United Nations Development Programme

Project title: "Climate Resilience in the Nakambé Basin (RECLIM)"		
Country: Burkina Faso	**Implementing Partner (GEF Executing Entity) : Secrétariat** Permanent du Conseil National pour le Développement Durable (SP-CNDD)	**Execution Modality***:* CO support to NIM (National Implementation Modality)
Contributing Outcome (UNDAF/CPD, RPD, and GPD)*:* Outcome 3.2 - By the end of 2020, ensure that populations, especially young people and women in the intervention areas (urban/rural) increase their incomes, adopt sustainable modes of production and consumption, and improve their food security. Outcome 3.3 - By 2020, populations, especially vulnerable groups, in target areas are more resilient to climatic and environmental shocks		
UNDP Social and Environmental Screening Category: Moderate risk	**UNDP Gender Marker:** GEN2	
Atlas Project: 00115815	**Atlas Output ID:** 00113228	
UNDP-GEF PIMS ID number: 5429	**GEF ID number:** 9318	
LPAC meeting date: April 08, 2022		
Latest possible date to submit to GEF: February 27th, 2020		
Latest possible CEO endorsement date: N/A		
Planned start date: May 15th,2023	**Planned end date:** February 16th, 2028	
Expected date of posting of Mid-Term Review to ERC: November 16th, 2025	**Expected date of posting Terminal evaluation report to ERC:** May 16th,2028	

Brief project description:

The Nakanbe Basin in Burkina Faso is particularly vulnerable to increasing extreme weather events (i.e. floods, droughts), spatial and temporal rainfall variability and increased temperatures. In the context of Burkina Faso, where 80% of the population relies on agriculture for their subsistence and most of the fields are rainfed, the impact of these events on life and livelihoods can be disastrous. The vulnerability to climate change is magnified by the damaging practices of local populations. Increasingly poor soil conditions, high poverty and the lack of alternative options often lead these populations to cause deforestation for fuelwood or more fertile fields, to use harmful pesticides, etc. This causes soil erosion and further impacts the vulnerability to climate change for agriculture, property and other livelihoods.

A long-term solution is to increase the resilience of Nakambé basin communities by safeguarding lives and livelihoods from droughts and floods. The "Climate Resilience in the Nakambé Basin (Reclim)" project in Burkina Faso will technically support national and local stakeholders and work with local communities to strengthen their livelihoods and rehabilitate and maintain the Nakanbe Basin. More specifically, under the first outcome, the project will strengthen the institutional capacity of the major actors to use climate and hydrological information/services for extreme climate risk management. Under the second outcome, the project will address climate risks in the basin through ecosystem-based adaptation measures and the implementation of income-generating activities, including livelihood grants and microfinance.

(1) Financing Plan	
LDCF	$ 4,416,210.00
UNDP TRAC resources	$ 500,000.00
Total Budget administered by UNDP	**$ 4,916,210.00**
(2) confirmed co-financing	
Ministry of Agriculture, Livestock and Water Resources	$ 10,289,091.00
Nakambe Water Agency (DG-AEN)	$ 912,310.00
ANAM	$ 6,180,000.00
Agence Italienne pour la Coopération au Développement	$ 2,016,778.45
UNCDF	$ 250,000.00
(3) Total confirmed co-financing	**$ 19,648,179.45**
(4) Grand-Total Project Financing (1) + (2)	**$ 24,564,389.45**

Signatures		
Signature:  **Dr. Aboubakar NACANABO** **Ministry of the Economy, Finance and Forecasting**	**Agreed by Government Development Coordination Authority[1]**	**Date/Month/Year:** *within 25 days of GEF CEO endorsement* 08 MAI 2023
Signature:  **Pamoussa OUEDRAOGO** **Permanent Secretariat of the National Council for Sustainable Development (SP/CNDD)**	**Agreed by Implementing Partner**	**Date/Month/Year:** *within 25 days of GEF CEO endorsement* 23 AVR. 2023
Signature:  **Dr. Elsie LAURENCE-CHOUNOUNE** **Resident Representative**	**Agreed by UNDP[2]**	**Date/Month/Year:** *within 25 days of GEF CEO endorsement* 10 MAI 2023

[1] Other evidence of Government agreement may be accepted in lieu of a signature, unless the program country Government requires a signature.

[2] For NIM projects, this is the Resident Representative.

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List of acronyms and abbreviations

AfDB	African Development Bank
ANAM	National Agency of Meteorology
CF	Classified Forest
CES/DRS	Water and Soil Conservation/Soil Defence and Restoration
CLE	Local Water Committees
SP-CONASUR	Burkinabe Council for Emergency Relief and Rehabilitation (Conseil National de Secours d'Urgence et de Réhabilitation)
CSO	Civil Society Organization
DEIE	Directorate of Studies and Information on Water (Direction des Études et de l'Information sur l'Eau)
DGRE	Directorate General for Water Resources (Direction Générale des Ressources en Eau)
DREEVCC	Regional Directorate Environment, Green Economy, and Climate Change (Direction Régionale Environnement, Économie verte, et Changement Climatique)
DREP	Directorate of Economy and Planning (Direction générale de l'économie et de la planification)
ENCVM	Survey on the Living Conditions of households in Burkina Faso (Enquête sur les conditions de vie des ménages au Burkina Faso)
ES	Ecosystem goods and services
EU	European Union
EWS	Early Warning System
FFEWS	Flood Forecast and Early Warning System
FIP	Forest Investment Programme
FSP	Full Sized Project
GDP	Gross Domestic Product
GEF	Global Environment Facility
GIS	Geographic Information System
GPS	Global Positioning System
INDC	Intended Nationally Determined Contribution
IWRM	Integrated Water Resources Management
LPAC	Local Project Appraisal Committee
MEEEA	Ministry of Environment, Energy, Water and Sanitation (Ministère del'Environnement,, l'Energie, l'Eau et de l'Assainissement)
MRV	Measure, reporting, verification
NAP	National Adaptation Plan
NEA	Nakambé Water Agency (Agence de l'Eau du Nakambé)
NGO	Non-Governmental Organisation
NSDP	The National Sustainable Development Policy
NTFP	Non-Timber Forest Products
ONEA	National Office of Water and Sanitation
ONEDD	National Observatory of the Environment and Sustainable Development (Observatoire National de l'Environnement et du Développement Durable)
PA	Protected area
PAGIRE	Action for Integrated Water Resources Management planning document (Plan d'Action pour la Gestion Intégrée des Ressources en Eau)
PCU	Project Coordination Unit
NAP	National Action Plan to Combat Desertification (Plan d'Action National de Lutte Contre la Désertification)
PIF	Project Identification Form
PIMS	Project Information Management System
PN-GIRE	National Programme for Integrated Water Resource Management (Programme National pour la Gestion Integrée des Ressources en Eau)

PIR	Project Implementation Report
PPG	Project Preparation Grant
REDD	Reducing Emissions from Deforestation and forest Degradation
RCMs	Regional Climate Models
SDAGE	Master Plan for the Development and Management of Water Resources (Schéma Directeur d'Aménagement et de Gestion de l'Eau
SDG	Sustainable Development Goal
SLM	Sustainable Land Management
SP-CONAP-genre	Permanent Secretary – National Concil for Gender Promotion (Secrétariat Permanent du Conseil National pour la Promotion du genre)
SP-SP-CONASUR	Permanent Secretary - Burkinabe Council for Emergency Relief and Rehabilitation (Secrétariat Permanent - Conseil National de Secours d'Urgence et de Réhabilitation)
SP/CNDD	Permanent Secretariat of the National Council for Sustainable Development (Secrétariat Permanent du Conseil National pour le Développement Durable)
SONABEL	National Electricity Company of Burkina Faso (Société National d'électricité du Burkina Faso)
STAP	GEF Scientific Technical Advisory Panel
ToC	Theory of Change
TRAC	Transparent Resource Assignment from the Core (UNDP)
UNDP	United Nations Development Programme
UNDP-GEF	UNDP Global Environmental Finance Unit
WB	World Bank
WWF	World Wildlife Fund
VBA	Volta Basin Authority

II. DEVELOPMENT CHALLENGE

2.1. Situation Analysis

1. Burkina Faso is characterized by a dry tropical climate that alternates between a short rainy season and a long dry season. Four major watersheds drain the country: the Niger River basin, the Nakambé River basin, the Mouhoun River basin and the Comoé River basin. The country has three climatic zones: the Sahelian zone in the north, which receives less than 600mm average annual rainfall; the north-Sudanian zone in the centre, which receives on average between 600 and 900mm of annual rainfall; and the south-Sudanian zone in the south, with average annual rainfall in excess of 900mm. The rains typically occur between April-May and September-October but have recently been characterized by increasing spatio-temporal variability. Due to climate change, Burkina Faso, and in particular the Nakambé basin, is experiencing shorter and more unpredictable rainy seasons, causing frequent floods, droughts and ecosystem degradation. The Nakambé basin is part of the Volta River basin, which spans across six countries: Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali and Togo. Most of the basin falls within Burkina Faso and Ghana (43% and 42%, respectively). The Mouhoun River, including its major tributary, the Nazinon which covers approximately 106,742 km^2, originates as the Nakambé River in Burkina Faso and drains northern and central Burkina Faso and Ghana. A significant portion of the region's population depends on the Nakambé for its domestic water supply, agriculture, fishing, transportation, and recreation.

2. Burkina Faso is a developing country with a relatively young population, the majority of whom are women. The society is patriarchal, and several religions coexist, although Muslims remain the most numerous. According to the results estimated on the basis of a new approach to poverty, the incidence of poverty was 48.6% in 2003 (EBCVM) and 46.7% in 2009 (EICVM). Women and girls are more affected by climate change than men and boys. Because of their social role, women's livelihoods depend to a large extent on natural resources (water, forest products, agriculture) that are highly dependent on climate hazards. The impacts of climate change (land and forest degradation, lower yields, etc.) are leading to a scarcity of resources, making it more difficult for women to carry out their activities. Women also play an essential role in the fight against climate change by providing concrete solutions, primarily at the community level, thanks to their knowledge, experience and know-how. They play a key role in ensuring food security and livelihoods for their families and communities, through their management of the household economy (available resources and purchasing power) and natural resources, their capacity to generate income and their participation in many socio-cultural, political-economic and environmental institutions through groups and associations. (Z. SEGDA, 2015, Gender and Climate Change Decoding Note).

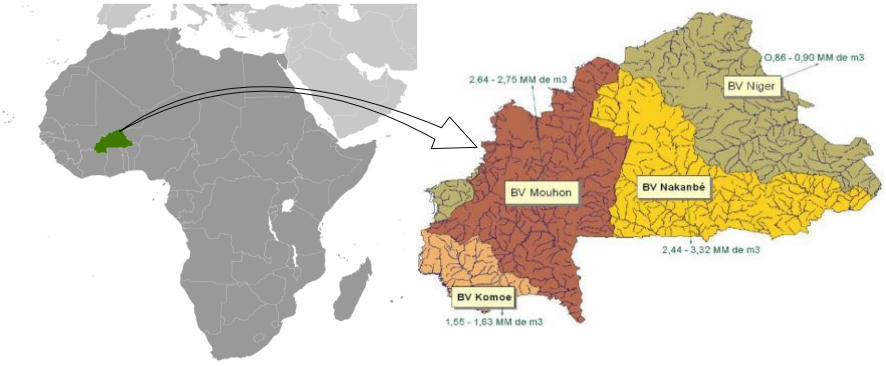


Figure 1. Burkina Faso and the four major watersheds that drain the country.

