



# PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: LDCF

## PART I: PROJECT IDENTIFICATION

Project Title:	Addressing Urgent Coastal Adaptation Needs and Capacity Gaps in Angola		
Country(ies):	Republic of Angola	GEF Project ID: <sup>1</sup>	5230
GEF Agency(ies):	UNEP, UNDP	GEF Agency Project ID:	01010 5276
Other Executing Partner(s):	Ministry of Environment	Submission Date Resubmission Date	21 December 2012 26 February 2013 07 June 2013
GEF Focal Area (s):	Climate Change Adaptation	Project Duration (Months)	48
Name of parent program (if applicable):		Agency Fee:	\$587,100
• For SFM/REDD+ <input type="checkbox"/>			

## A. FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Financing from relevant TF (GEF/LDCF/SCCF) (\$)	Indicative Cofinancing (\$)
CCA-1(select)	Outcome 1.1: Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Output 1.1.1: Adaptation measures and necessary budget allocations included in relevant frameworks	LDCF	500,000	1,080,000
CCA-1(select)	Outcome 1.2: Reduced vulnerability to climate change in development sectors	Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability	LDCF	500,000	1,500,000
CCA-1(select)	Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Output 1.3.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	LDCF	603,750	1,800,000
CCA-2(select)	Outcome 2.1: Increased knowledge and	Output 2.1.1: Risk and vulnerability assessments	LDCF		

<sup>1</sup>Project ID number will be assigned by GEFSEC.

	understanding of climate variability and change-induced threats at country level and in targeted vulnerable areas	conducted and updated  Output 2.1.2: Systems in place to disseminate timely risk information		700,000	2,165,000
CCA-2(select)	Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Output 2.2.1: Adaptive capacity of national and regional centers and networks strengthened to rapidly respond to extreme weather events	LDCF	700,000	1,150,000
CCA-2(select)	Outcome 2.3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level	Output 2.3.1: Targeted population groups participating in adaptation and risk reduction awareness activities	LDCF	900,000	1,150,000
CCA-3 (select)	Outcome 3.1: Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas	Output 3.1.1: Relevant adaptation technology transferred to targeted groups	LDCF	1,376,250	1,500,000
CCA-3(select)	Outcome 3.2: Enhanced enabling environment to support adaptation-related technology transfer	Output 3.2.1: Skills increased for relevant individuals in transfer of adaptation technology	LDCF	600,000	800,000
Sub-Total				5,880,000	11,145,000
Project management <sup>2</sup>				300,000	375,000
<b>Total project costs</b>				<b>6,180,000</b>	<b>11,520,000</b>

<sup>2</sup>GEF will finance management cost that is solely linked to GEF financing of the project.

## B. PROJECT FRAMEWORK

<b>Project Objective:</b> Enhancement of coastal adaptive capacities at the institutional, systemic and community levels; response to urgent needs posed by climate change						
<b>Project Component</b>	<b>Grant Type (TA/INV)</b>	<b>Expected Outcomes</b>	<b>Expected Outputs<sup>3</sup></b>	<b>Trust Fund</b>	<b>Indicative Financing from relevant TF (GEF/LDCF/SCCF) (\$)</b>	<b>Indicative Cofinancing (\$)</b>
1. Enhanced scientific and technical capacity for adaptation in coastal zone areas	TA	1.1 Increased capacity of government staff to analyse, understand and predict climate change, access policy-relevant data and deliver relevant information to local communities	1.1.1 An operational forecasting and early warning system for climate-induced extreme events focusing on coastal areas, including science and technology (S&T) capacity for relevant government staff  1.1.2 A set of detailed sectorial and localised vulnerability assessments	LDCF	1,500,000	2,140,000
2. Local demonstration s and capacity building interventions on ecosystems restoration and adaptation measures in coastal areas, and showcasing their associated benefits	INV+ TA	2.1 Reduced vulnerability to increased droughts, rainfall variability, and extreme events in Angola's coastal zone	2.1.1 Rehabilitated and resilient productive coastal ecosystems (e.g. mangroves, rangelands, forests) in Luanda, Namibe, Cabinda, and Bengo  2.1.2 Resilient land management (SLM) techniques established in project-targeted demonstration sites (Luanda, Bengo, Namibe, Cabinda)  2.1.3 Increased capacity of local communities on the use of adaptation techniques demonstrated by the project and to integrate these into local practices	LDCF	3,380,000	7,500,000
3. Enhanced institutional	TA	3.1 Strengthened interministerial	3.1.1 Interministerial Committee for the	LDCF	1,000,000	1,505,000

<sup>3</sup> Additional details on potential LDCF project interventions within specific outputs are presented in Annex 1.

coordination and systemic capacity for proactive adaptation in Angola		coordination to respond to climate change risks  3.2 Increased policy capacity to address climate change including country capacity to formulate and execute large-scale adaptation projects  3.3 Improved general knowledge and awareness about climate change impacts and adaptation among stakeholders	Environment is strengthened by new mandate to address climate change adaptation  3.1.2 Key policy documents revised to reflect climate change risks, with budget allocations  3.2.1 Non-governmental stakeholders including private sector are informed through workshops, seminars, interactive forum and community-based consultations about climate risks and adaptation			
Sub-Total					5,880,000	11,145,000
Project management <sup>4</sup>				LDCF	300,000	375,000
<b>Total project costs</b>					6,180,000	11,520,000

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

Sources of Cofinancing for baseline project	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	Government of Angola	In-kind	1,110,000
National Government	Government of Angola	Grant	5,095,000
GEF Agency	UNEP-PROVIA	Grant	250,000
	UNEP- Africa Adaptation Knowledge Network	Grant	300,000
GEF Agency	UNEP-IIED CBA-EBA integration	Grant	65,000
GEF Agency	UNEP-EC SIDS	Grant	200,000
Other Multilateral Agency (ies)	World Bank	Grant	3,000,000
	SADC		1,500,000
<b>Total Co-financing</b>			<b>11,520,000</b>

#### D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY<sup>1</sup>

NOT APPLICABLE

GEF Agency	Type of Trust Fund	Focal area	Country name/Global	Project amount (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
UNEP	LDCF	Climate Change	Angola	5,180,000	492,100	5,672,100
UNDP	LDCF	Climate Change	Angola	1,000,000	95,000	1,095,000
(select)	(select)	(select)				0

<sup>4</sup>Same as footnote #2

(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
<b>Total Grant Resources</b>				6,180,000	587,100	6,767,100

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

<sup>2</sup> Please indicate fees related to this project.

## E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

Amount Agency Fee

Requested (\$) for PPG (\$) <sup>6</sup>

- No PPG required.
- (upto) \$50k for projects up to & including \$1 million \_\_\_\_\_
- (upto)\$100k for projects up to & including \$3 million \_\_\_\_\_
- (upto)\$150k for projects up to & including \$6 million 150,000 14,250
- (upto)\$200k for projects up to & including \$10 million \_\_\_\_\_
- (upto)\$300k for projects above \$10 million \_\_\_\_\_

## PART II: PROJECT JUSTIFICATION

### A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

#### A.1.1 The /LDCF/SCCF strategies:

The objective of this project is to address urgent adaptation needs at local and central level, including the development of foundational adaptation capacity in Angola. This objective will be carried out by enhancing scientific and technical capacity for adaptation in the coastal zone areas; restoring ecosystems and demonstrating adaptation measures and their associated benefits for local communities; and through enhanced institutional coordination and systemic capacity for proactive adaptation in Angola. In doing so, the project meets the LDCF/SCCF Focal area objectives CCA-1 “Reducing Vulnerability: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level”, CCA-2 “Increasing Adaptive Capacity: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level”, and CCA-3 “Adaptation Technology Transfer: Promote transfer and adoption of adaptation technology”.

#### A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

The project responds to the LDCF and SCCF eligibility criteria and priorities as follows:

- **Country drivenness and undertaking a participatory approach:** Activities to be undertaken by the project were selected and validated through numerous stakeholder consultations and Participatory Vulnerability Assessments undertaken during the NAPA, and thus are in line with local and national country priorities.

<sup>5</sup> On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

- **Implement NAPA priorities:** The project will implement NAPA priorities related to the implementation of adaptation solutions in rural areas among the country's most vulnerable communities. The project will pilot the application of proven adaptation methods in coastal and rural areas of the country as a first set of measures to demonstrate the benefits of adaptation for community based resilience. In particular, the project will directly address the following NAPA priorities:
  - Priority 6: Create an early warning system for flooding and storms;
  - Priority 7: Early warning system (for extreme weather events—droughts, floods, storms and desertification); and
  - Priority 8: National institutional mechanism for adaptation planning and mainstreaming.
- **Supporting a “learning by doing” approach:** The project will support a “learning by doing” approach by addressing key adaptation needs and gaps that can be replicated elsewhere, and by promoting the emergence and capacity development of a new set of adaptation stakeholders in the country. These stakeholders include:
  - Improved agro-meteorological, urban affairs, civil protection and extension services staff that will be able to interpret information on climate variability and translate them into relevant advisories for local coastal communities to ensure their safety, livelihoods and sustainable production,
  - Local community producers that will have obtained knowledge on resilient and sustainable cultivation techniques (erosion prevention, soil moisture conservation, water efficiency, modified planting schedules, selection of resilient varieties) and have taken part in the rehabilitation and management of ecosystems (e.g. mangroves and forests),
  - Local community members that will have participated in farmer field-schools and demonstration plots for dissemination of climate resilient technologies, as well as the teachers and staff,
  - An improved interministerial mechanism on climate change which will enhance the pre-existing Committee for the Environment and ensure that climate change adaptation is part of its core mandate and that it is able to execute its tasks,
  - NGOs, public schools and private sector recipients of awareness-raising programmes on climate change adaptation.
- **Gender equality:** Project outcomes as well as the various vulnerability assessments and studies produced by the project will contribute to an understanding of how adaptation responses can be designed to strengthen gender equality. Efforts to promote gender equality will also be integrated in all aspects of the project's activities and management. This will be achieved through the development and use of gender-disaggregated indicators where relevant.
- **Complementary approach:** In order to build upon existing plans and avoid the duplication of efforts, the project will work in conjunction with relevant ongoing projects in Angola, and build on lessons learned from past projects in the region.
- **Sustainability:** The project promotes sustainability through several approaches: (i) strengthening institutional and human capacity at the central and local government, NGO, and local community levels ensuring long-term structural changes that integrate climate change adaptation considerations at various levels of society; (ii) empowering local communities, particularly women, to engage in natural resource management and climate change adaptation; demonstrations, trainings and hand-on approaches to ecosystem rehabilitation will promote learning-by doing approaches, as well as ownership of development initiatives, and keep knowledge within local communities; (iv) targeted approach in a priority zone; the coastal zone is densely populated and the hub of economic activity; adaptation interventions in this zone will have multiplier effects and target a large number of beneficiaries; (v) linkages with other sectors; linking climate information to agricultural or fishery interventions makes adaptation more relevant to stakeholders which encourages sustainability of resilient practices.

