REQUEST FOR CEO ENDORSEMENT

PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:LDCF

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PART I: PROJECT INFORMATION

Project Title: Promoting climate-resilient development and enhanced adaptive capacity to withstand disaster risks in Angolan's Cuvelai River Basin			
Country(ies):	Angola	GEF Project ID:[1]	5177
GEF Agency(ies):	UNDP (select) (select)	GEF Agency Project ID:	5166
Other Executing Partner(s):	Ministry of Environment	Submission Date: Resubmission Date:	Aug. 28, 2014 Oct. 29, 2014
GEF Focal Area (s):	Climate Change	Project Duration(Months)	4 years (48 months)
Name of Parent Program (if applicable): ➢ For SFM/REDD+ ☐ ➢ For SGP ☐ ➢ For PPP ☐	n/a	Project Agency Fee ($):	779,000

A. FOCAL AREA STRATEGY FRAMEWORK[2]

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount ($)	Cofinancing ($)
CCA-1 (select)	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	1,305,000	7,698,330
CCA-2 (select)	2.1: Increased knowledge and understanding of climate variability and change-induced threats at country level and in targeted vulnerable areas	Output 2.1.2: Systems in place to disseminate timely risk information	LDCF	1,200,000	7,479,923
CCA-2 (select)	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	1,305,000	7,698,330
CCA-3 (select)	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	4,390,000	23,596,421
(select) (select)			(select)		

[1] Project ID number will be assigned by GEFSEC.
[2] Refer to the Focal Area Results Framework and LDCF/SCCF Framework when completing Table A.

(select)	(select)			(select)		
(select)	(select)			(select)		
(select)	(select)			(select)		
			Total project costs		8,200,000	46,473,004

B. PROJECT FRAMEWORK

Project Objective: To reduce the climate-related vulnerabilities facing the inhabitants of Angola's Cuvelai River Basin through targeted investments and capacity building.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount ($)	Confirmed Cofinancing ($)
1.Transfer of appropriate technologies and related capacity building for climate and environmental monitoring infrastructure	(select)	Enhanced capacity of national and local hydro-meteorological services, civil authorities and environmental institutions to monitor extreme weather and climate change in the Cuvelai Basin	Output 1.1: 7 Automatic Weather Stations (AWS) (6 fixed plus 1 mobile) at least 6 rainfall gauges complete with remote data transmission and archiving, are installed in Province of Cunene to support flood forecast early warning systems (FFEWS), Grant Type Inv. Output 1.2: A hydrotelemetric monitoring system of 4 river gauging stations, 4 water level stations, are installed in Cuvelai and Miu Rivers to support flood forecasting and early warning system (FFEWS), Grant Type Inv. Output 1.3: At least 50 officers from MINAMB, INAMET, Provincial government, Civil Protection, INRH, CETAC and other relevant institutions are trained to operate, maintain climate monitoring infrastructure and assist dissemination and response mechanisms of the FFEWS, Grant	LDCF	3,953,333	1,968,292

			Type TA Output 1.4: A comprehensive Flood Forecasting & Early Warning System (FFEWS), – bas ed on interagency harmonized agreements and international standards and protocols – are developed and warnings made accessible to Disaster Management structure in Cunene Province as well as relevant public institutions to enable appropriate planning and response measures, Grant Type TA			
2.Enhanced human and institutional capacity for increased sustainable rural livlihoods among vulnerable communities	(select)	Increased resilience of smallholder farmer communities in the Basin to climate-induced risks and variabilities.	Output 2.1: Locally-appropriate climate proofed germplasm resources are accessed by regional agricultural and water technicians and amongst communities in the Cuvelai Basin,Grant Type TA Output 2.2: Extension Services (Estações de Desenvolvimento Agrário-EDA's) are trained in climate change risks and resilience agriculture techniques to support vulnerable communities in Cuvelai Basin (Mukolongondjo, Mupa, Evale),Grant Type TA Output 2.3: Water access and quality that mitigate climate change vulnerability are improved by piloting technologies, through partnerships with	LDCF	2,041,833	38,637,712

			Provincial Government and INARH (e.g. Opening/rehabilitation of water reservoirs (Chimpacas), conservation measures, water harvesting, opening or remedial work on existing boreholes), Grant Type Inv. Output 2.4: Small-scale adaptation initiatives are set as a safety net to strengthen resilience of Province of Cunene communities' livelihoods to extremes of climate variability, Grant Type Inv.			
3.Increased understanding of climate change adaptation and practices in climate-resilient development planning at the local community and government levels	(select)	Local institutional capacities for coordinated, climate-resilient planning strengthened & Capacity for effective community-based climate change adaptation (including traditional knowledge practices) improved at local level.	Output 3.1: A CC-Environmental Information System of Angola (CC-ENISA) is established to allow systematic storage and mainstreaming of digital information to support decision making in sector planning,Grant Type Inv. Output 3.2: Capacity and inter-sectoral framework for mainstreaming weather and climate resilience in the Province of Cunene Master Plan is built for target communities (Mukolongondjo, Mupa, Evale, Nheone, Namacunde, Cubati, and Ondjiva), Grant Type TA. Output 3.3: The existing dissemination/response system under the	LDCF	1,822,232	5,407,000

			Serviço Nacional e Provincial de Protecção Civil e Bombeiros (SNPCB) is strengthened to support FFEWS, Grant Type TA. Output 3.4: Community based FFEWS (CBFFEWS) network is developed in target areas to enhance and test its impact on risk reduction in sectors and population, Grant Type TA.			
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
	(select)			(select)		
			Subtotal		7,817,398	46,013,004
			Project management Cost (PMC)[3]	LDCF	382,602	460,000
			Total project costs		8,200,000	46,473,004

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME ($)

Please include letters confirming cofinancing for the projeSct with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Cofinancing	Cofinancing Amount ($)
National Government	MINAMB - Ministry of Environment	Cash	2,000,000
National Government	National Directorate of Hydrologic Resources - Ministry of Energy and Water (MINEA)	Cash	1,000,000
National Government	INAMET - National Institute of Meteorology and Geophysics	Cash	968,292
National Government	Ministry of Energy and Water (MINEA) - Programme of Public Investment (PIP)	Cash	39,037,712
GEF Agency	FAO's corporate Strategic Objective 5 (SO5 - increase the resilience of livelihoods to threats and crises).	In-kind	1,600,000
GEF Agency	UNDP Core Resources	Cash	917,000
Others	Development Workshop Angola (Local NGO)	In-kind	950,000
(select)		(select)	
Total Co-financing			46,473,004

[3] PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal Area	Country Name/ Global	(in $)		
				Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
(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
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total Grant Resources				0	0	0

[1] 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. PMC amount from Table B should be included proportionately to the focal area amount in this table.

