal zone, with a coastline of about 40km, is facing coastal erosion due to a combined effect of topography, sandy nature of soil and ocean dynamics (height and direction of the swell, tide height, current velocity, storms etc.). The different national reports on coastal vulnerability (NAPA, SNC and Programme on Coastal Erosion) clearly indicate that land, biodiversity socio-economic infrastructure and community livelihood will be seriously affected by coastal erosion. With the rate of shoreline retreat that is likely, it is expected that the road between Banana-Muanda will be completely lost between 2050 and 2100. The proportion of lands lost to encroaching sea will double (200 m around Nsiamfumu and 100 m between Muanda city and Banana). In total, DRC can expect to see the reach of its coastal zone reduced from 50-100 m by 2100.

LDCF resources will be used specifically for the complementary costs of strengthening national and local adaptive capacity, while improving the resilience of Muanda communities and implementing as soon as possible a set of adaptation emergency drivers and an early warning system to meet the urgent threats posed by coastal erosion on coastal populations and economies. Barriers to achieve this goal are: i) lack of operational risk management system; ii) weak institutional and technical capacity to generate real-time weather information for the management of an early warning system; iii) limited financial capacity to protect local communities and coastal infrastructure of climate risk and disaster.

This project will help increase the capacity of local communities to cope with climate risks in coastal areas and their awareness of the vulnerability of coastal zones in the context of climate change in the DRC. Through a participatory and systemic approach, the project will revolve around the integration of information on climate risks in the relevant planning policies and investment in the protection and surveillance of the coastal zone against climate risks. The expected results include:

- Strengthening the capacity of climate risk management authorities of central and provincial government and all stakeholders to integrate climate information in policy and investment planning;
- Measures of urgent and immediate adaptation are implemented in favour of the most vulnerable coastal communities to reduce the simultaneous effects of several climatic risks while developing capacities weather forecasting and climate monitoring, including the establishment of an Early Warning System (EWS)

Agreed by (Government):

Date/Month/Year

Agreed by (Executing Entity/Implementing Partner):

Date/Month/Year

Agreed by (UNDP):

Date/Month/Year

[1] Seconde communication nationale de la RDC sur le changement climatique, novembre 2009 :188pp

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ACRONYMS

ALM: Adaptation Learning Mechanism CCG: Commission of the Guinea Current CPAP: Country Programme Assistance CVM: Congolese maritime ways DDD: Direction of sustainable development DRC: Democratic Republic of Congo EWS: Early Warning System GEF: Global Environment Facility GIS: Geographical Information System GPS: Global Positioning System INC: Initial National Communications LDCF: Least Developed Countries Fund MDG: Millennium Development Goals	MECN: Ministry of Environment and Nature Conservation METTELSAT: National Agency of Meteorology and Teledetection by Satellite NAPA: National Adaptation Plan of Action NGO: Non Governmental Organisation NIM: National implementing Modality SLR: Sea Level Rise SNC: Second National Communications UNDAF: United Nations Development Assistance Framework UNDP: United Nations Development Programme UNFCCC: United Nations Framework Convention on Climate Change

I. SITUATION ANALYSIS

I.1. Vulnerability and impacts of climate changes in DRC coastal zone

Importance of the coastal area

The coastal area of the DRC is between the tip of Banana and the Angolan enclave of Cabinda (FIG.1). It stretches over 40 km long and covers an area of approximately 4,265 square kilometers. The front of the DRC coastal zone is composed of three cliffs interrupted by two coastal estuaries and a barrier. This facade is predominantly of sandstone and limestone and accommodates three main towns: Muanda, Banana and the fishing village of Nsiamfumu.

FIG 1: Localisation DRC Coastal zone

The rural population practices including agriculture, artisanal fishing, small livestock and logging, services and small business: carpentry, hotel, sewing, catering, sales beverage clinics, etc. The local territorial administration represents the state. Cropland represented 24.9% of the land area of Muanda with a total production of 379, 561.58 tons for 24,135 households. The main crops are cassava, maize, rice, plantain, beans, cowpea and various vegetables. To these are added the coffee and palm oil as perennial crops (UNDP / UNOPS, 1998 MECN in EF, 2001). The number of farmers is estimated at more than 5,000.

The economic sector of the coastal area is very different from other parts of the country in terms of industrial production. Indeed, this is the only area where the oil industry has developed in the country. In 2009, oil production reached 9.382 million barrels[2]. The coastal area of the DRC also has an exceptional marine and terrestrial biodiversity rich in wildlife such as marine turtles, a species of manatee, some species of whales becoming rare, a unique wildlife species of brackish fish, many species of oysters and mangrove forest; this area is of vital importance for the DR Congo.

Climate change and its impacts in DRC's coastal zone

DRC's coastal zone is severely affected by coastal erosion that is one manifestation of climate change. These phenomena are caused by sea level rise, a consequence of the rise in temperature, the dynamics of the Atlantic Ocean, and human activities due to the increase in population. Coastal erosion is accentuated in the coastal region of the DRC by topography, gritty nature of the rock and a significant hydrodynamic action on the coast (sea level rise).

The various reports on vulnerability to coastal climate change (NAPA, SNC and program on coastal erosion) clearly indicate that the land, biodiversity, socio-economic infrastructures and livelihoods of local communities will be seriously affected by coastal erosion. Thus, based on some historical land marks (Mangrove Hotel, Spotlight Nsiamfumu, home of the late first President of the DRC, Joseph Kasavubu)

[2] BCC – Rapport annuel 2002-2003, P.39

and testimonies, the ocean has already claimed some twenty meters on the continent on the Banana-Muanda segment.

The Banana road located in an area of submergence which erosion has cut a great road section (Figure 2) is of vital strategic and economic interest. Floods are sometimes reaching 80 cm high. This route serves the town of Muanda toward the tip of Banana where are located the base of the navy, maritime ports of CVM, and the base of the oil company PERENCO. It is the main road for all traffic with the Province of Cabinda and Soyo of the People's Republic of Angola. In some populated areas, saltwater intrusion affects groundwater and soil, induce the loss of biodiversity in the mangrove marine park and cause property loss and agricultural production, sand deposits etc.

Figure 2. The effects of erosion on the Banana-Muanda road

Coastal erosion will be exacerbated by deforestation, which is settled in mangroves. Thus efforts to develop and protect mangrove ecosystem could fail due to consecutive floods linked to high tides. Flooding of mangrove areas made up with low land and swamp (with a average rate of salinity of 30%) by ocean waters will cause loss of habitat and rich biodiversity (marine turtles, fishes, macro-invertebrates, manatees etc.) and an important tourism site

In the future, the analysis of the climate regime, based on scenarios of MAGICC-SCENGEN model predicts an increase in precipitation in the DRC causing heavy flooding of the river and hence flooding with considerable socio-economic impacts, also applicable in much of the District of Lower River. Thus, considering the current intensity of the decline in the coastline and the likely amplification of climate change in the region, it is necessary to consider that by 2050, nearly two thirds of the area of the city of Vista and the village of Nsiamfumu will be lost. It will be the same for infrastructure located along the road section Muanda - Banana. With the retreat of the coast, which is likely, it is expected that the road between Banana and Muanda will be completely lost between 2050 and 2100; the proportion of land lost due to this erosion will double (200m and 100m around Nsiamfumu between city of Muanda and Banana). DRC can expect to see its coastal reach lost 50 to 100 m at the coastal zone. Moreover, this proportion could be even higher if the rate of mangrove deforestation continues unabated. The combined impact of marine pollution, flooding and coastal erosion associated with growing demographic pressure in the area, definitely lead to population migrations in the near back of the coastal zone. These movements will cause problems random and arbitrary occupation of land belonging to other communities.

1.2. Preferred Situation and Barriers to Overcome

In the context of climate change, it is important for the Muanda region to develop new coastal management systems that can accommodate these uncertainties and help to minimize the impact of these events on community livelihoods. The preferred solution is an effective and efficient protection of the coastal zone to minimise loss of life, economic damage, habitat destruction and loss of cultural heritage due to low frequency and high-impact hydro-meteorological events. Some of the barriers to overcome have been identified, among which:

First, there are significant *information gaps* in the country, particularly with regards to climate risks in the coastal area such as: forecasting sea level rise, identification of areas at risk from climatic events, meteorological conditions and forecasting climate change over medium and long-term. The requisite

infrastructure for the production of relevant information is not available. The region is equipped with only one weather station – at the Provincial airport – and even this is currently not functioning appropriately. The absence of reliable and relevant information makes it very difficult for Provincial and National agencies to assess suitable adaptation options, design coastal defence infrastructure and to develop and institutionalize appropriate guidelines and standards for planning purposes. Another obstacle is significant information gaps in the country, especially with regard to climate risks in the coastal zone such as i) the prediction of rising sea level; (ii) identifying and mapping areas at risk to climate events; (iii) weather and predicting climate change in the medium and long term. The infrastructure necessary for the production of relevant information is not available. The coastal area is equipped with only one weather station and which moreover is not working properly. In the absence of reliable and relevant information, it is difficult for the provincial and national agencies to evaluate appropriate adaptation options, design of coastal protection infrastructure and develop and institutionalize appropriate guidelines and standards for planning purposes.

There is a *limited institutional and policy capacity* to effectively support communities to identify, plan, design and implement adaptation options and coastal defence measures. Provincial staffs have limited knowledge and technical know-how about climate risk management in relation to the coastlines. In the DRC, the current institutional framework is characterized by duplication and lack of clarity in terms of mission or mandate for most state institutions to deal with the planning and implementation of sovereign activities. This situation is exacerbated by a lack of institutional coordination between ministries, between the line ministries and major autonomous bodies involved in the management of the coastal zone, environmental protection, management of natural resources and management of coastal hazards. This is a key obstacle to effective management planning of coastal risk in the DRC

Furthermore, the current environmental policies of the DRC consider environmental management, but do not put any special emphasis on climate change in coastal areas; in the case of the Strategic Document for Growth and Poverty Reduction (SDGPR) and the Environment National Plan (ENP). Existing policies of the DRC for the development and planning in coastal areas at both national and provincial levels are ineffective. This is aggravated by the fact that: (i) the authorities are not sufficiently sensitized; (ii) the very limited technical capacities of decentralized technical services to effectively support communities to identify, plan, design and implement adaptation options and measures for effective coastal protection.

In terms of ***funding capacity***, coastal communities need also strong financial support to address urgent threats posed by climate change, and to meet the high adaptation costs to protect infrastructure, household property and businesses. Despite its rich endowments in natural resources and the dynamism and entrepreneurship of its population, the Democratic Republic of Congo (DRC) has been affected by a series of economic and political crises since its independence. The physical and social devastation caused by decades of mismanagement and conflict is extreme, and today, DRC is one of the poorest countries in the world. This situation explains mainly the prevalence of poverty, which affects 69% of the inhabitants. In addition, the Provincial PRSP paid little attention to coastal erosion impacts and no investment is planned to support communities' protection from climate impacts. The Provincial PRSP does not factor in the projected intensification of weather events associated with changing climate and increasing climate-induced problems

Finally, there is a general *absence of awareness among coastal communities of the possible impacts of climate change*, of the adaptation options available to manage anticipated risks and hazards including the importance of coastal defence ecosystem and infrastructures. This has led to unsustainable exploitation of mangroves (in order to meet urban expansion needs and fuel for household and smoking fish). Faced with unemployment, young people are more and more engaged in marine sand exploitation. Unsustainable sand extraction practices can undermine the resilience of coastal communities

II. Project Strategy

II.1. Country ownership and eligibility

As a Least Developed Country (LDC), the Democratic Republic of Congo is eligible for the Least Developed Countries Fund (LDCF) managed by GEF. DRC ratified the Kyoto Protocol in 1999 after

signing the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. As required by the UN Framework Convention on Climate Change, DRC prepared the first National Communication in 2000 and completed the National Adaptation Plan of Action (NAPA) in 2006 where national priorities for adaptation were identified and classified according to the vulnerability to climate risks. The country already submitted to UNFCCC Initial and Second National Communications (INC in 2001 and SNC in 2009). The proposed project constitutes a response to urgent and immediate adaptation needs. It is designed to address the additional costs of priority adaptation measures identified in the NAPA and it will also create the necessary capacity to continue to do so even after project completion (sustainability). The ratio of LDCF funds to co-financing is consistent with the sliding scale[3].
The project is also in conformity with a variety of other initiatives aimed at furthering the development of DRC

- *Poverty Reduction and Growth Strategy Paper (PRGSP*) for the 2011-2015 period. The project underpin within Pillar IV: protect the environment and address climate change challenges" and supporting national efforts to reduce coastal erosion impacts.
- The project supports national goals and development plans for achieving the Millennium Development Goals (MDGs 1, 3 and 7).
  MDG 1: Eradicate extreme poverty and hunger. 'At least 25 households will be supported to develop the activities of means of livelihood resilience to reduce climate risks, improve the health of vulnerable ecosystems and target households. The information on weather forecasts available for the majority of the population localized mainly in Muanda, Banana and Nsiamfumu to help prepare for and respond promptly to potential disasters;
  MDG 3: Promote gender equality and empower women - An Early Warning System (EWS) associated with community-based training will be incorporated to the needs of vulnerable groups, particularly the needs of women, children and the elderly who have limited access to climate information. Women's groups and women's organizations will become partners in implementing the climate resilient adaptation and advocacy. As noted in paragraph II.2, the project aims the implementation of adaptation measures so highly participatory by involving social groups often marginalized, to ensure maximum impact coverage and consideration structural more vulnerable and more exposed to the impacts of climate change;
  MDG 7: Ensure Environmental Sustainability-The foundation of this project is to ensure environmental sustainability by integrating climate risk management and disaster in policy, planning and decision-making. This approach can help to sustain natural resources through use of best practices in land use and watershed.
- *UNDP Strategic Plan*. The project is aligned with Outcome 1: "Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded"by securing LDCF to undertake relevant activities on coastal risks management; and Outcome 2: "Citizen expectations for voice, development, the rule of law and accountability are met by stronger systems of democratic governance". With the project, relevant capacities will be developed to enhance the resilience of DRC coastal zone through the establishment of relevant climate risk information for planning and budgeting.
- And finally, the proposal is aligned with the *UNDAF 2013-2017*, Axis No.3: The Congo improves management of its natural resources and related benefits along with mechanisms to manage disasters and engages into a green economy. The proposed LDCF project will enhance resilience of coastal communities by supporting establishment of political framework for climate resilient investment and investment on coastal defence infrastructure and EWS

The project is also aligned with other policies and strategies developed for the protection of the coastal zone environment

- The government policy is currently focused on the mastery of its maritime space and its continental shelf, the sustainable management of the coastal zone, the regulation of fishing, conservation of biological resources, the development of environmental standards for the use of water resources, emergency and response to oil spills, managing climate risks in the coastal zone. Thus, for environmental protection and sustainable management of natural resources, the DRC has developed and implemented several strategies and programs among which we can mention:

[3] GEF/LDCF, 2006, Articles 18 and 19

the National Biodiversity Programme, the National Environment Plan (NEP), the National Action Plan (NAP) for managing the coastal zone, the National Emergency Plan to Combat Pollution (PNULCP), the National Programme against coastal erosion (Map Polmarc), the National Programme on Protected Areas (NPPA).