**A.2. NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS, IF APPLICABLE, I.E. NAPAS, NAPS, NBSAPS, NATIONAL COMMUNICATIONS, TNAS, NIPS, PRSPS, NPFE, ETC.:**

The project is consistent with the various national priorities of Angola, as set out in its “**Long Term Development Strategy (Angola 2025)**”, of which one priority is the revitalization of the rural economy. The project is also consistent with the priorities of the country, with regard to the protection of basic infrastructure and the creation of a stable government, as well as with the mandates for protection of the environment (**National Environmental Management Programme 2009-** Programa Nacional de Gestao Ambiental), **Country Poverty Alleviation Strategy 2005** (Estratégia de Combate à Pobreza) which has been revised as the **Medium-Term Development Program 2012-2017** and is the guiding document for poverty alleviation. A section of this Strategy and Plan focuses on sustainable development. This project lends itself well to these goals by ensuring that the coastal areas develop sustainable adaptation responses to climate change impacts.

**Angola’s Plan for Sustainable Development 2009 – 2013** as well as the **Angola’s Development Programme for 2012-2017** both seek to consolidate the country’s reconstruction, stability and economic development, through the natural resources sector. This project, through improving adaptation responses in the coastal areas, supports the following of their objectives: Fight hunger and poverty, and poverty reduction; Support economic development; Public sector modernization; Integrated rural development; Training of the population; and Improvement of living conditions of the Angolan people.

Weather forecasting and reliable climate predictions as part of this project also support **Angola’s National Plan for Preparation, Contingencies, Responses and Recovery from Calamities and Natural Disasters 2009-2014**. Activities focused on ecosystem restoration as adaptation responses will also support recovery from natural disasters and extreme events, thus supporting this National Plan. Additionally, vulnerability assessments will support implementation strategies under this National Plan by highlighting key areas of potential concern.

The project will implement **NAPA** priorities related to the implementation of adaptation solutions in vulnerable coastal areas. The project will pilot the application of proven adaptation methods in coastal and rural areas of the country as a first set of measures to demonstrate the benefits of adaptation for community based resilience. The project provides avenues for implementing various NAPA priorities and the following table highlights the NAPA priorities being addressed directly and indirectly by the project:

<b>NAPA priorities <i>directly</i> addressed by project</b>	<b>NAPA priorities <i>indirectly</i> addressed by project</b>
6. Create an early warning system for flooding and storms;	2. Promote SLM for increased agricultural yields;
7. Early warning system (for extreme weather events—droughts, floods, storms and desertification);	10. Diversify crops to less climate sensitive cultures;
8. National institutional mechanism for adaptation planning and mainstreaming;	12. Varieties adapted to local conditions
	13. Climate monitoring and data management system;

The project is expected to contribute to various sectorial policies by providing research and analytical tools on the linkages between sectorial priorities and objectives and climate change. This includes water and agriculture, health and sanitation, urban planning and transport as well as fisheries and extractive industries.

**B. PROJECT OVERVIEW:**

**B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:**

**B.1.1. The problem the baseline projects seek to address:**

The baseline problems can be grouped into three categories (1) poverty, unemployment and lack of access to social services and livelihoods; (2) under-developed institutions, poor governance, and lack of enforcement; and (3) environmental degradation due to high population density, poor natural resource management, pollution and overexploitation of resources.

## **The Baseline**

The Republic of Angola is home to over 18 million people, with more than 50% living in the coastal area. Despite the country's wealth in natural resources, rural **poverty** remains widespread, and the country does not produce sufficient food to satisfy its growing population needs (IFAD, 2011). 36.6% of the population lives below the poverty line and the Angolan economy is largely dependent on the extractive sector (oil and mining), which represents 55% of GDP and 95% of exports. Agriculture remains a subsistence activity for the large majority of non-urban populations, with average family plot size not exceeding 1.4 hectare. Fisheries contribute 7.8% of the GDP, mostly in semi-industrial and industrial exploitations.

The income indices of the Angolan population are very low with high levels of **unemployment**. There are large inequalities in wage distribution which is in part a consequence of the prolonged conflict (war of independence followed by a civil war) which lasted until 2002. The level of poverty of the population is reflected in its poor access to food, drinking water, sanitation, education, health, electric energy and other commodities. The revitalisation of the rural economy is seen as a national goal to decrease dependence on foreign agricultural products, increase income generation for families, develop a sustainable and strong agricultural sector, and address these issues of poverty.

The Angolan coastal zone is particularly prone to environmental, institutional and poverty related problems. Poor urban planning and high population density makes the region more vulnerable to socio-economic and **environmental problems**. Some urban planning problems include: overloaded water, power and drainage systems due to buildings being occupied by a higher number of people than planned; deficient collection of solid waste; high density of construction in and occupation of at-risk zones due to land scarcity (areas susceptible to landslides and other natural catastrophes); un-authorised occupation of lands, and poor construction of physical infrastructure.

The hubs of industrial economic activity as well as airports and hotels have also contributed to **environmental degradation** of the coastal zone. Mineral extraction of oil, natural gas, diamonds and other resources, have led to negative environmental impacts. Offshore oil production has caused pollution; illegal fishing has eroded fish stocks, mangrove destruction for fuel-wood has caused landscape damage.

**Poor governance**, exacerbated by the decade's long conflict that ended in 2002, has created social challenges, particularly in the areas of natural resource use and law enforcement. This is true both on the legislative and management aspect of governance.

### **B.1.2 Description of Baseline Projects**

The four baseline projects seek to address the issues of poverty and poor livelihoods, underdeveloped institutions and environmental degradation, which are exacerbated by climate variability increase new risks and threats to activities.

**(1) Support to the Fisheries Sector (2012-2017)** financed through the AfDB (approximately US \$18,518,518), seeks to bolster livelihoods and coastal economic activity by increasing fishing communities' income through investments in fishery infrastructure and their management, including marine resources management and safety at sea. The objective of the project is to minimize post-harvest fish losses, increase the value of fish traded and enhance safety at sea for artisanal fishers living in four coastal communities in Angola. The long-term aim is to increase food security and improve the socio-economic well-being of the artisanal fishers through increased



household income; contribute to the Government's efforts in reducing poverty and in accelerating economic growth on a sustainable basis; and strengthening capacity of institutions responsible for fishery management.

The Project is comprised of three components (i) Sustainable exploitation of marine fishery resources through Monitoring, Control and Management, which will support improving fishery resource management; (ii) Fishery infrastructure aimed at reducing post-harvest losses and increase fishers' income through investments in fishery infrastructure; and (iii) Project Management.

The project will address the **baseline problem** of **environmental degradation** and pollution by establishing waste collection, disposal management system, as well as sanitation facilities which will in turn lead to improved environmental conditions at landing sites. The project targets the baseline problem of **unemployment** by creating employment opportunities, such as local labour during the construction phase and in the operation of the processing and waste management facilities, and by enhancing conditions for those in fisheries making it sustainable and safe to work in the sector. The project targets the baseline problem of **access to social services** through the construction of 4 km of access roads between Yembe and Egipto Praia, which will facilitate community access to markets and other social services. Increased employment opportunities and household income will ultimately lead to improved food security and rural livelihoods. The project also targets institutional strengthening by establishing management and oversight.

Activities under this project include:

- the installation of a Very High Frequency (VHF) based Vessel Monitoring System (VMS) at two sites. This is aimed at enhancing safety-at-sea for artisanal fishers and enhancing spatial management of fishers.
- strengthening the capacity of institutions responsible for management of fisheries to ensure sustainable management of the fish stock by establishing an effective fishery information system for data collection, processing and dissemination;
- construction of four artisanal fish landing sites/centres (Centros de Pesca Artisanal-CPA) and 14 fuel points;
- rehabilitation of 14 km of access roads, construction of water supply and sanitation facilities as well as power supply system. Waste management facilities will also be supported at each landing site which will entail waste processing facilities.

(2) The **Environmental Sector Support Project (ESSP) (2010-2015)** is financed through the African Development Bank (AfDB) (approximately US \$12,314,814) with the Government of Angola providing counterpart funds of US \$1.33 million). This is a nation-wide project aimed at strengthening the institutional capacities of the Ministry of Environment (MINAMB), Ministry of Agriculture (MINAG), other line ministries, NGOs, CSOs, provincial and local governments. This project seeks to plan and implement natural resource management, enforcement of environmental laws and environmental impact assessments. The project has three main components: (i) Environmental Governance, Capacity Building and Institutional Strengthening; (ii) Integrated Environmental Conservation and Natural Resource Management; and (iii) Project Management.

The project will be implemented over a five-year period. The sector goal is to contribute to poverty reduction and sustainable livelihoods through effective control and management of natural resources and protection of the environment. The project objective is to strengthen the institutional capacity of the Government and other stakeholder institutions for effective protection of the environment and sustainable management of natural resources.

**Baseline problems** are addressed by this project: **poverty** reduction occurs through boosting education and training and increasing staff at various public sector institutions; reduction of **environmental degradation** occurs through environmental awareness campaigns; and **institutional structures** are improved through the establishment of new institutions/mechanisms and trained human resources.

Activities under this project include:

- Conducting national environmental awareness campaigns

- Promoting the adoption of best practices in sustainable land management, biodiversity conservation, application of environmental technologies.
- Promotion of technologies in pilot sites (Namibe, Huambo, Kuando-Kubango and Cabinda) which include forestry conservation, bee-keeping, fruit tree growing, agroforestry, water-harvesting, woodlot establishment and biogas plants.
- Developing a Biodiversity Institute, supporting the Climate Risk Management Unit (and training 5 staff members deployed there to obtain MSc qualifications), Environmental Training School and a UN Conventions Unit
- Establishing committees at the community level which will play a leading role in site identification for field demonstration activities, planning and monitoring implementation of the community based activities.
- Revision of environmental policy, legislation and strategy
- Strengthen the regulatory framework and enforcement of environmental laws
- Develop sectoral EIA guidelines

As of yet there are several challenges facing this project such as a weak enabling environment for incorporating climate change adaptation in its interventions, a limited degree of cooperation and coordination which would facilitate the mainstreaming of climate change adaptation in relevant institutions and agencies, and inadequate resources targeted to climate change adaptation.