[2] Indicate fees related to this project.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount ($)	Cofinancing ($)	Project Total ($)
International Consultants	340,666	460,002	800,668
National/Local Consultants	887,400	0	887,400

G. DOES THE PROJECT INCLUDE A "NON-GRANT" INSTRUMENT? No

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF[4]

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.NA

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities. Climate Change

A.3 The GEF Agency's comparative advantage:

1. The UNDP Angola Environment Programme is positioned within existing frameworks of the UN system, such as its Millennium Development Goals (MDGs), Multilateral Environmental Agreements (MEAs), and the legislative instruments of the Government of Angola. It responds to the priorities identified from analyses undertaken over the past decade in Angola, and in particular, to the UNDP Strategic Plan (SP) for 2014– 2017and the National Programme for Environmental Management (Programa Nacional de Gestão Ambiental - PNGA) of the Ministry of Environment.

[4] For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter "NA" after the respective question.

2. Two key strategy documents provide a chapeau for the project's fit within the UN and UNDP's Programmes in Angola: the United Nations Development Assistance Framework (UNDAF) and the UNDP Strategic Plan (SP). The UNDP Angola SP (2014-2017) underpins the Angolan national vision of "sustainable human and economic development and strengthened national cohesion and democracy".

3. UNDP Strategic Plan Outcome 5 states: "Countries are able to reduce the likelihood of conflict and lower the risk of natural disasters, including from climate change". Therefore, this project will make a key contribution to UNDP's Strategic Plan Outcome #5 and specifically the Output 5.4 "Preparedness systems in place to effectively address the consequences of and response to natural hazards" (e.g. "geo-physical and climate related and man-made crisis at all levels of government and community"),under which a concerted UN approach is geared to provide a framework for national and decentralized institutions, strengthened preparedness systems for a responsive disaster and climate risk management is integrated in the development planning and budgetary frameworks of key sectors (e.g. water, agriculture, health and education), integrated rural development, ensuring food security with due consideration for environmental protection, natural resource management and adaptation to climate change.

A.4. The baseline project and the problem that it seeks to address:

4. In summary, overall the baseline investments for the project have increased significantly from the PIF stage and now represent a co-financing ratio of more than 5:1 (co-finance to the GEF grant). The World Bank (WB) commitment to Angola remains significant with a total investment of US$177 million up to 2019 of which the Government of Angola has been taking a direct role in supporting the implementation of the activities of this programme through the Ministry of Energy and Water and its National Directorate for Water Supply and Sanitation-DNAAS. Although the activities funded by this WB programme will not contribute directly to the baseline co-financing, this LDCF will however share and complement parallel activities in the development of various infrastructure projects in the water sector.

A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

5. The significant increase in GoA co-finance contributions for the project (now representing about 94% of all co-finance compared to 70% in the original PIF) is a testament to the importance the Government attaches to the project and the successful attainment of its objectives.

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

Risk	Rating	Assumptions
Procurement and installation of hydro-meteorological equipment, including hardware and software, is delayed because of complications with the release of funds and/or national procurement procedures.	Medium/High	• Effective administrative planning will be undertaken, with support from UNDP CO, which will include procuring equipment at an early stage in the project implementation phase.
Poor coordination between implementing and executing agencies.	Medium	• There will be a clear project management arrangements and regular interactions between the stakeholders. • Clear project management arrangements and regular interactions between the agencies.

Unavailability of requisite human resources and data	Medium	• The issue of the unavailability of requisite human resources will be mitigated by recruitment of international consultants who will work closely with in-country counterparts and by targeted capacity building activities. Training activities of local personnel will also be part of all aspects of the work and the relevant institutions will be encouraged to expand the staff base if it is weak in particular areas.
INAMET does not have enough capacity to tailor climate products to suit vulnerable populations in Province of Cunene and private sector needs by the end of the project.	Medium	• During project development, INAMET already indicated that they have some experience working with private sector representatives to understand their needs for tailored products. This project will continue to build all information production agencies to tailor services. The project foresees a strong supportive training and capacitance programme so that INAMET will acquire enough capacity to tailor climate products by the end of the project.
Capacity cannot be built on national and decentralized levels in the Cunene Province of SNPCB to assist with alert dissemination and crisis prevention	Medium	• SNPCB will undergo significant capacity development through this project and budgets have been allotted to training and improving their outreach and communication systems. A training programme for gender sensitive SNPCB field officers and Local Disaster Risk Management Committees (LDRMC's) will be delivered by the project. Budget includes the provision of privileged communication systems (e.g., CB radios) for all alert dissemination agencies in need. Therefore, capacity can be built on decentralized levels to implement a Standard Operating Procedure for Alert Communication.
Installed hydro-meteorological equipment fails because it is vandalized or not properly maintained.	Medium	• There will be awareness raising activities in target communities to highlight the importance of the installed equipment. In addition, it is expected that the equipment will be housed within a secure fence and under the responsibility of local Community Leaders and/or Government Institutions.
Climate shocks occurring during the design and implementation phase of the LDCF project result in disruptions to installed equipment and severely affect communities, prior to the EWSs being established.	Medium	• It is expected that disaster mitigation and response activities will be prioritized at the target communities whilst the EWS is being established
Telecommunication (SMS) communication systems used for data transmission from Automatic Weather Stations will not be robust enough (e.g., bandwidth issues or local mobile telecommunication networks) to be able to effectively contribute to EWS data sharing and real time forecast development.	Medium	• Costs of equipment and training will not rise dramatically during project implementation. • Technical expertise and equipment for upgrading the network is available.
Insufficient institutional support and political commitments and lack of coordination of the various key stakeholders.	Low	• Government is committed to integrating climate change risk and adaptation needs in development planning of Province of Cunene; • Planning will be conducted in a participatory manner to ensure that adaptation measures are appropriated by the community; • Stakeholders are committed to implement the project interventions and provide the necessary support.
Communities in target *Comunas* are not committed to cooperate and/or accept proposed adaptation measures	Low	• Financial, Technical and political support will be given to EDA's for training of staff and implementation of activities as planned. • Communities in target *Comunas* are willing to cooperate and adopt climate change adaptation measures. • A participatory and transparent project implementation will be established as well as adequate sensitization of the importance of the project and potential benefits from the project will minimize/eliminate this risk
Complex technical and organizational management of knowledge base that can delay project implementation	Low	• Activities programmed for equipment purchase and training of staff in GIS are implemented as planned. • Adequate and timely national and international support for sharing and exchange of climate change data, modelling information and other relevant data and information.