- DRC also acceded to several conventions/treaties internationally and whose national implementation protects its coastal environment and the sustainable management of marine and coastal resources and the most important related to climate change are: (i) Convention on Biological Diversity, adopted in Rio June 20, 1992; (ii) Abidjan Convention, 1981 on cooperation for the protection, conservation and enhancement of the marine and coastal environment in the West and central Africa region; (iii) the Vienna Convention for the Protection of the Ozone Layer, 22 March 1985; (iv) the Convention on Wetlands (RAMSAR called), Ramsar Convention, February 2, 1971; (v) United Nations Framework Convention on Climate Change (UNFCCC), New York, 9 May 1992; (vi) the Kyoto Protocol; (vii) the United Nations Convention on the Law of the Sea, Montego Bay (Jamaica), December 10, 1982; (vii) United Nations Convention on the fight against desertification; (viii) African Convention on the Conservation of Nature and Natural Resources, Algiers-Algeria, Sept. 15, 1968 / Maputo Convention; (ix) The Montreal Protocol on Substances that Deplete the Ozone Layer; (x) the Cartagena Protocol on risk prevention

II.2. Project rationale and policy conformity

The project is in compliance with the National Action Plan for the sustainable management of marine and coastal environmental resources (PAN) as well as the National Programme to fight coastal erosion. The documents particular emphasis the need to establish an observatory of coastal erosion and to invest into construction works for the stability of the coastline. The Second National communication highlighted also the impacts of climate changes in Muanda shore and the adaptation measures identified such as regulation of mangrove development, coastal development policy, delineation of building and residential areas, raising awareness, etc. The project will focus on key adaptation interventions that were identified in the NAPA process, specifically the Option 8: Coastal Zone Protection. The proposed project will promote investment on climate resilient infrastructure for coastal communities protection and develop policy framework for climate smart investment

The project is consistent with the guidelines defined by the LDCF. It is developed along the lines of the « *Programming Paper for Funding the Implementation of NAPAs under the LDC Trust Fund* »[4] and its formulation has followed the guidelines of UNDP/GEF « *Adaptation Policy Framework for Climate Change* ».[5] The project is consistent with LDCF criteria, notably: (1) follow a country led participative approach; (2) operationalize NAPA priority; (3) support hands-on approach (learning by doing); (4) adopt a multidisciplinary approach; (5) promote gender equity; (6) follow complementarity. More specifically:

- *Follow a country led participative approach*: This project is elaborated through a participative process. Key stakeholders and a selection of direct beneficiaries have been involved in priority settings and project design. The Direction of Sustainable Development (DDD) has led project formulation. The process of elaboration of the project document is on following steps:
  i. Work sessions with MECNT, UNDP and the team of consultants to: (1) develop a common understanding of the project; (2) building a consensus on the information to cover for each sector: coastal hazards, oceanography, socioeconomics, water, communication, administration and finance, environment; (3) establish a schedule for stakeholder consultation;
  ii. Organisation of the PPG inception meeting held in Kinshasa in February 12, 2014 (**PPG Report 1**) with the participations of Guinea Current Commission, research institutes, NGO, METTELSAT, Consultants and UNDP. The outcome was to: (1) develop a common understanding of the project; (2) establish criteria for the selection of target; (3) guide the consultants on the methodology for the collection of data, and (4) develop PPG roadmap.
  iii. Organization meeting series at national and local level (with provincial authorities and Muanda communities and consultants, NGOs and other stakeholders) to analyze the situation

[4] GEF/LDCF, 2006
[5] UNDP/GEF 2005

and agree on the content and the operationally of the project. The ANNEX 2 present key institutions and organisations that contributed to the project design. The team of 6 consultants (oceanography, Socio-economy, Coastal risks management, environment, communication, policy & administration) organised more than 5 meetings with beneficiaries, technical regional services and other key partners intervening in the project areas. The Mission Report (**PPG Report 2**) highlights findings of field missions. Results from consultations are recorded in sectoral reports (see **ANNEX 2 and PPG reports 3 to 8**) The stakeholders participation plan in **ANNEX 3** identify the key stakeholders and their interests relative to the project and describe how stakeholders will be involved in the implementation of each project outcome.

iv. Organization of a mission to the demonstration sites of the project with consultants, meetings with provincial authorities and Muanda communities to select priority areas for intervention and define selection criteria and discuss with provincial authorities and communities and other stakeholders as PERENCO.

v. Development of the draft document for the project by the International Consultant, circulation of the draft document and comments from stakeholders;

vi. The project strategy, the logical framework, budget and institutional organization of the project were presented and validated during a national one-day workshop held in Kinshasa in July 19, 2014.

- *Support hands-on approach*: This project provides for local activities to achieve a Community-Based Early Warning System (CBEWS)) and climate monitoring system in coastal areas and better management activities that support the livelihood of local communities in the most vulnerable areas. The costs / benefits will be analysed and evaluated to adopt cheaper coastal protection options;
- *Promotion of gender equality*. Gender considerations were part of the process of project formulation. During the preparatory phase, efforts were made to involve women's groups and youth, as well as civil society and institutional leaders in the group discussions. Key issues were identified during the process, including the need for information on gender. Thus there is provided in component 2 (Product 2.3) to implement adaptation initiatives, community-based small-scale activities with youth associations and women from Muanda, focused on the development of alternative livelihoods resilient activities to climate change in order to remove / reduce pressure on coastal resources.
- *Following a complementary approach*, this project will complement other programs and projects that are being implemented of course in the area of Muanda with different goals and priorities; a steering committee will be established and will consist of representatives of the ministries involved in the project, representatives of the provincial authorities of Muanda. This will ensure the consistency between the project and other projects of UNDP in the DRC as well as other relevant projects and activities funded or implemented by other development partners. The project will build on the results and outcomes of these initiatives and use their lessons learned, tools developed and will work with local partners that shows more reliability.

The project was designed to comply with the general requirements of the GEF for the formulation and operationalization. The following criteria were considered and incorporated:

- *Sustainability:* The concept of sustainability differs for projects on climate change adaptation compared to other types of projects funded by the GEF. Adaptation projects aim to increase resilience to climate risks in the long term. Therefore an ability to adapt automatically implies elevated durability. In addition, the project has the following to increase sustainability:
  Ecological sustainability. Since the project aims to improve the sustainable use of coastal resources to help communities minimize climate risks to better manage their activities (agriculture, fisheries, forestry, etc.), all elements of the project approach should contribute to sustainability. This shall include water conservation, improving the conservation of coastal soils, sustainable and increased use of mangroves and coastal forests, fertilizers and pesticides.
  Environmental sustainability is the foundation of this program to meet the living conditions extremely weakened by climate change in the coastal zone of the DRC, especially in the target project sites. The project ensures the availability necessary information to the target populations affected by adaptation to the impacts of coastal erosion to identify measures to strengthen climate resilience. The project intervenes in all environmental categories that are affected by climate change, including impacts on the physical conditions of the quality of seawater, the fish stock, and

infrastructure and food chains. It meets in a comprehensive manner the needs of target populations that can benefit from project interventions and thus continue these efforts. The monitoring and evaluation system of the coastal ecosystem and various technical studies that focus on the impacts of climate change in particular erosion on the coastal zone will update log-term data required and will help to incorporate aspects of climate change in the most important national policies.

Institutional sustainability. At the provincial /local level, the main measures in the project design to achieve institutional sustainability are training for stakeholders involved in the political process (provincial departments of land affairs, agriculture, planning, Muanda the municipality personnel, etc.) to use scientific guidelines for planning and budgeting, which will build a framework of skills and experience at the provincial level and will be able to support the work being adapted beyond the project duration. At the national level, although the players and the stakes are different, the approach to ensure the sustainability of the institutions is the same as at the local level. Extensive lobbying and outreach will be conducted to help institutions ensure political commitment and direct involvement of different structures in the project and its implementation. In addition, the project activities have been designed through consultation and decision-making structures that already exist and are active in the coastal zone. Most results will be integrated into the development plans of the coastal zone.

Financial sustainability. Financial sustainability is enhanced through the implementation of alternative activities that generate income that enable communities to gradually build wealth available to all. And through a participatory approach and economically feasible, target populations will ensure their cash flow.

On the other hand, it is important to note that some new practices that must be demonstrated as part of this project are not necessarily very expensive (e.g. reforestation). Many involve improvements at low cost or even free (e.g. making the information available, to improve coordination) demonstrated that once were far fewer associated risks and are therefore economically more accessible. Others involve investments in small scales, which are within the reach of most local communities. Once demonstrated, the risk is greatly reduced and the investment becomes viable

- *Monitoring and Evaluation* Project implementation will include an effective M&E plan (see below M&E section). Lessons learned will be developed as the project is being implemented and will then be shared to become a reference and a learning opportunity for other similar initiatives.
- *Reproducibility:* Mapping Climate Risk and the information provided to local decision makers will lead to replicate the project approach in other adaptation initiatives. The project will use the GEF Adaptation Learning Mechanism (ALM) to ensure that the lessons learned from the project contribute and benefit from the experience in adapting to climate change across the GEF portfolio.
- *Stakeholder involvement*: The project will facilitate coordination and participation of different stakeholders, included those involved in environment management and development planning. Annex E presents the stakeholders' analysis and their involvement in implementation of the project.

II.3. Design principles and strategic considerations

On-going relevant national initiatives

The initiatives are focused on addressing the immediate damages of road infrastructure as a result of recent storms and flood events (PERINCO) and building capacity of technical staffs to better operate the Provincial Budget and Investment Plans (UNDP).

UNDP-Strategic Planning for Development: The project is contributing to restoring local planning functions through strengthening national capacity and supporting the development and/or updating of appropriate tools for sectoral planning. Key objectives are (i) the rehabilitation of the essential functions of planning, programming, budgeting and monitoring of economic policies; (ii) the definition of a vision of long-term development in line with the Millennium Development Goals (MDGs) and a realistic macroeconomic framework consistent with the objectives of sustainable development. It is expected that this baseline build the capacity of Bas-Congo Provincial technical staffs on public investment

programming system while LDCF resources will training on how to use climate science-based guidelines on the development of climate resilient land planning (component 1).

PERINCO Corporate Social Responsibility programme): The Oil Producer Corporate Social Responsibility programme focuses on five issues: transport, access to safe water, access to electricity, health and employment. The company launched a micro-credit program to foster individual initiatives in agriculture, craft industry, breeding and fishing. PERINCO road maintenance actions will serve as baseline investment to address immediate damage resulting from storm and floods events. Additional investments are expected from GEF to mitigate socio-economic losses (houses, hotels, etc.) caused by the erosion of the shoreline, protect mangrove ecosystems and support community's alternative livelihoods (fisherman landsite, young and women reconversion activities, etc.). (Component 2)

National and local benefits

Socioeconomic benefits: The anticipated benefits of the proposed project are lives and livelihoods protected with the establishment of a reliable EWS and investment in coastal defence infrastructures. In addition, the project will support job creation in Muanda through adaptation works engaging women and youth (estimated to be 100). The proposed adaptation investments (beach revetments) will reduce the severity of the erosion impact on communities. Coastal infrastructure will increase the resilience of DRC mangrove ecosystem, contribute to better conservation of marine resources, and help preserve the carbon sequestration value of these ecosystems. The incorporation of information on the principles of climate risk management in provincial policies and Muanda development plans is conducted in the expectation that this will be a motivation and lead to the identification of new priorities, reviewing strategies, changes in the legal framework and enforcement mechanisms, as well as monitoring and evaluation frameworks. DRC will fill important gaps in adaptation technologies to fight against erosion and flooding by installing appropriate and effective protection structures.

Gender dimension: The project will ensure that all key products take into account the specific variation of the genre such as the links between gender and vulnerability to erosion and flooding, as well as differences in access to relevant technologies between men and women. Indeed, the implementation partner and communities integrate women's concerns in the design of flexible or solid structures and the implementation of adaptation measures. The realization of gender models and the specific role of women in the use and maintenance of infrastructure at the household and village, especially water supply structures and measures to reduce the risk of erosion are critical aspects that the project should promote. Information on climate change and adaptation measures will be developed and disseminated to ensure that women and girls, especially those who are very poor or uneducated, have easy access to this information and assimilate it.

UNDP comparative advantage

The proposed project is consistent with the comparative advantage of UNDP, as stated in the GEF Working Document C.31/5, comparative advantages of implementing agencies of the GEF Council in the area of capacity building, technical support and policy and expertise in the design and implementation of the project. Implementation of the project is carried out with the technical support of UNDP, which have a comparative experience and continuity in supporting the Government of the DRC in climate risk management advantage. UNDP has supported the development of the NAPA, which was an opportunity to evaluate the vulnerability of country to climate change, while directing attention to the most urgent adaptation options. With support from UNDP/GEF, the DRC has completed its second national communication encompassing the greenhouse (GHG) emissions inventory, additional policy measures for mitigation and adaptation, identifying financial and technical gaps and barriers capabilities.

In its country program 2014-2016, UNDP will support the countries in integrating climate information, strategy for adaptation to climate change into strategies and provincial development plans, including through the promotion of the use of technology for coastal protection to reduce the risk of coastal erosion and flooding. Any previous history of UNDP support to DRC is a clear indication of the strong human capacity that the UNDP Country Office will make to achieve the proposed project. The comparative advantage of UNDP for the project also lies in its long history of working with various government entities to promote adaptation and building resilience. In the DRC, UNDP has supported the

development of the NAPA, which was an opportunity to better assess the country's vulnerability to climate change and focus on adaptation options particularly in the coastal zone.

II.4. Project goal, objectives and activities

Considering the significant economic importance of coastal areas, a comprehensive and effective response that integrates adaptation to climate change is required. The resources of the LDC Fund will help strengthen the local response to the risk of erosion and flooding through the use and promotion of technologies for adaptation in coastal areas to ensure the socio-economic resilience and well being of vulnerable communities. Disaster risks posed by climate change should be taken into account in the assessment of capacity and vulnerability and a new model of development is needed now, not only in terms of emergency activities that save lives, but also for the process to stimulate development. New partnerships will be forged not only with governments, NGOs and UN partners, but also with local decision makers and vulnerable communities, especially when it comes to the Early Warning System (EWS).