Climate change-induced problem

3. The Nakambé River is experiencing considerable degradation due to the combined effects of climate change and anthropogenic activities (including agriculture, deforestation and overgrazing). Rainfall has decreased in recent decades, reducing the water available for rainfed agriculture and drying up perennial streams faster than usual. Climate-related stress is likely to worsen in the future,[1] with increasing aridity already observed. With the reduction in the length of the rainy season, and the dependency on rainfed agriculture, the growing period has been reduced by up to 20 days (with a national average of 50 to 70 rainy days)[2]. Paradoxically, despite the 19% decrease in rainfall since the droughts of the 1970s, water run-off has increased[3], resulting in increased discharge[4] and, consequently, greater vulnerability to floods, as observed in 2009 and 2010. This increase reached 193% for the period 1974–2008, compared to 1955–1973. This increase in river discharge can be explained by the land degradation resulting from human activity, where areas that had previously hosted natural vegetation are now cultivated, thus increasing sensitivity to erosion and surface degradation, and reducing water retention.

4. In addition, Burkina Faso has already observed increased average annual temperatures by 0.10°C per decade from 1901–2013, with stronger warming of 0.26°C per decade over the last 30 years[5]. Regional climate model simulations suggest that West Africa, including Burkina Faso, will experience mean annual temperature increases of at least 1.5°C and possibly up to 2.8°C by 2050[6]. This will further impact water availability by causing increased evapotranspiration.

Introduction to project pilot sites

5. Under Outcome 1, flood and forecasting early warning systems will cover the Nakambé basin, while on-the-ground interventions will target the Oubritenga and Sanmatenga watersheds and the five communes of Kaya (1 on the map below), Zitenga (2), Ziniaré (3), Absouya (4) and Korsimoro (5) with a total population of 66,198 inhabitants. Those communes have been identified as the most vulnerable of the 26 in the project's intervention zone (see map in Figure 2). More information on each of the five sites is available in Annex 1.

[1](Pdf) Review of Small Water Infrastructures (SWIS): Categorization, Challenges and Socio-Economic Impacts. **Technical Report** · December 2015. Available on: https://www.researchgate.net/publication/299598884_REVIEW_OF_SMALL_WATER_INFRASTRUCTURES_SWIs_CATEGORIZATION_CHALLENGES_AND_SOCIO-ECONOMIC_IMPACTS [accessed March 7, 2019].

[2] "Climate Risks in Food for Peace Geographies: Burkina Faso", USAID, August 2017. Available at: https://www.climatelinks.org/resources/climate-risks-food-peace-geographies-burkina-faso

[3] Mahé, G., Barbier, B., Dieulin, C., Dezetter, A., Diello, P., Karambiri, H., Paturel, J.E., Rouche, N. (2012). Impact climatique et anthropique sur les écoulements en milieu semi-aride : cas du Sahel au Burkina-Faso. In: Ihp-vii series on groundwater no. 4

[4] Idem

[5] "Climate Risks in Food for Peace Geographies: Burkina Faso", USAID, August 2017. Available at: https://www.climatelinks.org/resources/climate-risks-food-peace-geographies-burkina-faso

[6]Daron, JD (2014) "Regional Climate Messages: West Africa". Scientific report from the CARIAA Adaptation at Scale in Semi-Arid Regions (ASSAR) Project, December 2014. http://www.assar.uct.ac.za/sites/default/files/image_tool/images/138/RDS_reports/climate_messages/West%20Africa%20Climate%20Messages%20-%20Version%201%20-%20Regional%20Level.pdf. Accessed 20/11/2019

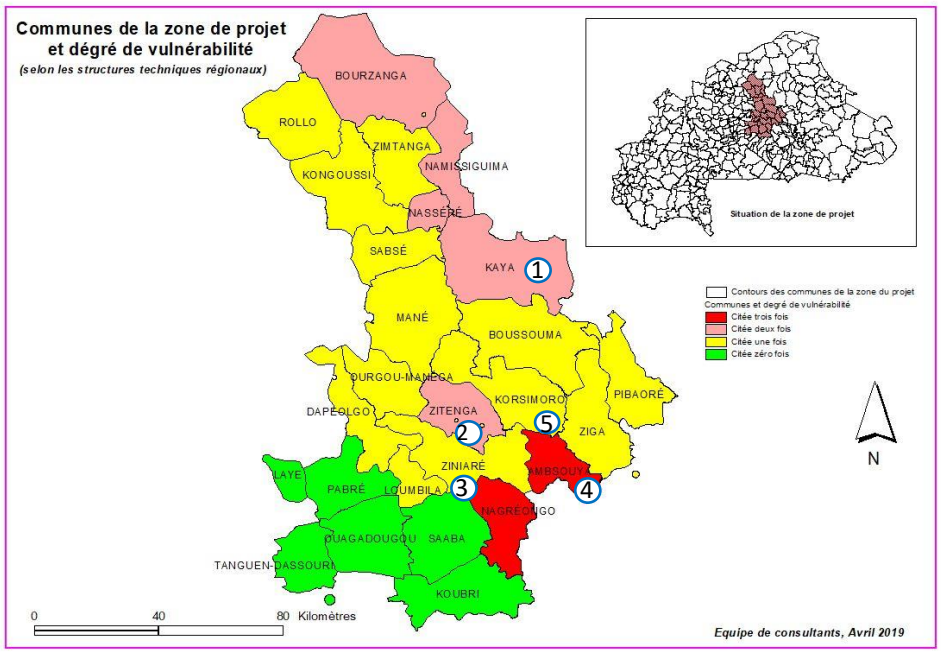


Figure 2. Burkina Faso and its five most vulnerable communes in Oubritenga and Sanmatenga provinces: –Kaya (1), –Zitenga (2), –Ziniaré (3), Absouya (4) and –Korsimoro (5).

Causes of vulnerability in the study area

Climate vulnerability

Floods — Floods have become more pronounced in recent years. Severe floods often follow substantial droughts, as in 1994 and 1995, thus multiplying the effect on people and livelihoods. Floods in the Sahel region have increased from 11 major events in 20 years between 1986-2005 to 55 over 11 years from 2006-2016[7]. In addition, several floods occurred in the Nakambé basin during the period 2008-2018, which resulted in loss of human and animal life and extensive property damage (including flooding of fields and the destruction of houses and barns).

Table 1 shows statistics for three major Nakambé provinces.

Table 1. Flood impacts on communities in three major Nakambé basin provinces[8]

Province	Number of deaths	Number of victims	Livestock loss	Houses/barns destroyed	Fields flooded (ha)
BAM	2	11,985	101	772	42
OUBRITENGA	0	7,745	22	520	338.95
SANMENTENGA	6	35,926	31	919	1711

6. In addition to changes in rainfall tendencies, flood risks are further exacerbated in the Nakambe Basin due to increased erosion, which limits infiltration capacity. Basin communities face extensive and recurrent floods, causing loss of life and property. For example, 500-600 people have faced significant property damages and losses following intense rainfalls on August 28th and 29th, 2018 in Kongoussi (Lake Bam).[9] Because communities rely

[7] (Taylor et al. 2017). Taylor, C.M., Belušić, D., Guichard, F., Parker, D.J., Vischel, T., Bock, O., Harris, P.P., Janicot, S., Klein, C. and Panthou, G. (2017). *Frequency of extreme Sahelian storms tripled since 1982 in satellite observations.* Nature, 544(7651), pp.475-478.

[8] Flood situation in Burkina Faso from 2008 to 2018 (Source: SP-CONASUR). In: Rapport Final: Volet Meteorologie. Document de Projet: "La Résilience au Changement Climatique dans le bassin du Nakambé"

[9] Source: Agence d'Information du Burkina (AIB). http://news.aouaga.com/h/118777.html .

heavily on subsistence and rainfed agriculture, their livelihoods are also exposed to reduced and unpredictable rainfalls. The continued vulnerability of riverine communities in the Nakambé basin to climate-induced risks and related hazards are a key problem and a key factor driving youth to leave rural areas and disrupting community livelihoods.[10]

7. *Agriculture* — More than 80% of the population in Burkina Faso rely on rainfed agriculture as their main source of livelihood. The country's agriculture production is primarily for subsistence and contributes to about 35% of the GDP[11]. In the Nakambé basin (e.g., Kongoussi), since villagers had to move away from the hillside for agriculture because of soil erosion, they now rely on productive valleys, previously irrigated by floodwater runoff. However, in recent years, gullies have formed in these valleys, disrupting water flows for irrigation and therefore impacting yields. This was further worsened by the reduction in rainfall over the last 20 years. In the countryside, women represent 54% of the active population. This includes the South-West, Centre-North, Centre-West, Central Plateau, North, Cascades and Centre-South regions, where the proportions of active women are higher than those of men. The Agrarian and Land Reform (RAF) gives women the same status as men as farmers and owners. Despite this, difficulties and inequalities remain visible on the ground in terms of means of production, savings, property ownership and inheritance. The traditional division of roles between men and women is at the origin of, or even constitutes one of the major causes of the unequal access and control of men and women to resources, and of the differentiated behaviour of the sexes in production activity. Production systems are dominated and dictated, in most Burkinabe societies, by a predominantly patriarchal system, where women and children are considered as productive assets, or unpaid labour that does not participate in decision-making.

8. *Water* — Burkina Faso is not well irrigated and many of its rivers dry up during the dry season (October-June), with the exception of the Mouhoun and Comoé in the southwest, which are spring-fed. The Nakambé basin (81,932 km^2) drains the central and northern part of the Mossi plateau and flows only during the rainy season. The first intermittent flows usually occur in May. However, flows do not become continuous until July-August at the Wayen watershed (drainage area of 20,800 km2) and strengthen downstream, when reaching the Bagré watershed (33,120 km2 of drainage area). River basin depletion occurs earlier than historically recorded, with zero-flow days beginning in early November in Wayen and early December in Bagré. According to Ibrahim et al. (2012), the considerable shifts in rainfall onset and offset across the country, resulting in rainfall deficits, is expected to have dire consequences for the country's future surface and groundwater resources, including the Nakambé basin.

9. *Watershed Management* — While climate variability is expected to decrease precipitation, this will not necessarily produce a decrease in runoff and river discharges in the Nakambé basin. Observations have already confirmed this and various models (RCMs)[12] predict increasing discharges in the coming decades. Some models (RACMO and REMO) predict that by 2031-2040, discharges may rise to 156% compared to 1991–2000 observations. With crust formation and land encroachment for agriculture increasing since the 1960s, to the detriment of natural vegetation cover, soil infiltration capacity has declined, and surface runoff has increased[13], also implying reduced groundwater recharge. In Burkina Faso, and particularly in the Nakambé basin, large quantities of rainwater runoff are observed during the rainy season on barren hillsides where overgrazing has removed most vegetation. This runoff collects water from small gullies and flows down towards the valleys, usually becoming a torrent. This cuts channels in the centre of fertile valleys, causing widespread soil erosion, and increased risks of floods.