A.7. Coordination with other relevant GEF financed initiatives

Several other on-going national and regional projects relevant to climate change adaptation needs and capacity gaps, agricultural production systems for food security and water resources and sanitation are being implemented and will provide opportunities for collaboration, information sharing and lessons learned with this project. Most directly, the on-going UNEP/UNDP /GEF project"Addresing urgent coastal adaptation needs and capacity gaps in Angola (GEF ID 5230)" will be implemented along with this project by a team in which the Technical Advisor (TA) post will be shared with this LDCF project. Through these mechanisms, the project will share valuable information and lessons learned on the climate change adaptation sector in the country and on the development of new technologies (weather and climate monitoring equipment on the one hand and flood and drought early warning systems on the other) as well as generating knowledge of the risks (vulnerability & hazard) of climate variability and change at national level. This project will also learn from the FAO developed GEF/LDCF project entitled "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." which is piloting various types of sustainable crop production and diversification interventions schemes to meet the CCA needs of the agro-pastoral sectors in the Central Plateau so to increase the resilience of small farmers to cope with declining ecosystems services due to increasing climate variability, droughts, and extreme events.

The project will be nationally implemented (NIM) by the Ministry of Environment (MINAMB) with UNDP Country Office support, in line with the Standard Basic Assistance Agreement (SBAA of 18 February, 1977) and the UNDP Country Programme Action Plan (CPAP 2009-2013 of 14 May, 2009) signed between the UNDP and the Government of Angola. The MINAMB as the Implementing Partner of the project will provide overall leadership for the project in close collaboration with the Ministry of Energy and Water (National Institute of Water Resources), the Ministry of Interior (Civil Protection), the Government of the Cunene Province and the National Institute of Meteorology (INAMET). The day- to- day management of the project shall be entrusted to the Project Management Unit (PMU) which will be accountable to the Board for the performance of the project. The project team will be partially based in Luanda and partially based in Cunene to be able to properly cover local as well as central level needs. The Unit will be manned by a fulltime staff complement comprising a Project Manager, Finance Manager, Technical Advisor and Project Assistant. Overall responsibility for Project Implementation will rest with the PMU whilst individual site intervention will be supported by the relevant government technical agencies such as INAMET in the case of meteorological stations or National Institute for Water Resources in the case of river gauging stations. The representatives of these technical agencies shall form the Project Support Team (PST) in order to provide technical advice and guidance to the PMU. The PST shall also include traditional village authorities as representatives of local communities.

A.8. Are gender considerations taken into account? If yes, briefly describe how gender considerations will be mainstreamed into project preparation taking into account the differences, needs, roles and priorities of men and women.

In least developed countries, women tend to have lower incomes and fewer opportunities than men do, and their capacity to adapt to the effects of climate change is therefore constrained. Despite their capability to innovate and lead, women have historically also been marginalized from local and national decision-making processes. It is therefore important to identify gender-sensitive strategies to ensure that women are included in measures designed to improve their resilience and capacity to adapt to climate change. Aggregate data shows that women comprise about 43 percent of the agricultural labor force globally and in developing countries in Sub-Saharan Africa, women make up almost 50 percent of the agricultural labor force, an increase from about 45 percent in 1980. The averages in Africa range from just over 40 percent in Southern Africa to just over 50 percent in Eastern Africa. In Cunene Province it is estimated that woman make up 54 percent of the agricultural labor force. In this pastoralist and mixed farming system, livestock play an important role in supporting women and improving their financial situation, and women are heavily engaged in the sector. The field study supporting this project (Annex 5 in the project document), that was carried out in the main Comunas of the Cuvelai Basin have highlighted the positive role of women in the development of activities relating to

small scale farming and livestock raising, two important activities of this traditional and itinerant agriculture based on dry land cultivation and livestock which are the drivers for livelihood and food security. In all consulted Comunas during December 2013 field mission (Annex 5), several farming associations operating in the visited comunas were contacted and more than 60% (e.g. 56% out of 68 in Mukolongondjo; 66/% out of 329 in Evale) of the farmers interviewed were women.

In the rural environment of the Cunene Province and in particular in Cuvelai Basin, the burden of traditional farming activities such as weeding, harvesting and threshing, water carrying, livestock keeping and caring for home gardens is generally left to women. However, in terms of the domestic or child-rearing sphere, there is little change from traditional gender roles. As elsewhere, women's concerns in Cunene Province are broader and related to overall family well-being (including access to water, education and health in post-disaster conditions). While women's' vulnerabilities to climate change and disaster in Cuvelai Basin are similar to those of men, they do have specific additional concerns, linked to their key roles in the society and households, for example: (i) The need for provision of water and firewood; (ii) Damage to seeds and failing of crops under drought and flooding events; and (iii) lack of access to markets and hence sale of products/ generation of cash. However, much of their interest is in communally produced crops for subsistence and cash sales in some cases, where either they share the money or go into a commercial venture together. Most women's groups have only one or two literate members, usually the Secretary and/or the Treasurer. Therefore, the specific involvement of women and gender-sensitive activities have been mainstreamed and are fully integrated in the proposed Project Document and gender equality issues will need to be considered throughout the duration of the proposed LDCF project as outlined. Activities planned by the proposed LDCF project are not limited to responding to gender differences but have been also designed to reduce gender inequality by empowering women and seeking their inputs. Aligning the project with the needs of women will increase the utility and longevity of the investments.

With this in mind, the project design was conducted so that most of the activities foreseen are gender balanced, particularly in the training and capacity-building approaches which are recommended to be gender sensitive (*Outcome 1. Output 1.3 - Indicative activities 1.3.1*). Furthermore, adaptation technologies to be deployed in the local communities, such as promoting dissemination of seed packets of climate-resilient crops for subsequent multiplication will target primarily smallholder farmer groups/Cooperatives/Women Associations. The *Indicator 2.1* under Outcome 2 will specifically track the percentage change in gender disaggregated household income in the 7 targeted comunas as a result of project intervention via perception based survey (VRA). *Outcome 2 - Indicator 2.2*. No. of household in targeted comunas engaged in climate resilient farming methods and livelihoods will also be gender-disaggregated.