The transformative impact of long-term improves climate resilience of Muanda communities (Bas-Congo Province) by the creation/establishment of the relevant information for planning and budgeting climate risks, and management measures to protect the coastline of the Democratic Republic of Congo. This will be achieved by obtaining in medium term, the following results:

- The management capacity for climate risk strengthened for provincial officials and parliamentarians, the private sector and coastal communities to integrate climate information into policy and investment planning
- The urgent and immediate adaptation measures implemented in the most vulnerable Muanda coastal communities to reduce simultaneous impacts of several climate risks, while enhancing the ability of weather and climate monitoring functional

Component 1: Integration of information on climate risks in the relevant planning policies

Outcome.1. The management capacity on climate risks strengthened for provincial officials and parliamentarians, the private sector and coastal communities to integrate climate information into policy and investment planning.

Baseline for Component 1

The UNDP "Strategic Planning for Development" Project is the main baseline associated with the co-financing. With an investment of US$2,100,000, this baseline is contributing to improve planning system at provincial level. In the Province of Bas Congo, the project facilitated the establishment of consultation processes to enable all segments of the population (including youth, women) to take part in the management of public affairs through consultation frameworks in place. Through this process, a budget management system is also set up with tools adapted to this scale for sound and transparent management of resources mobilized. The public finance reform is underway in the Province and about 100 provincial technical staff and parliamentary have been trained in the Bas-Congo to better understand the process of preparation of the capital budget. This allowed the analysis and strengthening the public investment planning system in the province of Bas-Congo and the establishment of mechanisms for local consultation on public investment procedures. Provincial officials now have key elements in order to better exploit the provincial investment Budget. However, the additional capacity is needed to help identify the instruments of public funding to attract financial flows to urgently address the threats posed by climate change, particularly the high adaptation costs to protect socio-economic infrastructure.

The Direction of sustainable development (DDD) is also communicating about coastal erosion within the broader context of awareness raising. With an investment estimated to be US$500,000 USD, the DDD is undertaking a large diffusion of messages, during Environment day, related to the protection of sensitive areas (see reporting on Environment Day 2014, http://radiookapi.net/actualite/2014/06/05/journee-de-lenvironnement-la-rdc-semploi-la-protection-des-ecosystemes-fragiles/). However, the DDD does not have much scientific and technical information to provide to the public to give guidance and direction on dealing with coastal erosion.

Complementary initiatives (non associated to the co-financing) are following:

- At institutional level, the government of DRC established on June 2014 the Inter-ministerial Committee on DRC coastal zone (after the debriefing with the Primer Minister on the PPG fields mission). The attribution to this commission is to (i) update on the status of the coastal area; (ii) support the implementation of emergent operation for the protection of infrastructure, the preservation of the marine environment and the monitoring of the coastline's evolution; (iii) ensure the reasoned and thoughtful planning of the occupation of spaces in anticipation of future economic challenges of the coastal zone; (iv) to propose a sustainable institutional organization responsible for protection of the Congolese coast; and to monitor and evaluate the implementation of activities. This Inter-ministerial committee will contribute to mobilise the attention of the government on key priority actions and investments and support coordination of actions among ministries (transport, infrastructures, mining, environment, water resources).
- The LDCF funded project builds on the efforts led by the government on coordinating and planning development at provincial level. The Bas Congo Province has developed its development Plan for 2011-2015, supported by five pillars: (i) good governance and peace-building, (ii) macroeconomic stability and accelerating growth, (iii) improving access to basic social services and reducing vulnerability; (iv) combat HIV, and (v) support for community dynamics. This policy baseline provide a good basis from which to plan for climate change at the local level and will contribute to strengthening the overall capacity of local decision makers to understand climate change risks and their impacts, and to allocate necessary budget for the protection of coastal infrastructures and communities. However, the development plan pays little attention to the impacts of coastal erosion and no investment is expected to support the protection of communities against climate impacts. Institutional capacity at the provincial level is low and needs to be strengthened to include climate change in provincial and municipal policies and strategies (e.g. the Provincial Development Plan, the urban plan, etc.).

Component 1
Co-financing amounts for Outcome 1: US$2,600,000
LDCF Project Grant Requested: US$1,764,940
Please refer to Section IV for more details

Alternative
The resources of the LDCF will be used to strengthen capacity on climate change risk management (*for provincial, municipal officials and parliamentarians, private sector representatives, and coastal communities*) in support to integrate climate information into policy and investment planning.

Without LDCF intervention the overall capacity of provincial institutions is restricted by the weak ability to quantify the problem of erosion, understand the key processes in the coastal dynamics and identify options and relevant costs to address coastal erosion. Without more specific guidance, provincial authorities appear to be reluctant to take action on climate change. There is rarely sufficient localised detail to incorporate coastal risks into specific plans (or to develop new plans) or to quantify the impacts on assets. With LDCF support, the government of DRC will assess specific risks related to coastal erosion and adaptation options/costs to allow provincial deciders to address them at the planning stage.

Even when climate change information and guidance material are available to provincial authorities, they may not have the professional or technical expertise to determine how these should best be used. Decision makers have varying capacity to acquire the data they need to understand risks under different climate change scenarios, and usually lack the know-how to integrate that information into planning and investment decisions. With LDCF resources, long-term capacity for planning adaptation will be enhanced through the integration of climate change adaptation into provincial planning and the designing of an effective financing, monitoring and evaluation system. Relevant information skills and tools will be provided to decision makers to facilitate the integration of risks and opportunities associated with long-term climate change and the planning necessary budget. This will support to advance the National Adaptation Process in DRC, specifically in the Province of Bas Congo.

Without LDCF intervention, most of coastal communities (land/hotel owners, households, fisherman, farmers, oil companies, etc.) are also lacking information on the adaptation options available to manage

anticipated risks and hazards. Many people are unaware of the role that erosion plays in building and maintaining beaches and other coastal features, so there is rarely any consideration of the consequences of extensive shoreline hardening. Several schools and NGO engaged in mangrove protection exist in the area but most do not have education material about erosion or the coast that they regularly distribute or direct people towards. Given the popularity of coastal living, it will be extremely difficult to maintain and restore natural shorelines, and stop the proliferation of settlements. A fundamental shift in attitude and practices will be necessary to convince any coastal community to reconsider how they deal with erosion. With LDCF support, a detailed communication strategy will be implemented to improve the understanding of climate change risks in the coastal zone and the access to relevant and usable information about how to deal with coastal erosion, and begin to use this material to guide their decisions about erosion management. This will facilitate the ownership and mobilization of different actors (local chief, coastal landowners, private sector and communities) in supporting the development of climate resilient plan.

Outputs and activities

Three main outputs will contribute to achieving this outcome. They include:

Output 1.1. Coastal erosion risk profiles prepared for multiple coastal segment and economic analysis of coastal defence /adaptation options assessed for the most sensitive areas to facilitate budgeting and future land use planning in Muanda Region.

Understanding the key processes of coastal dynamics and how coasts developed in the past and present, as well as over the short and long term, is very important for managing coastal erosion problems because coastal erosion may occur without cause for concern. Climate risks and economic assessment can predict coastline evolution and interaction with the source of the problem and possible options to be implemented in the short and long term. This will contribute to countermeasure planning and design as well as coastal erosion management. Following activities will be undertaken:

Activity 1.1.1: Conduct community-based climate risk mapping exercise to integrate local knowledge and engage vulnerable communities in the formulation of adaptation plans.
In each segment, at least 25 community members (including women and young associations, schools teachers, land owners, technician from provincial ministries, CVM, etc.) will be trained on (i) community vulnerability mapping using preconfigured global positioning system (GPS) equipment, (ii) participatory mapping, (iii) vulnerability and risk assessment, map interpretation, etc. Project-trained community facilitators will conduct community mapping. Using handheld GPS units, they will work with the communities to establish control points, determine and collect data points, and take photographs for a visual baseline. Other survey will be under taken such as: (i) household surveys to evaluate and map household-level vulnerabilities and (ii) beach profile surveys that help better predict climate change impacts on shoreline change. The coastal risks mapping will also include a gender-based analysis and gender impact assessments to ensure the recognition of gender issues in this area. Short community profiles will developed for targeted coastal segment based on the community mapping and household survey results. These profiles set the context for the community-based adaptation planning. Finally, fieldwork will be organised to validate the results of the participatory mapping exercises.

Activity 1.1.2: Assess scenarios for SLR and induced coastal erosion on the basis of local expertise (CVM, METTELSAT, CCG and others), regional and global Climate Change models, downscaling and extending results work into the three specific sites (Banana at Km5, Muanda and Nsiamfumu). It will be undertaken modelling exercises for 100-year return period and other ancillary data such as (i) bathymetric and topographic information; (ii) long-term erosion trends; (iii) data from any previous erosion studies in the area; (iv) anecdotal evidence of past erosion events including community questionnaires; (v) wave data and local surveys.

Activity 1.1.3: Develop dynamic GIS that will integrate (i) GPS data from community vulnerability assessment converted into GIS layers, (ii) government base maps providing data on elevation, infrastructure, land use and land cover, and geology; (iii) community data layers on sociocultural data, primarily of significant cultural sites. Other relevant data layers will be also incorporated, including remote sensing imagery; downscaled global climate models; and available GIS layers on the hydrology, physical features, and biotic communities of the project sites.

Activity 1.1.4: Develop coastal risk profiles based on community-level data and using GIS techniques and integrated modelling exercises for 100-year return period and other ancillary data. The risk profiles will be developed through a multi-stakeholder decision-making process involving local communities, users (for example, oil companies, tourism providers, etc.), common which together determine the terms of use / development of shoreline on the basis of a plan for urban development and climate change scenarios. The profiles will be presented in the form of a coastal risks atlas showing (i) the area of land affected by erosion or storm-tide inundation up to a specific level of risks; (ii) sea-level rise areas based on three sea-level rise scenarios to the year 2100; (iii) the vulnerability of the communities to flooding, drought, intense heat events, cyclone-force winds, and sea-level rise and storm surge; and the vulnerability of specific ecosystems, such as the mangroves. The maps will enable the communities to see their position in the official geography and how the sites that are important to them may be impacted by climate change. Printed copies of these maps will be simplified for the identification of priority risks during adaptation planning. Poster versions of the maps will be displayed in public places, increasing the population's awareness of climate change and engendering support for the implementation of the community adaptation plans. The maps will be made available to local authorities and other users.

Activity 1.1.5: identification of adaptation options and economic valuation
Based on coastal risks profiles, it will be assessed the predicted impacts on the various economic activities (agriculture, fisheries, tourism, oil extraction), on people's behaviour (consumptions, health), on environmental conditions (water availability, mangrove forests), and on physical capital (infrastructure). Adaptation actions will be selected to off set the predicted impacts and to restore welfare in each of the major economic sectors analysed. The cost effectiveness and sustainable erosion adaptation strategies will be determined to maintain natural coastal processes and resources, and consider community needs in both the short and long term. The final output will be the realisation of the shoreline erosion management plan that provides a framework for the sustainable use, development and management of land vulnerable to erosion by considering the environmental, social and economic values of the land, adaptation costs and the physical coastal processes acting on the foreshore.

Output 1.2: Improve understanding of climate change risks in the coastal zone and facilitate the mobilization of different actors (local chief, coastal landowners, private sector and communities) in supporting to policy planning process

Communicating about coastal adaptation will encourage preparation and action. It will be undertaken within the broader context of education and awareness raising about coastal management and climate change adaptation. Following activities will be undertaken.

Activity 1.2.1: Design and roll out an efficient knowledge dissemination and communication strategy targeting various stakeholders (local leaders, coastal properties, private sector and communities).
The strategy will have both a grassroots community-driven component, as well as a more traditional government communication element. NGOs or government can assist these efforts by supporting the development of appropriate resources for community groups to start this process. The strategy will be articulated into following axis:

- Advocacy targeting the political and administrative authorities, territorial, provincial and national levels to influence them in adopting relevant laws, regulatory measures, budgeting for coastal protection and providing technical support to on-going or planned programs and projects on coastal management;
- Social mobilization targeting non-governmental organizations, local churches, local companies, social and public organisations, radio channels and local territorial administration to stimulate the construction of alliances for the promotion of mutual consultation framework and sustainable partnership.
- Social and behaviour changes targeting individuals, target groups, households, children and communities to ovoid bad practices and actions in the management of the coastal zone management;

- Better use of new technology of information and communication (using sms, social network, web where possible) to increase the visibility, promote exchange of information and sharing experiences and best practices

Activity 1.2.2: Organise at least 10 information & awareness campaigns to increase their understanding of climate change impacts, natural coastal processes and associated uncertainties, and the costs, benefits and consequences of various erosion control options and the potential impacts of climate change. The Ministry of Environment will develop clear, consistent messages for provincial government, municipalities, households, coastal property owners and private sector on. It is expected that the coastal property owners and private sector will have the willingness, confidence, information and support to shift to alternative methods to slow coastal erosion, including "softer" erosion management approaches.

Activity 1.2.3: Establish a community exchange platform using existing media network as channel to disseminate access relevant and usable information about how to deal with coastal erosion, and begin to use this material to guide their decisions about erosion management. Information flows to coastal communities will be improved through the development of new tailored products to serve the information requirements of users in different sectors. These products will be developed through consultations with the intended users of the information and appropriate research organizations. Information and data from the monitoring infrastructure (weather and hydrological stations, radar, and satellite monitoring) will be combined to produce new user-relevant information.

Activity 1.2.4: Educational Programme on coastal protection will be designed and roll out to contribute to Education for Sustainable Development. In partnership with UNESCO, a Sandwatch programme will be establish for at least 10 schools near the beach and the High institute on fisheries and navigation in Muanda for scientific observation, measurement and analysis of changes in the coastal environment using an inter-disciplinary approach. Furthermore, the management of coastal risk will be promoted into the school curricula. In partnership with PERINCO Social Programme, at least 5000 educational booklets on coastal risk and climate changes, including modules and manuals for teachers and children, will be developed and disseminated to facilitate the process of integrating CC issues into curricula. The inspectors and pedagogical advisors and the directors of primary schools will be trained on using the booklet and sensitized to better understand the risks and opportunities related to coastal risk, climate change and adaptation.

Activity 1.2.5: Finally, regularly exchanging information and experience will be established to ensure that lessons learnt from the project are shared to replicate demonstration activities and catalyse investments. Communication tools (such as reports, DVDs, films and documentaries, radio shows and brochures) will be developed. The information packet will be translated into the appropriate formats and languages to allow dissemination through the community radios or television channels in the national languages. Furthermore, it will be organize provincial forum each year to communicate the technologies promoted, share lessons learned and experiences from the project. Finally, the website/social media (twitter, Facebook) of the project will be developed and links with the UNDP/GEF's ALM (*Adaptation Learning Mechanism* and Wikiadapt.) to ensure that the lessons learned from this project affect a broader audience, including the international agencies, financial backers and GEF Secretariat.