10. *Forest degradation* — Forest loss in Burkina Faso occurs primarily as a result of uncontrolled bush fires, fuelwood harvest, encroachment into forest areas for agricultural production (crops and livestock) and mining

[10] Peter Newborne and Noël R. Gansaonré. November 2017. **Agriculture, Water, Climate and Migration in semi-arid lands in Burkina Faso.** PRISE' – 'Pathways to Resilience in Semi-arid Economies'

[11] World Bank (2014). World Development Indicator. World Bank, Washington D.C.

[12] Karambiri H., García Galiano S. G., Giraldo J. D., Yacouba H., Ibrahim B., Barbier B. and Polcher J. 2011. Climate change impacts on water resources in the Nakambe River basin (Burkina Faso). Final Workshop of RIPIECSA Program and AMMANET Prospective meeting Cotonou (Benin), 18 – 21 October 2011

[13] « États des lieux des connaissances scientifiques sur les ressources en eau au Burkina Faso et de l'impact des changements climatiques sur ces ressources », October 2019, Climate Analytics. https://climateanalytics.org/media/pas-pna_bf_policy_brief_etat_connaissances_ressources_en_eau.pdf

expansion.[14] Biomass fuels represent up to 85% of the country's energy consumption. This heavy demand for fuelwood and charcoal further increases pressure on timber resources and is a significant driver of deforestation and environmental degradation, resulting in widespread soil erosion. Dense forestland in central southern Burkina Faso fell from 69.7% of national territory in 1986 to 31.4% in 2002 and 19.6% in 2015[15]. This tendency is also observed in the Nakanbe Basin, where natural vegetation decreased from 70% of total land cover, to less than 20% between 1970 to 2010.

Social vulnerability

11. *Private Sector - Microfinancing*. Burkina Faso's economy depends heavily on agriculture, forestry and livestock farming, which account for about one-third of economic output and employ more than 80% of the workforce. More than a dozen mid-sized microfinance institutions (MFIs), as well as a large number of smaller institutions, work with a wide range of sectors, including livestock and farming. This small but growing private sector is dominated by the *Réseau des Caisses Populaires du Burkina*, which serves 60% of MFI clients and accounts for 80% of outstanding portfolios and savings. Another 12-15 mid-sized MFIs and a large number of smaller, struggling institutions also operate. The *Première Agence de Microfinance Burkina Faso* (PAMF-B) is one of the top three mid-sized players in the microfinance sector in terms of number of clients, loan values, disbursements and savings portfolio. It has traditionally been strong in the agriculture sector, expanding its presence on the ground steadily. About 86% of its clients are in rural areas (and 30% of borrowers and depositors are women) and obtain livestock and agricultural loans. The adoption of digital financial services is a focus for the near future and is already being supported by UNCDF through its programming. Similarly, the Hunger Project's Microfinance Programme (MFP) is woman-led, locally owned and fully integrated. It is a training, credit and savings programme that distributes microcredit to groups of women and men and promotes a culture of savings. This business sector is overseen by government regulation and supervised at the regional level by the West African Union's Central Bank. However, the National Microfinance Strategy and Plan of Action 2012-2016 has prioritized consolidating the sector by either strengthening or closing the weakest MFIs that pose a threat to clients and the sector. The National Strategy also prioritized protecting the interests of MFI clients and preserving confidence in the sector by increasing social performance management. Proposals call for focusing more attention on mobilizing savings and lifting interest rate ceilings to allow MFIs to charge sustainable interest rates.

12. *Gender* — A predominantly patriarchal system dominates and dictates production systems in most Burkinabe communities. Under this system, women and children are seen as an unpaid workforce who do not participate in decision-making. The impact of climate change on women in Burkina Faso can best be assessed based on the sectors in which they are most involved (ie. natural resources such as water, firewood, non-timber forest products (NTFP) and agriculture). Because of their social role, women's livelihoods depend to a large extent on natural resources (water, forest products, agriculture) that are highly dependent on climatic hazards. The impacts of climate change (land and forest degradation, lower yields, etc.) are leading to a scarcity of resources, making it more difficult for women to carry out their activities. For example, because women are largely responsible for collecting water for the household, they are more sensitive to climate change-induced rainfall variations, causing significant challenges for women to access water. With water levels falling continuously, most wells may not be sufficiently replenished in the future. Although the State has improved technical potential with modern boreholes and wells, women's access to water remains a challenge, impacting women and children's health in terms of water quality and the physical effort required to collect it. In addition, women, who provide more than 75% of subsistence production, paradoxically have little access to production capital, and financial and extension services. In particular, land insecurity and poor access to equipment, agricultural inputs, technologies, and credit constitute a major constraint on productivity, especially among women. For example, 96% of female-headed households that grow vegetable crops use traditional equipment such as hoes and *dabas*, while 21.5% of male-headed households engaged in the same activity use plows. Given the strict conditions that borrowers must meet, women and young people are disadvantaged in obtaining access to credit as it is still difficult for them to secure mortgages to

[14] Kambire HW, Djenontin INS, Kaboré A, Djoudi H, Balinga MPB, Zida M, Assembe-Mvondo S and Brockhaus M. 2016. The Context of REDD+ and adaptation to climate change in Burkina Faso: Drivers, agents and institutions. Occasional Paper 158. Bogor, Indonesia: CIFOR. http://www.cifor.org/publications/pdf_files/OccPapers/OP-158.pdf

[15] Forest Carbon Partnership, 2015 https://www.forestcarbonpartnership.org/country/burkina-faso [consulted in January 2020]

guarantee those credits (see **Annex 10** for more detail on Gender Analysis and Action Plan). Women also play an essential role in the fight against climate change by providing concrete solutions, primarily at the community level, thanks to their knowledge, experience and know-how. Indeed, they play a key role in ensuring food security and livelihoods for their families and communities, through their management of the household economy (available resources and purchasing power) and natural resources, their capacity to generate income and their participation in many socio-cultural, political-economic and environmental institutions through groups and associations[16].

2.2. Alignment with National Policies

13. This initiative is fully aligned with the priorities of the Government of Burkina Faso as pursued in its development programmes and plans, particularly in terms of water resources and their management framework, disaster and risk management programmes. This project supports the Outlook Burkina 2025 vision, as well as the Master Scheme for the Development and Management of Water Resources (SDAGE) for the Nakambé Basin and the Water Development and Management Plan (SAGE). Specific structures to promote integrated water resources management (IWRM) include the National Water Council, the Water Technical Committee and water agencies, such as local water committees.

14. Burkina Faso ratified the UNFCCC in 1993 and the Kyoto Protocol in 2005. To date, it has developed and adopted policy and strategy documents relating to climate change in response to the provisions of these protocols. The documents include:

- National Strategy for implementing the Climate Change Convention, adopted in 2001;
- National Action Programme for Adaptation to Climate Change (NAPA), in 2007;
- Second National Communication;
- National Sustainable Development Policy (NSDP);
- Nationally Determined Contribution (NDC); and,
- National Adaptation Plan (NAP), adopted in 2014.

15. This initiative is also fully in line with the sectorial policy "Environment, Water and Sanitation – 2018-2027", which the Government of Burkina Faso adopted recently. This programme includes five national sectoral programmes, based on the National Programme for Economic and Social Development (*Programme national de développement économique et social*, PN-DES, 2016–2020), the National Water Policy (2016–2030) and Sustainable Development Goal (SDG) 6[17]:

- National Drinking Water Supply Programme (*Programme national d'approvisionnement en eau potable,* PN-AEP, 2016–2030)
- National Sanitation and Sewerage Programme (*Programme National d'Assainissement des Eaux Usées et Excréta*, PN-AEUE, 2016–2030)
- National Programme for IWRM (*Programme National pour la Gestion Intégrée des Ressources en Eau*, PN-GIRE, 2016–2030)
- National Water and Sanitation Steering and Support Programme (*Programme de Pilotage et de Soutien au secteur Eau et Assainissement*, PGEA, 2016–2030)
- National Programme for Dam Development (*Programme National des Aménagements Hydrauliques*, PN-AH, 2016–2030)

16. The project will also contribute to the achievement of:

- **SDG 5** - Achieve gender equality and empower all women and girls.
- **SDG 6** - Ensure availability and sustainable management of water and sanitation for all.
- **SDG 10** - Reduce inequality within and among countries.

[16] Z. SEGDA, 2015, Note de décryptage Genre et Changements climatiques

[17] For the WSS sector, SDG 6 provides for universal and equitable access to safe and affordable drinking water, sanitation and hygiene, and an end to open defecation by 2030.

- **SDG 11** - Make cities and human settlements inclusive, safe, resilient and sustainable.
- **SDG 13** - Take urgent action to combat climate change and its impacts.
- **SDG 15** - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

Institutional Arrangements

17. Current institutional arrangements for water resources management in Burkina Faso are described below.

Ministry of Environment, Energy, Water and Sanitation (MEEEA) is responsible for water resources management. Through its Directorate-General, this ministry will support project activities related to the adoption of sustainable agricultural and forestry practices in watersheds to increase vegetation cover, reduce erosion in and improve the efficiency of watersheds and the use of water in agriculture, and reduce vulnerability to droughts and floods.

The **National Office of Water and Sanitation (ONEA)** is responsible for the production and distribution of water in urban and semi-urban centres, using underground water (boreholes) or surface water (dams). It is particularly active at the Ziga (200 million m^3), Loumbila (35 million m^3) and Dem (4 million m^3) dams, which are all in the project area.

The **Nakambé Water Agency (*Agence de l'Eau du Nakambé*, AEN)** was established in March 2007 and was the first agency to become operational to implement IWRM practices in Burkina Faso. It participates in the meetings of the National Water Council (*Conseil national de l'eau*, CNEau) and the Technical Committee for Water (*Comité technique de l'eau*, CTE). The Basin Committee, the highest body of the AEN, has been in place since 2010 and holds regular sessions (one General Assembly per year).

Local Water Committees (CLEs) were created to locally support the implementation of the SDAGE. The extent of their level of involvement depends on the severity of the problems related to the development and management of sub-basins, aquifers, rivers, urban agglomeration and waterworks. The main functions of these structures are to assist the Government, through the MoEA, to take decisions and effectively implement actions to protect and finance water resources management at the local level. They also help to create awareness of and sensitize the populations about sustainable water management practices. CLEs can play a key role as local actors in water management, pending the establishment, in the medium-term, of the basins' CTE on a wider scale. Other equally important issues relate to qualified human resources and sufficient financial resources. Twenty-six CLEs have been created in the Nakambé basin (24 are operational) at the dam or watershed level to act as a local-level forum for consultation among all stakeholders with an interest in water management in a given sub-basin.

The **National Water Council (CNE)** operates at the national level to provide consultative water management, involving the State, local communities, the private sector and civil society. The CNE's main objective is to enable consultation among actors in the water sector. This permanent, structured, productive consultation, which involves all actors, differs from the typical approach, in which the State simply informs the other actors of developments. The CNE is consulted on national water issues, notably the IWRM action plan (SDAGE and SAGE), the basin agencies' intervention programmes, essential laws in the water area that may have an important impact on water, as well as on any other matter in this area.