In addition, community-based communication and information sharing tools using local languages (community media: TV, local community based radios and newspapers) for climate and hazards predictions/dissemination through pilot small-scale Community based FFEWS (CBFFEWS) network in 7 selected sites will be established with a strong participation of women and youth (*Outcome 3. Output 3.4 - Indicative activities 3.4.3*). This equal participation of women and men is in line with the principles underlying UNDP's gender equality strategy as well as the GEF's own guidance and standards (Mainstreaming Gender at the GEF, 2008). In addition to gender, the project will promote the requirements of other disadvantaged and more vulnerable groups including the elderly, children and disabled.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

The project implementation will build on baseline activities of Development Workshop (DW) Angola programme. This is a local NGO and key project stakeholder that has been very active in the country, developing national capacity in GIS technology, including data handling and risk mapping. Additionally, Development Workshop are pioneering innovative community-based communication and data gathering techniques that must be strengthened. Development Workshop Angola has been actively involved in the PPG consultations and has contributed towards the design of the project document. Information gathered at that stage indicates that despite these activities in GIS utilization at national and provincial level, specific climate change disaster risk response strategy for vulnerable districts and communities have not yet been developed and integrated into GoA existing plans and strategies. However, DW program is a relevant baseline for establishing a CC-Environmental Information System of Angola (CC-ENISA). The LDCF will build on the baseline to complement the DW capacity building activities by

supporting trainings to MINAMB cadres on how to carry out GIS based climate risks and vulnerability assessment and mapping as well as integrate this information in National and Provincial DRR Plans. The ultimate objective of the LDCF will be to set up a comprehensive CC-Environmental Information System of Angola (CC-ENISA) building on the experience acquired by DW on this subject. The LDCF will also build on the DW experience in the country to carry out further training and capacity development programmes towards the estimation of the impact of climate change and variability on water resources and development of environmental risk mapping in the framework of CC-ENISA objectives.

B.2 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/NPIF) or adaptation benefits (LDCF/SCCF):

At national level, the installation of weather observation network and computer infrastructure will benefit the National Institute of Meteorology (INAMET), the National Institute of Hydrologic Resources and its staff (through training and technological advancement). Still at national level the Ministry of Environment (MINAMB) will benefit from the establishment and operationalization of a Climate Change Environmental Information System furnish with appropriate advanced workstations and GIS facilities to function as National Climate Change information Portal. This is an important gain at national level to allow systematic storage, integration and mainstreaming of climate and environmental data to assist Disaster Management and other interested agencies and to facilitate inter-institutional data sharing.

At a local level and in particular the Province of Cunene and the Cuvelai River Basin will benefit from a flood forecast early warning systems (FFEWS) which will enable early warnings and climate hazard mapping, which once disseminated correctly and acted on appropriately, can provide economic benefits through reducing losses and destruction from extreme weather events such as floods and droughts. This will particularly address current gaps in the observation network in the vulnerable areas of the country as well as build on activities supported by other initiatives such as the proposed USAID pilot for the Cunene Province implemented through World Learning.

The delivery of a training in small-scale irrigation to Extension officers working within EDA's, NGO's and CBO's and installation of equipment for construction of small-scale water management works for irrigation (water pumps, drip irrigation systems, water reservoirs) will benefit the region and will strengthen and develop the capacity of vulnerable local communities to withstand drought impact. The project will also promote clean technologies to improve water access and quality that mitigate drought impact including rainwater harvesting technologies and techniques through which to improve water availability at demonstration sites. These on-the-ground activities are likely to provide benefits such as: i) improving access to water for sanitation and drinking purposes; ii) improving agricultural productivity by increasing the availability of water for irrigation purposes (with positive consequences for food security and income streams). Therefore, through project activities, adaptation benefits will also arise through the protection of livelihoods from adverse climate change impacts on water resources.

Perhaps the largest economic benefits are associated with the project will be the improved coordination between government departments and the sharing of information particularly at Provincial level, which can lead to improved products and services and accrued benefits to the vulnerable communities. The total population benefiting from these developments currently estimated at 400,000 inhabitants has the potential to grow hugely if warnings extend to a reasonable percentage of the total population e.g. through, radio, TV, mobile phone relay or similar system. Many of the beneficiaries will be women, especially within the small agriculture sector where they often make up the majority of smallholder farmers, yet are most vulnerable to food insecurity

B.3. Explain how cost-effectiveness is reflected in the project design:

For Component #1 LDCF project activities will build on existing networks, achievements and planned actions by INAMET and INARH. This will allow institutional capacity to be built cost-effectively, which will ultimately assist in planning and implementing the flood forecast early warning system. This approach of

complementing existing related projects is more cost-effective than the implementation of a separate green-field initiative, as it will allow the LDCF project to be managed within the existing institutional and management frameworks. The LDCF project will also work closely with existing INAMET and INARH projects to co-produce outputs. This will promote cost sharing with these other projects, reducing overheads and enhancing cost-effectiveness.

Cost information was determined for the small-scale, on-the-ground adaptation measures (Component #2) as a result of the consultations undertaken during the PPG Phase and, based on this, the activities were deemed cost-effective. Where actual techniques and small-scale adaptation measures are to be identified by community members and stakeholders in the inception phase (following research into various options), cost-effectiveness will be a key factor taken into consideration. In addition, the effectiveness of these activities in increasing resilience to climate change will be tested and measured during the course of the project. This will be achieved through economic and cost-benefit analyses to ascertain whether each activity is an economically viable option given climate change conditions. The most successful activities will be prioritized for up-scaling to neighboring communities and details regarding their implementation will be disseminated widely at the workshops/training events undertaken by the project.

The cost-effectiveness of the proposed LDCF project's interventions are discussed in further detail below.

Cost-effectiveness of FFEWS

The floods that hit the southern Cunene Province in Angola in 2009 were dramatic, causing widespread destruction throughout the Cuvelai Basin, with 125,000 people directly affected and 25,000 people losing their homes (as well as along the northern parts of Namibia, where 276 000 were displaced). These floods resulted in the loss of crops, houses, schools, medical centres and roads; it exacerbated a cholera outbreak in the Cunene Region in Angola and Namibia and was responsible for a direct rise in reported cases of Malaria. The floods struck again in March 2010, resulting in over 12 000 people affected by flooding in Cuvelai Basin with 10.937 people losing their livelihoods. These are the issues that the project addresses in Outcome 1 through the development and operationalisation of the FFEWS to minimize the impact of such extreme events on population and their livelihoods. Therefore, the project will design and implement pilot FFEWS in at least seven communes with an overall objective of reaching a total of direct and indirect beneficiaries benefiting from community livelihood enhancement brought about by the Community based FFEWS, of approximately 400,000 people (with exception of Ondjiva the Capital) with an average investment of 21USD per household (total LCDF budget, including management cost). The tangible benefits coming from this investment per household will far outweigh the costs. The guiding principles for this FFEWS will be affordability (low cost), low-maintenance technology and sustainability (ability of the Government to cover the long-term running cost without expecting external support). Local communities and district officers will be provided with training and capacity building to operate and maintain FFEWS and associated infrastructure.