Output 1.3. Relevant tools and skills provided to staffs from the Province and Muanda Commune to adjust development plan &budgets appropriately and support effective adaptation in the coastal zone.

The project will strengthen the capacity of provincial decision-makers and planners to understand how to integrate data and information on the expected impacts of climate change, SLR and coastal erosion on communities and ecosystems. Following activities are planned:

Activity 1.3.2: Organise training for staffs from the Province (Provincial Ministries of Land, Agriculture, Planning, staffs from Muanda Municipality, etc.) to use science-based guidelines.

- Training needs analysis will be carried out in each of the target groups
- A toolkit will be developed to outline the methodologies used to assess climate change risks (i.e. co-production of scientific data and local knowledge), adaptation planning, cost effectiveness

analysis. Furthermore, adaptation modules will be developed addressing all key aspects of climate change adaptation issues in general, and in particular SLR and coastal erosion impacts on community livelihoods, ecosystems health and land planning, within the framework of the forthcoming CC scenarios.

- At least 4 training will be delivered at appropriate levels of technical sophistication and at provincial and municipal level on the proper use of probabilistic modelling concepts, weather forecasts and predictions, climate change projections and relevant environmental and socio-economic data to adjust. Consultants with expertise in local planning and climate change will be recruited to facilitate the development of tools and to organize training workshops. They will help develop monitoring and evaluation tools in partnership with local agents in charge of planning within Bas Congo Province and Muanda City.

Activity 1.3.2: Review of Bas Congo Development Plan to incorporate the coastal erosion risk profiles, adaptation options and costs.

- An assessment of the development plan will be realising to identify gaps and shortfalls.
- Meetings with provincial authorities and staffs will be convened to discuss how the results of the climate risk and vulnerability profiles and cost effectiveness should be used to adjust regulations and policies governing the coastal zone.
- Develop and implement a roadmap for adjusting policy and budget to include adaptation. The roadmap (akin to a sub-national level adaptation plan) will be a technical document guiding processes to achieve the transformational initiatives of Bas Congo, policy instruments to secure investment and financial flows from governmental and nongovernmental actors and agencies for the implementation of priority integrated climate and sustainable development activities. The roadmap will include short-/medium-/and long-term priorities, associated public policies and financing strategies, institutional and operational framework for implementation, and monitoring and evaluation processes. This step involves also bringing together potential public and private partners, supported by relevant technical and financial experts, to jointly assess and develop the roadmap.
- Consideration will be given to examining the regulatory tools available to local governments to raise finance in an economical and equitable way. For example, it may be appropriate to consider how developer contribution schemes are formulated and implemented and how government expenditure in coastal (and flooding) protection works can be recovered from the beneficiaries of any public works. Based on that a financial model and tool will be developed to guide decision makers about the financial implications of climate change impacts on asset management and investment.

Component 2: Investment in coastal defence and monitoring

Outcome 2. Urgent and immediate adaptation measures implemented in the most vulnerable coastal communities of Muanda to reduce the concurrent impacts of multiple climate risks, while building functional weather and climate monitoring capacity

Baseline for component 2

The LDCF project will take advantage of existing capacity of the Congolese maritime ways (CVM) and the National Agency of Meteorology and Teledetection by Satellite (METTELSAT) to collect, analyze and disseminate basic hydrodynamic and weather forecasting data.

- The CVM is currently undertaking daily monitoring of coastal bathymetry gauge to support the safe navigation of surface or subsurface. Two additional engine boats monitoring river are also equipped with GPS and automatic processing bathymetric system (measurement of the depth of the seabed). CVM has already established a database of more than 10 years on the depth measurements and the corresponding maps. The CVM is also equipped with a floating dock and two dredges to ensure the airworthiness of the maritime area between Matadi and Banana. This equipment would contribute to transport the necessary gabion for coastal protection (Output 2.2). The expected co-financing from CVM is US$6 millions. However, consistent temporal and spatial coverage of high-resolution topography and bathymetry data are still lacking to support shoreline changes analysis.

- With a co-financing of US$1 million, METTELSAT is daily collecting meteorological data from Muanda station and providing forecasts. However, the system of meteorological data collection and diffusion is currently not appropriate (incomplete data collection, weak analysis and diffusion). The network for observing meteorological conditions needs to be strengthened to give more accurate local information on sea level rise, climate data and models that are (1) high resolution and (2) diverse, rainfall climatology based on radar and ground measures that focus on the impact of the sea breeze on coastal rainfall, wave and climate data that could be included in bluff retreat models, etc. overall, there is no efficient EWS where the information is disseminated to provincial agencies, emergency services, public and other sectors, including land owners, tourism and oil industries, in preparation for appropriate response to an impending hazard event.

In term of coastal monitoring, existing expertise on coastal and marine science will contribute to the planned EWS. In 2005, the Ministry of Environment established the National Commission in charge of the coastal and marine environment that already working with CVM on the control of pollution in the coastal zone and with local NGOs on the protection of the mangrove ecosystem. The Commission led the development of the profile of the coastal area and the National Programme on coastal erosion. A network of national expertise is also established (soil science engineers, specialists in urban development, geotechnical, environmental, etc.) to support the work of the Commission. Dialogues are initiated with the universities (e.g. Regional African School for Integrated Management of Tropical Forests (ERAIFT), the Faculties of Science and Law at the University of Kinshasa (UNIKIN), Regional Centre for Nuclear Studies Kinshasa (CREN - K), etc.) to lead the way on oceanographic studies. Contribution of the Commission in term of mobilizing expertise for the monitoring of the coastal zone is US$1 million (see Letter from the Ministry of Environment). Despite the strong partnership and expertise set up, the commission does not have enough financial means to establish an efficient monitoring system.

With a baseline estimated at US$5 millions, the oil Ministry of Hydrocarbure in Bas Congo Province get support from the Oil Company PERINCO to protect their infrastructures from coastal erosion through the improvement and regular maintenance of national roads, particularly those in the city of Muanda and Boma, and roads linking Tshiende and Nsiamfumu. In November 2013, PERINCO committed a private bureau to develop concept and preliminary designs for the coastal protection at following locations: the road Banana-Muanda, tank farm, and the Well. Furthermore, PERINCO established Social Responsibility Programme to support the development of the local community by targeting five major issues: infrastructure, access to drinking water, access to electricity, health and employment (http://www.perenco-drc.com/corporate-social-responsibility/helping-in-five-issues.html). The company launched a micro-credit program to foster individual initiatives in agriculture, craft industry, breeding and fishing. Repair of Muanda airport road is underway. PERENCO carries a reforestation program through the territory of Muanda. Over 10 years, about 30,000 acacia trees were planted with bamboo and other species in order to minimize the adverse effects of soil erosion (http://www.perenco-drc.com/corporate-Social-responsibility/environment/forestry.html). Unfortunately, these interventions are highly localized and few initiatives are taken to protect livelihoods (fishing), biodiversity areas (mangrove) or properties against coastal erosion. The implementation of identified adaptation options often requires considerable financial resources and expertise. Based on results from the preliminary design, it is estimated that $10 millions is need to protect PERINCO priority sites. The Provincial budget is inadequate to meet adaptation costs including protection, maintaining and upgrading infrastructure and funding additional services provided to their communities on behalf of other levels of government.

Component 2
Co-financing amounts for Outcome 2: US$8,000,000
LDCF Project Grant Requested: US$3,355,060
Please refer to Section IV for more details

Alternative
The government of DRC is requesting support from LDCF to implement urgent and appropriate measures to reduce the simultaneous impacts of several climate risks while enhancing the operational meteorological center and the ability to monitor climate in the Muanda coastal area.

Without LDCF intervention, responses to coastal hazard events are likely to be inadequate with very little operational capacity, included equipment, communication infrastructure and know-how for the key stakeholders in terms of preparedness, risk prevention and response. The CVM and METTELSAT weather and coastal bathymetry monitoring systems have limited data availability and difficulties connecting local disaster impact assessments with national monitoring systems. During the PPG, it is reported that coastal communities are not receiving timely and understandable warnings of impending hazards and they also highly lack of communication systems and arrangements for ensuring that early warnings are acted on successfully. The capacity to produce reliable loss and impact information remains a great challenge. With LDCF resources, coastal communities will have a well decentralize, reliable and functioning organizational system for managing climate risk and disaster and coordinate response. A people centred Early Warning System will be establish to help reinforce the data collection in the target areas, while also involving and sensitizing population to disaster risks factors.

Without intervention, high-level shoreline recession will continue with the ocean winning a score of meters on DRC continent. With the rate of shoreline retreat, it is expected that the road Banana-Muanda will be completely lost by 2050 and the proportions of lost lands will double around Nsiamfumu and between Muanda city and Banana). DRC will see its territory reduced from 50 to 100 m on its coastal area. Many coastal communities also face socio-economic challenges that may affect their vulnerability to climate change and their ability to respond to gradual changes and specific severe events such as increased average speed of the breaking waves and the height of the swells. Local communities are powerless to damage caused by coastal erosion such as destruction of properties (mangrove hotel, houses in Vista city, etc.), agriculture land, basic infrastructure (road Banana-Muanda), disappearance of fishing beach and land dock, mangrove habitats losses, etc. With LDCF resources, a menu of "soft" and "hard" adaptation measures will be piloted to stabilize cliffs in Muanda city and minimise losses. Furthermore, attention will be also paid to restore Nsiamfumu fishermen landing site to secure the operations of docking and unloading of fishing through the construction / rehabilitation of wharves' landing areas to protect them from the impacts of coastal erosion. Finally, alternative climate resilient livelihood opportunities will be developed to increase economic capacity of vulnerable households and support young associations on entrepreneurship.

Outputs and Activities

Output 2.1. Establish a Community based Early Warning system to increase preparedness, risk prevention and response capacities

The system will be established for the 5 coastal communities: Muanda City and villages of Muanda, Nsiamfumu, KM 5 and Kitona. The community-based early warning system will provide the best available information on potential hazards in a timely manner so that communities can respond appropriately and also support effective implementation of evacuation plans. Following activities will be undertaken.

Activity 2.1.1: Establishment of the organizational structure

- Preliminary assessment will be done to (i) identify existing capacities in the community on which the early warning system and existing coping (warning) mechanism can be built; (ii) analyse the institution and stakeholder analysis where target communities will identify the organizations and institutions which can support for and be a part of early warning systems; and (iii) analyse the organizational, technical, and financial sustainability of the system to set up in place.
- Under the support of the civil protection provincial service, the organizational structure will be established with appointment, equipment and training of focal point team in each village (3 to 5 peoples, gender balance ensured). Members of the team will facilitate collective identification and alert on emerging risk. They will be equipped at least with mobile phones with credit for phone calls and text messages (SMS) and solar powered radio (or at least powered by rechargeable batteries).
- Training will be organised and include understanding key indicators and functioning of the EWS, its information transmission systems (including SMS updates bottom up and top down) and understanding Standard Operating Procedures (SOP) and learning to use it.

Activity 2.1.2: Develop the functional database to produce newsletters and alerts on coastal climate risks

- Upgrading the Coastal Early Warning System equipment with the acquisition and installation of meteorological buoy, coastal weather stations, a server and 2 computers. Mechanisms for sustainable replacement and maintenance of equipment will be analysed and established in collaboration with METTELSAT and CVM;
- Providing specialised training in marine meteorology and the preparation and dissemination of weather reports through multi-media channels to METELSAT and CVM;
- Development of the generic structure for an Early Warning System (EWS) of coastal hazards, including five core modules:
    - An observation module, where the necessary measures for numerical modelling (weather, waves, and a profile of initial range) will be collected. Possibility to use PERINCO off shore platform related information will be also analysed;
    - A forecast module for forecasting numerical models of the climate, wave, rising and morphology;
    - A module for decision support, containing tools (impact indicators of the storm and hazard maps) to assist in decision-making;
    - An alert module where warnings will be issued according to different specific thresholds site
    - A display module for displaying information online to help end users

Activity 2.1.3: Establishment of a participatory system, gender-sensitive, transfer and dissemination of information and alerts on coastal climate risks.

- Development of a Standard Operating Procedures (SOP) that include a set of indicators easy to monitor but also capable to inform on the factors influencing different risks. The preparation of SOPs will be participative, involving Focal Points, the coordination framework of Muanda, the provincial Authorities, representatives from women & young associations, Civil protection and the humanitarian and development agencies operating in target sites UNDP, FAO, NGOs, etc.);

- Establish the dissemination and alerts mechanism: different communication and dissemination systems will be applied to communicate information from coastal equipment to focal points and to disseminate the information to all the members of the community. Based on the participatory assessment (Activity 1.1.1), the mechanism and means for communication and dissemination based on the information and level of risk will be established.

Output 2.2. Pilot adaptation measures to stabilize the cliffs at Muanda and secure fisherman docking and landing operations at Nsiamfumu

The LDCF funding is not expected to address all of DRC's coastal infrastructure needs, it will help in covering the costs of rehabilitating and protecting areas at high risks identified by communities during the PPG.

Activity 2.2.1. Rehabilitation and protection of the fish-landing site in Nsiamfumu
About 512 fishermen in Nsiamfumu village are constantly suffering from coastal erosion with the decline in their anchor fishing spot. There is an urgent need to rehabilitate and protect the fish-landing site.

Planned activities will be following:

- Conduct relevant assessments to determine feasibility cost-effectiveness and due-diligence with respect to environmental and other standards;
- Undertake rehabilitation works including the construction of a quay and relevant facilities such as: a fuel facility, water supply, an auction or market facility, an office /laboratory for quality control, a fishers meeting room, and WC and washroom;

- Establish boulders and rocks in front of landing site to break seawater and protect the infrastructures from heavy waves;
- Training fisherman associations on maintenance of infrastructures;
- Establish an infrastructure maintenance funds from fisheries activities.

Activity 2.2.2. Stabilization and protection of cliffs at risks in the segment Nsiamfumu-Muanda
This segment is experiencing acceleration of approximately 3-4 m per year and consists of a soft cliff exposed to both waves and landslides as a result of runoff from rainfall. The Mangrove Hotel and several homes are exposed to collapse at any time due to the dynamics of the ocean and rainwater. The CVM lighthouse' guiding ships on the high seas is about to be taken away. An integrated approach to cliff management will be established involving a combination of structural and non-structural solutions, as appropriate. Following activities will be undertaken.