**(3) The Local Development Project 2010-2015 (LDP)** financed by the **World Bank** (US \$ 121.70 million), seeks to improve access of poor households to basic services and economic opportunities and strengthen local institutional capacities of municipalities. The LDP is implemented in 17 provinces, of which four are pilot sites for the proposed UNEP project (Bengo, Namibe, Cabinda and Luanda).

The LDP Development Objectives are: (a) to improve access of poor households to basic services and economic opportunities, and (b) to enhance local institutional capacities among Angola's municipalities. These goals are to be met by improving social and economic infrastructure by financing the rehabilitation and construction of basic public works; improving business development of selected producer groups, particularly through improving access to markets; and strengthening local institutions such as public entities and civil society.

The project is based on three components: (i) Local social and economic infrastructure; (ii) local economic development (LED) aimed at improving business development skills and participation in markets of selected producer groups; and (iii) local institutional strengthening aimed at strengthening the capacities of public entities and civil society in participatory planning, management and monitoring of basic public service delivery and expenditure management.

This project will address **baseline problems** such as **poverty** and **unemployment** by increasing opportunities for income generation activities, enhancing business planning skills and facilitated access to microfinancing; and **institutional strengthening** by capacitating local, municipal governments through a series of trainings, infrastructural improvements and strategic planning.

Activities under this project include:

- increasing access for poor households to improved social and economic infrastructure by financing the rehabilitation and construction of basic public works and the acquisition of essential goods in response to Local Development Plans and through municipal grants.
- provide funds for supply of standard packets of goods essential for effective start-up of financed service facilities, such as desks and chairs for schools
- provide technical assistance to (i) selected municipalities to prepare their Municipal Economic Development; (ii) technical assistance to participating provinces to conduct sector and value chain studies; (iii) technical assistance and training for government to prepare and implement the Matching Grants Manual; (iv) matching grants to selected producer groups and/or business development service

- providers; (v) technical assistance and training to producer groups and service providers on business skills, managements and marketing; and (vi) organization of workshops on microfinance.
- Carry out two-year pilot teststo build up required staff and institutional capacities to monitor coverage and efficacy. The pilots are expected to be implemented in 12 municipalities located in four provinces, namely Huila, Huambo, Benguela and Namibe.
- Peer to peer training on institutional strengthening

(4) The **Angola Water Sector Institutional Project 2010-2019(AWSIP)** with SADC (total budget US \$113.4 million, financed by International Development Association (IDA) which has provided US \$57.4 million) seeks to strengthen the institutional capacity and efficiency of agencies in the water sector to improve access and reliability of water service delivery. The project is comprised of four components: (i) development of institutions in the water supply and sanitation sub-sector; (ii) water resources management; (iii) rehabilitation of water supply systems; (iv)capacity building and change management to strengthen the ability of government to improve water supply.

Thisbaseline project will make investments in basic services such as health, the development of appropriate legislative and institutional frameworks for water management, and market development for agricultural products. The project will seek to improve institutional water resources management, and build capacity toward a commercially-oriented public water supply. The work is focused in Luanda, which is one of the targeted sites in the proposed LDCF project.

This project addresses the **baseline problems** of **poverty, unemployment** and poor **livelihoods** by supporting the development of new service delivery institutions/mechanisms with trained staff, new commercial enterprises and through the labour used in building new infrastructure. Further, greater access to household water will allow households to use water for other practices which will improve quality of life and poverty indicators e.g. household gardens where vegetables can be planted, time saved in retrieving water which can be spent in more lucrative ways. This project also targets the problem of **environmental degradation** and pollution by promoting sanitation and rehabilitating degraded mechanisms and increasing access to clean water. This project also improves water **access** and **delivery** leading to positive outcomes such as improved health, and improved quality of life.

Activities under this project include:

- Physical rehabilitation of selected urban water supply systems due to the critical need to reverse many years of inadequate investments and maintenance
- Investments in improving access and reliability of water service delivery
- Construction of approximately 240 kilometres of water supply networks
- Establishing 72,000 domestic house water connections
- Workshops for different water stakeholders

**B. 2. INCREMENTAL /ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) OR ADDITIONAL (LDCF/SCCF) ACTIVITIES REQUESTED FOR GEF/LDCF/SCCF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS (GEF TRUST FUND) OR ASSOCIATED ADAPTATION BENEFITS (LDCF/SCCF) TO BE DELIVERED BY THE PROJECT:**

In order to further elaborate on how additional LDCF financing will deliver adaptation benefits to the baseline projects, an overview of the country and projected climate change in the coastal zone is given in this section. The relevance of these impacts on the baseline projects will be described as well as proposed LDCF interventions in order to highlight how the project will contribute to increasing the resilience of baseline projects described in Section B.1.2.

**B.2.1. Country context and climate change:**

Angola's climate exhibits various conditions, depending on the region. In general the climate is characterized by two more or less well defined seasons: the cool and dry "Cacimbo" season (June to September) and the warm "rainy" season (October to May). Within these parameters, the coastal region is relatively humid, with average

rainfall of over 600 mm decreasing from north to south. The inland areas are further divided: northern areas experience heavy rainfall and high temperatures; the plateau zone experiences average temperatures of 18°C and the Southwest zone, close to the Kalahari desert, presents semi-arid characteristics.

There are several negative impacts that climate variability is having and that future climate change can exacerbate. Some examples include the following:

- **Floods** are already a current phenomenon in Angola with frequent incidents involving destruction of property and infrastructure and the interruption of transports for long periods.
- **Soil erosion**, already a problem in many areas, could be worsened by more intense rainfall events, with implications on sedimentation and river flows and fisheries.
- **Droughts** are already occurring, although climate models predict longer dry periods, and an increase in the occurrence and severity of drought episodes. Just this past year (2012), an estimated 366,780 households were estimated to be affected by the drought in Angola, according to the Ministry of Agriculture, Rural Development and Fisheries (MINADERP). This resulted in a 400,000 ton decrease in agriculture production nationwide. Bengo and Namibe which are sites in which the project will be implemented, are two highly susceptible regions to drought.
- **Increases in temperatures** may have impacts on crop growth, soil moisture retention and disease tolerance, as well as on pest propagation and distribution.
- **Changes in rainfall** will impact irrigated agriculture and are likely to adversely impact crops which have not been planted according to rainfall variability.
- **Human health** is likely to be negatively impacted through changes in disease and vector distribution such as malaria, waterborne diseases, compounded by the lack of sanitation and low water quality and quantity.
- **Decline in economic activity**; agriculture and fisheries are most vulnerable to climate change. Agriculture remains a subsistence activity for the large majority of non-urban populations, and fisheries contribute 7.8% of the GDP. Negative climate change impacts could cripple the economy further, reduce income generating activities and worsen poverty indicators.

### **B.2.2. Coastal zone vulnerabilities and projected climate change**

Angola's coastal zone is home to more than 50% of the population. The coast also holds the majority of economic assets, including airports, oil exploitation zones, industries, transport infrastructure and hotel investments. Disasters and other natural catastrophes in the coastal zones, as a product of climate change, would therefore have a high human and economic cost.

There are several projected climate change impacts in the coastal regions. These include: **intensity and irregular frequency of rainfall; variations in temperature and relative air humidity; prolonged droughts; flooding; increase/reduction in wind frequency and intensity; transformation in the Benguela Cold Current; and sea level rise** (NAPA, 2011). Modifications to the Benguela Cold Current, on which the climate of Angola is intimately dependent, may have implications for coastal fisheries. Changes to river flows, hydrography, and water temperatures may also have an impact for coastal ecosystems and fisheries, as well as inland activities dependent on rivers.

Sea level rise, combined with pressures from increased coastal populations, deforestation, and increases in tidal patterns and coastal storms, places a significant part of the population at increased risk. Despite a lack of historical data, based on the information about the sea level from 1980-1999, three possible scenarios have been projected for the year 2090, with the first pointing to a rise of 0.13 to 0.43 metres, the second to 0.16 to 0.53 metres and the third to 0.18 to 0.56 metres (NAPA, 2011). Many low-lying areas may be subject to flooding, including parts of the capital city of Luanda, which is one of the project sites, and other low-lying coastal cities. Low-lying coastal lagoons, which play a key role in regulating the coastal environment, may likely become

inundated. In addition, this may increase saltwater intrusion in river deltas and estuaries which combined with increased propensity towards flooding would have a tendency to create inward and outward flooding around major rivers.

At this time, there is insufficient data and technical capacity available in climate monitoring to emit legitimate and timely forecasts, early warnings, projections and other information which would be vital for protecting communities. Some communities judge that they can calculate when they need to abandon flood zones, but at present the traditional cycles of rain and drought are not predictable, and the existing warning systems used by the communities are not sufficient to protect those who live in at-risk zones. This is a major challenge in any national planning to address threats posed by climate change. The project thus aims to enhance coastal adaptive capacities at the institutional, systemic and community levels in order to respond to urgent needs posed by climate change.

### **B.2.3 The problems facing Angola that the LDCF project seeks to address**

Without this project, the impacts of climate change and climate variability will continue to degrade socio-economic sectors in Angola, or maintain a status quo which means a lack of sustainable development, poor economic output, degraded ecosystems, poor quality of life and livelihoods for citizens. Such a scenario would compromise current efforts towards economic growth, fight against poverty, and sustainable development. One can also assume that *ceteris paribus*, there would continue to be:

- limited availability of financial resources to implement adaptation measures;
  - lack of scientific data, historical climate information, monitoring networks and analytical capacity;
  - extreme poverty, low levels of health and education in the coastal areas with broader socio-economic implications across the country;
  - scarcity of human resources at the community level to address the negative impacts of climate change;
  - lack of involvement by the private sector in questions related to climate change adaptation; and
  - limited capacity among stakeholders to engage on climate change issues.
- Weakened institutional structures unable to respond to climate change in a coordinated and systematic way

To address the current situation, this project will build on the ongoing baseline initiatives highlighted in Section B.1. to address urgent coastal adaptation needs and capacity gaps in Angola by making investments in climate change adaptation measures and technologies to enhance resilience of the coastal zone. These will be addressed by enhancing scientific and technical capacity for adaptation in the coastal zone areas; restoring ecosystems and building capacity on adaptation measures and showcasing their associated benefits for local communities; and through enhanced institutional coordination and systemic capacity for proactive adaptation. The pilot sites where the project will be implemented have been selected on the basis of NAPA priorities, greatest vulnerability to climate change impacts, and with degraded ecosystems that would benefit from intervention and will be further refined during the PPG.