Quantifying the cost effectiveness of improved climate information and early warning system investments is acknowledged to be difficult, and is therefore not regularly undertaken. One of the difficulties is that it is often not possible to determine the economic savings of reliably avoided losses, and factors other than destruction of property and the number of deaths are generally not taken into account. This is particularly true for developing countries in Africa, where cost-benefit data and analysis of investing in improved climate monitoring and effective early warning systems are scarce.

In Europe, hydro-meteorological information and early warning systems – which is used to inform climate-related preparedness actions – save several hundred lives per year, avoid between Euro 460 million and Euro 2.7 billion of disaster asset losses per year, and produce between Euro 3.4 and Euro 34 billion in additional benefits per year for sectors vulnerable to climate change, including agriculture and energy. In developed countries in general, the benefits of improved weather services to inform severe weather warnings exceed costs by an average of more than 10 times (taken from Tsirkunov and Rogers, 2010) . In developing countries, there is potential for similar cost-benefits to be realized through investing in improved climate monitoring and early warnings systems. The cost of improving hydro-meteorological services and producing the required warnings

elsewhere is estimated to be lower than US$1 billion. Therefore, the average benefit-cost ratio for developing countries is between 4 and 36. Some of the most advanced countries in Africa—such as South Africa—spend about US$5 million yearly preparing for natural hazards, which are estimated to cost US$1 billion yearly. If forecasting research can make even a small contribution to better public decisions about mitigation of recovery costs, preparedness, and crisis management, it would justify sustaining the effort in research on climatic forecasting. Investments in early warning systems for flooding, droughts, tsunamis, and hurricanes can also help save thousands of lives, and even reduce the financial costs of disasters. There is much room for improvement in climate forecasting in Africa: the density of weather watch stations is eight times lower than the minimum level recommended by the World Meteorological Organization, and reporting rates there are the lowest in the world. Therefore, the FFEWS address both of these shortfalls by increasing the density of weather monitoring network and frequency of reporting data through national and international transmission systems. Therefore FFEWS at the scale of the Cunene Province will result in a high average benefit-cost ratio.

Moreover lessons learned from on-the-ground climate monitoring and early warning interventions will be captured and disseminated through inter alia: i) in-house training for meteorologists; ii) internships in national hydrological services; and iii) a weather and climate information online platform. This integrated approach provides a cost-effective manner of informing an extensive range of stakeholders about the FFEWS, which include government technical staff, policy-makers, restoration practitioners, scientists, university students, schoolchildren and the public.

Cost-effectiveness of CC Adaptation and Resilience initiatives for Cuvelai Basin Farming communities

The dominant agriculture system found probably in most of Angola, reaching roughly 90% of the households and properties, is the Small Subsistence Family Farms. These contain among the most vulnerable stakeholders of society (widows, single women, elderly, disabled, young marriages, etc.). In recent years, apparently due to climate change, unfavorable rainfall resulted in more than 60% losses in average productivity for these family farmers. The 2013 droughts in Cuvelai left about 40 to 50 percent of dried water spots in the communes of Curoca, Cahama, Namacunde, Cuanhama, Cuvelai e Ombandja affecting about 500,000 people and 2 million livestock at a cost of 6,000 tons/month of external food assistance for these vulnerable populations. In that year alone the GoA through UNICEF needed to spend US$ 14.3 million for emergency assistance to the Cuvelai population .

Anecdotal evidence suggests that out of the 400,000 people covered by the FFEWS in Cunene province not less than 10-15% (40-60,000) farmers will benefit from the strong increase in production resulting from higher cropping intensities, cultivation of higher value crops, and diversification toward non crop activities (Outcome 2). The concerted actions under Outputs 2.1, 2.2, 2.3 and 2.4 will be developed in collaboration with the local communities and local Extension Officers in relevant EDA's. In the long run these activities will result in a significant increase of local yields and household income resulting from a modest investment. The budget for this Component has been designed along principles of cost-effectiveness. All costs for inputs, human resources, and supplies are structured in such a way so that the proposed targeted achievements of Outcome 2 will be reached with an average investment of USD 50 per community member. In addition, the surface area covering six of the communes Mukolongondjo, Mupa, Evale, Nheone, Namacunde, Cubati (excluding the capital Ondjiva) is around 25,000 km2. Considering that 3.29% of the total land-area in Angola is arable and the permanent cropland (% of land area) in Angola is about 0.2, therefore the total land area benefitting from improved livelihood enhancement against climate change impact within the Cuvelai watershed will be at least 50,000 hectares.

Furthermore, the adaptation measures to be piloted by the project through Community Based FFEWS, and small-scale adaptation initiatives through the Communal Centres for Agro-pastoral Resources Transformation (particularly the small-scale drought resilient vegetable farming activities and small-scale fish aquaculture production - see Output 2.4), will work as safety net to strengthen resilience of Province of Cunene communities' livelihoods to extremes of climate variability and will have multiple benefits for a wide-range of beneficiaries for a modest investment capital. Measures such as the introduction of rainwater harvesting techniques and opening/rehabilitation of traditional water reservoirs and boreholes (see Output 2.3) will be cost-

effective in the longer run as it will allow communities to capitalize on episodes of increased rainfall or recharging of aquifers as a result of climate change using relatively low-cost equipment.

Finally, a baseline self-capacity assessment was conducted during the project preparation phase in order to guide the identification and prioritisation of stakeholder needs. Equipment and capacity-building investments were selected based on identified priorities as well as the available budget and focal areas of the LDCF project. Proposed outputs and procurements were reviewed in a representative validation workshop and revised to reflect considerations of sustainability and cost-effectiveness. A detailed assessment of the cost-effectiveness for each proposed output with alternatives considered can be found in Table 7 of the Project Document – Section 2.6.