The **Technical Water Committee (CTE)** is an administrative body that coordinates ministries' sectoral policies and proposes fundamental water resource development options. This body is composed of ministries' general secretaries (or their representatives) involved in water, health, agriculture, animal breeding, fishing, forestry, environment, urban development and housing. This framework provides the State a harmonized perspective on water-related matters within the CNE.

Communal Concertation Frameworks (CCCo) provide a framework for dialogue and exchange at the communal level between the various stakeholders for the design, ownership and implementation of the Communal Development Plan (CDP); serve as a framework for information, training and mobilization of the human, technical,

material and financial resources necessary for the preparation, implementation and monitoring and evaluation of the Communal Development Plan (CDP); create the conditions for harmonizing intervention approaches and facilitating the collection, dissemination of data and experiences. They gather the main actors at the communal level, including the CLEs when available.

Water management tools and planning tools

18. The main water-related management and planning tools are:

- **PN-GIRE**: a new IWRM program was developed to consolidate the achievements of the two phases of the PAGIRE (2003-2008 and 2009-2015), with a view to operationalizing IWRM in the field. This new programme, the National Programme for IWRM (PN-GIRE 2016-2030), was adopted in June 2016. Its strategic objective is "to contribute sustainably to the satisfaction of the fresh water needs of users and aquatic ecosystems." Its implementation faces several internal and external risks that must be controlled throughout the implementation period. They include: (i) non-compliance with SDAGE; (ii) lack of stakeholder ownership of water resources management; (iii) weak capacity to address water resource issues; and, (iv) low funding. The GoBF has proposed the following risk mitigation measures: strengthening the institutional capacity of water agencies, such as the AEN and effective mobilization of funding for water matters and diversification of funding sources (including NGOs, private foundations and decentralized cooperation);

- **SDAGE:** this essential legislative and statutory water planning-related document is enforceable against third parties regarding the management of water resources (generally, watersheds). SDAGE is a sectoral scheme, adopted at the Council of Ministries for water use planning. It is a vital tool for the planning, integration and management of water resources in the basin, guiding public development programs. It also defines the rules governing the mobilization and management of water resources at the basin level, particularly for many of the regional and provincial schemes that will be implemented by 2016-2030, to enable actors to adjust their interventions. The basin's institutions (**CNE-AEN**- **CLEs)** will implement the SDAGE;

- **Multi-year Intervention Programme**: this three-year action plan concretizes the SDAGE provisions over the 2016-2030 period;

- **SAGE**: this is a variation of the sub-basin-scale SDAGE, intended to operationalize and tackle the specific problems of each section of the basin;

- **River contracts**: these are complementary tools for implementing IWRM at the sub-basin scale or on a body of water, with a view to solving specific issues; and,

- **Communal Development Plans/Drinking Water Supply and Sanitation programme (DWSS)**: these plans specifically address issues related to drinking water supply and sanitation at the municipal level.

2.3. Problem statement

19. The main problem facing the Nakambé River Basin communities is the vulnerability to climate change impacts, in particular increasing temperatures and changes in rainfall patterns, causing more frequent droughts and floods. The vulnerability of these communities is multiplied by the widespread adoption of unsustainable practices, in particular deforestation for agriculture or fuelwood. At present, limited hard and soft adaptive hydrological solutions exist and are adopted in the Basin and the current human, financial and technical capacity to carry out such solutions is insufficient.

20. A **long-term solution** is to strengthen the resilience of livelihoods and agro-ecological and hydrological systems to additional climate change impacts. This will be achieved by: strengthening the institutional capacity of key stakeholders to use climate and hydrological information/services for extreme climate risk management (Outcome 1); and implementing ecosystem-based adaptation measures and supporting the adoption of income-generating activities, including livelihood grants and microfinance (Outcome 2). However, implementing the proposed *preferred solution* requires overcoming key barriers presented below.

Barriers

Barrier #1: — The Directorate General for Water Resources (DGRE), the National Agency of Meteorology (ANAM) and other relevant stakeholders have limited knowledge and means to generate hydro-meteorological information. The observation network in the sub-basin is highly dysfunctional and the institutions lack the current and historical data to produce and disseminate reliable forecasts on floods and droughts for water management. Two agencies are responsible for observation - the DGRE and the ANAM.

The DGRE is responsible for surface and groundwater monitoring. However, only 95 hydrometric monitoring stations are operational in the entire country. Most discharge data are collected manually monthly and data are also transmitted, validated and processed manually. In addition, water flow and water levels in the Nakambé basin are not monitored in real time and data is not transmitted automatically. Furthermore, there is a shortage of qualified personnel to exploit the data produced.

The ANAM network in the basin currently includes five synoptic stations, 17 automatic agro and weather stations, and 35 automatic rainfall stations. Of those, only 14 weather stations are operative (and function manually). Apart from the five synoptic stations, most of these stations do not transmit data automatically. Furthermore, the entire network requires urgent calibration and technical correction of the transmission facilities.

These problems are the result of inadequate investments in regional and local capacity development for climate-resilient information and decision-making systems.

Barrier# 2: — The Nakambé basin lacks a functional community disaster risk early warning system. Weather and climate forecasts are currently produced for national use but are not tailored to specific regions such as the Nakambé basin. In addition, the information is not presented clearly and understandably for local communities. Communication is primarily in French, which many Mossi communities do not speak. Prevention and response mechanisms do not adequately serve Nakambé basin communities in areas at high risk of extreme weather events. The standard operating procedure (SOP) for alert communication that was set up under the UNDP LDCF Early Warning System (EWS) project does not guarantee efficient interagency coordination or efficient dissemination of early warnings at the Nakambé basin level. Indeed, there are no effective and locally adapted channels/means to communicate hydrological, climatic and meteorological information, such as flood alerts and drought advisories, to all stakeholders. No organized community radio channels (with trained staff) or telephony exists at the community level. SP-CONASUR has not been able to set up local disaster risk management committees and develop early warning contingency plans as part of the early warning response. Both SP-CONASUR and the Civil Protection Services need additional capacity building and transmission equipment to disseminate messages.

Barrier #3: — Policy and legislation are inadequate and institutions are weak. Similar to other African countries, Burkina Faso has started the development of an ambitious water policy framework and an action plan, focusing on IWRM (MAHRH, 2003). The country has made several policy changes in the water sector. Disaster risk reduction was included in the National Program for Economic and Social Development (Programme national de développement économique et social, PNDES, 2016–2020), the National Water Policy (2016–2030), in the national strategy on climate change and takes into account the country's commitments to combat climate change through nationally determined contributions. Although Burkina Faso is often cited in the literature as 'a pilot country' in implementing IWRM, this policy reform has fallen short in some ways, characterized by: i) a confusing institutional framework for water that, for many years, divided responsibility between two ministries (agriculture and environment); ii) weak implementation of the plan; iii) lack of adaptation to local conditions; and iv) limited consideration of linkages between land and water (tenure). For example, the PNDES sets out the government's ambition to increase the contribution of irrigated agriculture to overall national agricultural production from 15% in 2015 to 25% in 2020. In addition, the government also gives priority to special agricultural zones (agropoles) where agricultural investment and activity is to be concentrated, with support from donors such as the World Bank. Examples of agropoles include Samendéni, Sourou and Bagré. However, the PNDES policy goals and the agropoles lack the kind of support that SDAGE receives in the water sector. Institutional responsibilities are

fragmented and stakeholders at the local level, including AEN, DGRE and CLEs, have not established integrated planning and implementation. CLES and local CBOs (particularly gender-based organizations) require additional technical and financial capacity so that they can respond positively to the intended increase in the contribution of irrigated agriculture and production.

Barrier #4 – Communities' resilience is weak. Poor communities in the Nakambé basin have very little knowledge of resilient farming methods, such as plant density, drought-resistant varieties of local crops, suitable seed provision and mulching, and of low-cost water conservation/irrigation technologies. 80% of the population in the basin's Centre North region is rural and relies on subsistence agriculture as its main source of income and is dominated by subsistence and small scale (rainfed) farming. Natural disasters related to erratic climate conditions (e.g. extreme heat and alternating periods of drought and flooding) represent a strong impediment. Additional technical and institutional constraints exacerbate climate vulnerability, including inadequate infrastructure, limited access to markets, market uncertainty, weak capacity of producer organizations, lack of financing, poor sectoral coordination, and security instability.

Barrier #5: — Institutions lack financial capacity to adapt to climate change at the national level. ANAM and DGRE require greater financial resources to retain and expand staff, scale up communication of information, and address infrastructure gaps to support implementation of climate change adaptation options at the local level. The consequences of limited core financing, and the related challenge of attracting and retaining a critical mass of qualified staff, have a significant influence on the development of both climate service design and delivery, particularly at the local level in the Nakambé basin. In the context of SDAGE in the water sector, implementation of adaptation measures at the local level, through the CLEs or local organizations supporting riverine communities, has been weak. CLEs and local organizations often have basic needs, such as: a detailed business plan; a favourable business environment; access to finance, inputs, market information; or greater technical and business management capacities.

Barrier #6: - Financial capacity to adapt to climate change at the local level is weak. Limited access to agricultural production inputs, such as climate-resilient varieties of drought/flood resistant seeds and technology, further limits farmers' ability to increase crop productivity. This results in part from the absence of finance mechanisms in the rural areas and, especially, the lack of resources available for agricultural producers. Bank lending to the agriculture sector is low—just 4%—with the majority of this financing directed to the cotton sector. Although MFIs are more engaged in financing farmers and agribusinesses, agriculture's share of MFIs' total loan portfolio - XAF 160 billion/US$297 million - was only 15% in 2016. According to the World Bank (2019),[18] in Burkina Faso, women, the poor, and rural populations are still largely excluded from the formal financial sector, despite tremendous growth in financial access over the last three years. The supply of agricultural credit offers few options, while collateral requirements are high (usually land titles). Finally, women's access to agricultural extension services, credit and productive resources, such as land, remains limited.

[18] World Bank Group. 2019. Financial Inclusion Support Project in Burkina Faso (P164786).

III. STRATEGY

21. The project will support the adoption of a watershed approach that focuses on Burkina Faso's most vulnerable basin and addresses the vulnerability of ecosystems and community livelihoods to drought and flash floods. It will also connect the institutions at the national, regional and local levels and ensure the complementarity with other relevant national and regional initiatives.

22. If adaptation interventions in the Nakambé basin are not adopted, national agencies and community organizations acknowledge that the basin's population will become increasingly vulnerable to climate variability and ecosystem degradation. Under the baseline scenario, watershed management in Burkina Faso's Nakambé basin will remain unresponsive to climate change due to weak institutional and community technical and financial capacity and a political and legal framework that precludes the adoption of an integrated approach for adaptation. The proposed project approach will design and implement anticipatory measures to reduce the risks posed by floods and droughts on vulnerable sectors, including water management, agriculture, livestock, forestry and food security. The proposed strategy calls for a paradigm shift to address the increasing risks posed by floods and droughts. It will improve institutional capacity to develop flood and drought forecasts in a timely manner and disseminate warnings, alerts and advisories to end users, including vulnerable communities of the Nakambé basin. This will, in turn, strengthen local capacity to respond effectively to and manage climate change risks that threaten ecosystem services, water resources, agricultural production and livelihoods.