- In order to effectively manage coastal cliffs, a detailed hazard and risk assessment for both the cliff face and the talus slope will be undertaken to allow Muanda city planners to access to accurate and reliable information on the character of the cliffs, past and future cliff recession patterns and trends and the level of risk to coastal communities, together with the range of management strategies and erosion control techniques that might be suitable in different cliff environments.
- To limit the impacts of the rainfall runoff, cliff-dewatering measures will be undertaken by creating horizontal or vertical drains that reduce the effect of water runoff.

- Cliff stabilization measures will also be undertaken by growing vegetation cover in the form of shrubbery that can hold the soil together. Following tasks are planned (i) conduct a more detailed survey of previously re-vegetated areas to determine success levels; (ii) identify the range of plants most suitable for re-vegetation efforts on the cliffs in site specific areas with a preference for indigenous plant; (iii) production of plant nurseries with the support of women & young organisations; (iv) realization of vegetalisation works; (v) organization of at least 2 workshops per year to sensitize communities on the maintenance of plantations established.

- Addition rocks material at the base of the cliff will be established to reduce incident wave energy by means of dissipation and diffraction;
- Finally, participatory maintenance plan will be established and funding mechanisms developed with Muanda and Nsiamfumu decisions makers.

Output 2.3. Create alternative climate-resilient livelihoods for women & youth organizations to reduce pressure on coastal resources and to uplift the economic status of the coastal communities

With LDCF resources, at least 15 communities associations will explore ways of adapting their livelihoods to climate change together by undertaking the income generating activities that may provide a more stable income given increasing uncertainties about weather and availability of natural resources. The targeted vulnerable group includes climate-induced disaster-affected poor families (with special emphasis on women-headed families and young) living in the exposed and vulnerable hotspots of coastal zones that have very little capacity to cope with extreme weather events and the communities whose livelihoods are solely dependent on harvesting natural resources (fisheries and mangrove exploitation). Following activities will be undertaken.

Activity 2.3.1: Resilient fish farming & fish products processing developed for fish production associations. An area for drying and processing fishery products will be realised for the women fish production association established in Muanda village. In addition, fish farming will be developed in Banana Km5. Participative mapping of the potential fish farming will be completed along with a market survey prior to implementation to understand how to ensure optimal economic returns for the poor households. Training will be also organized for the maintenance of infrastructures.

Activity 2.3.2: Promoting improved cooking stove to reduce mangrove deforestation. Women's groups will also be supported to promote the use of improved cooking stove (at least 200) to reduce consumption and pressure on mangrove wood homes. In addition, they will carry out activities in mangrove replanting to restore the ecosystem, and protection against flooding and coastal / erosion and increase the goods and ecosystem services.

Activity 2.3.3: Alternative activities developed for young associations
The youth associations engaged into gravel mining /coastal stone exploitation will be supported to develop alternative activities. Since the expansion of Banana Muanda Nsiamfumu cities caused the use of gravel from the ocean, it is necessary to find an alternative solution in the production of sandstone between Boma and Muanda to cover the need for building materials and even the need to develop structures for coastal protection. With LDCF resources, feasibility study on exploitation of quarries stone will be undertaken to evaluate costs benefits, market based, entrepreneurial capacity of young associations and comprehensive environmental and social impacts. Dialogues will be organised with the private sector engaged in stone exploitation, landowners and provincial authorities to support the establishment of small enterprise on stone exploitation and selling for young associations. The procurement of basic material (such as mobile crusher, drilling system, etc.) will also be facilitated. Finally, management system will be developed to minimise impact on social, economic, ecological and biological systems.

Activity 2.3.4: The capacity of beneficiaries on entrepreneurship, marketing of products, managing value chains, and accessing financing and credit will be strengthened. Facilitate access to commercialization and business credit. Project beneficiaries will be trained & supported to develop and submit applications for credit. Partnership will be established with micro-finance suppliers to lead groups through the application process from beginning to end. To manage risks related to climate impacts, the beneficiaries will be trained to better understand and manage climate risks, whether through adjustments to their existing operations and they will share this knowledge with their peer via a knowledge network. Participants will be selected based on their interest, capacity to learn, and ability to influence others in the community.

II.5. Project indicators, risks and assumptions

The proposed project indicator framework follows the GEF-6 Adaptation Monitoring and Assessment Tool (AMAT) and is aligned with the UNDP M&E Framework for Adaptation. Objective level indicators and outcome level indicators are specified according to the UNDP nomenclature of Results Based Management (RBM). The project design further foresees the development of more specific M&E tools, especially at the local implementation level. Participatory local level M&E can be a powerful management and communication tool, especially for tracking and demonstrating project results in demonstration sites. It is foreseen that a more detailed M&E project framework will be developed during the project inception phase for national management purposes.

An overall project M&E plan has been devised and is included in the respective section of the project document below. It foresees regular progress reports, as well as audits, a mid-term evaluation and an end-of-project evaluation.

Assumptions underlying the project design include that:

- Existence of scientific and technical capacities to support the development of risks management measures;
- Involvement of communities in assessing vulnerability, developing and implementing relevant adaptation options
- Availability of relevant information to support information & awareness process
- Existence of national scientific and technical capacities to support the development of risks management measures

A complete Risk Log is included in Annex 1 of the project document. It includes risks identified in the project identification form (PIF) (see below) as well as newly identified risks. Additional barriers are included in the Barrier section above and are generally represented by the risks specified below. Most risks are organizational or strategic in nature, and mainly relate to relatively low current institutional and individual capacities of the public service structure in terms of adaptation. In summary, the following key risks were identified (risks identified in the PIF or the Project Preparation Grant phases are identified accordingly):

- Political instability and conflict resurgence (PIF)
- Inadequate and unsustainable management and maintenance of coastal defences (PIF)
- Limited capacity of PMU particularly to handle more complex forms of procurement (PPG)
- Financial resources are limited for undertaking coastal infrastructures (PPG);
- Gaps on relevant physical and socio-economic data allowing the establishment of coastal profiles and cost effectiveness adaptation options (PPG);
- Low mobilisation and lack of interest of target groups (specifically private sector and land owners);
- Low capacity of national institutions to manage the information system (PPG)
- Low capacity and involvement of national institutions to support communities in their resilient and alternative livelihoods (PPG)

II.6. Cost-effectiveness

The DRC is facing recurrent flooding in its coastal zone that resulted in extensive damage to infrastructure and economic losses. In Muanda more than 67,000 people are at risk of erosion and flooding.
The project financed by the LDCs Fund and proposed by the Government of the Democratic Republic of Congo aims to overcome the main barriers identified as the main issues that have contributed to climate risks. Among these are: information gaps, limited institutional, policy and financial capacities. With a total budget of 21,855,000 $USD (24,5% from GEF, 41% from Government and 34,5% from other sources including private sector and GEF Agency), the intervention of this project funded by the LDC Fund, will not only strengthen the human and institutional technical capacity, but also aid in enhancing compliance and the implementation of various government initiatives that deal with the climate risk reduction and disaster risk management in the coastal zone of the DRC. These include: (i) national strategy and plan for the prevention and reduction of disaster risks; (ii) National Action Plan for Adaptation (NAPA) under the United Nations Framework Convention on Climate Change (UNFCCC).

The project has other potential direct and indirect benefits, which are briefly summarized below:

- Involving people in the analysis, design and operation make the structurally relevant and more efficient by providing relevant and timely information in emergencies for those who are most vulnerable;
- Based at the community level, the system can generate gradually highly relevant useful information in real time to alert all persons involved in an event and enable a targeted response;
- The development taking into account the type to develop and design more relevant interventions aimed at building resilience can bridge the gender gap in vulnerability;
- The development and operation of the system require an investment on the mobilization of the community who will pay in terms of increased awareness on good management practices and land use vis-à-vis climate change;
- Community involvement and planning in climate monitoring can build the commitment of the people living in the coastal zone for the protection of habitat and resources, including a more informed use of mangrove forests and other natural resources;
- The increase in "public managers" and the understanding of the population dynamics involved in climate change, including deforestation, changes in land and water management, flooding, may increase good governance (better information for decision making while achieving increased levels of responsibility (a better informed public can better control of public decision on coastal risk management).

The likely impact of the project on capacity building is as follows:

i. The project interventions will strengthen the capacity of provincial technical departments of Bas-Congo and Muanda in particular, to generate real-time information on the prevention of vulnerable areas to climate risks. Technical experts involved with expertise on climate risks concept, provide analysis and use for the purpose of planning and integration into policies and development plans and provincial investment. The staff and local elected officials, political representatives of relevant institutions (ministries, parastatal structures etc.), as well as local Muanda technical services will receive information on the maintenance and management structures of coastal protection against erosion and flooding in vulnerable or sensitive coastal hazard zones.
ii. The communities involved in the implementation will be used to improve the response mechanism through the awareness campaign and community based early warning system established;
iii. The advantages of this approach are many, including: (i) a high level of knowledge of all categories of staff and the local population allows a common understanding of the problems caused by climate change and adaptation options that meet changing to local needs; and (ii) community participation in various activities enable the sustainability of actions and access to a wider audience of measures promoted.

The project will have a positive impact on the economy of the coastal zone due to a number of project interventions. About 15 women's associations and youth of Muanda will be supported in achieving climate resilient businesses and risks generating income to improve their livelihoods. About 25 km of coastline will be protected against floods and landslides (common on cliffs) through the erosion control at sites at Banana Km5, fishing zone of Nsiamfumu and downtown Muanda.

The effectiveness of project cost is demonstrated using examples of the impact of project investments in infrastructure protection and local livelihoods against climate impacts. The project will help mitigate the impact of future climate risks and increase the resilience of the entire coastal zone. If investments in projects to protect against flooding and coastal erosion and the early warning system (Component 2) are made, as proposed, and well maintained over a period of 25 years, the project will have a significant economic impact in preventing damage and losses due to future flooding and erosion.

Project interventions will not only improve the capacity, but also protect coastal infrastructure through the stabilization of the coastline in order to improve the effective delivery of regional public services. As the population of Muanda is likely to increase at least 30% by 2050, protection of coastal installations / essential public services is absolutely essential. This will have a major impact on improving the quality of life of communities Muanda. This will also reduce downtime utility because of all future risks, such as flooding.

Finally, the project will result in temporary employment among young people and women in the work of control and protection and income generating activities. This situation will lead to an improvement of socio-economic indicators of Muanda and a significant reduction in the incidence of poverty. The income-generating activities such as fish products processing, promoting of resilient cooking stove contribute to economic growth, and especially for the welfare of women, youth and children. This revenue increase will relieve the poorest people in the project area that will be able to bear some expenses on food, health and education.

II.7. Sustanaibility and replication

The **overall sustainability** of the project depends on the full commitment of the Government of the DRC in coordinating and providing guidance on climate change and risk management of erosion and flooding in the coastal zone. The proposed LDCF funded project will integrate climate risk /climate change in relevant planning mechanisms, such as plans and budgets for local development, thus ensuring the sustainability of the intervention.

Critical factors for institutional sustainability of the project will also be addressed through a comprehensive collaboration with institutions at national and local level and adequate Monitoring and Evaluation procedures conducted by government agencies. The project will provide support to entities involved in the project to build capacity in terms of their role in the project. The coordination committee of the project will include the services of the local government, municipalities and local communities and a number of provincial officials will be identified, equipped and trained to work with the project team and monitor activities project in pilot demonstration sites. In order to ensure the sustainability of the project, a strategy to replicate interventions at the site will be developed.

Project viability and long term sustainability will largely depend on its ownership and its institutionalization and capacity established by the project. All activities of capacity planned in the project were planned to have a lasting impact, both at the local and institutional level, for example, training will be planned based on needs assessments. At the local level, the project will partner with local NGOs and community organizations and the private sector whose capacity will be strengthened, thereby ensuring long-term sustainability. It will empower all stakeholders at the local level, including the dissemination of information on climate and weather risks in good time, and information on community control techniques against erosion, through a series of capacity building activities tailored to their specific needs. It will also define and implement an effective knowledge management and sharing system to effectively capitalize on lessons learned, which will also contribute to institutional sustainability.

Recipients will participate directly in Early Warning System (EWS) and the implementation of control activities against coastal erosion and flooding. The participation of the people and their role in the implementation of project activities is likely to ensure the sustainability of actions, strengthen their capacity to prevent and manage climate risks and additional resources. Training in population and provincial officials will build capacity and create conditions for sustainable resilience and local development, promoting the emergence of community groups able to act appropriately and timely to reduce the possibility of damage or loss. Developments to be conducted at the request of the recipient will use simple techniques that are appropriate and easily assimilated by the local populations.

Finally, the project is designed to raise the level of efficiency and effectiveness of adaptation and community-based practices. It is designed to ensure broad adoption and diffusion of these practices. This type of approach will ensure sustainability and replicability of results. In addition, by organizing exchange visits between stakeholders demonstration sites and other communities, it is expected that these communities will replicate community-based adaptation initiatives; training initiatives are well developed in the project, including:

- In terms of raising the political level, there will be facilitating the integration of adaptation to climate change on the political agenda at the provincial level and at the level of the municipality of Muanda and target engagement of local government;
- Document on best practices and technologies for adaptation is a precondition and a starting point for the process of upgrading the stakeholders to the research project; through the Output 1.3. lessons learned from the project will be generated, shared, captured and disseminated among current stakeholders and also among future stakeholders who want to promote and implement on a large scale adaptation practices and a effective climate resilience. The lessons learned from the implementation of this project will be compiled and disseminated to a wide range of stakeholders, using a framework system and the project will make use of ALM (Adaptation Learning Mechanism) system to ensure that the lessons learned from the project contribute to benefit from adaptation to climate change experiences across the portfolio of the LDC Fund.

II.8. Compliance with UNDP Safeguards Policies

From an environmental and social safeguard point of view, the project is rated as a Category 3a, with small scale, site-specific and manageable environmental and social impacts. No adverse long-term impacts are anticipated. The positive environmental benefits with planned works on cliff stabilisation will help to slow runoff and thus fight against soil erosion, promote sedimentation of fine particles to increase water retention and improve water infiltration and therefore the refill of the groundwater. Reforestation of degraded coastal cliffs and areas will help protect farmland against erosion and improve soil fertility. Social positive impacts are expected with the implantation of resilient livelihood and alternative activities diversified activities that contribute to economic growth, and especially for the welfare of women, youth and children. In addition, the community-based early warning system will provide the best available information on potential hazards in a timely manner so that communities can respond appropriately and also support effective implementation of evacuation plans.