C. DESCRIBE THE BUDGETED M &E PLAN:

The UNDP Project Document provides a detailed description of the monitoring, reporting and evaluation to be undertaken during the Project (Section 6). Full details of indicators, baseline values and targets are presented in Annex 1 to this document (Results Framework). Monitoring and evaluation activities will follow standard UNDP and GEF monitoring and evaluation policies and guidelines. Monitoring and evaluation of progress in achieving project results and objectives will be done based on the targets and indicators established in the project Results Framework (Annex 1). The project will develop a detailed M&E strategy presenting the methodology for that will be used to measure the progress and realization. This methodology will be mainly based on the Randomized Trial Control (RCT) principle. The project Monitoring and Evaluation Plan has been budgeted at US$132,000 (see Table below). Integrated into all outcomes, the project monitoring and evaluation approach will also facilitate learning and mainstreaming of project outcomes and lessons learned into international good practice as well as national and local policies, plans and practices. A summary of the envisaged M&E activities is provided in the following table.

M&E Workplan and Budget

Type of M&E activity	Responsible Parties	Indicative Budget US$ *Excluding project team staff time*	Time frame
Baseline study	▪ M&E expert	10,000	Within first two months of project start up
Inception Workshop and Report	▪ Project Manager ▪ M&E expert	5,000	Within first four months of project start up
Measurement of Means of Verification of project results.	▪ M&E expert oversight by PM	10,000	To be finalized in Inception Phase and Workshop Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on *output and implementation*	▪ M&E expert oversight by Project Manager	20,000	To be determined as part of the Annual Work Plan's preparation. Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	▪ Project manager (MEE) ▪ PIU ▪ UNDP CO ▪ UNDP RTA ▪ UNDP EEG	None	Annually
Periodic status/ progress reports	▪ Project manager and team ▪ Financial assistant ▪ M&E expert	None	Quarterly
Mid-term	▪ External Consultants (i.e.	30,000	At the mid-point of project implementation.

Review	evaluation team)		
Terminal Evaluation	▪ External Consultants (i.e. evaluation team)	45,000	At least three months before the end of project implementation
Audit	▪ UNDP CO ▪ Project manager ▪ Financial assistant	Indicative cost per year: 3,000 (12,000 total)	Yearly
Visits to field sites and BtOR	▪ UNDP CO ▪ UNDP RCU (as appropriate) ▪ Government representatives ▪ M&E expert	For GEF supported projects, paid from IA fees and operational budget	Yearly for UNDP CO, as required by UNDP RCU
TOTAL indicative COST **Excluding project team staff time and UNDP staff and travel expenses**		US$ 132,000 (+/- 5% of total GEF budget)	

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

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S):): (Please attach the Operational Focal Point endorsement letter(s) with this form. 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	4TH SEPTEMBER 2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date *(Month, day, year)*	Project Contact Person	Telephone	Email Address
Adriana Dinu, Executive Coordinator UNDP/GEF		Oct. 29, 2014	Lucas Black	+27 71 055 6862	Lucas.black@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: Outcome 6: Strengthen national capacities to mainstream environmental protection into national development plans and programmes through a pro-poor growth perspective; Output 6.3: Increased institutional capacity for monitoring environmental trends in nation-wide scale; output 6.4: Climate change adaptation is mainstreamed into national development policies and plans

Country Programme Outcome Indicators: i) Number of national policies on sustainable development; ii) Number of programmes focusing on mainstreaming environmental protection; iii) Number of programmes and policies on sustainable use of resources (Land and water); iv) Number of international environment conventions being reported/monitored

Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy OR

2. Catalyzing environmental finance OR 3. Promote climate change adaptation OR 4. Expanding access to environmental and energy services for the poor.

Applicable SOF (e..g GEF) Strategic Objective and Program: Objective 2 "Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level".

Applicable SOF (e.g. GEF) Expected Outcomes: Outcome 2.1"Increased knowledge and understanding of climate variability and change-induced risks at country level and in targeted vulnerable areas"; and Outcome 2.2 "Strengthened adaptive capacity to reduce risks to climate-induced economic losses".

Applicable SOF (e.g .GEF) Outcome Indicators:

- Relevant risk information disseminated to stakeholders
- Type and no. monitoring systems in place
- % of population covered by climate change risk measures

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Project Objective[5] To reduce the climate-related vulnerabilities facing the	Percentage change in vulnerability of local community to climate risks.	The vulnerability of the site is high. The baseline will be determined at project onset during the inception phase.	At mid-term 35% increase of VRA score; at end-of-project 70% of VRA score.	Gender sensitive field survey / VRA.	Assumptions: • Government is committed to integrating climate change risk and adaptation needs in development planning of Province of Cunene;

[5]*Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR*

inhabitants of Angola's Cuvelai River Basin through targeted investments and capacity building.					• Planning will be conducted in a participatory manner to ensure that adaptation measures are appropriated by the community; • Stakeholders are committed to implement the project interventions and provide the necessary support. *Risk:* Insufficient institutional support and political commitments and lack of coordination of the various key stakeholders.
Outcome 1[6] Enhanced capacity of national and local hydro-meteorological services, civil authorities and environmental institutions to monitor extreme weather and climate change in the Cuvelai Basin.	1.1 A Flood Forecasting & EWS that is useful to communities developed and forecasts disseminated to target communities in Province of Cunene.	1.1 Currently no Flood Forecasting & EWS established in Province of Cunene.	1.1 By the end of the project a Flood Forecasting & EWS is developed and forecasts are being disseminated to target communities in Province of Cunene. .	1.1Field survey and PIR	Assumptions: Costs of equipment and training will not rise dramatically during project implementation. • Technical expertise and equipment for upgrading the network is available. *Risk:* Telecommunication (SMS) communication systems used for data transmission from Automatic Weather Stations will not be robust enough (e.g., bandwidth issues or local mobile telecommunication networks) to be able to effectively contribute to EWS data sharing and real time forecast development.
Outcome 2 Increased resilience of smallholder	2.1 Percentage change in gender disaggregated household	2.1 N/A at present – project will undertake a gender disaggregated VRA at project onset.	2.1 At mid-term 25% gender disaggregated increase of VRA score; By the end of the project 50% gender disaggregated	2.1 Survey/VRA	Assumptions: • Financial, Technical and political support will be given to EDA's for training of staff and implementation of activities as planned.