23. The project will result in the establishment and operationalization of a flood forecast and early warning system at basin level, improve watershed ecosystems, and restore ecological function through the use of ecosystem-based approach (EbA) strategies such as community forestry and agro-forestry. Community livelihoods will be made more climate resilient, particularly by adopting practices that will minimize the effects of drought and erosion, as well as seasonal variability. The diagram below presents the project's theory of change (ToC) and shows how the project's output activities (inputs) can remove current barriers to achieve transformational change.

24. This theory of change has been developed to counteract the trend under the baseline pathway. Under this **baseline pathway,** the risk of impacts to life, property, economic assets, livelihoods and food security in this vulnerable basin from frequent flood and drought would continue to increase. With this project, it is expected that 66,198 residents of the five target communes and approximately 219,962 inhabitants of the two watersheds of Oubritenga and Sanmatenga will be made more resilient. Component 1 will ensure that improved technical capacity – skills, methods and technologies to assess the hazard, risk and vulnerability to flood and drought - is developed. This will be achieved via a fully operational flood forecast and early warning system to aid anticipatory planning and prioritization of watershed management interventions. Component 2 will contribute to building the capacity of local community organizations (CLEs and women's and youth associations) to take up the advisories disseminated and implement adequate adaptation measures accordingly. This will be complemented by the adoption of EbA practices in the Basin, to reduce the impacts of floods and droughts on communities' livelihoods.

25. The ToC includes key assumptions that were taken into account for the design of the project strategy, such as:

- *Additional human capacity* to develop the EWS components;
- *Effective dissemination mechanisms are available* for warnings and alerts to reach end users at the community level in the Nakambé basin;
- *ANAM and DGRE maintain a functional hydromet network* to support the EWS;
- *GoBF institutions engage in the project implementation process in a coordinated and constructive fashion*;
- *Communities are willing to collaborate in project implementation*; and,
- *Technical expertise is available at the basin level* to support the project implementation tasks, including data collection, technical support, training and capacity building.

26. The project's main focus (**long-term outcomes**) is two-fold: (i) to strengthen existing climate change information by upgrading the existing EWS and establish a flood forecasting EWS that reduces the risks of flood and drought in the Nakambé basin; and (ii) to strengthen community livelihoods and ecosystem resilience to climate-induced risks and variability in the Nakambé basin.

27. The expected **long-term objective** the Réclim project is to increase the resilience of Nakambé basin communities by safeguarding lives and livelihoods from droughts and floods. This will be achieved if certain assumptions are met and barriers addressed. Key assumptions include (i) *the financing and investment* necessary to maintain the network, which will fall under the Government's contribution to ensuring the system's sustainability; and (ii) the budget allocations needed to cover *staff retention and equipment maintenance*.

28. The Government's engagement to maintain an institutional and political commitment after the project ends will also be a key element to ensure the project sustainability. This includes: (i) the need for continuous, local dissemination of *warnings and alerts* at the basin level; and (ii) the need for *institutional leadership and political commitment* at the national and basin levels to invest in these warning systems.

29. Overall, the project's activities will improve awareness about climate change impacts in the Nakambé basin, particularly in the water sector, rural development, and agriculture and food security, and will support effective adaptation practices. **In the long-term,** the EWS and the adaptation measures are expected to contribute to reducing economic losses and increasing productivity, thereby directly supporting *climate- resilient development in the Nakambé basin*.

30. The project will also contribute to green and climate resilient recovery from the COVID-19 pandemic by reducing the adverse impacts climate change has on livelihoods and the resilience of the ecosystem in the Nakambe basin. More resilient livelihoods will ensure local communities have a sustainable access to the natural and economic resources needed to cope with the impacts of future pandemics and other shocks. Better managed floods will also reduce the risks from water-borne diseases.

31. The project will prioritize most climate vulnerable communities, who were also the most impacted by COVID-19 due to the restricted access to their fields, the markets for the sale of products and the procurement of equipment. Improving their livelihoods and consequently their incomes, is expected to create a buffer in case of future shocks such as COVID-19.

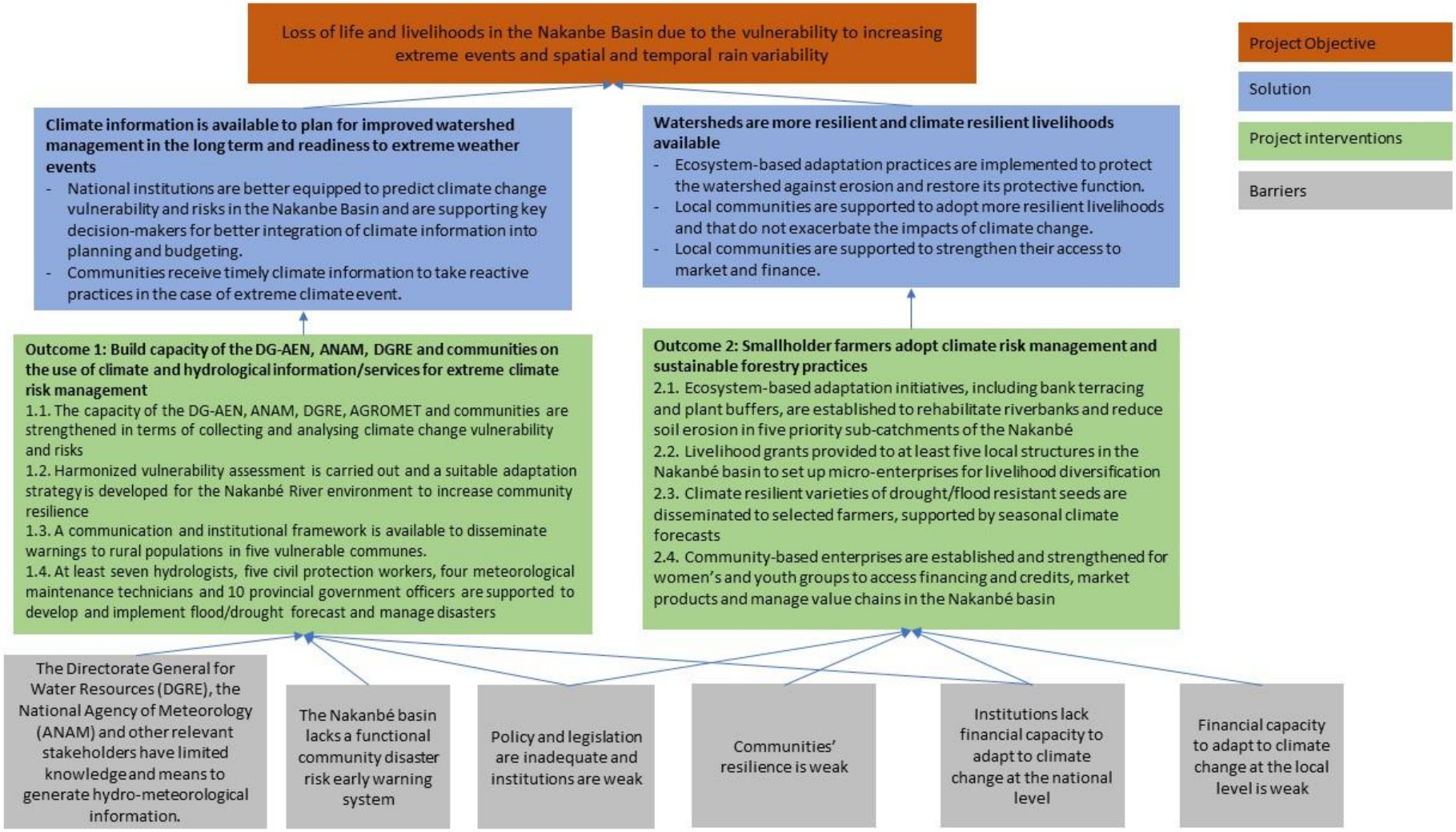


Figure 3. Theory of Change

IV. RESULTS AND PARTNERSHIPS

4.1. Expected Results

32. The objective of the Réclim project is to increase the resilience of Nakambé basin communities by safeguarding lives and livelihoods from droughts and floods

COMPONENT 1. Planning and management of short- and long-term climate risks

Outcome 1. Build capacity of the DG-AEN, ANAM, DGRE and communities on the use of climate and hydrological information/services for extreme climate risk management

33. This outcome will build on the recently closed LDCF EWS project and contribute to operationalizing hydrological forecast services in the Nakambé basin to reduce climate change vulnerability and risks. The outcome, under the leadership of ANAM, and in straight partnership with DGRE and DG-AEN, will also support the upgrading of data transmission systems and the dissemination of weather (ANAM) and flood (DGRE) warnings. ANAM as WMO representative in the country and given its national mandate will be responsible for the installation of all automatic weather stations in close partnership with DGRE and DG-AEN wherever applicable. Simultaneously, the project will strengthen the skills and capacity of existing ANAM and DGRE staff on data downscaling to produce tailored flood and weather forecasts for DG-AEN and basin-level communities. LDCF resources will also be used to conduct training for DG-AEN, ANAM, DGRE and AGROMET staff on using models for climate forecasts and generating climate change impact scenarios (over 25, 50 and 100 years) for key economic sectors in the Nakambé basin. The DG-AEN will use these results to study the possible impacts on climate (including drought, floods, erosion and landslides) and vulnerabilities identified earlier. This will improve the DG-AEN's understanding of climate change impacts and associated physical and economic vulnerabilities, as well as the overall socioeconomy of the Nakambé basin (Output 1.1).

34. Widespread soil erosion is occurring in Gourga and Yatenga provinces in northern Burkina Faso and is particularly serious in Katchari, in Seno province in the Sahel[19]. A comprehensive climate change risk assessment will be conducted under the leadership of DG-EAN, using a participatory approach, to increase understanding of current vulnerabilities in the Nakambé basin and to identify flood- and drought-prone areas. This will include assessing soil erosion, soil degradation, watershed conditions and forest encroachment using field survey and GIS mapping, focusing on the basin's most degraded and climate-sensitive locations, based on NAPA and NAP data (see Annex 1 for details). This will also make it possible to analyse adaptation policy options and develop multi-sectoral adaptation strategies and implementation action plans at the basin level (Output 1.2). The effectiveness of dissemination and the hazard response capacity will be assessed at a selected number of locations across the basin, targeting different mechanisms that seek to enhance communications and the delivery of warnings, alerts and advice to target end users in the communities. Stakeholder consultations will be conducted at the commune level to assess the dissemination service and primary data on loss and damage from previous climate shocks. This will provide a baseline to measure project effectiveness. Funds allocated to this Outcome will also be used to strengthen the EWS SOPs for harmonized delivery of advisories and track the progress of implementation at the Nakambé basin level, as developed under the LDCF EWS project (Output 1.3). Additional training and capacity development initiatives will be conducted under the leadership of ANAM and DGRE to upgrade the knowledge of hydrologists, civil protection workers and provincial government officers, who will be equipped to develop and implement local flood/drought forecasts and manage disasters at the basin level (Output 1.4).