### **B.2.4 Project components and adaptation interventions**

With additional LDCF funds the following three components, and associated activities under them, will be implemented. The additional benefits of LDCF-financed adaptation interventions are summarized below.

#### **Component 1: Enhanced scientific and technical capacity for adaptation in coastal zone areas**

This component, implemented by UNEP, will support activities required to produce additional new knowledge and data to improve scientific capacity for adaptation in Angola. A first major element of this component will be the operationalization of an effective system for climate monitoring and early warning in four pilot coastal provinces (Bengo, Cabinda, Luanda and Namibe). Climate monitoring will improve record keeping, collect baseline data, compare climate conditions in different regions and enhance forecasting.

In addition to the acquisition and installation of small-scale climate monitoring equipment, training will be provided to government staff (agro-meteorological services, environment, urban affairs, civil protection, extension services among others) to interpret climate information and translate it into useful advisories at the local level. Linkages with the UNDP-implemented GEF project will ensure that pilot sites are not replicated and there is good coverage of key zones.

A second element will be to conduct a set of detailed sectorial and localized vulnerability assessments in order to fully understand climate risks and develop well-informed adaptation responses. This component will improve guidance for assessing climate change vulnerability, impacts and adaptation in the coastal region through its analysis of the available approaches methods and tools applicable in this context. In particular, this process will support Angolan decision and policymakers to select appropriate methods and tools to address the particular challenges faced by coastal communities such as the restoration of ecosystems that can contribute to resilient livelihoods.

**Component 1 indicative activities to be carried out with additional LDCF funds:**

Component	Outcome	Output	Activities
1. Enhanced scientific and technical capacity for adaptation in coastal zone areas	1.1 Increased capacity of government staff to analyze, understand and predict climate change, access policy-relevant data and deliver relevant information to local communities	1.1.1 An operational forecasting and early warning system for climate-induced extreme events focusing on coastal areas, including S&T capacity for relevant government	Acquisition and installation of small-scale climate monitoring equipment in four pilot areas (Bengo, Luanda, Namibe, Cabinda)
			Training for decentralized agro-meteorological services, environment, urban affairs, civil protection and other relevant government stakeholders in project sites on interpretation of climate information and translation into locally relevant advisories
			Develop effective climate monitoring and data management system for improved record keeping, baseline data, comparisons in different regions and forecasting
			Training of extension staff to deliver timely climate information to local coastal communities for agricultural production and livelihoods sustainability
		1.1.2 A set of detailed sectoral and localised vulnerability assessments	Undertake detailed analyses of climate impacts on key sectors including: coastal zone urban settlements, human and animal health, fisheries, groundwater, mining and extractive industries.
			Conducting enhanced technical, impact and vulnerability assessments including through the guidance from PROVIA

**Without LDCF finance:** Without LDCF funding, adequate climate information will not be generated and national capacity to predict climate-related information will not be garnered. Given the vulnerabilities of the coastal areas, it is necessary that reliable climate forecasting be provided to plan adaptation interventions as well as other socio-economic activities. Furthermore, this component will ensure that data is not collected in a vacuum. Rather, training will be provided to key staff to ensure that information can be made sector-relevant for users and be disseminated and decentralised. End users will thus be able to use climate information for their own planning purposes. Key beneficiaries will be those working in the agricultural and fisheries sector; climate forecasting will allow farmers to know when and what type of crops to plant, or identify which challenges may arise due to climate variability. This will have a positive impact on food security and livelihoods in the coastal zone and contribute to lessening the vulnerability of these communities. Without such targeted advice, producers may be making sub-optimal decisions and activities may be undermined by climate variability and associated impacts.

Without the technical and vulnerability needs assessment guided by PROVIA, a complete snapshot of Angola's challenges in light of climate change will not be known. This will hinder future policy-making and decision-making and may prevent adequate adaptation measures from being planned, adopted and implemented. Given the large percentage of population living in coastal areas and the economic and livelihoods based in the region, unforeseen events and lack of adaptive responses may have potentially disastrous socio-economic impacts. Conducting these activities will fulfill information gaps identified in the NAPA.

With LDCF finance, all baseline projects will be better equipped to address their project goals. Additional LDCF funds and focused interventions on climate change adaptation in coastal areas will help create a more enabling environment to promote the institutional changes sought by the ESSP. Data generation will help solidify the need for coordinated climate change interventions in government. The LDCF additional funds will support the baseline project by highlighting the links between climate risks and various sectors of the economy. This component will also support the Support to Fisheries Sector baseline project in attaining its food security and livelihoods aims by promoting resilient activities, strengthening adaptation considerations in management decision-making and by increasing information on climate variability. Enhanced climate information will also support LDP beneficiaries by ensuring that their planning and strategies to reduce poverty and build infrastructure, is climate-proofed and resilient over the long run. Without improved forecasting and climate monitoring, water managers will be unable to protect water supply, access and delivery as well as infrastructure as conceived under AWSIP. With additional LDCF fund, these managers will be knowledgeable of upcoming climate threats and opportunities.

## **Component 2: Local capacity building on ecosystems restoration and adaptation measures in coastal areas, and showcasing their associated benefits**

This component, implemented by UNEP, will demonstrate the benefits of ecosystem restoration and display how investments in such adaptation measures can be carried out in coastal areas. This component will reduce coastal communities' vulnerability to increased drought, rainfall variability, and extreme events by rehabilitating resilient, productive ecosystems (such as mangroves, rangelands and forests); promoting sustainable land management (SLM) techniques; and increasing the capacity of local communities to make use of said adaptation techniques. Selection of sites will be determined by local community needs through consultations in the PPG.

### **Component 2 indicative activities to be carried out with additional LDCF funds:**

Component	Outcome	Output	Activities
2. Local capacity building of ecosystems restoration and adaptation measures in coastal areas, and showcasing their associated benefits	2.1 Reduced vulnerability to increased droughts, rainfall variability, and extreme events in Angola's coastal zone	2.1.1 Rehabilitated and resilient productive coastal ecosystems (e.g. mangroves, rangelands, forests) in Luanda, Namibe, Cabinda, and Bengo	Undertake ecosystem rehabilitation in key pilot areas, including mangrove rehabilitation, revegetation, reforestation or creation of protected rangeland and fallow areas
		2.1.2 Resilient land management (SLM)	Training for governmental extension staff and local producers in project sites on



		techniques established in project targeted demonstration sites (Bengo, Namibe, Cabinda)	resilient and sustainable cultivation techniques (erosion prevention, soil moisture conservation, water efficiency, modified planting schedules, selection of resilient varieties)
		2.1.3 Increased capacity of local communities to use adaptation techniques demonstrated by the project, and to integrate these into local practices	Establishment of farmer field-schools and demonstration plots for dissemination of climate resilient investments and technologies (erosion prevention, soil moisture conservation, water efficiency, modified planting schedules, selection of resilient varieties). Management of plots by local communities to ensure sustainability of knowledge acquired.

***Without LDCF finance:*** Without the activities in this project, degraded ecosystems may remain unrestored and their adaptive potential unexplored. Local coastal populations may also remain uninformed as to the potential adaptation benefits of ecosystems which they may be using for other purposes. The activities in this project will showcase to local populations the benefits of restoring and conserving coastal ecosystems such as mangroves which will lead to long-term beneficial results, and prevent further degradation of coastal ecosystems. This component will also reinforce the agency of local actors in pursuing adaptation activities and promote sustainability.

Moreover, without this project, agriculture in coastal areas may remain mal-adapted to changing climate conditions—having negative impacts on future food security. Crop diversification and enhanced seeds in conjunction with improved forecasting under Component 1, will allow agricultural planning that may meet future economic and food security needs.

Furthermore, without this project, land practices may remain mal-adapted to negative climate change impacts. This component will introduce soil erosion techniques to avoid drought and flood damage, which will mitigate hazardous impacts to human health, infrastructure, economic activity, livelihoods and food security.

Without additional LDCF funding, the baseline ESSPproject will have a limited scope that does not take account of climate change impacts to the technologies it promotes, which could prove challenging to the project's overall aims in the longer term. With the additional funds from LDCF there will be an increase of capacity building activities, a focus on rehabilitatingecosystems and their role in adapting to climate change and the ability to increase the number of targeted beneficiaries. This will provide a window of opportunity of integrating climate change adaptation in broader environmental interventions. Moreover, without additional funds, the fisheries-related baseline project will be unable to incorporate ecosystem considerations in improving livelihoods. Without this project the LDP which seeks to improve livelihoods of its beneficiaries will not benefit from any climate change adaptation strategies to climate-proof agricultural activities. Without LDCF funds, AWSIP will not benefit from rehabilitated ecosystems and the buffers that these may provide against extreme-climate events and their impacts on water resources.

### **Component 3. Enhanced institutional coordination and systemic capacity for proactive adaptation in Angola**

This component will be implemented by UNDP and will seek to enhance institutional coordination and systemic capacity for proactive adaptation in Angola. It is important to strengthen the institutional capacity within Angola in order to achieve adaptation objectives and to also enable the country to execute future adaptation projects of this size. Strengthened institutions will:

- enhance awareness of government and populations in regards to climate change vulnerability, impacts and adaptation solutions
- promote sustainable, diversified and resilient livelihoods, and for local populations in the coastal zones

- contribute to national sustainable development goals
- generate data, information and knowledge which will in turn generate improved projections and decision-making
- mobilize a larger level of resources dedicated to climate change adaptation interventions in the coastal zones.

This component is the linchpin for all other activities in this project as it targets structural coordination, institutional delivery and effective governance. This component will be actualized by enhancing an interministerial mechanism with a climate change adaptation mandate and powers to execute adaptation interventions, increasing policy capacity; and information dissemination on coastal adaptation to NGOs, private sector and other non-governmental stakeholders. In addition, the project will also benefit from the recently launched UNEP Africa Adaptation Knowledge Network initiative in order to showcase lessons learned and harness experience and knowledge gained from other ongoing projects and demonstrations that can be employed in Angola, in the coastal zones and beyond. UNDP will provide technical and logistical support to the CACB to properly implement her mandate.