[6] *All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.*

farmer communities in the Basin to climate-induced risks and variabilities.	income in the 7 targeted comunas as a result of project intervention via perception based survey (VRA) 2.2. No. of household in targeted comunas engaged in climate resilient farming methods and livelihoods	2.2 Few households have access to resilient livelihood assets and methods (Score=2)	increase of VRA score 2.2 Score improved to 4: By the end of the project, at least 50% of targeted households have engaged in climate resilient farming methods and livelihoods introduced/strengthened in the project.	2.2 Household surveys using an appropriately designed household livelihood asset/method index	• Communities in target *Comunas* are willing to cooperate and adopt climate change adaptation measures. *Risk:* Poor coordination and weak capacity of relevant stakeholders to implement climate change adaptation measures in target *Comunas.* *Risk:* Communities in target *Comunas* are not committed to cooperate and/or accept proposed adaptation measures.
Outcome 3 Local institutional capacities for coordinated, climate-resilient planning strengthened &Capacity for effective community-based climate change adaptation (including traditional knowledge practices) improved at	3.1 CC-Environmental Information System of Angola (CC-ENISA) is established, risk assessed and vulnerability maps developed for the Cunene Province and the Cuvelai in particular.	3.1 Climate Change risks have not been modelled Angola and no vulnerability maps have been developed so far for Cunene Province and the Cuvelai in particular.	3.1 By the end of the project CC-ENISA has been running Risk modelling and Vulnerability maps for the Cunene Province and the Cuvelai in particular have been developed.	3.1 Project evaluation reports (PIR) and Vulnerability maps developed.	Assumptions: • Activities programmed for equipment purchase and training of staff in GIS are implemented as planned. • Adequate and timely national and international support for sharing and exchange of climate change data, modelling information and other relevant data and information. *Risks*: Complex technical and organizational management of knowledge base that can delay project implementation.
	3.2 Number of National or Provincial relevant plans and/or policy documents that integrate	3.2 Currently, no plans and policies that explicitly integrate climate change flood and drought risks are in place.	3.2 By the end of the project CC flood and drought risk/vulnerability are integrated into at least one National and one Provincial disaster preparedness and	3.2 Project evaluation reports (PIR) and Plans and policies developed.	

local level **(equivalent to activity in ATLAS)**	climate change flood and drought risks		management Plans.		

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

Comments	Responses	Changes made in full project
	GEF Secretariat	
8. Please ensure all relevant objectives are identified and reflected in table A.	Agreed. All relevant objectives are now been identified and included into Table A.	Table A of CEO Endorsement.
11. Further Please provide further information on baseline projects, namely Angola Water Sector Institutional Development Project, and further justifications on how the LDCF-funded activities would be additional.	Agreed. Baseline project #2 (USAID's Global Climate Change Integration (GCCI) Pilot Proposal for Angola) has been removed from the list of baseline project. During consultations undertaken during the PPG phase some key projects involving physical activities were identified with the Baseline Project # 1 and 3 namely: i) ***The Ministry of Energy and Water (MINEA) programme*** for 2014 of strengthening of the water supply system of Ondjiva in the Province of Cunene with a total amount of **$US 39,037, 712** to invest into three main components:*"Strengthening of the Water Supply System of Ondjiva"* **(Phase 1)** - **$US860,832**.0 This component mainly includes the construction of water distribution networks of some localities potentially benefitting the health and welfare of some 200 000 beneficiaries of Ondjiva and localities of Xangongo-Ondjiva-Sta.Clara, Ondjiva-Anhanca and Ondjiva Chiede-axes, *"Strengthening of the Water Supply System of Ondjiva"* **(Phase 2)** - **$US2.690,000.** This component mainly provides funds for the rehabilitation and strengthening in the uptake, pumping stations capacity and treatment plant of Xangongo and the installation pipeline Xangongo - Ondjiva (100 Km). *"Rehabilitation of the Calueque Dam and Construction of a Pumping Station"* - **$US 1.035,300,001**. This component consists of the rehabilitation and completion of Calueque Dam, including the construction of a pumping station on the north bank of the Cunene River and associated pipelines for water supply and an irrigation scheme still to be set by the Ministry of Agriculture. However, this programme does not foresee the construction of community-level water infrastructure for agriculture and livestock use, nor there is any training or capacity building in climate change integrated water management for the scheme. This LDCF project will complement this substantial investment from the GoA by providing community-level water infrastructure for both the agriculture and livestock sectors which are not foreseen in this MINEA programme. In addition the LDCF will also contribute and complement wherever necessary for the training or capacity building initiatives particularly towards the necessary knowledge in climate change integrated water management for the scheme. ii) ***INAMET's Strategic Development Master Plan (2014-2020).*** The INAMET's Strategic Development Master Plan (SDMP) for 2014-2020 is largely financed by the Government of Angola with a significant investment on its monitoring infrastructure and data base including in the Cunene Province with a contribution of about **US$968,292.0**[7] through the SASSACAL programme. However, INAMET trhough this programme will be installing a number of Automatic Weather Stations in the Province of Cunene the monitoring network density for the FFEWS in the Cuvelai Basin will not be covered entirely through this investment progarmme. In addition, the capacity development programme under consideration by the INAMET's Strategic Development Master Plan is not specifically dedicated for the Province of Cunene. Finally the INAMET's SDMP does not consider an operational flood forecasting and early warning system focused on the risk to extreme floods and drought events experienced by the communities in the Province of Cunene and in particular in the Cuvelai Basin.	See Section 2.3 & 2.4 of Project Document.

[7] Details provided in Section 2.3 paragraph 109.