[19] Clement Nyamekye, Michael Thiel, Sarah Schönbrodt-Stitt, Benewinde J.-B. Zoungrana and Leonard K. Amekudzi. 2018. Soil and Water Conservation in Burkina Faso, West Africa. Sustainability 2018, 10, 3182; doi:10.3390/su10093182. www.mdpi.com/journal/sustainability

Output 1.1: Skills, methods and tools for the climate change risk and vulnerability assessments introduced at the mandated institutions (DG-AEN, ANAM, DGRE, AGROMET and communities)

35. This Output, under the leadership of ANAM, will build the capacity of the DG-AEN, ANAM, DGRE, AGROMET and communities in the Nakambé basin to collect and analyse climate and hydrological information/services for extreme climate risk management. In particular, the project will put emphasis on ANAM and DGRE as they have the national and international mandate to monitor climate and hydrological information.

36. The resources will be used to equip and operationally strengthen key institutions involved in collecting, analysing and disseminating weather and hydrological forecast services in the Nakambé basin, particularly to ensure that data are collected, transmitted, stored and analysed properly. The following specific interventions will be carried out (but might be re-adjusted based on discussions with beneficiary agencies during the start-up phase of the project):

ANAM	• Install/strengthen/upgrade suitable fast and reliable telecommunications network via mobile phone (or optic fibre if possible) • Increase climate and weather data storage capacity at ANAM-HQ • Operationalize limited area models (WRF and COSMO) • One automatic mobile meteorological weather station for calibration • Advanced workstations • One automatic plotter
DGRE	• Install/strengthen/upgrade suitable fast and reliable telecommunications network via mobile phone (or optic fibre if possible) • Increase climate and weather data storage capacity at DGRE-HQ • Support to upgrade MIKE BASIN model to become operational • One automatic mobile hydrometeorological weather station for calibration • One screen for interactive visualization
AGROMET	• Five complete Automatic Weather Station (AWS), with transmission facility to be located at each of the five target communes of Kaya, Ziniaré, Zitenga, Absouya and Korsimoro
DG-AEN	• Install/strengthen/upgrade suitable fast and reliable telecommunications network via mobile phone (or optic fibre if possible) • 10 automatic rainfall stations with transmission capacity • One automatic mobile weather station for calibration

37. Training programs will be developed for local authorities and communities on the practical use of agromet advisory and early warning systems. LDCF resources will also be used to enable the DG-AEN and ANAM to generate climate projection scenarios (over 25, 50 and 100 years) and climate change impact scenarios for key economic sectors in the Nakambé basin. This will enable the DG-AEN to improve its understanding of climate change impacts and associated physical and economic vulnerabilities.

38. Finally, LDCF resources will be used to develop a decision support tool (DST) based on a decision tree-type model, with multiple options to guide government decision makers in selecting and planning appropriate adaptation options for the Nakambé basin. This will take the form of an interactive software-based system developed for DG-EAN. It is intended to help decision makers compile useful information from a combination of raw data, documents and personal knowledge generated by the project to identify and solve problems and make decisions related to suitable adaptation measures for the Nakambé basin.

Indicative activities:
Activity 1.1.1: Equip and operationally strengthen ANAM, DGRE, AGROMET and the DG-AEN to collect, analyse and disseminate weather and hydrological forecast information in the Nakambé Basin.
Activity 1.1.2: Develop a training program on the practical use of agromet advisory and early warning systems for

local authorities and communities;
Activity 1.1.3: Conduct training for the DG-AEN and ANAM on generating climate projection and climate impact scenarios in the Nakambé basin; and,
Activity 1.1.4: Develop a DST, together with the DG-AEN, to guide the selection and planning of appropriate adaptation options for the Nakambé basin**.**

Output 1.2: Harmonized vulnerability assessment is carried out and a suitable adaptation strategy is developed for the Nakambé River environment to increase community resilience, in particular.

39. This output will provide the leading institution DG-AEN and other land users (local associations, NGOs and CBOs) the capacity to assess the status of local natural resource degradation (including soils, vegetation and water), understand the interaction between natural resources and climate variability, and use this information to develop future land use and adaptation plans. Using project funds, community participatory vulnerability assessments (CPVA) will also be undertaken for the five target communes. The purpose of these assessments is to determine the key climate hazards, risks, exposure, community and sector sensitivity, and current adaptive capacity in the Nakambé basin. Project funds will be used to strengthen the DG-AEN's institutional capacity to formulate and analyse adaptation policy options, develop multi-sectoral adaptation strategies, and implement action plans. This institutional capacity-building process requires the provision of equipment (including ArcGIS software, computers and advanced workstations, GPS, and digital cameras). It also includes staff training programmes on vulnerability and risk assessments and on the use of digital information, including mapping. Using climate projection models and climate impact models, such as the CMIP5,[20] these officers will be trained to create hazard, vulnerability and risk databases for the sub-catchments of the Nakambé basin, starting with the five major sub-catchments of Kaya, Ziniaré, Zitenga, Absouya and Korsimoro.

40. The Nakambé basin vulnerability assessment will use climate projection scenarios (over 25, 50 and 100 years) and climate change impacts analysis for key sectors, communities, ecosystems and infrastructure generated in Output 1.1. The interactions between identified hazards and vulnerabilities/risks under the projected scenario will be assessed systematically. Historic flooding and erosion data combined with potential flood areas and natural features of the landscape can help communities and government decision makers determine where impact and damages are likely to occur. In support of the risk identification and vulnerability assessment, LDCF resources will also be used to set GIS technology and acquire satellite images or aerial photographs to support DG-AEN in erosion risk mapping in the five targeted sub-catchments. This will increase the current resolution at lower cost and help identify/characterize key erosion hotspots and support the development of a baseline map of natural hazards and risks to critical infrastructure, natural resources and populations. The community vulnerability analysis under the projected climate scenarios (over 25, 50 and 100 years) will enable multi-sectoral adaptation strategies and measures to be developed under the given climate scenarios for the five target communes, with a specific focus on women and youth.

41. Finally, project funds will be used to set up an interactive user-friendly web portal under the DG-AEN to share the vulnerability and risk mapping information collected via this output with other interested parties at the national and basin level (all GoBF ministries/departments, academia, NGOs and CBOs). This, among other means, will serve as a dedicated vehicle to disseminate vulnerability mapping and risk assessment conducted in the target communes, as well as key project results. Consultations will be held with stakeholders supporting the access to climate information in Burkina Faso to ensure no platform is already available and avoid the multiplication of specific platforms.

Indicative Activities:
Activity 1.2.1: Conduct CPVA with the involvement of the DG-AEN and local stakeholders.
Activity 1.2.2: Set up GIS and acquire satellite images or aerial photographs and carry out erosion risk mapping in the five priority sub-catchments;

[20] The fifth phase of the Coupled Model Inter-comparison Project (CMIP).

Activity 1.2.3: Train DG-AEN to formulate and analyse adaptation policy options, develop the multi-sectoral adaptation strategies, and implement action plans;
Activity 1.2.4: Undertake vulnerability assessment for the Nakambé basin and climate change impacts analysis for key sectors, communities, ecosystems and infrastructure; and,
Activity 1.2.5: Set up an interactive user-friendly web portal for the DG-AEN to disseminate vulnerability and risk mapping information.

Output 1.3: A communication and institutional framework is available to disseminate warnings to rural populations in five vulnerable communes (Kaya, Ziniaré, Zitenga, Absouya and Korsimoro).

42. An EWS structure was developed under the LDCF EWS project. It includes: (i) a risk/hazard/vulnerability information unit (including members from the DG-AEN, DGRE, ANAM); (ii) a warning, alert and advisory (WAA) generation unit (ANAM, DGRE); (iii) a WAA dissemination unit (SP-CONASUR); and, (iv) a WAA response unit (Civil Protection, DG-AEN, Agromet). The LDCF EWS project also supported SP-CONASUR in designing SOPs for alert communications to improve the understanding of forecasts by clarifying scientific jargon (in meteorology and hydrology) and simplifying messages for dissemination. The SOP and a formalized national alert guide with thresholds were developed and toll-free numbers to disseminate alerts to end-users were established. However, the activities were limited to building SP-CONASUR's capacity at national and regional levels and did not reach the local level. As a result, the technical and operational capacities to disseminate warnings among local disaster risk management units in the Nakambé basin remain limited.

43. The Nakambe project, under the leadership of SP-CONASUR, will build on the results of the LDCF EWS project and establish a communication and institutional framework to disseminate warnings to end users (including vulnerable communities) in the Nakambé basin. Under this output, the existing SOP will be strengthened by revitalizing harmonized agreements and interagency protocols for the development of sectoral early warning products, including color-coded advisories and warnings for flood, drought, severe weather and agricultural stresses. The strengthened SOPs will guarantee efficient interagency coordination and ensure consistency of early warning management (language and communication channels where different hazards are handled by different agencies) at the local level in the Nakambé basin.

44. The weather and climate stations installed in the five pilot locations under Output 1.1, managed either by ANAM, the DGRE, the National Observatory of the Environment and Sustainable Development (ONEDD) or the agricultural sector will constitute pilot community-based EW systems (CB-EWS). Project funds will be used to support dissemination to remote areas using adequate channels (e.g. meteorology application software, such as FrontlineSMS-based[21] NetApp). This will enable users in the five vulnerable communes of Kaya, Ziniaré, Zitenga, Absouya and Korsimoro to receive ANAM/DGRE climate information and products, including early warning messages and advisories for anticipatory planning. In addition, local community radio stations in the five target communes will be equipped with equipment/battery/solar or wind energy sources to strengthen the dissemination of warnings in local languages, particularly to less literate community groups (farmers' and women's associations).

45. Through local SP-CONASUR committees, local knowledge related to flash floods and response in case of extreme rainfall events will be gathered and incorporated into the scientific knowledge of weather and climate forecasting. The objective is to adapt ANAM's and DGRE's forecasting and information dissemination practices so that they are accessible to communities, using local, indigenous vocabulary that expresses key extreme weather and climate events. Project funds will target SP-CONASUR and Civil Protection to develop contingency plans in the five pilot communes and will be used to help conduct at least two drills per year to test emergency communications preparedness and the effectiveness of contingency plans in the five target communes.

[21] https://www.frontlinesms.com/

Indicative Activities:
Activity 1.3.1: Establish a communication and institutional framework to disseminate climate information and tailored early flood and weather forecast to the DG-AEN and communities in the Nakambé basin;
Activity 1.3.2: Strengthen SOPs to establish and operationalize a multisectoral structure under SP-CONASUR in the Nakambé basin**;**
Activity 1.3.3: Establish a mechanism to issue warnings, alerts and advisories via SMS to remote communities for anticipatory planning;
Activity 1.3.4: Strengthen local community radio station capacities for climate information dissemination to community groups;
Activity 1.3.5: Support SP-CONASUR to develop early warning contingency plans in the five target communes; and,
Activity 1.3.6: Support SP-CONASUR, ONEDD and Civil Protection to conduct at least two drills per year.

Output 1.4: At least seven hydrologists, five civil protection workers, four meteorological maintenance technicians and 10 provincial government officers are able to develop and implement flood/drought forecast and manage disasters.