### Component 3 indicative activities to be carried out with additional LDCF funds:

Component	Outcome	Output	Activities
3. Enhanced institutional coordination and systemic capacity for proactive adaptation in Angola	3.1 Strengthened interministerial coordination to respond to climate change risks	3.1.1 Interministerial Committee for Climate Change and Biodiversity (CACB) is enhanced by mandate to address climate change adaptation	- Develop guidelines as how to incorporate adaptation in pre-existing activities and increase execution of adaptation activities
	3.2 Increased policy capacity to address climate change	3.1.2 Key policy documents revised to reflect climate change risks, with budget allocations	- Identify institutions, laws and regulations that could affect the coastal zone - Propose the inclusion of climate-sensitive actions/considerations in those laws and regulations already identified - Undertake a study on the economic impacts of CC and its associated impacts disaggregated by sector to raise awareness about the need to increase budget allocations
	3.3 Improved general knowledge and awareness about climate change impacts and adaptation among stakeholders	3.2.1 Non-governmental stakeholders including private sector gain ownership of adaptation strategies through workshops, seminars, interactive forum, guidance from trained staff and community-based consultations about climate risks and adaptation	Delivery of an awareness raising programme focusing on climate change adaptation for NGOs, public, schools, and private sector.  Extension staff and trained front-line workers support communities in integrating adaptation measures into their own practices  Liaise with the Africa Adaptation Knowledge Network to showcase lessons learned and harness experience and knowledge gained from other ongoing projects and demonstrations

**Without LDCF finance:** Without these activities, there will be no national coordinating structure to oversee and manage impacts of climate change and adaptation responses. This component will ensure that there is capacity at the national level to respond to climate change impacts while seeking linkages among various players, stakeholders and interventions to make full use of resources being used and avoid duplication. Further, it will ensure that

responses are mutually beneficial and do not undermine one another. Strengthened capacity at the institutional level will also provide a national map of who the key actors are in adaptation activities, who the beneficiaries are and what are ongoing needs and areas for intervention. This component will ensure the long term sustainability of this project.

Without LDCF funding the Interministerial Committee of the Environment will remain inadequate in responding to climate change adaptation needs, planning for future interventions and coordinating governmental structures for effective response. This project will build on this previous Committee to ensure value added and to empower the structure with a new climate change adaptation mandate and execution powers. All executing partners of this project will be part of this mechanism (Ministry of Environment, Ministry of Planning, Ministry of Fisheries, Ministry of Transport, Ministry of Agriculture, Rural Development and Fisheries, Ministry of Petroleum, Ministry of Health, Ministry of Energy & Water, Ministry of Telecommunications and Information Technology, and Provincial Government representatives).

Without the support of LDCF funds, the ESSP will continue facing the challenges of integrating climate change considerations into broader institutions. Through data generation and an influx of focused funds in key economic zones, this project will be able to bring attention to climate change adaptation and the need to mainstream it into broader policy and strategy. Additional LDCF funds will help foster an enabling environment for climate change interventions in various sectors in a consistent manner, assisted through the strengthening of the interministerial committee in adaptation matters to enhance overall climate governance. Without this project the fisheries and water sector will not benefit from specialized adaptation guidance geared towards the sector and such activities would likely be carried out in an ad-hoc manner.

## B.2.5 Associated adaptation benefits of separate baseline projects

The sections above (B.1 and B.2) describe the baseline situation, baseline projects within Angola that tackle current problems, projected climate change impacts in the vulnerable coastal zones of Angola, as well as project activities. In order to provide a clear justification for LDCF funds, Table 1 provides an overview of how the climate change challenges described in Section B.2.1 and B.2.2 affect baseline projects and what the expected benefits of LDCF project are.

Table 1: Climate change vulnerabilities of the baselines projects versus the adaptation alternative under the LDCF project in Angola.

Baseline projects • Goals and activities	Climate change hazards affecting the baseline projects	Impacts to the baseline projects and targeted populations as a result of climate change	Alternative scenario including complementary activities of the LDCF project	Expected LDCF project benefits
<b>Support to the Fisheries Sector</b>  - Investments in fishery infrastructure and their management;  - Reduction of post-harvest losses and increase of fishers' income through investments in fishery infrastructure  - Sustainable use of marine fishery resources through Monitoring, Control and Management	- Intensity of storms, winds and irregular frequency of rainfall  - Increases in water temperature  - Potential flooding  - Sea level rise and coastal erosion	- Higher ocean temperatures affect the quality and quantity of fish stock thus affecting livelihoods and local and national economies  -Flooding risks and sea level rise damage coastline, ecosystems, infrastructure, property and boats.  -Health and safety risks associated with climate vulnerability e.g. flooding leading to spread of diseases and	<b>LDCF resources will be used to build resilience of this baseline project through:</b>  - Providing technical capacity in climate monitoring to emit timely forecasts, early warning projections  - Developing localised advice following detailed sectoral and local vulnerability assessments  - Sharing knowledge, providing training, building capacity on restoration of ecosystems (e.g. mangroves,	- Climate resilient livelihoods and infrastructure  - Rehabilitated coastal ecosystems, enhanced ecosystem goods and services  -Increased capacities and knowledge owned by local communities to climate proof their fisheries-related activities and practices

Baseline projects • Goals and activities	Climate change hazards affecting the baseline projects	Impacts to the baseline projects and targeted populations as a result of climate change	Alternative scenario including complementary activities of the LDCF project	Expected LDCF project benefits
-Safety at sea		parasites.	<p>rangelands and forests) that can further contribute to resilient livelihoods</p> <p>-Enhancing understanding at the community and institutional levels on climate resilience and to enable local communities to adapt to the impacts of climate change</p> <p>- Strengthening institutional coordination so that adaptation initiatives are integrated into fisheries' policies and practices.</p>	<p>- Data generation and identification of climate vulnerabilities related to fishery resources</p> <p>- Enhanced institutional coordination that will be able to respond to needs and able to integrate climate change adaptation measures into fishing-related policies and practices</p>
<p><b>Environmental Sector Support Project (ESSP)</b></p> <p>- Reduction of poverty through management of natural resources and protection of the environment.</p> <p>-Environmental governance, capacity building and institutional strengthening</p> <p>- Enhanced environmental awareness at national and local levels</p> <p>- Promotion of technologies in pilot sites (e.g. forestry conservation, bee-keeping, fruit tree growing, agroforestry, water-harvesting, woodlot establishment and biogas plants)</p>	<p><b>Climate impacts that can affect project activities as well as promoted technologies in pilot sites, including:</b></p> <p>- Intensity and irregular frequency of rainfall;</p> <p>- Variations in temperature and relative air humidity;</p> <p>- Prolonged droughts; flooding;</p>	<p><b>Climate variability and change is expected to:</b></p> <p>- Impose stresses on natural resources</p> <p>- Negatively impact livelihoods through lost agriculture, fishing and other opportunities</p> <p>- Pose climate induced challenges in carrying out environmental awareness campaigns in remote locations</p> <p>- Exacerbate conflict over natural resources in an already fractious environment making it difficult to reach project goals</p> <p>- Potentially disrupting pilot demonstrations so that they might not showcase optimal outcomes in the long term if adaptation is not taken into account</p>	<p><b>LDCF resources will be used to build resilience of this baseline project through:</b></p> <p>- Building technical capacity by integrating climate change adaptation into broader environmental awareness-raising goals and activities</p> <p>- Creating an enabling environment for climate change adaptation activities to be integrated into other sectors and activities (e.g. training for decentralized agro-meteorological services, environment, urban affairs, civil protection and others for interpretation of climate information and translation into locally relevant advisories).</p> <p>- Developing effective climate monitoring and data management system for improved record keeping, baseline data, comparisons in different regions and forecasting which would support baseline interventions on natural resource management</p> <p>- Undertaking detailed vulnerability assessments on key sectors to identify which areas should be prioritized for environmental education</p> <p>- Establishing farmer field-schools and demonstration</p>	<p>- Climate change adaptation is integrated into other environmental initiatives and sectoral plans and policies</p> <p>- Natural resources and ecosystems essential to local communities' livelihoods are resilient and more climate-proof</p> <p>- Institutions and local community committees are well informed on climate change adaptation (especially in the context of technologies in pilot sites) and can implement adaptive measures</p> <p>- Greater information is made available to stakeholders in regards to vulnerability before climate change and resilient measures to address it</p> <p>- Greater awareness of climate change adaptation is attained among local communities and ministries and environment policy,</p>

Baseline projects • Goals and activities	Climate change hazards affecting the baseline projects	Impacts to the baseline projects and targeted populations as a result of climate change	Alternative scenario including complementary activities of the LDCF project	Expected LDCF project benefits
			<p>plots for dissemination of climate resilient technologies (erosion prevention, soil moisture conservation, water efficiency, modified planting schedules, selection of resilient varieties) supporting ESSP environmental objectives.</p> <p>- Making the Interministerial Committee for Environment operational with new mandate for climate change adaptation, which would support ESSP goals for institutional strengthening.</p> <p>- Delivery of an awareness raising programme focusing on climate change adaptation for NGOs, public, schools, and private sector.</p>	<p>legislation and strategy takes into account climate impacts and adaptation actions</p>
<p><b>Local Development Project</b></p> <ul style="list-style-type: none"> <li>- Improved access of poor households to basic services and economic opportunities</li> <li>- Building local institutional capacities among Angola's municipalities</li> <li>- Improving business development skills and participation in markets of selected producer groups</li> </ul>	<p><b>Climate change hazards affecting the baseline project include those impacts that affect agricultural productivity and thus local communities' participation in agricultural activities:</b></p> <ul style="list-style-type: none"> <li>- Floods and droughts</li> <li>- Increases in temperature</li> <li>- Soil erosion</li> <li>- Changes in rainfall</li> <li>- Changes to river flows, hydrography, water temperatures and decreasing freshwater supply</li> </ul>	<p><b>Climate variability and change is expected to:</b></p> <ul style="list-style-type: none"> <li>- Negatively impact agricultural output and the livelihoods of the beneficiaries the baseline project seeks to target</li> <li>- Decrease the amount of viable arable land as a result of soil erosion</li> <li>- Changes in river flows will impact those whose activities depend on them; decreasing water supply will have negative livelihood and health impacts and could have impacts of delivery on local development activities</li> </ul>	<p><b>LDCF resources will be used to build resilience of this baseline project through:</b></p> <ul style="list-style-type: none"> <li>- Training of extension staff and other front-line entities working with producers to deliver timely climate information to local coastal communities for agricultural production and livelihoods sustainability</li> <li>- Support to local producers in project sites on resilient and sustainable cultivation techniques (erosion prevention, soil moisture conservation, water efficiency, modified planting schedules, selection of resilient varieties)</li> <li>- Ecosystem rehabilitation or creation of protected rangeland and fallow areas</li> <li>- Accurate climate information and forecasts are provided to the most vulnerable and capacity building measures undertaken so as to enable them to incorporate this knowledge into livelihood activities</li> </ul>	<ul style="list-style-type: none"> <li>- Sustainable and resilient agricultural production</li> <li>- Climate-proofed livelihoods from agricultural activities in coastal areas</li> <li>- Resilient practices are understood and practiced by local communities and assisted by informed governmental staff</li> <li>- Ecosystem goods and services are generated from ecosystems rehabilitated and managed by local communities</li> </ul>