The anticipated negative environmental and social impacts of the project would result mainly from works associated with (i) the rehabilitation of fish landing sites and (ii) stabilisation of cliffs. The feasibility of works will be subject to an environmental analysis in accordance with national legislation and consistent with UNDP policies. Indicators of environmental performance of the structures will be selected and included as part of the long-term risk monitoring system. The Coordination and implementation of the Project's environmental and social safeguards will be carried out by the PCU, which has recruited an M & E expert to be responsible for overseeing Project compliance with the environmental and social guidelines developed.

III. Project Results Framework

The project will contribute to reaching the Country Program Results as defined in the UNDP and UNDAF Country Program: **UNDAF Outcomes 2013 – 2017:** Axis 2: Development Planning and inclusive Growth Axis 3: The Congo improves management of its natural resources and related benefits along with mechanisms to manage disasters and engages into a green economy.
Expected 2013-2017 CPAP Outputs: 2.1: Policies and Programmes are better oriented at national and provincial levels and values chains are developed to create jobs; 3.2: DRC is engages into a green economy
Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 3. Promote climate change adaptation
Pertinent GEF Strategic Objectives:[6] CCA-1: Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change CCA-2: Strengthen institutional and technical capacities for effective climate change adaptation CCA-3: Integrate climate change adaptation into relevant policies, plans and associated processes
Pertinent GEF Expected Outcomes: **Outcome 1.2:** Livelihoods and sources of income of vulnerable populations diversified **Outcome 1.3:** Climate-resilient technologies and practices adopted and scaled up **Outcome 2.1:** Increased awareness of climate change impacts, vulnerability and adaptation **Outcome 2.3:** Access to improved climate information and early-warning systems enhanced at regional, national, sub-national and local levels **Outcome 3.2:** Policies, plans and associated processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures
Relevant GEF Outcome Indicators (Following the AMAT tool): **Indicator 3:** Number of people benefiting from the adoption of diversified, climate-resilient livelihood options (percentage of whom are female) **Indicator 4:** Extent of adoption of climate-resilient technology/ practice (measured in number of users [percentage of whom are female]; or geographical area)

[6] GEF. (May 2011). *Strategy on Adaptation to Climate Change for the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF).*

Indicator 5: Number of people (percentage of whom are female) with increased awareness of climate change impacts, vulnerability and adaptation
Indicator 8: Number of people (percentage of whom are female)/ geographical area with access to improved, climate-related early-warning information
Indicator 13: Number of sub-national plans and processes developed and strengthened to identify, prioritize and integrate adaptation strategies and measures

	Indicator	**Baseline**	**Target for End of Project**	**Means of Verification**	**Risks and Hypotheses**
Project Objective Enhance climate resilience of Muanda communities (Bas Congo Province) through the establishment of relevant climate risk information for planning and budgeting, and the piloting of coastal protection measures, Democratic Republic of Congo	**Indicator 1**: Number of people affected by the impacts of coastal erosion that adopted climate resilient technologies/practicies (disaggregated by gender) *(AMAT indicator 4)*	At least 67,000 people in Muanda territory are severely affected by coastal erosion with the ocean winning around twenty meters on the continent on Banana- Muanda segment, recurrent flooding and saltwater intrusion affects groundwater and soil, loss of biodiversity in the mangrove marine park and loss of property and agricultural production, sand deposits etc. Considering the current intensity of the decline in the coastline and the likely amplification of climate change in the region, it is necessary to consider that by 2050, nearly two thirds of the area of the city of Vista and the village of Nsiamfumu will be lost	At least 15% of the population in target sites (Muanda city, Banana, and Nsiamfumu) covered by risks management measures such as early warning system, coastal infrastructures, alternative livelihoods, and long term adaptation planning & budgeting system	Survey and M&E Reports	Assumption ➢ Existence of scientific and technical capacities to support the development of risks management measures; ➢ Participation and commitment of target communities Risks ➢ Financial resources are limited for undertaking coastal infrastructures; ➢ Political instability and conflict resurgence; ➢ Inadequate and unsustainable management and maintenance of coastal defences ➢ Low capacity and involvement of national institutions to support communities in their adaptation activities

	Indicator	Baseline	Target for End of Project	Means of Verification	Risks and Hypotheses
Outcome 1: Climate change risk management capacity strengthened (*for provincial, municipal officials and parliamentarians, private sector representatives, and coastal communities*) to integrate climate information in policy and investment planning	**Indicator 2:** Number of provincial plans strengthened to identify, prioritize and integrate adaptation strategies and measures *(AMAT indicator 13)*	The Bas Congo Province has developed its development Plan for 2011-2015, supported by five pillars: (i) good governance and peace-building, (ii) macroeconomic stability and accelerating growth, (iii) improving access to basic social services and reducing vulnerability; (iv) combat HIV, and (v) support for community dynamics. However, little attention to the impacts of coastal erosion and no investment are expected to support the protection of communities against climate impacts. Institutional capacity at the provincial level is low and needs to be strengthened to include climate change in provincial and municipal policies and strategies	Bas Congo Development Plan will include sustainable erosion adaptation strategies to maintain natural coastal processes and resources, and consider community needs in both the short and long term A shoreline erosion management plan will be developed to provide a framework for the sustainable use, development and management of land vulnerable to erosion by considering the environmental, social and economic values of the land, adaptation costs and the physical coastal processes acting on the foreshore.	Activity and M&E Reports Survey	Assumption ➢ Involvement of communities in assessing vulnerability & establishing relevant adaptation options ➢ Existance of relevant physical and socio-economic data allowing the establishment of coastal profiles and cost effectiveness adaptation options; ➢ Risks ➢ Political instability and conflict resurgence

	Indicator	Baseline	Target for End of Project	Means of Verification	Risks and Hypotheses
	<u>Indicator 3</u>: Type and number of people with increased awareness of climate change impacts, vulnerabilities and adaptation (gender disaggregated) *(AMAT indicator 5)*	The Direction of sustainable development (DDD) is communicating about coastal erosion within the broader context of awareness raising during Environment Day. Several schools and NGO engaged in mangrove protection exist in the area most do not have education material about erosion or the coast that they regularly distribute or direct people towards. However, coastal communities (land/hotel owners, households, fisherman, farmers, oil companies, etc.) are lacking information on the adaptation options available to manage anticipated risks and hazards. Many people are unaware of the role that erosion plays in building and maintaining beaches and other coastal features, so there is rarely any consideration of the consequences of extensive shoreline hardening. In	At least 10,000 people (among them 30% women) including land/hotel owners, households, fisherman, farmers, oil companies, etc. increase their understanding of climate change impacts, natural coastal processes and associated uncertainties, and the costs, benefits and consequences of various erosion control options and the potential impacts of climate change	Activity and M&E Reports Survey	<u>Assumption</u> ➢ Availability of relevant information to support information & awareness process <u>Risks</u> ➢ Low mobilisation and lack of interest of target groups (specifically private sector and land owners)

	Indicator	Baseline	Target for End of Project	Means of Verification	Risks and Hypotheses
		addition, the DDD does not have much scientific and technical information to provide to the public to give guidance and direction on dealing with coastal erosion.			
Outcome 2. Urgent and immediate adaptation measures implemented in the most vulnerable coastal communities of Muanda to reduce the concurrent impacts of multiple climate risks, while building functional weather and climate monitoring capacity	**Indicator 4:** number of people with the access to improved, climate related early-warning information *(AMAT indicator 8)*	Responses to coastal hazard events are likely to be inadequate with very little operational capacity, included equipment, communication infrastructure and know-how for the key stakeholders in terms of preparedness, risk prevention and response. The CVM and METTELSAT weather and coastal bathymetry monitoring systems have limited data availability and difficulties connecting local disaster impact assessments with national monitoring systems. During the PPG, it is reported that coastal communities are not receiving timely and understandable warnings of impending hazards and they also highly lack of	At least 1 Community based Early Warning system will be in place for the 5 coastal communities: Muanda City and villages of Muanda, Nsiamfumu, KM 5 and Kitona so that communities can respond appropriately and also support effective implementation of evacuation plans	Activity and M&E Reports Survey	Assumptions ➢ Existence of scientific and technical capacities to support the development of risks management measures ➢ Involvement of communities Risks ➢ Low capacity and involvement of national institutions to support communities in their adaptation activities

	Indicator	Baseline	Target for End of Project	Means of Verification	Risks and Hypotheses
		communication systems and arrangements for ensuring that early warnings are acted on successfully. The capacity to produce reliable loss and impact information remains a great challenge.			
	<u>Indicator 5</u>: Number of people affected by the impacts of coastal erosion that adopted climate resilient technologies/practicies (disaggregated by gender) *(AMAT indicator 4)*	The oil company PERINCO is engaged for some years now to protect their infrastructures from coastal erosion through the improvement and regular maintenance of national roads, particularly those in the city of Muanda and Boma, and roads linking Tshiende and Nsiamfumu. Unfortunately, these interventions are highly localized and few initiatives are taken to protect livelihoods (fishing), biodiversity areas (mangrove) or properties against coastal erosion. The implementation of identified adaptation options often requires considerable financial resources and expertise. The Provincial budget is inadequate	Cliff stabilization measures: ➢ Cliff-dewatering measures by creating horizontal or vertical drains that reduce the effect of water runoff; ➢ Growing vegetation cover in the form of shrubbery that can hold the soil together; ➢ Establishment of additional rocks material at the base of the cliff to reduce incident wave energy. Fish-landing site rehabilitation measures ➢ Rehabilitation works including the	Activity and M&E Reports Survey	<u>Assumption</u> ➢ Existence of scientific and technical capacities to support the development of risks management measures; ➢ Participation and commitment of target communities <u>Risks</u> ➢ Limited capacity of PMU particularly to handle more complex forms of procurement; ➢ Financial resources are limited for undertaking coastal infrastructures; ➢ Inadequate and unsustainable management and maintenance of coastal defences

	Indicator	Baseline	Target for End of Project	Means of Verification	Risks and Hypotheses
		to meet adaptation costs including protection, maintaining and upgrading infrastructure and funding additional services provided to their communities on behalf of other levels of government.	construction of a quay and relevant facilities; ➢ Establishment of boulders and rocks in front of landing site to break seawater and protect the infrastructures from heavy waves		
	<u>Indicator 6</u> Number of targeted household and young benefiting from the adoption of diversified, climate resilient options (disaggregated by gender) *(AMAT Indicator 3)*	PERINCO established Social Responsibility Programme to support the development of the local community by targeting five major issues: infrastructure, access to drinking water, access to electricity, health and employment. PERENCO is running a reforestation programme across the Muanda Territory. However the target province has been affected by a series of economic and political crises since its independence. This situation explains mainly the prevalence of poverty, which affects 69% of the inhabitants. This has led to unsustainable exploitation of	At least 250 households and young engaged on resilient fish farming & fish products processing, promoting improved cooking stove and on exploitation of quarries stone.	Activity and M&E Reports Survey	<u>Assumption</u> ➢ Involvement of communities Risks ➢ Low capacity and involvement of national institutions to support communities in their adaptation activities

	Indicator	Baseline	Target for End of Project	Means of Verification	Risks and Hypotheses
		mangroves (in order to meet urban expansion needs and fuel for household and smoking fish). Faced with unemployment, young people are more and more engaged in marine sand exploitation. Unsustainable sand extraction practices can undermine the resilience of coastal communities.			

IV. Total Budget and Work Plan

Award ID:	*00084096*	**Project ID(s):**	*00092275*
Award Title:	PIMS 4965		
Business Unit:	COD10		
Project Title	Strengthening Resilience of Muanda's communities from coastal erosion, Democratic Republic of Congo		
PIMS no.	PIMS 4965		
Executing Agency	DDD/UNDP		

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	Atlas Budget Description	Amount year 1 (USD)	Amount year 2 (USD)	Amount year 3 (USD)	Amount year 4 (USD)	Amount year 5 (USD)	Total	Budget Note
Outcome 1: Climate change risk management capacity strengthened (for provincial, municipal officials and parliamentarians, private sector representatives, and coastal communities) to integrate climate information in policy and investment planning	**DDD**	**62160**	**GEF/LDCF**	71200	International Consultants		18000	15,000			**33,000**	**a**
				71300	National Consultants			35,500	35,500	35,500	**106,500**	b
				71400	Contractual Services - Individual	54,000	54,000	54,000	54,000	54,000	**270,000**	c
				71600	Travel	33,088	33,088	33,088	33,088	33,088	**165,440**	d
				72100	Contractual Services - Companies	92,500	92,500	92,500	92,500		**370,000**	e
				72300	Material and Goods	12,000	12,000	12,000	12,000	12,000	**60,000**	f
				72600	Grants	44,000	44,000	44,000	44,000	44,000	**220,000**	g
				72200	Equipment and furniture	10,000	10,000	10,000	10,000	10,000	**50,000**	h

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	Atlas Budget Description	Amount year 1 (USD)	Amount year 2 (USD)	Amount year 3 (USD)	Amount year 4 (USD)	Amount year 5 (USD)	Total	Budget Note
				74200	Audio Visual & Print Prod Costs	20,000	20,000	20,000	20,000	20,000	**100,000**	i
				75700	Training, Workshop and Conf.	75,500	75,500	75,500	75,500	75,500	**377,500**	j
				74500	Miscellaneous Expenses	2,500	2,500	2,500	2,500	2,500	**12,500**	k
	Total Budget Component 1					**343,588**	**361,588**	**394,088**	**379,088**	**286,588**	**1,764,940**	
Outcome 2: Urgent and immediate adaptation measures implemented in the most vulnerable coastal communities of Muanda to reduce the concurrent impacts of multiple climate risks, while building functional weather and climate monitoring capacity	**DDD**	**62160**	**GEF/LDCF**	71200	International Consultants		27000	27000		18000	**72,000**	l
				71300	National Consultants	58200	58200	58200	58200	58200	**291,000**	m
				71400	Contractual Services - Individual	36,000	36,000	36,000	36,000	36,000	**180,000**	n
				71600	Travel	54,668	54,668	54,668	54,668	54,668	**273,340**	o
				72200	Equipment and furniture	77,900	77,900	77,900	77,900	77,900	**389,500**	p
				72600	Grants	350,144	350,144	350,144	350,144	350,144	**1,750,720**	q
				74200	Audio Visual & Print Prod Costs	17,600	17,600	17,600	17,600	17,600	**88,000**	r
				75700	Training, Workshop and	55,600	55,600	55,600	55,600	55,600	**278,000**	s