46. With LDCF funding, the project will, under the leadership of ANAM, fill the skill and expertise gap for targeted staff across partner institutions in terms of flood/drought forecast and disaster management. An internal training needs analysis (TNA) will be carried out for stakeholders, such as ANAM, DGRE, DG-AEN and Civil Protection, to further identify key skills needed to implement the project activities successfully (weather and climate monitoring, flood warning and alert development and dissemination, vulnerability, disaster risk assessment, and response mechanisms). At least seven hydrologists will be trained to produce flood/drought forecasts for the Nakambé basin, including capacity development/training and data monitoring, collection network, transmission, data archiving, analysis, exchange, and modelling.

47. Five civil protection workers will benefit from an upgrade to the current system for the dissemination of disaster preparedness messages and current response plans at the local level. In addition, recovery capacity will be strengthened, including through equipment purchase (e.g. boats and five VHF radios for communication and dissemination of disaster preparedness advice). The exact needs will be defined after the contributions from other ongoing parallel programmes are assessed to avoid duplication.

48. Four maintenance technicians (within DG-AEN, ANAM, DGRE and SP-CONASUR), including at least one HPC maintenance officer (ANAM), will be trained to support the monitoring (existing and future automatic weather/climate stations) and dissemination network. Specialized training and technology transfer will be conducted to develop skills in the use of new software and methods of hazard, risk and vulnerability modelling and mapping, cost-benefit analysis, installation and training in the use of hardware (hydro-meteorological stations, rainfall gauges). A training programme will be developed to assist government institutions to maintain the equipment used to monitor flood- and drought-related variables, such as automatic weather station sensors, transmission units and data archiving units. The trained officers will also be equipped with the necessary software packages and equipment, including two advanced workstations to assist climate and river monitoring management, one widescreen monitor for data control and display, advanced GIS with facilities/tools/programme and software (ArcGIS 9.2 or higher and Spatial Analyst extension, if possible).

49. Finally, 10 provincial government officers (at least four DG-AEN staff) will be trained to execute, collate and process data and information, carry out vulnerability and risk assessments in the Nakambé basin, and systematically streamline digital information, including mapping.

Output 1.4 Indicative Activities:
Activity 1.4.1: Conduct an internal TNA for ANAM, DGRE, DG-AEN and Civil Protection;
Activity 1.4.2: Train seven hydrologists to produce flood/drought forecasts for the Nakambé basin;
Activity 1.4.3: Train and upgrade the equipment of five civil protection staff at the provincial level;
Activity 1.4.4: Train at least four maintenance technicians to support monitoring and the dissemination network;

Activity 1.4.5: Acquire equipment and software packages for DG-AEN, ANAM, DGRE and SP-CONASUR to systematically streamline digital information, including mapping; and,
Activity 1.4.6: Train 10 provincial government officers to carry out vulnerability and risk assessments in the Nakambé basin.

COMPONENT 2. Increasing community resilience to climate-induced risks and variability

Outcome 2: Smallholder farmers adopt climate risk management and sustainable forestry practices

50. Outcome 2, under the overall leadership of CNDD, will increase community resilience to climate-induced risks and variability, with a focus on women. This will be achieved via access to: (i) innovative climate change adaptation responses, such as sustainable agricultural and forestry practices in watersheds to increase vegetation coverage, reduce erosion, improve the efficiency of water use in agriculture and reduce vulnerability to drought and flood (output 2.1); and (ii) innovative financial mechanisms to strengthen local beneficiaries in entrepreneurship, product marketing, managing value chains, and accessing financing and credit. Given the widespread poverty and lack of investment in the basin, LDCF resources will also be used under the guidance of DG-EAN to offer grants to CLEs for productive livelihood initiatives and to create micro-enterprises (Output 2.2). Priorities include diversifying crops, introducing drought- and flood-resilient crop options (particularly for sorghum and food crops), and adapting fishing practices to climate variability (Output 2.3). Based on the needs that basin communities and their representatives expressed during the PPG period (see Annex 14 for further details), small-scale activities are expected to maintain incomes during periods of climate shocks. Finally, the LDCF grant will be used to strengthen the capacities of MFIs to deliver credit and other financial products to climate-resilient micro-enterprises (Output 2.4).

Output 2.1: Ecosystem-based adaptation initiatives, including bank terracing and plant buffers, are established to rehabilitate riverbanks and reduce soil erosion in five priority sub-catchments of the Nakambé**.**

51. This output, under the leadership of CNDD, will contribute to improving the land use practices that local communities in the Nakambé basin use to reduce erosion caused by climate change. Before starting any field activity, an ESMP will be developed. This will include the revision and update of the Stakeholder Engagement Plan, as provided in Annex 4 of the project document, and a particular emphasis will be put on Indigenous People (IP) to avoid or mitigate any negative impact. This will be done in alignment with the safeguards Standard 6 of UNDP[22], and will include an FPIC (Free, Prior and Informed Consent). All the activities under this output will also pay a particular attention to the presence of sacred forests and the identification of the sites will be conducted to avoid interventions in sacred forests. If such activities are to be conducted, the ESMP will conduct appropriate assessments to align with standard 4 of UNDP's safeguards policy[23]. This output will identify improved land uses for rehabilitation, based on the results of the vulnerability and risk assessment (Output 1.2) and implement these ecosystem rehabilitation actions. In the first place, the project will conduct sensitization activities for targeted communities. Often, communities are not aware of the risks their practices pose on the resilience of their environment and sensitization will ensure the ownership of the activities in the long term. This will include sensitization on the use of pesticides, the deforestation for fuelwood or agriculture, alternative options, etc.

52. Rehabilitation activities will include: (i) reforestation/afforestation with indigenous tree species; (ii) digging soil ditches and water retention barriers; (iii) strengthening drainage systems; (iv) planting grass strips between fields to promote water conservation; (v) establishing inter-cropping systems, including trees that provide fruit for local consumption and transformation; (vi) stabilizing soil and erecting wind breaks and other forms of erosion control; and, (vii) building dykes and bunds to protect fields against flooding. Water management will also be improved through drainage (e.g. ridging, contouring and terracing) and designing and implementing local water management plans and awareness activities. Demonstration sites piloting EbA through reforestation/afforestation and the restoration of degraded ecosystems will be carried out primarily at Dem Lake. It has been classified as a

[22] UNDP Social and Environmental Standard 6 – Indigenous Peoples: https://info.undp.org/sites/bpps/SES_Toolkit/SitePages/Standard%206.aspx
[23] UNDP Social and Environmental Standard 4 – Cultural Heritage: https://info.undp.org/sites/bpps/SES_Toolkit/SitePages/Standard%204.aspx

RAMSAR site[24] and is an important natural structure for microclimate stabilization, groundwater replenishment, flood control, riverbank stabilization, sediment and nutrient retention, and storm protection, and provides other major ecosystem services that support the livelihoods of local communities. This project will protect 50 km of river and lake bank around Dem Lake through permeable rock dams (PRDs),[25] using a variety of priority approaches (including bank terracing, planting vegetative buffers to increase infiltration and reduce erosion, implementing techniques to protect the shoreline against animal intrusion and planting fruit trees) to increase infiltration and reduce erosion.

53. The classified forest of Bissiga (41 km²) represents another area of intervention. Over the years, the forest has suffered increasingly from advanced degradation due to the impact of climate variability and change and the systematic encroachment caused by pressure from populations whose available farming land was reduced when the Ziga dam was built. According to Burkina Faso's National Council for Sustainable Development (SP-CNDD), restoring this forest is the primary concern within the project area, given its socioeconomic importance for local communities that rely on the forest's NTFP-producing trees (including néré, karité, baobab and kapok). Project funds will thus be used (i) to restore part of the degraded area (up to 200 ha) where runoff and erosion phenomena are most acute and threaten forest growth, production and collection of NTFP resources, and (ii) to restore a separate area of forest - approximately 8km² - around the sub-basins (Ziga and Absouya), where the populations have been logging to obtain fuel for household energy. This forest restoration will involve participatory village community plantations ("village forests") using a PRD approach for land conservation (to retain the water and reduce the erosion that might uproot the planted seedlings), in partnership with local women and youth associations and NGOs.

54. Nurseries will be established in Absouya, Bissiga, Ladwenda, Korsimoro and Dem, with the participation of community members, to support the afforestation, reforestation and agroforestry activities to increase infiltration and reduce erosion. Before the establishment of the tree nurseries, the project team will consult with authorities at the local level to ensure that previous similar initiatives are not left aside and to ensure the project will build on what already exist. In particular, where nurseries already exist, the project will work in extending or strengthening it. The nurseries are expected to produce plants for:

- 45 ha in Absouya - communal forest;
- 250 ha in Korsimoro Nakambé - classified forest;
- 45 ha in Ladwenda - wood energy; and,
- 45 ha in Bissiga - wood energy

55. The project will also explore the possibilities to introduce nutritive gardens for the reproduction and expension of tree varieties, instead of traditional tree nurseries. This implies the selection of highly nutritive tree varieties, providing food complements for children even during the first years of the tree (ie. baobab leaves), that are later replanted in surrounding areas when mature for the collection of NTFP. This will require a strong local ownership and the project will also explore the possible engagement of local cooperatives.

56. Finally, 14 village forests will be developed in five priority sub-catchments of the Nakambé Basin to satisfy the communities' subsistence and income-generation needs. These forests are planted with species selected based on the needs of the populations (energy, NTFP...), such as Eucalyptus camaldulensis, Azadirachta indica, Senna siamea (formerly Cassia siamea), Tectona grandis, and are managed by the village forest management groups (*Groupements de Gestion Forestière*). To ensure the sustainability of the activities in these village forests, the communities will be supported under activity 2.4.2 to access financing when the activities are considered profitable (ie. with the opening of shops, the transformation of the products). The diagnosis of the business ecosystem of value chains conducted under the output 2.2 will also provide information on the resources that are currently procured from outside for the transformation of some products and evaluate the options to introduce

[24]The Convention on Wetlands is referred to as the Ramsar Convention because it was adopted in the Iranian city of Ramsar in 1971 and came into force in 1975. It provides the framework for the conservation and wise use of wetlands and their resources.

[25]Permeable rock dams are a very effective and the most important conservation technique in the area, helping to control runoff and stabilizing valleys. PRDs also help water to spread more evenly and improve crop performance.

these resources in the targeted areas (this is the case for the Nere seeds, used for the production of soumbala, or for tamarind).

Indicative Activities:
Activity 2.1.1: Conduct an ESMP;
Activity 2.1.2: Sensitize local communities on inadequate land management practices;
Activity 2.1.3: Protect 50 km of river and lake bank around Dem Lake through PRD;
Activity 2.1.4: Restore up to 200 ha of the classified Bissiga forest NTFP-producing trees (including néré, karité, baobab and kapok);
Activity 2.1.5: Restore 50% (~8km²) of vulnerable sites (impacted by encroachment) of the Bissiga classified forest in the Ziga and Absouya sub-basins;
Activity 2.1.6: Establish tree nurseries for afforestation, reforestation and agroforestry activities in Absouya, Korsimoro Nakambé, Ladwenda and Bissiga;
Activity 2.1.7: Introduce nutritive gardens; and,
Activity 2.1.8: Develop up to 14 village forests in five priority sub-catchments of the Nakambé.