Baseline projects • Goals and activities	Climate change hazards affecting the baseline projects	Impacts to the baseline projects and targeted populations as a result of climate change	Alternative scenario including complementary activities of the LDCF project	Expected LDCF project benefits
<b>Angola Water Sector Institutional Project</b>  - Development of institutions in the water supply and sanitation sub-sector - Rehabilitation of water supply systems - Improvement of access to water supply, improvement of water supply	- Precipitation variability and intensity - Risks of flooding and drought - Higher water temperatures - Rising sea levels	- Higher water temperatures, floods and droughts, will affect water quality and supply exacerbate many forms of water pollution. - Changes in future rainfall amount and intensity will affect surface runoff and groundwater recharge affecting designed water supply systems - Climate vulnerabilities may force people to migrate to urban centres: people who live in the informal, overcrowded peri-urban settlements have especially low coverage of clean water. - Storms and other climate-related extreme events may disrupt service delivery, infrastructure and supply - Increase in temperatures may lead to more pests and pesticide use which may in turn pollute surface and groundwater cancelling out sanitation gains	- Resilient and sustainable cultivation techniques (erosion prevention, soil moisture conservation, water efficiency, modified planting schedules, selection of resilient varieties) will lead to improved water use - Improved forecasting, climate monitoring and specific advisories will prepare water managers to address upcoming climate risks and threats - Climate analyses and sectoral vulnerability assessments will reveal vulnerabilities of the water sector and inform planning for future climate variability - Ecosystem rehabilitation will provide buffers against storms and extreme climate-induced events allowing for ongoing service delivery and protection of infrastructure	- Long-term resilience of water resources through stronger institutions and investments in ecosystem rehabilitation leads to a decrease of water stress in the long term - Mainstreamed adaptation cross-sectorally - Rehabilitated ecosystems buffer against extreme-climate events and improve water supply

In addition, Table 2 provides a more detailed, component by component overview, of how the activities outlined in Section B.2.3 will build on the specific baseline projects in order to increase their resilience to climate change impacts.

Table 2: Description of proposed LDCF activities support to specific baseline projects

**Support to Fisheries Sector (2012-2017)**

The proposed LDCF project interventions will build on this baseline project by:

- Introducing elements of climate change adaptation to current activities. As it stands there is no mention of resilience in the project activities. In order to ensure that this baseline project attains its goal to promote food security and livelihoods, the proposed project will promote adaptation activities in fishing communities (Components 1, 2, 3).

- Provide data from early warning systems, forecasting and climate monitoring to inform decision-making in the fisheries industry and promote fisherfolk safety at sea. Climate information will also avoid economic disruptions (Component 1).
- Demonstrate the relationship between rehabilitated and resilient ecosystems and overall benefit to fishing communities (Component 2).
- Promote linkages between fisheries and environment sectors and carry out vulnerability assessments in coastal communities to bring to light core problems that need to be addressed (Component 3).
- As this project is early on in its implementation (first year) there is opportunity to inform its development relative to climate change adaptation and to climate proof some of its interventions.
- The baseline project is country-wide and some communities fall within the provinces where the project will be carried out (Luanda, Bengo). There will be opportunities to build on the institutional and infrastructural baseline interventions and introduce elements of climate change adaptation to address not just the immediate fishing vulnerabilities but future ones as well.

#### **Environment Sector Support Project (ESSP) (2010-2015)**

The proposed LDCF project will build on this baseline, seek synergies and linkages, make efficient use of shared resources, and add value to the baseline in a number of ways:

- The proposed LDCF project will focus on the coastal areas. While the baseline project operates nation-wide, this intervention will be focused on the coastal area to make best use of resources and to achieve the greatest added value in climate change adaptation. Moreover, as the majority of the population lives in coastal zones, the proposed project will target a greater number of beneficiaries per dollar amount spent (Components 1, 2, 3)
- Namibe and Cabinda are intervention sites in the proposed and baseline projects. Linkages will be sought and synergies developed to enhance the preliminary environmental work that has been carried out in these sites. In addition the capacity building and training will be upscaled to include more sophisticated adaptation practices, particularly in the areas of ecosystem rehabilitation and management, under Component 2, thus building on the baseline activities.
- The proposed LDCF project will also extend the scope by operating in sites where the baseline project has not conducted pilot demonstrations of environmentally-friendly practices. There will be added value in targeting a new set of beneficiaries and ensuring that capacity building occurs with unreached communities so as to share resilient practices with new stakeholders (Component 2).
- The proposed project will carry out vulnerability assessments in areas where such have not been carried out (Component 3) and perform upscaled adaptation activities (such as ecosystem rehabilitation e.g. mangrove restoration) building on the skills have been acquired through the baseline project (Component 2).
- Technologies such as early warning systems will be introduced in targeted coastal communities. Such technologies will enhance the institutional investments made under ESSP and provide the data needed to enhance adaptive capacity of the targeted sectors (Component 1).
- The proposed project will also make linkages with other sectors other than the environment, such as fisheries (Component 3).
- The proposed project will make use of UNEP's expertise in climate monitoring and adapting it to realities on the ground. The initial interventions under the ESSP can be supported and linked to this expertise and data provision (Components 1, 2, 3).

#### **Local Development Project (LDP) (2010-2015)**

The proposed project will build on this baseline project by:

- Introducing the elements of climate change adaptation. As this project seeks to support producer groups and the more vulnerable to access more secured livelihoods such as agriculture, it is necessary for these beneficiaries to be informed of resilient measures that could enhance agriculture productivity under increased climate variability. Otherwise, the gains made under the baseline project will not be sustainable (Component 2)
- The early warning system, climate monitoring and climate data will be of particular use to the

baseline project as climate variability may hamper service delivery. Improved climate information will support planning and delivery. (Component 1)

- Use of similar service delivery mechanisms to reach the most vulnerable. This baseline project has mapped the most vulnerable municipalities and identified service delivery mechanisms in Western Angola where the proposed LDCF project will be operating. Carrying out public consultations and training through some of these existing mechanisms and to make use of some of this research particularly in the PPG phase. This would also reinforce institutional coordination among different development actors and sectors. (Component 3)
- Through local demonstration of ecosystems restoration and adaptation measures, this project will build upon the baseline which seeks restoration of public works. This component can promote the rehabilitation of ecosystems by widening the scope of restoration which in the baseline is limited to public works. By adding an adaptation element through pilot sites in Luanda, Bengo, Namibe and Cabinda, this project can demonstrate how restored ecosystems can serve to improve the socioeconomic circumstances of local communities. (Component 2)
- The baseline project has carried out pilot tests in the province of Namibe where the proposed project will be carried out. Lessons learned will be shared to ensure greater efficacy in proposed project implementation.

#### **Angola Water Sector Institutional Project 2010-2019 (AWSIP)**

The proposed project will build on this baseline project by:

- Building reliable forecasting and climate monitoring that can assist future planning regarding water resources (Component 1).
- Promoting sustainable cultivation techniques such as erosion prevention, soil moisture conservation, and water efficiency (Component 2). This will support the baseline in that that improved access does not mean misuse or mismanagement of water resources.
- The proposed UNEP project will make the link between land degradation, climate change and water management and improve mainstreaming adaptation concepts to the baseline to ensure that future water availability in relation to climate change is also built into the program (Component 1).
- The proposed UNEP project will build linkages in Luanda to ensure that lessons learned can be shared across sectors (Component 3). This baseline project is of particular relevance as it has explored various legislative and institutional frameworks in the area of water that the proposed UNEP project can build upon.

### **B.3. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, INCLUDING CONSIDERATION OF GENDER DIMENSIONS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS(GEF TRUST FUND) OR ADAPTATION BENEFITS (LDCF/SCCF). AS A BACKGROUND INFORMATION, READ MAINSTREAMING GENDER AT THE GEF:**

The expected socio-economic benefits at both the national and local levels to arise from this project include:

- **Increased scientific and technical knowledge** base among sectorial (e.g. ag-met, environment, urban planning, extension services) planners is expected to assist in future development planning, resilience, as well as to generate maximized economic development in the various sectors.
- **Increased agricultural and ecological productivity** through rehabilitation and sustainable management is expected to deliver increased **economic benefits** from trade in food products, increased **food security** among targeted communities (crops and fisheries), as well as increased **health**, better living conditions, and **sustainable livelihoods**.
- **Rehabilitated ecosystems** will also play an increased role in averting disasters such as floods and droughts, while an improved early warning system is expected to lead to **reduced losses** from extreme weather events (lives and infrastructure).



As regards gender, particular attention will be paid to the active involvement of women, and women-headed households in activities designed to promote natural resources management and rehabilitation. A high proportion of women's participation as beneficiaries of training will be encouraged in the project, particularly component 3, taking into consideration the specific roles and challenges faced by rural women in Angola. As an IFAD report noted:

“Women are doubly disadvantaged in Angola. The cultural traditions and norms, which often place women in a subservient position, have been compounded by the effects of over 25 years of conflict. With the collapse of many basic services (health, education and credit) and infrastructure (roads, water supplies and markets), the plundering of household assets and food stocks, attacks on civilians and the rape of women, and conscription, there has been a massive exodus (particularly men) from rural areas. Those remaining in rural areas have almost no access to external inputs (such as fertilizer, seed, extension); suffer from shortages of farm power (due to the loss of draught animals and much of the male labour force); are threatened by land mines; and have extremely limited opportunities to sell produce. They have been reduced to cultivating small areas of land on a continual basis, and barely eke out an existence from subsistence agriculture”<sup>i</sup>.

This project will take these vulnerabilities into account and a specific gender analysis will be conducted during project preparation when the project sites are identified. Gender-disaggregated indicators will be provided in the project monitoring and evaluation system at CEO endorsement.

**Expected positive results** of the project are respectively (1) people and governments' awareness of climate change vulnerability, impacts and adaptation solutions; (2) sustainable, diversified and resilient activities for local populations in coastal zones (3) demonstration of adequate, cost-effective and resilient technologies for coastal zone adaptation; (4) enhanced protection of populations, livelihoods, and coastal ecosystems by establishing early warning systems; and (5) contribution to national sustainable development.