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	Atlas Budget Description	Amount year 1 (USD)	Amount year 2 (USD)	Amount year 3 (USD)	Amount year 4 (USD)	Amount year 5 (USD)	Total	Budget Note
					Conf.							
				74500	Miscellaneous Expenses	2,500	2,500	2,500	2,500	2,500	**12,500**	t
	Total Budget Component 2					**652,612**	**679,612**	**679,612**	**652,612**	**670,612**	**3,335,060**	
Subtotal components						**996,200**	**1,041,200**	**1,073,700**	**1,031,700**	**957,200**	**5,100,000**	
Project management	**DDD**	**62160**	**GEF/LDCF**	71400	Contractual Services - Individual	45600	45600	45600	45600	45600	228,000	u
				75700	Training, Workshop and Conf.	4,500	4,500	4,500	4,500	4,500	22,500	v
				74500	Miscellaneous Expenses	1,000	1,000	500	1,000	1,000	4,500	w
	Total Budget Project Management					**51,100**	**51,100**	**50,600**	**51,100**	**51,100**	**255,000**	
TOTAL PROJET						**1,047,300**	**1,092,300**	**1,124,300**	**1,082,800**	**1,008,300**	**5,355,000**	

Budget Note	Description
a	IC Sandwatch Programme IC Mid Term Evaluation
b	5 Experts for the development of adaptation options 1 Expert for Communication platform 3 experts (adaptation, planning & finance) for the review of Bas Congo Dev. Plan & training provincial staffs 1 expert for Mid-term evaluation
c	Admin Finance (50%) M& E Expert (50%) Logistician (50%) Communication officer
d	DSA for International expert Mid Term evaluation DSA for International expert Sandwatch Programme DSA for 5 national experts adaptation options DSA for 3 national experts for the review of Bas Congo Dev. Plan & training provincial staffs; DSA for 1 national expert on communication platform DSA for 1 national expert for Mid term review DSA International for MPU staff (2) attending workshops Travel International (Sandwatch program expert 2, mid term review Travel for 5 national experts adaptation options Travel for 3 national experts for the review of Bas Congo Dev. Plan & training provincial staffs Travel for 1 national expert on communication platform Travel for 1 national expert for Mid term evaluation Travel International for PMU staffs (2) attending workshops Car rent for transport consultants Travel PMU staffs (supervision missions)
e	Consultancy firms for the development of coastal risks mapping coastal, Sea Level Rise scenario development, GIS, coastal profiles and adaptation options
f	Material for community risk mapping and schools Sandwatch Programme
g	Agreement with Research Centers (University of Kinshasa, National Geography Center, Interim Commission Golf of Guinée, etc.) to support coastal risks mapping, Sea Level Rise scenario development, GIS, coastal profiles Ministry of Education for the development of the Sandwatch Programme

Budget Note	Description
	Local media to support diffusion of project information Local NGO for awareness activities
h	PMU equipment (4 laptop, 4 All-in-One Printer/ photocopier/scanner/fax; 1 LCD projector and screen; 4 mobile phones and 2 GPS Cameras, office equipment (table, chairs, etc.) (50%) Office maintenance costs
i	Printing of training tools and scientific/policy materials Printing 5000 educational booklets on climate changes Communication material/publication (national & international)
j	15 fields works on participative mapping (5 per site) 35 consultations workshops for the validation of coastal risks mapping, validation SLR, GIS, coastal risks profiles, adaptation options, communication strategy, exchanges platform, educational programme, and revised Bas Congo Development Plan 10 consultation workshops with the Inter-ministerial Committee on DRC coastal zone to mobilize the attention of the government on key priority actions and investments 15 training workshops on participative coastal risks mapping, Sandwatch programmes, planning and budgeting adaptations options 20 awareness workshops 05 Muanda Consultative Committee meetings 2 regional forum Project inception workshop
k	Contingencies related to inflation, currency exchange fluctuations and other external shocks and contingencies, which would increase the cost of travel and materials.
l	IC Terminal Evaluation IC Establishment of the CB-EWS
m	2 national experts for the development of the CB-EWS 4 national experts (civil engineer, water engineer, fisheries, socio-economist) for feasibility studies of fish landsite area 7 national experts (civil engineer, geomorphologist, water engineer, climatologist, socio-economist, planning & forest experts for cliffs stabilization studies 3 national experts for feasibility of fish processing units 1 national expert for the promotion of resilient cooking stove 3 national experts for feasibility of exploitation of quarries stone 4 national experts on community capacity development (entrepreneurship, marketing, environment, rural finance) 2 national experts for Terminal evaluation

Budget Note	Description
n	Admin Finance (50%) M& E Expert (50%) Logistician (50%)
o	DSA for International expert Terminal evaluation DSA for 3 International expert establishment of CB-EWS DSA for 2 national experts CB-EWS DSA for 4 national experts for feasibility studies of fish landsite area DSA for 7 national experts for cliffs stabilization studies DSA 3 national experts for feasibility studies of fish processing units DSA for 1 national expert for the promotion of resilient cooking stove DSA for 3 national experts for feasibility studies of exploitation of quarries stone DSA for 4 national experts on community capacity development DSA for 2 national experts for Terminal evaluation DSA International for MPU staff (2) attending workshops International travel for IC expert Terminal evaluation International travel for 3 IC experts on establishment of CB-EWS Travel for 2 national experts CB-EWS Travel for 4 national experts for feasibility studies of fish landsite area Travel for 7 national experts for cliffs stabilization studies Travel 3 national experts for feasibility studies of fish processing units Travel for 1 national expert for the promotion of resilient cooking stove Travel for 3 national experts for feasibility studies of exploitation of quarries stone Travel for 4 national experts on community capacity development Travel for 2 national experts for Terminal evaluation Travel International for PMU staffs (2) attending workshops Car rent for transport consultants Travel PMU staffs (supervision missions)
p	Equipment of CB-EWS Focal points 3 synoptic stations along the coast 3 meteorological buoy 2 computer + software Procure equipment (hardware and software) and ensure connectivity (internet modems and access) for 3 modern forecasting workstations Cooking stoves Fishing products processing units (2)

Budget Note	Description
	Fish farming systems PMU equipment (4 laptop, 4 All-in-One Printer/ photocopier/scanner/fax; 1 LCD projector and screen; 4 mobile phones and 2 GPS Cameras, office equipment (table, chairs, etc.) (50%) Office maintenance costs
q	Agreement with CVM for the installation of oceanographic instruments, development of database, cliff stabilization works METTELSAT installation of met instrument, monitoring and training Guinea current interim commission for the management of database; NGO for supporting communities on plantation, promotion of cooking stoves and supervising activities Grant for rehabilitation of fishing landing site Grant for the establishment of boulders and rocks to protect fishing landing site Realization of plant nursery and plantation activities (rehabilitation of cliffs & mangrove reforestation) Grant for the realization of horizontal drains Grant for the establish of rock material under the cliffs Grant for establishment of quarries stone exploitation
r	Printing of training material Communication material/publication (national & international)
s	26 consultations workshops to validate studies and options on investments and establishment of maintenance funds 24 training on the management & maintenance of infrastructures Project final workshops (Provincial & National)
t	Contingencies related to inflation, currency exchange fluctuations and other external shocks and contingencies, which would increase the cost of travel and materials.
u	National coordinator (36,000/year); driver (9,600/year)
v	10 steering comity meetings (2 meetings/year)
w	Contingencies related to inflation, currency exchange fluctuations and other external shocks and contingencies, which would increase the cost of travel and materials.

V. Management Arrangements

The United Nations Development Programme (UNDP) will implement the project under its National Implementing (NIM) modality, over a period of five years beginning from the PRODOC signature date.

The implementing partner will be the Directory for Sustainable Development (DDD), who will closely coordinate project implementation with Bas Congo Provincial authorities, community based organisations and civil societies established in project target sites.

The Project Board is responsible for making management decisions for a project in particular when guidance is required by the Project Manager. The Project Board plays a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Based on the approved Annual Work Plan, the Project Board can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans. In order to ensure UNDP's ultimate accountability for the project results, Project Board decisions will be made in accordance to standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the Board, the final decision shall rest with the UNDP Project Manager

PROJECT ORGANIGRAM

The **Project Implementation Unit (PIU),** based in Muanda, will assure day-to-day implementation and management of project activities as well as close collaboration with intervention municipalities and communities. Members for the PIU will be recruited by DDD with support from UNDP in its role as a GEF IA. The PIU will consist of one National Project Manager (PM), one M&E expert, one Finance and Administration Manager, one Logistician, one driver, and one communication officer. The project will also develop MOU with extension services based in target regions to support resilient activities. The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The Project Support role provides project administration, management and technical support to the Project Manager as required by the needs of the individual project or Project Manager. The Detailed TOR for each of these will be prepared prior to the Inception Workshop, approved by the PB and by UNDP/GEF.

At Provincial level, the project will work closely with the provincial authorities, decentralized public services whose MECNT and the Ministries of Transport and communication channels; Land Affairs; Public Works, Planning, Planning and reconstruction; of Agriculture and Rural Development; the Plan; Budget; Finance and Interior; parastatal (SCTP, CVM, OEBK...), private companies (PERENCO), civil society and the community representative.

The Muanda Consultative Committee (MCC) is a local platform or local consultative framework to discuss the implementation of project activities in the three pilot sites chosen. It will be composed of local authorities, representatives of the village chiefs of the three demonstration sites, civil society, decentralized public services MECNT, Transport, Agriculture and Rural Development, private companies operating in Muanda, Muanda community representatives. MCC meetings are held at least once every three months and its main function is to monitoring the implementation of project activities in the three pilot demonstration sites. Reports of meetings of the MCC are sent directly to the PMU. The MCC is a mechanism that could serve as an effective

tool for community mobilization and awareness for the consideration of project activities and their integration into the Muanda development plan and investment.

VI. Monitoring Framework and Evaluation

The project will be monitored through the following M& E activities. The M& E budget is provided in the table below.

Project start:
A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan. The Inception Workshop should address a number of key issues including:

- Assist all partners to fully understand and take ownership of the project. Detail the roles; support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- Based on the project results framework and the relevant SOF (e.g. GEF) Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Board meeting should be held within the first 12 months following the inception workshop.

An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP GEF projects, all financial risks associated with financial instruments such as revolving funds, microfinance schemes, or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).
- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs can be used to monitor issues, lessons learned etc. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually:

- Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and SOF (e.g. GEF) reporting requirements.

    - The APR/PIR includes, but is not limited to, reporting on the following:
    - Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
    - Project outputs delivered per project outcome (annual).

- Lesson learned/good practice.
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR
- Portfolio level indicators (i.e. GEF focal area tracking tools) are used by most focal areas on an annual basis as well.
- Describe M&E framework for specific outputs that are based on RCT principles, including who is to be involved, budget, survey instrument etc.

Periodic Monitoring through site visits:
UNDP CO and the UNDP RCU will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle:
The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation (insert date). The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-EEG. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant SOF (GEF) Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

End of Project:
An independent Final Terminal Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and SOF (e.g. GEF) guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-EEG.
The Final Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response that should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant SOF (e.g. GEF) Focal Area Tracking Tools will also be completed during the final evaluation.

During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.

Learning and knowledge sharing:
Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.
The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will

identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects.
Finally, there will be a two-way flow of information between this project and other projects of a similar focus.

Communications and visibility requirements:
Full compliance is required with UNDP's Branding Guidelines. These can be accessed at http://intra.undp.org/coa/branding.shtml, and specific guidelines on UNDP logo use can be accessed at: http://intra.undp.org/branding/useOfLogo.html. Amongst other things, these guidelines describe when and how the UNDP logo needs to be used, as well as how the logos of donors to UNDP projects need to be used. For the avoidance of any doubt, when logo use is required, the UNDP logo needs to be used alongside the GEF logo. The GEF logo can be accessed at: http://www.thegef.org/gef/GEF_logo. The UNDP logo can be accessed at http://intra.undp.org/coa/branding.shtml.
Full compliance is also required with the GEF's Communication and Visibility Guidelines (the "GEF Guidelines"). The GEF Guidelines can be accessed at: http://www.thegef.org/gef/sites/thegef.org/files/documents/C.40.08_Branding_the_GEF%20final_0.pdf. Amongst other things, the GEF Guidelines describe when and how the GEF logo needs to be used in project publications, vehicles, supplies and other project equipment. The GEF Guidelines also describe other GEF promotional requirements regarding press releases, press conferences, press visits, visits by Government officials, productions and other promotional items.
Where other agencies and project partners have provided support through co-financing, their branding policies and requirements should be similarly applied.

Table XX: M& E work plan and budget

Type of M&E activity	**Responsible Parties**	**Budget US$** *Excluding project team staff time*	**Time frame**
Inception Workshop and Report	Project Manager UNDP CO, UNDP CCA	Indicative cost: 10,000	Within first two months of project start up
Measurement of Means of Verification of project results.	UNDP CCA RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members.	50,000	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on *output and implementation*	Oversight by Project Manager Project team	100,000	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	Project manager and team UNDP CO UNDP RTA UNDP EEG	None	Annually
Periodic status/ progress reports	Project manager and team	None	Quarterly
Mid-term Evaluation	Project manager and team UNDP CO UNDP RCU External Consultants (i.e. evaluation team)	Indicative cost: 40,000	At the mid-point of project implementation.
Final Evaluation	Project manager and team, UNDP CO UNDP RCU External Consultants (i.e. evaluation	Indicative cost : 40,000	At least three months before the end of project implementation

Type of M&E activity	Responsible Parties	Budget US$ *Excluding project team staff time*	Time frame
	team)		
Project Terminal Report	Project manager and team UNDP CO Local consultant	0	At least three months before the end of the project
Audit	UNDP CO Project manager and team	Indicative cost per year: 3,000	Yearly
Visits to field sites	UNDP CO UNDP RCU (as appropriate) Government representatives	For GEF supported projects, paid from IA fees and operational budget	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US$ 255,000 (+/- 5% of total budget)	

Audit: Project will be audited in accordance with UNDP Financial Regulations and Rules and applicable audit policies.