Comments	Responses	Changes made in full project
	iii) ***INARH -"Installation of Floods Monitoring Network in the Cuvelai River Basin Project". (2010-2016).*** This investment project contemplates a total of **US$1 million** and is being developed within the framework of the Angola Water Sector Institutional Development Project financed by the World Bank specifically the Component 2: Water Resources Management: "support the strengthening of the institutional framework for the water resources management sub-sector". The project implemented via the Ministry of Energy and Water through the National Institute of Hydrologic Resources *(Instituto Nacional de Recursos Hídricos*) with the following specific objectives for the Cuvelai Basin in the Province of Cunene: a) Installation of hidroclimatological stations in the villages of Tchamutete, Mupa and Cuvelai for monitoring of climatological variables; b) Installation of hidrometric rulers (scales) in one of the Mui River sections, as well as in the towns of Evale, Mupa, Ondjiva and Namacunde for monitoring of river water levels; c) Installation of an operational Monitoring Centre in Ondjiva, to carry out collation of information and dissemination to interested parties in Angola and Namibia. This LDCF will complement the activities being developed by the INARH in the Cuvelai Basin by deploying AWS in 7 locations and 4 Automatic river gauging stations (AHS) and at least 4 manual water level in other sections of the Mui River. iv) **Ministry of Environment (MINAMB) programme.** The Government of Angola is supporting MINAMB with a total budget of around **US$2 million** to carry out a nationwide climate change adaptation education campaigns with specific activities in the Province of Cunene towards the establishment of Flood Forecast and Early Warning System protocols. These activities include pilot communication and dissemination of disaster preparedness and response plans. Still, many villages in the Cuvelai have not yet been reached due to a lack of capacitated human resources at local level. Furthermore, the Government of Angola is supporting MINAMB to mainstream Climate Change Adaptation into National and Provincial Plans. However, this GoA support has not yet been extensive towards establishment of a GIS based Climate Change Environmental System.	
13. Please strengthen the justifications provided linking the baseline initiatives and proposed LDCF-funded activities.	A full and detailed explanation of the linkage between baseline initiatives and proposed LDCF-funded activities are given for each of the Components in Section 2.4 of the Project Document.	See Section 2.4 of Project Document for details.
14. Please ensure that recommendations made in Sections 11 and 13 are reflected in the project framework, as needed.	This is has been also addressed in the Project Document Section 2.4 and in the Project Results Framework.	See Section 2.4 and the Results Framework Table of Project Document for details.
16. By CEO Endorsement, please provide further information concerning the key direct socio-economic benefits expected to reach the target population.	Communities will immediately benefit through seasonal drought warnings related to small-scale agriculture and livestock raising, water and flood management, wildfires etc. This total population benefiting from these developments has the potential to grow hugely if warnings extend to a reasonable percentage of the total population e.g. through, radio, TV, mobile phone relay or similar system. Many of the beneficiaries will be women, especially within the small agriculture sector where they often make up the majority of smallholder farmers, yet are most vulnerable to food insecurity. The project intends to delivery training in small-scale irrigation to Extension officers working within EDA's, NGO's and CBO's and install equipment for construction of small-scale water management works for irrigation (water pumps, drip irrigation systems, water reservoirs). This will benefit the region and will strengthen and develop the capacity of vulnerable local communities to withstand drought impact. The project will also promote clean technologies to improve water access and quality that mitigate drought impact including rainwater harvesting technologies and techniques through which to improve water availability at demonstration sites. These on-the-ground activities are	See Section 2.3.2 of Project Document.

Comments	Responses	Changes made in full project
	likely to provide benefits such as: i) improving access to water for sanitation and drinking purposes; ii) improving agricultural productivity by increasing the availability of water for irrigation purposes (with positive consequences for food security and income streams). Therefore, through project activities, adaptation benefits will also arise through the protection of livelihoods from adverse climate change impacts on water resources. Finally, the total population benefiting from these developments currently estimated at 400,000 inhabitants has the potential to grow hugely if warnings extend to a reasonable percentage of the total population e.g. through, radio, TV, mobile phone relay or similar system. Many of the beneficiaries will be women, especially within the small agriculture sector where they often make up the majority of smallholder farmers, yet are most vulnerable to food insecurity.	
23. Please lower the management cost or provide justifications	Project Management costa have been slightly reduced and justifications are described in the Management Arrangements in Section 5 of the Project Document.	
	Germany Comments	
The PIF has already identified important stakeholders, i.e. the Ministry of Environment and the National Directorate of Hydrologic Resources. However, more national and regional stakeholders are important for the implementation of this project	The River Basin Organisation (RBO) has been considered as stakeholders and their objectives and points of view were conveyed through consultations undertaken during the PPG phase with the National Institute of Water Resources (INARH), the national Institution in the coordination of RBO. Suggestions given during these consultations were integrated into the project document wherever convenient to do so. The project will continue to work with RBO through INARH one of the major stakeholders of this LDCF.	See Section 2.3 & 2.4 of Project Document for details.
Besides KfW, the GIZ Program for Transboundary Water Management in SADC acting on behalf of the the German Federal Ministry for Economic Cooperation and Development should be added to this list and be consulted for water-related activities regarding Project Component 1	Similarly the GIZ Program for Transboundary Water Management in SADC have been object of research and consultations held with INARH. As INARH is the leading Government Institution coordinating the GIZ activities in Angola under the framework of Transboundary Water Management in SADC programme it was agreed with INARH that the project would collaborate with GIZ in the framework of the Transboundary Water Management in SADC whenever necessary through INARH one of the major stakeholders of this LDCF.	See Section 2.3 & 2.4 of Project Document for details.
Germany recommends to also considering establishing a knowledge management scheme. The scheme should guarantee that the knowledge will remain in the institutions in the long-run	This LDCF activity includes a robust programme for training and capacitance at all level and involving all major stakeholders e.g. INAMET, the INARH, the Civil Protection, The Ministry of Agriculture and the Provincial Government of Cunene. This will ensure not only the respective institutional strengthening and implementation of the project activities but also the sustainability of actions beyond the project life.	For further details please see Output 1.3 (Component #1); Output 2.2 (Component #2); Output 3.3 (Component #3).
With regard to the livelihood assessments	The LDCF will effectively carry out a participatory mapping of vulnerability to flood and droughts as well as livelihood assessments which will enable decision making leading to the	For further details please see Section 2.4

Comments	Responses	Changes made in full project
outlined in Project Component 2, Germany recommends to further elaborate on how these assessments relate to the activity of disseminating climate-resilient seed packets.	establishment of at least three demonstration sites in farmer's plots in the Basin for *in-situ* caracterization of climate-resilient crop varieties and dissemination of seed packets of characterised climate-resilient crops for subsequent multiplication by smallholder farmers. Additionaly, and in parallel to the development of the above, the project will through this Component 2 develop a dedicated Climate Change Based Extension Training (CC_BET) programme to Extension officers working within the Agriculture and Rural development sector in the Basin. This will be the backbone for the establishment of tailored agricultural extension services to master/access agricultural techniques adapted to increased climate variability in Province of Cunene.	Component #2); Output 2.1.

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS[8]

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: **US$ 150,000**			
Project Preparation Activities Implemented	***GEF/LDCF/SCCF/NPIF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
Activity 1: Technical definition and capacity needs assessments	50,000	26,910.75	23,089.25
Activity 2: Institutional arrangements, monitoring and evaluation	45,000	26,450	18,550
Activity 3: Stakeholders Consultations	25,000	18,785	6,215
Activity 4: Financial Planning and co-financing	30,000	13,765	15,235
Total	150,000	86,910.75	63,089.25

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used**)**

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

[8] If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.