#### **B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS TO BE FURTHER DEVELOPED DURING THE PROJECT DESIGN:**

A number of risks could affect this project. A more detailed risk analysis and management strategy will be provided at CEO endorsement.

<b>Risk</b>	<b>Rating and Probability</b>	<b>Mitigation strategy</b>
There is generally low capacity and institutional support among government stakeholders which may cause delays in project implementation	R: High P: High	The project will seek to implement targeted training and support programmes for stakeholders involved in this project, and careful monitoring of capacity gaps during the project. The support of international expertise on institutional capacity building may be solicited throughout the project as support to the project implementation mechanisms.
Lack of coordination among different government departments could limit the scope and effectiveness of the project	R: High P: High	The project will target this problem by its very structure. Component 3 will focus on enhancing institutional coordination and systemic capacity. By making interministerial coordination one of its key activities, and by strengthening the existing Committee of the Environment with new powers to have a climate change mandate and execute interventions, this problem will be addressed as part of the implementation of the

		project.
Extreme weather events could lead to interruptions in project activities	R: Medium P: Medium	The project will develop risk management systems, and early warning mechanisms will be established in earlier stages of the project's implementation to reduce uncertainty.
Local populations may not demonstrate rapid uptake of sustainable natural resources management practices.	R: High P: Low	An awareness campaign will be implemented and populations will be consulted throughout the project to ensure their ownership and buy-in to the various activities of the project. Efforts will be made to demonstrate substantive economic benefits for local populations, as part of a demonstration of adaptation incentives.

**B.5. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:**

There will be several key stakeholders engaged with this project:

- (1) **Central administrations, planning ministries and sectorial ministries**, who will be acting as both partners to the project and beneficiaries of training and knowledge products. Specific examples include:
  - Ministry of Environment
  - Ministry of Agriculture, Rural Development and Fisheries
  - Ministry of Water and Energy
  - Ministry of Urbanism and Construction
  - Ministry of Geology, Mines & Industry
  - Ministry of Territorial Administration
  - Ministry of Finance
  - Ministry of Hotels and Tourism
  - Extension services of many of these ministries
  - Provincial governments of Bengo, Cabinda, Luanda and Namibe
- (2) **Local rural or semi-urban communities** in the selected coastal regions will be the primary beneficiaries of the project.
  - Community members in Bengo, Cabinda, Luanda, Namibe
  - Participants in pilot demonstrations
  - Farmers
  - Fisherfolk
  - Women
- (3) **NGOs** will also act as partners to the project and as beneficiaries of training and support. A detailed list will be identified during the PPG process; a preliminary list includes:
  - Associacao Juvenil dos Amigos da Terra;
  - Forum of Angolan NGOs
  - Angolan Network for Poverty Reduction
  - Youth Association for Community Development of Angola
- (4) **Private interests**  
Angola is the second largest oil producer in Africa, Recent discoveries of reserves and the fact that it is the largest oil supplier to China, and provides between 8-15% of oil to France, means that there are significant private interests in the country.<sup>ii</sup> There is international competition for the oil market as well as in the mining sector (diamonds) and for raw materials. These private interests will undoubtedly impact

ecosystems and climate change emissions. In order to successfully carry out adaptation interventions in the coastal zones, it would be useful to begin including private partners, particularly in public-private partnerships to sensitize them.

## **B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

Active coordination with ongoing initiatives on the ground and at central levels will be sought during full project design and throughout project implementation. Donor coordination forums, such as the existing group of donors on the environment, will be used to pursue coordination. At the local level, partnerships and co-financing arrangements will be sought with locally-implemented baseline initiatives.

The project will invite other ongoing projects, partners and programme representatives to participate in Project Steering Committee and other project committees. Knowledge products, such as the vulnerability studies, will be disseminated broadly to Angola's government and partners through the Project Steering Committee and various other media.

Coordination with other initiatives will aim to ensure that there are no duplication of efforts and that this project provides additional value added to the baseline situation. Moreover, synergies will be sought to optimize resources.

### **B.6.1 COORDINATION WITH OTHER GEF LDCF PROJECTS**

Co-implementation arrangements undertaken in the course of this project with UNDP will seek to maximize the efficiency of joint implementation. The possibility of carrying out a joint reporting on the project i.e. through joint UNEP-UNDP Project Implementation Reviews (PIRs) and a joint Mid-Term Review (MTR) will be explored. The project will also seek synergies, alignment and coordination with the recently approved UNDP LDCF project in Angola ("Promoting Climate-Resilient Development and Enhanced Adaptive Capacity to Withstand Disaster Risks in Angola's Cuvelai River Basin", GEF ID 5177) which focuses its investments and capacity-building in the Cuvelai River Basin.

The UNDP project will implement seasonal forecasting systems, promote flood early warning systems, hydrometric stations, and improve adaptation knowledge, which would support interventions under Component 1 of the proposed project. The UNDP project is localized for a large part in the Cuvelai River Basin. This UNEP project however extends to the coastal areas, which are of particular national relevance given the population density and economic activity that occur in this zone, and their vulnerability to climate change impacts. This project, through institutional strengthening will consolidate the information generated from various interventions and make them applicable for further planning in the coastal regions. Together these interventions make up a portfolio of adaptation activities and this UNEP project links the different interventions together.

Avenues for collaboration and other execution modalities will be explored during the project preparation phase in order to maximize synergies and benefits between the two projects.

In addition to the aforementioned recently approved UNDP project, this project will also seek coordination and alignment with two other LDCF projects. The first, "Enhancing Climate Change Resilience in the Benguela Current Fisheries System" submitted to the LDCF with support from the FAO, seeks to build resilience and reduce vulnerability of the Benguela Current marine fisheries system in the period 2012-2017. The second, "Integrating Climate Change into Environment and Sustainable Land Management Practices" submitted by AfDB, seeks to strengthen institutions and governance; promote adaptation measures (particularly SLM) and knowledge management and offers many points of synergy and cooperation. Proposed project sites include Huambo, Kuando Kubango and Cabinda, of which one overlaps with this project's sites. In the course of project preparation and implementation, efforts will be undertaken in order to ensure LDCF funds are used efficiently and activities do not double up and to combine efforts in order to attain particular institutional goals (e.g. strengthening the Committee of the Environment). Both of these projects provide an ideal entry point for the proposed UNEP project and provide

avenues for collaboration and sharing of resources. Both of these projects provide an ideal entry point for the proposed UNEP project and provide avenues for collaboration and sharing of resources. As the FAO project focuses on fisheries, and the AfDB project on sustainable land management practices, this project, particularly as articulated through Component 3 (implemented by UNDP), allows institutional strengthening which would manage and coordinate such adaptation initiatives at a national level. Such coordination would prevent duplication of activities, encourage the sharing of lessons learned and resources, as well as build an information base of climate change related data in the country. Further, this UNEP project targets the coastal area which is home to a significant population and particularly vulnerable (NAPA, 2011). Links to the fisheries will be sought, thus engagement with implementation agents of the FAO project will be key. Such coordination will also ensure that this project takes into consideration information gleaned on livelihoods from the fisheries sector through the FAO project.

A thorough stock-taking of current approved LDCF projects during the PPG will ensure that efforts and activities are not duplicated within the various projects. During full project implementation, FAO and AfDB representatives will be invited to sit in the proposed joint PSC for UNDP and this UNEP-UNDP in order to enable full coordination between different projects and to benefit from lessons learned and ongoing work in other projects. Efforts will be coordinated amongst agencies in order to harness synergies and add value to project activities. For instance, joint workshops could be coordinated between agencies in the instance that projects or their components fall under the same thematic umbrella.

#### **B.6.2 COORDINATION WITH OTHER PROJECTS:**

- **Land Rehabilitation and Rangelands Management in Smallholders Agro-pastoral Production Systems in Southwestern Angola (FAO).** This project seeks to enhance the capacity of South Western Angola's small holders' agro pastoral sector to mitigate the impact of land degradation by mainstreaming SLM practices into agro pastoral and development initiatives. The proposed project can learn from the challenges and lessons learned of integrating SLM in this localized site and draw upon the experiences with stakeholders. As a value-added, the proposed project can go beyond the geographical scope (Southwestern Angola) and of land management. The proposed project has the value added of incorporating the climate change adaptation angle, as well as addressing the coastal zones. This project would support interventions under Component 2.
- **Umbrella Program for National Communication to the UNFCCC (UNEP).** The process of preparing national communications and strengthening the information base in national institutions on climate change has provided a backdrop on which this project can build. It has created a basic level of understanding among national institutions on articulating climate change matters and this project can further collaborate with such national institutions to create strengthened networks that can implement this project (particularly Components 1,2 &3).
- **Integrating and Up-Scaling Climate Resilience Through Soil Fertility Management into Agricultural and Agropastoral Production Systems for Food Security in Key Productive and Vulnerable Areas Through the Farmers Field School approach(FAO).** The project will be based in Angola's Central Plateau and the project aims to enhance the resilience of small farmers in coping with declining ecosystems services due to increasing climate variability, droughts, and extreme events. Although this initiative will be conducted in the interior while our project will be based in the coastal areas, there are opportunities for engagement, the sharing of lessons learned, particularly in the areas of resilient agriculture, and of ecosystems protection. This project would support Component 2 in the proposed LDCF project.
- **The Climate for Development in Africa Programme (ClimDev-Africa)** is a joint initiative of the Commission of the African Union (AUC), the African Development Bank (AfDB) and the United Nations

Economic Commission for Africa (UNECA) and programme supports Africa's response to climate variability and change by building regional, sub-regional and national policy capacity. The ClimDev-Africa will support activities to construct a solid foundation in Africa for responding to climate change, based on building science and observation infrastructure, enhancing working partnerships between public, private and civil society sector and vulnerable communities, and creating and strengthening knowledge frameworks. The proposed LDCF project will build on the ClimDev-Africa project, particularly for activities proposed under Component 3, which are closely related to the 3<sup>rd</sup> 'Results Area' under the ClimDev-Africa work plan 2012-14, aiming to build the capacity of policy makers, support informed and inclusive policy making and train and raise awareness, and provide a suitable forum for coordination of activities.

However, the indicative activities and outputs under Component 3 are distinct from those proposed under the ClimDev-Africa programme. The activities of this proposed project are clearly focused on building national capacity within Angola with a focus on strengthening interministerial coordination and cooperation within the country itself. Component 3 activities also work on a sub-national level, involving governmental, non-governmental, private sector and local community stakeholders in order to improve general knowledge and awareness about climate change impacts and adaptation among stakeholders. Such awareness-raising activities will illustrate to each group of stakeholders within Angola how the impacts of climate change can affect them. This in turn provides a solid foundation on which to form working partnerships and knowledge frameworks between government institutions, private sector, civil society and vulnerable communities who are aware of how they can be affected and benefit from each other's knowledge and thus build on the ClimDev-Africa programme's convening activities.