VII. Legal Context

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA [or other appropriate governing agreement] and all CPAP provisions apply to this document.
Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.
The implementing partner shall:

a. Put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
b. Assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.
The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

VIII- Annexes

Annex 1: Project Risk Log

Project Title:	Award ID:	Date: January 2014

#	Description	Date Identified	Type	Impact & Probability (1-5)	Countermeasures / Management response	Owner
1	Political instability and conflict resurgence	April 2013	Political	I=3 P=3	UNDP is engaged along with other UN to monitor the political situation and adjust its programme accordingly.	UNDP Direction of sustainable development
2	Inadequate and unsustainable management and maintenance of coastal defences	April 2013	Financial & Technical	I=3 P=3	Under component 2, the project will support the establishment of an infrastructure maintenance funds from fisheries activities. Participatory maintenance plan for cliffs rehabilitation will be established and funding mechanisms developed with Muanda and Nsiamfumu decisions makers.	UNDP Direction of sustainable development Beneficiaries
3	Low capacity and involvement of national institutions to support communities in their adaptation activities	July 2014	Technical	I=3 P=3	The project interventions will strengthen the capacity of provincial technical departments of Bas-Congo and Muanda in particular, to generate real-time information on the prevention of vulnerable areas to climate risks. The project will develop MOU with specialized national institution (e.g METTELSAT, provincial institutions) to support communities.	UNDP Direction of sustainable development
3	Low mobilisation and lack of interest of target groups (specifically private sector and land owners)	July 2014	Organizational and operational	I=3 P=3	The project will develop a communication strategy to foster social mobilization targeting non-governmental organizations, local churches, local companies, social and public organisations, radio channels and local territorial administration to stimulate the construction of alliances for the promotion of mutual consultation framework and sustainable partnership.	UNDP Direction of sustainable development

#	Description	Date Identified	Type	Impact & Probability (1-5)	Countermeasures / Management response	Owner
4	Limited capacity of PMU particularly to handle more complex forms of procurement	July 2014	Organizational and operational	I=3 P=3	UNDP wil train project team and provide support through its procurement unit. A procurement plan will be develop and update each year to facilitate early identification of needs.	UNDP Direction of sustainable development
5	Financial resources are limited for undertaking coastal infrastructures ;	July 2014	Financial	I=3 P=3	The project will pilot rehabilitation and satbilisation measures for critical areas (fish landsite area in Nsiamfumu, cliffs around Muanda). Under Output 1.3, a roadmap will be developed to secure investment and financial flows from governmental and nongovernmental actors and agencies for the implementation of priority integrated climate and sustainable development activities.	UNDP Direction of sustainable development Provincial authorities

Annexe 2: Key Assessment reports

The following key reports were produced as part of the PPG phase, based on detailed TORs developed during the inception of the PPG phase/work planning. They are available in French.

Coastal risks (PPG report 3)
CR1: Description coastal zone
CR2: Identification of coastal risks
CR3: Urgency Plan
CR4: Logical framework, budget and costs benefits.

Environment (PPG Report 4)
EN 1: Pollution of the coastal zone
EN2: Measures to fight again pollution

Socio-economy (PPG Report 5)
SE1: Identification of Income generating activities
SE2: Scaling up strategy
SE3: Capacity building Programme

Communication (PPG Report 6)
COM1: identification of stakeholders
COM2: Description of main problems & barriers
COM3: Communicatio strategy

Policy & administration (PPG Report 7)
PA1: National legislation/policy for the protection and management of the coastal zone
PA2: Environmental Laws
PA3: Recommendation for the protection and management of the coastal zone

Oceanography (PPG Report 8)
OC1: Atlantic coast of DRC
OC2: Data collection
OC3: Logical framework and Capacity building

Annexe 3: References

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Seconde communication nationale à la convention cadre sur le changement climatique
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Annexe 4: Stakeholder involvement plan

The success of project intervention requires the active involvement and participation of the different stakeholders. Key stakeholders for the project include (i) national institutions involved in coastal monitoring and climate information (e.g. CVM, METTELSAT); (ii) Provincial authorities and staffs from the Bas Congo Province, Muanda City and villages leaders; (iii) Private sector including, oil companies, hotel owners, etc.; (iv) community based organisations (women and young associations) that are living in the targeted rural areas, including the participation of potentially vulnerable groups such as women; . The present Plan was designed based on the series of meetings organised with stakeholders during the project inception, for agreeing on project content and operationalization (situation analysis, priority sites for intervention, priority criteria, management arrangements).

Outputs	Responsible institution and role	Stakeholder and role
Output 1.1. Coastal erosion risk profiles prepared for multiple coastal segment and economic analysis of coastal defence /adaptation options assessed for the most sensitive areas to facilitate budgeting and future land use planning in Muanda Region.	Congolese des Voies Maritimes (CVM) Contribute to the design and mapping of vulnerable sites to erosion Evaluate the costs and benefits of options for coastal protection	The Sustainable Development Directorate (DDD) of MECNT: ensures coordinate of activities Provincial authorities: to facilitate the planning process and the choice of adaptation options National Directorate of Guinea Current Commission (GCC): contribute to the design and implementation of adaptation options Communities of Muanda: help assess defenses or adaptation options
Output 1.2. Improve understanding of climate change risks in the coastal zone and facilitate the mobilization of different actors (local chief, coastal landowners, private sector and communities) in supporting to policy planning process	Design of the communication strategy and dissemination of information on climate risks and support the planning process	Provincial Government of Bas-Congo: Integrating project activities and problems of the coastal zone in the provincial planning to ensure sustainability DDD of MECNT: coordination Local radio: Contribute to the dissemination of knowledge and information on the activities and results of the project Local Communities: contribute to the design and implementation of advocacy and monitoring activities
Output 1.3. Relevant tools and skills provided to staffs from the Province and Muanda Commune to adjust development plan &budgets appropriately and support effective adaptation in the coastal zone.	*MECNT:* The Sustainable Development Directorate (DDD ensures coordinate of activities	Provincial authorities: to facilitate the inclusion of climate fund in the development plan of Muanda Local Communities: support the process of participation Relevant ministries : Contribute to the design of adaptation activities and support the process of participation

Outputs	Responsible institution and role	Stakeholder and role
Output 2.1. Establish a Community based Early Warning system to increase preparedness, risk prevention and response capacities	METTELSAT: Contribute to the design of the Early Warning System (EWS), identify needs for climate information	*DDD du MECNT* : Contribute to the design and establishment of an Early Warning System (EWS).
Output 2.2. Pilot adaptation measures to stabilize the cliffs at Muanda and secure fisherman docking and landing operations at Nsiamfumu	Congolese des Voies Maritimes (CVM): Contribute to the design and implementation of protective structures in the three pilot demonstration sites; Assess protection technologies to implement	Local communities and Provincial Services: Bring their local experience in the design and implementation of protective structures and contribute to the monitoring and maintenance of protective structures installed DDD of MECNT: coordination of activities PERENCO Company: contribute to the design of adaptation activities and provides financial support
Output 2.3. Create alternative climate-resilient livelihoods for women & youth organizations to reduce pressure on coastal resources and to uplift the economic status of the coastal communities	Contribuer à la conception et à la mise en œuvre des activités d'adaptation à base communautaire et génératrices de revenus Contribute to the design and implementation of community based adaptation activities generating income	DDD of MECNT: coordination Provincial authorities: monitoring and assess of income generating activities put in place Departments of agriculture, fishing and aquaculture, Forestry: Contributing to the training of women and youth in generating alternatives resilient livelihood activities Civil society: NGOs, village cooperatives, women's groups or youth directly benefit local communities: Contribute to the design of activities and support the process of participation, bring their knowledge / traditional relevant knowledge to climate change adaptation. Are responsible for daily management of project sites PERENCO Company: Contributes to the design of adaptation activities and provides financial support.

Annexe 5: Terms of Reference for Project Personnel

The Project Implementation Unit is responsible for day-to-day implementation and management. It is notably responsible for technical support to all activities, and establishing technical working relationships with a range of projects and programmes and activities throughout the 10 communes

Tasks

- Preparing Annual and Quarterly work plans;
- Preparing Financial and progress report;
- Preparing TOR for all activities, inputs and services;
- Overseeing the identification, selection and supervision of all service providers;
- Providing technical support to the implementation of climate-resilient activities at the community level. This includes regular visits to communities' areas to observe and advise on all local activities;
- Providing technical support and direct inputs to all capacity development activities at local, municipal and provincial levels. This includes the design and implementation of training programmes;
- Prepare policy papers, recommendation, as appropriate and necessary;
- Ensuring coordination with all related projects in the sector and related sector;
- Arrange and ensure the smooth implementation of all PB meetings;
- In-between PB meetings, ensure the PB members are informed of all major developments and reports on a regular basis as specified by the PB (note: this should take place at least twice a year other than planned PB meetings);
- Building working technical partnerships;
- Overseeing lesson learning and lesson dissemination;
- Providing training in line with work plans and budget;
- Implement the M&E plan;
- Oversee communications: website, newsletters, leaflets, etc.;
- Ensure that appropriate accounting records are kept, and financial procedures for NIM are followed;
- Facilitates and cooperates with audit processes at all times as required;

Staffing

The PIU will consist of one National Project Manager (PM), one M&E experts, one Finance and Administration Manager, one Secretary, and two drivers. National and international consultants will support the PM: National expert micro-dam, borehole, micro-irrigation system, Environmental Impacts Assessment (EIA). The project will also develop MOU with extension services and relevant NGO & Producers Federation to support resilient communities activities. Finally, UNDP will hire 3 UNVs to support management of project in select Region. The Detailed TOR for each of these will be prepared prior to the Inception Workshop, approved by the PB and by UNDP/GEF.

National Project Manager

Reports to: Project Board

Timing/Duration: This is a full-time position for the five years of the project.

Objective/scope:

This is a high-level policy/leadership position to oversee the project implementation.

- The initial objective is to establish the PIU and oversee the recruitment of its staff and its operationalization.
- The next objective is to ensure regular work planning, adaptive management and monitoring of project progress towards project objectives and goals, and management of all PIU staff.
- The third objective is to ensure the PIU interacts functionally with all partners, national and international, at high levels. This includes developing joint objectives and activities with international partners and other projects.

He/she will be a locally recruited national selected based on an open competitive process. He/She will be responsible for the overall management of the project, including the mobilization of all project inputs and the supervision of project staff, consultants and sub-contractors. He/she will report all substantive and

administrative issues to the MEE deputy minister. The PM will report to the Project Board (PB) on a periodic basis and will be responsible for meeting the project's government obligations under the national implementing modality (NIM). He/She will act as a liaison between the Government and the liaison officer that will be nominated in the CNEDD, UNDP and other UN Agencies, NGOs and project partners, and will maintain close collaboration between the project and other co-financing donor agencies.

Tasks (these include, but are not limited to):

PIU Management and Planning

1. Assume operational management of the project in consistency with the project document and UNDP policies and procedures for nationally executed projects;
2. Oversee preparation and updates of the project work plan as required; and formally submits updates to UNDP and reports on work plan progress to the PB and UNDP as requested but at least quarterly;
3. Oversee the mobilization of project inputs under the responsibility of the Executing Agency;
4. Oversee the recruitment of all consultants and sub-contractors;
5. Ensures that appropriate accounting records are kept, and financial procedures for NIM are followed, and facilitates and cooperates with audit processes at all times as required;
6. Ensures all reports are prepared in a timely manner;
7. Assist in the finalization of TORs and the identification and selection of national consultants to undertake the rapid assessment;
8. Assists in the planning and design of all proejct activities, through the quarterly planning process and the preparations of TOR and Activity Descriptions;
9. Supervises the project staff and consultants assigned to project;
10. Throughout the project, when necessary, provides advice and guidance to the national consultants, to the international experts and to project partners;
11. Assist in the dissemination of project findings, notably to relevant governmental departments and internationally.

Partnerships

1. Oversee development and implementation of communication strategy;
2. Oversee development and implementation of the M&E monitoring system;
3. Build working relationships with national and international partners in this sector;
4. Ensure the coordination of project activities work with related work of partners;

Qualifications

The PM will have nationally renowned expertise in at least one of the following fields: Environmental, Disaster Risks Management, or rural economics; Natural resources management, and, climate change forecasting and impact forecasting. In addition, the following qualifications will be key to the project success:

- Appropriate University Degree in natural resources management, economics or agriculture;
- Substantial experience and familiarity with the ministries and agencies in Burundi;
- Verified excellent project management, team leadership, and facilitation;
- Ability to coordinate a large, multidisciplinary team of experts and consultants;
- Fluency in English;
- Knowledge in English is an asset.

Supported staff

The M&E Expert will be national expert. He/She will:

- Provide technical expertise and guidance to all project components, and support the Project Coordinator in the coordination of the implementation of planned activities under the LDCF project as stipulated in the project document/work plan;
- Be specifically responsible for the technical input into the development of a M&E framework and its implementation and follow-up with all relevant stakeholders at national, county and demonstration site level, in line with the project results framework in section III of the project document and in line with the GEF tracking tool for LDFC project AMAT and GEF M&E guidance;
- Ensure that technical contracts meet the highest standards; provide input into development of Terms of Reference for sub-contracts, assist with selection process, recommend best

candidates and approaches, provide technical peer function to sub-contractors; provide training and backstopping were necessary;
- Provide technical inputs into the work of the PB, and other relevant institutions implicated in the project management and implementation arrangements;
- Undertake regular reporting in line with project management guidelines.

The Finance and Admin Manager will be a national expert. He/she will:
- Set up and maintain project files;
- Collect project related information data;
- Update plans;
- Administer PB and other relevant meetings;
- Administer project revision control;
- Establish document control procedures;
- Compile, copy and distribute all project reports;
- Responsible for the financial management tasks under the responsibility of the PM;
- Provide support in the use of Atlas for monitoring and reporting;
- Review technical reports;
- Monitor technical activities carried out by responsible parties.

Annexe 7: Special Clauses

The schedule of payments and UNDP bank account details.

The value of the payment, if made in a currency other than United States dollars, shall be determined by applying the United Nations operational rate of exchange in effect on the date of payment. Should there be a change in the United Nations operational rate of exchange prior to the full utilization by the UNDP of the payment, the value of the balance of funds still held at that time will be adjusted accordingly. If, in such a case, a loss in the value of the balance of funds is recorded, UNDP shall inform the Government with a view to determining whether the Government could provide any further financing. Should such further financing not be available, the assistance to be provided to the project may be reduced, suspended or terminated by UNDP.

The above schedule of payments takes into account the requirement that the payments shall be made in advance of the implementation of planned activities. It may be amended to be consistent with the progress of project delivery.

UNDP shall receive and administer the payment in accordance with the regulations, rules and directives of UNDP.

All financial accounts and statements shall be expressed in United States dollars.

If unforeseen increases in expenditures or commitments are expected or realized (whether owing to inflationary factors, fluctuation in exchange rates or unforeseen contingencies), UNDP shall submit to the government on a timely basis a supplementary estimate showing the further financing that will be necessary. The Government shall use its best endeavours to obtain the additional funds required.

If the payments referred above are not received in accordance with the payment schedule, or if the additional financing required in accordance with paragraph above is not forthcoming from the Government or other sources, the assistance to be provided to the project under this Agreement may be reduced, suspended or terminated by UNDP.

Any interest income attributable to the contribution shall be credited to UNDP Project Account and shall be utilized in accordance with established UNDP procedures.

Ownership of equipment, supplies and other properties financed from the contribution shall vest in UNDP. Matters relating to the transfer of ownership by UNDP shall be determined in accordance with the relevant policies and procedures of UNDP.

The contribution shall be subject exclusively to the internal and external-auditing procedures provided for in the financial regulations, rules and directives of UNDP.

Annexe 8: Co-financing Letters