#### **C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:**

UNEP has considerable experience in implementing projects and providing scientific guidance in the field of climate change. To date UNEP has facilitated the completion of 15 NAPAs and has assisted 38 countries in developing National Communications. UNEP has also played an instrumental role in supporting Angola develop its both its NAPA and recent Initial National Communication and the agency has a solid understanding of Angola's needs. Currently, UNEP is assisting the Government of Angola in undertaking a Second National Communication (SNC) to the UNFCCC. The full project implementation is due to start this year and will provide an outlet of activities that this project could benefit from, including vulnerability and adaptation assessments. UNEP is also helping Angola to access unspent resources under its STAR allocation, strengthening cooperation in the mitigation sector. Moreover, in developing the NAPA and National Communications, UNEP has fostered positive working relationships with national teams and various stakeholders. In addition, the project is consistent to UNEP's mandate which is to analyze the state of the global environment, assess global and regional environmental trends, and provide early warning on environmental threats, which has been recently enforced through the decisions of the UN Conference on Rio +20.

This project is aligned well with the following functional elements which derive from its mandate, such as: **Assessment and Reporting;** (ii) **Environmental Observing;** (iii) **Data Analysis and Integration;** (iv) **Strategic Oversight and Early Warning.**

UNEP also has vast experience in adaptation: it is in the process of implementing approximately 80 adaptation projects at global, regional and national levels. UNEP's role in these projects is predominantly building capacity of stakeholders, particularly in terms of ecosystem management. UNEP's work on climate change adaptation focuses on three main areas: (i) Science and Assessments, (ii) Knowledge and Policy Support, and (iii) Building the Resilience of Ecosystems for Adaptation. UNEP has recently shifted the focus of its adaptation work to EBA. This new initiative is known as the EBA Flagship Programme of UNEP. The activities proposed under this proposed project cut across areas of UNEP's work on climate change adaptation.

The project is consistent with UNEP's comparative advantage as identified through the GEF Council paper C.31/5. This document delineates UNEP's comparative advantage in providing the GEF with a range of relevant

experiences, a proof of concept, the testing of ideas, and the best available science and knowledge upon which it can base its investments. The project also concurs with the GEF Council paper C.28/18 that delineates UNEP's comparative advantage areas including: strengthening meteorological and climate early warning systems; and developing and using climate information to effect changes in relevant sectorial policies based on climate science.

UNEP is different from other agencies (e.g. FAO, IFAD, WB, UNDP) in that its primary focus is environmental management. There are myriad factors affecting ecosystems, and managing this complexity requires a dedicated focus as well as in-depth ecological expertise. Climate change adaptation is particularly challenging in this regard and UNEP can provide both the scientific expertise and technical know-how to meet this challenge. Furthermore, UNEP are implementing agency for several LDCF projects that are supporting the installation of climate monitoring systems<sup>7</sup> consolidating its position as an agency with comparative advantage in installation and operation of climate monitoring and early warning systems. The lessons learned and experience gained from implementation of these projects will benefit this project as well.

UNEP is uniquely positioned to undertake this environmental work, particularly in regards to institutional changes in addressing climate changes, and promoting and establishing adaptation technologies and measures, which it has carried out in other countries. Importantly, the adaptation interventions of this LDCF project hinge around knowledge of a wide range of ecosystems. UNEP's core business is providing technical advice on managing environments in a sustainable manner and it thus has a significant comparative advantage in implementing this LDCF project. The technical and scientific knowledge that UNEP brings to the project will be fundamental for its success.

The involvement of other sectors such as agriculture, water, marine protection and tourism among many others, adds to the complexity of implementing the project successfully. However, UNEP is also uniquely positioned in this regard, because it routinely facilitates dialogue between sectors to ensure that environmental management is conducted taking into account the full range of societal needs. The philosophy adopted by UNEP of minimizing trade-offs and maximizing synergies between sectors will importantly increase the sustainability of the project's interventions.

Moreover, PROVIA, to be used by Component 1, is being piloted by UNEP for improving the robustness of technical and vulnerability assessments. The expertise lies within the UNEP body and will be well-suited to implementing this project.

While not benefitting from in-country presence, UNEP works using a "direct" implementation modality through its Nairobi headquarters, as well through the services of expert technical advice who can be delegated to a specific country or project. The first round of Project Implementation Reviews (PIRs) for projects under UNEP's Climate Change Adaptation portfolio, submitted in August 2012, indicate a good quality of support to projects that do not necessarily benefit from UNEP staff presence in-country. This indicates that despite UNEP's in-country staff presence being less prevalent than other agencies, it is still able to provide full support to projects through its regional offices and expert technical advice, also enhanced through an increased staff team capacity in the Nairobi GEF CCAU unit in 2012.

In addition to its Regional Office for Africa located in Nairobi, UNEP has a sub-regional presence in Pretoria that liaises with the South African Development Community that can provide ad-hoc assistance to the project. Furthermore, a UNEP staff is based in Abidjan at the secretariat of the Abidjan Convention. While Angola is not yet party to the Convention, UNEP staff presence in Abidjan allows the project to benefit from regional UNEP presence and timely provision of information relating to activities of the Abidjan Convention relevant to this

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<sup>7</sup> These include projects in The Gambia (GEF ID 3728; Strengthening of The Gambia's climate change Early Warning Systems), Lesotho (GEF ID 3841; Improvement of Early Warning System to reduce impacts of climate change and capacity building to integrate climate change into development plans in Lesotho) and Djibouti (GEF ID 3408; Implementing NAPA priority interventions to build resilience in the most vulnerable coastal zones in Djibouti).

project. Finally, governments at Rio+20 has given UNEP a stronger mandate to work at the national level, although it continues to focus its attention on innovative projects.

UNDP's comparative advantage to this project consists of its in-country presence and resulting ability to lead effective capacity-building activities under Component 3. It is well positioned in this respect as a co-implementing agency for this project. In Angola, UNDP has been working on environmental sustainability issues for over a decade, and has established strong partnerships with national institutions such as MINAMB, Civil Protection and MINEA, implementing partners such as FAO, as well as donors such as GEF, USAID and the Government of Norway. UNDP Angola has one of the largest portfolio of GEF projects under implementation in the country and its presence as an implementing agency in this project also adds value through the following:

- Extensive past experience on DRR interventions and implementation of other GEF projects
- Consolidated experience on capacity building at provincial and local levels
- Well-respected as a key convening actor in the environment sector at a national level

#### **C.1 INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:**

UNEP, as Implementing Agency for this project, is bringing US\$ 715,000 in grant co-financing to this project, namely through the implementation of the Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA) research programme as well as the Africa Adaptation Knowledge Network (AAKNet) initiative. PROVIA will provide financial co-financing for this project, will build upon the data collected in the project, and will seek guidance on assessing vulnerability, impacts and adaptation. It will utilize cutting-edge knowledge on research methods, as the recent review on PROVIA was just recently completed in June 2012. The co-financing provided by PROVIA will support the implementation of Component 1. AAKNet will provide financial co-financing for this project, will harness knowledge from projects elsewhere on the African continent and bring together a variety of stakeholders so as mobilize existing knowledge and best adaptation practices, as well as to share project lessons through an interactive forum.

In addition to the above, small amounts of co-financing from UNEP has been secured from global normative work on integrating community-based adaptation (CBA) approaches into ecosystem-based adaptation (EBA) approaches. This work is being led by UNEP DEPI in conjunction with IIED with the aim of developing an options paper as well as planning for the integration of community-based perspectives in EBA planning and decision-making. The outputs of this normative work will be able to enhance Component 2 of this project (particularly Output 2.1.3) so that local communities not only have increased capacity to use local adaptation techniques, but can also be guided in how this can be achieved with an efficient integration of CBA and EBA approaches.

Furthermore, the recently approved UNEP-European Commission project on 'Building Capacity for Coastal Ecosystem-based Adaptation in Small Island Developing States (SIDS) will contribute to this project in parallel co-financing. This collaborative UNEP-EC EBA project will assist countries and regions develop and apply EBA approaches to maintain and enhance the resilience of tropical coastal ecosystems and the services they provide to coastal communities in SIDS. Although the projects geographical focus is on SIDS in Africa and the Caribbean, the project will contribute parallel co-financing through integrated EBA planning and ecosystem management tools developed as part of its expected results.

Further co-financing opportunities from UNEP will be identified in the course of the PPG phase.

#### **C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:**

The UNDAF for Angola (2009-2013) is built around six priorities of the Government's Five-Year Medium-Term Development Plan. Of those, the following will be addressed by the proposed project

- Promote unity and national cohesion, consolidation of democracy and national institutions; this will be addressed by strengthening institutions, enhancing collaborations between state and non-state actors, identifying community needs and addressing them (Component 3)
- Guarantee a sound and sustainable economic development, with macroeconomic stability, transformation and diversification of economic structures; this will be addressed by examining resilient agriculture and other economic activities; protection and safeguarding of cultural and natural heritage and ecosystems against future climate change related-disasters; utilizing early-warning systems to protect socio-economic activity (Components 1& 2)
- Promote human development and social well-being; this will be addressed by awareness raising campaigns, educational seminars, stakeholder collaborations; sharing coastal adaptation solutions and measures with coastal communities so they may have ownership over their own well-being and development; enhancing cross-sector coordination (governmental, non-governmental and private interests) (Component 3)





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

**RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE(MM/dd/yyyy)
Dr. Carlos Avelino Manuel Cadete	National Director of Statistics, Planning and Studies Cabinet	Ministry of Environment	May 2013

**B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Maryam Niamir-Fuller, Director, GEF Coordination Office		06/07/2013	Ermira Fida, Portfolio Manager GEF Adaptation	(254-20) 762 3113	ermira.fida@unep.org
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<sup>i</sup> IFAD's Gender Strengthening Programme in Eastern and Southern Africa; Angola: A Review of Gender Issues in Support of IFAD's COSOP Formulation Process (2002)

<sup>ii</sup> Helly, D. Europe and Angola: The Case for Deeper Engagement for European Union Institute for Security Studies, found online at <http://www.iss.europa.eu/publications/detail/article/europe-and-angola-the-case-for-deeper-engagement/> accessed on September 30, 2012