Output 2.2: Micro-enterprises for livelihood diversification are set up in at least five local structures in the Nakambé basin through the provision of livelihood grants.

Expected results with LDCF funding

57. Following the issuance and adoption of the political letter for decentralized rural development in 2009, CCCos have been created at the level of each commune as a forum for exchange and coordination of interventions between the municipality and other stakeholders. A decree specifies the participating members for each CCCo, and, when available, CLEs are invited to participate to the local CCCo. The involvement of the CLEs in the CCCos is a key element of the project and will need to be confirmed and officialized at the beginning of the project to ensure they receive adequate training and provide relevant advice to the CCCos. Their guidance will be critical for the formulation and implementation of development plans integrating Climate Change Adaptation (CCA) and for the development of clear CCA investment plans (CCA-IP), with a particular focus on the water sector. These plans will provide the constituting members of the CCCos and the municipal councils with the means to identify the adaptation needs of communities under their jurisdiction and prioritize, coordinate, plan and take ownership of the necessary actions to increase the adaptive capacity and resilience of their livelihoods.

58. During the inception phase of the project, the CCCos in the five targeted sites will gather to identify the most adequate existing structure that will support the development of alternative livelihoods and the set up of micro-enterprises for the identified most vulnerable communities. These structures will also benefit from trainings on adaptive practices (including EbA practices) and enterpreneurship for more sustainability and upscaling.

59. Under this output, a diagnosis of the business ecosystem of value chains around the Nakambé basin under the control of the communes crossed by the basin will be conducted, including on the gaps that need to be addressed (activity 2.2.2), with a focus on the resources identified as having a comparative advantage in Burkina Faso (ie. cereals, particularly rice, fruits and nuts, peanuts and shea, niébé, beans, oilseed and sesame crops, NTFP, as well as livestock)[26]. The diagnosis will identify and improve the knowledge on (i) the level of structuration of each value chain, (ii) the level of organization of the stakeholders, (iii) existing markets and opportunities for an improved access, (iv) the challenges – particularly the gaps in financing, (v) the internal strategies developed to face those challenges. The diagnosis will then issue recommendations for improvements to strengthen the value chains. Based on the experience of UNCDF in Burkina Faso, creating well-structured cooperatives is increasingly recommended to take advantage of training opportunities and economies of scale and to have a better control of prices. The development of cooperative grouping multiple producers could also partly address some of the logistic challenges (including limited access to the market for remote populations). Possible Public-Private Partnerships (PPP) could be developped with value chains that are already well organized under cooperatives (sesame, shea,

[26] "Creating markets in Burkina Faso", The World Bank and IFC, July 2019

gombo) and explore the development of more organized value chains (ie. NTFP). This partnership would improve the access to markets, and therefore ensure a increased sale of products.

60. LDCF resources will also be used under the leadership of DG-EAN, and based on the results of the diagnosis, to provide grants to selected adequate local structures to finance: (i) productive livelihood initiatives and other income generating activities; (ii) micro-enterprises; and, (iii) farming infrastructures[27] for vulnerable communities under the CCCos. LDCF resources will thus also be used to strengthen CCCos and CLEs' capacity to assist target communes to implement these three mandates. A specific focus of this output will be to provide grants to selected adequate local structures in support of local women vegetable producers' micro-enterprises to help them improve production and storage capacity (including poultry, onions, garlic, mango and potatoes). Some of the products perish easily due to increasingly high temperatures and the communities have expressed the need to strengthen local capacity to process perishable products, and to introduce cold storage, or improved stoves when relevant. These structures will thus receive grant support to help local women and youth micro-enterprises to improve product processing capacity (for products including shea, sesame, dried fruits, dried vegetables, cheese and meat). The DG-AEN will also issue a call for proposals for the vulnerable people in the five target communes, focusing on women and youth, to finance IWRM micro-enterprises for adaptive livelihoods. This call for proposal will be conducted with technical support from the CLEs, including for the review of proposal and the support to beneficiaries for improved proposals. The project will also build on the experience of UNCDF in supporting micro-enterprises in vulnerable communities. UNCDF has extensive experience involving most vulnerable communities, in particular women in village forests enterprises. This includes trainings that the Reclim project can build on to support the activities under this output.

Output 2.2 Indicative Activities:

Activity 2.2.1: Provide trainings/technical assistance to CCCos to develop, assess and implement development plans and CCA-IP;
Activity 2.2.2: Carry out a diagnosis of the business ecosystem of value chains;
Activity 2.2.3: Provide training to CCCos and selected local structures to support the implementation of adaptive livelihoods for the most vulnerable communities;
Activity 2.2.4: Provide grants to selected local structure to identify and finance the development of alternative livelihoods;
Activity 2.2.5: Provide grants to selected local structure to support local women vegetable producers' micro-enterprises; and,
Activity 2.2.6: With the support of selected adequate local structure, and CLEs technical guidance, issue a call for proposals focusing on women and youth-based IWRM-related micro-enterprises.

Output 2.3: Climate resilient varieties of drought/flood resistant seeds are disseminated to selected farmers and supported by seasonal climate forecasts.

Expected results with LDCF funding

61. According to the World Bank and IFC, Burkina Faso has a comparative advantage that is not fully seized in cereals, particularly rice, fruits and nuts, peanuts and shea, oilseed and sesame crops. Under output 2.2 a diagnosis of the business ecosystem of value chain will help identify the potential of these resources for the sale to broader markets – including international – and will, in turn, provide recommendation on the selection of most adapted crops (both in terms of resilience and market opportunities). LDCF resources will therefore be used, under the guidance of DG-EAN, to support the screening and uptake of locally specific, climate-resilient varieties of drought- and flood-resistant seeds suited to the basin's ecological conditions, with a possible focus on these resources. Five demonstration sites will be established with the support of rural extension services (one in each of the target communes) for in-situ characterization of the identified locally specific varieties of drought- and flood-resistant seeds. Smallholder farmer groups/cooperatives/women's associations will then distribute the seeds, under the

[27]For example, build efficient water harvesting structures, expand the number existing wells and boreholes, install irrigation systems and build crop storage infrastructure.

guidance and management of the rural extension services and the Regional Directorate for Agriculture and Hydraulic Improvement (DRAAH).

62. In addition, seasonal forecast information will be provided to farmers to help them improve decision-making to reduce their vulnerability to climate risks. This will be done in close coordination with Component 1. The activity will require packaging the information in a manner that is accessible to illiterate rural farmers. Community radio could be used to distribute the information, complemented by an SMS wherever possible. Project funds will thus be used to disseminate seasonal climate forecasts and advisories[28] sourced by ANAM to support climate-resilient seed dissemination in the basin and extension outreach. The SMSs will deliver seasonal forecasts, supported by advice for farmers to help them make better decisions (for example, the best dates to plant/sow and when and/or whether to combat a particular pest).

63. Building on the SMS system put in place, initiatives could be explored, such as the one experienced in Ghana with e-Soko[29] where a Public-Private Partnership (PPP) was established to provide weather forecasts, agronomic advice, market linkages, credit information[30] and insurance coverage through SMS, voice SMS and call centre. This would rely on the results of the diagnosis analysis conducted under the output 2.2 and the training of key stakeholders for the provision of these services. The beneficiaries will also include the CLEs supported under output 2.2. A priority could be given to the provision of market advice (including market costs, the timing for the sale of the products based on the market demand or the connection with organizations and/or cooperatives to access a larger market) and credit information and/or insurance coverage. UNCDF has already started some interventions working with tech companies to accelerate financial and digital innovations. The Reclim project will need to identify the potential for collaboration with UNCDF and build on the knowledge collected through their programming in Burkina Faso.

Output 2.3 Indicative Activities:

Activity 2.3.1: Establish five demonstration sites in farmer's plots, with one in each of the five target communes;
Activity 2.3.2: Support dissemination of seed packets of characterized climate-resilient adapted seeds for multiplication;
Activity 2.3.3: Develop and disseminate seasonal climate forecasts and advisories to support the correct use of climate-resilient seed; and,
Activity 2.3.4: Explore options for the establishment of a PPP for the provision of weather forecasts, agronomic advice, market advice, credit information and/or insurance coverage

Output 2.4: Community-based enterprises are established and strengthened for women's and youth groups to access financing and credits, market products and manage value chains in the Nakambé basin.

Expected results with LDCF funding

64. This output will support the structuring of young people and women into community enterprises and cooperatives (activity 2.4.1) to take advantage of the financial opportunities identified in the diagnosis conducted under output 2.2. As raised in the UNCDF report, "banks are more likely to lend to cooperatives (both crop and livestock) rather than individual farmers, as both costs and risks are lower". Based on UNCDF experience, the project will also provide trainings on the regulations on cooperative societies, including on the OHADA law that intends to harmonize practices for business laws in Africa. The community-based enterprises and cooperatives will also be supported to access finance (activity 2.4.2) with the setting-up and training of 250 savings groups and community enterprises to mobilize local savings, access formal financing to carry out / strengthen their activities or

[28] Many consider the well-established PRESAO (PRÉvisions Saisonnières en Afrique de l'Ouest), the West African climate outlook forum coordinated by AGHRYMET, to be the primary forum for disseminating seasonal climate information. These forecasts are tailored further and refined to the national context by ANAM for national dissemination.
[29] https://esoko.com/who-we-are/
[30] Currently, a formal credit guarantee fund (SOFIGIB) helps to provide access to credit for MSMEs. Credit information could help further, but the regional credit information bureau is not yet effectively operational. There is therefore potential to capacitate and work with the credit information bureau.

meet future individual and community needs. The village forests, supported under output 2.1 will be potential beneficiaries. Innovative approaches will be used for financial education (based on images and digital approaches), reflecting the fact that some adults are not literate. It is expected that a minimum of 30 million XOF (about US$ 50,500) will be mobilized from domestic resources (informal savings) and will be collected for its reinjection into the formal local economic (MFIs) to finance medium and long-term investment projects. Digital channels will be promoted for the collection of savings and the access of finance. The project will also build on the exponential progress of mobile money agent outlets (500% increase in number between 2014 and 2017) that provides an opportunity for accessing financial products for local communities with no access to a bank account. There are two mobile money operators in Burkina Faso, Orange Money (provided by Orange) and Mobicash (provided by Onatel)[31]. Partnership with mobile money operators in Burkina Faso could be explored to develop the access to other financial products than payments (ie. insurance, agricultural subsidy payments to farmers, credits[32]). The recommendations issued in the UNCDF report "Making Access Possible: Financial Inclusion Diagnostic Report" conducted in 2017 can provide useful guidance for the development of mobile money use in this context.

65. This output will also support the training of 500 farmers and informal business owners (50% of whom are women and 25% of young people) to use digital technology (activity 2.4.3). For behavioral changes and the adoption of good farming and management practices, financial education themes, and additional specific themes will be digitized and used as a communication and capacity building support by and for the people around the Nakambé basin. Topics that could be addressed are: financial education, value chain approach and specific topics of watershed protection. These themes will then be digitized to reach a larger audience in a context of insecurity and contribute to the proper management of revenues and business planning. UNCDF has experience in Burkina Faso in promoting digital means for micro-savings for women and the financial inclusion of vulnerable communities. The project will build on the lessons learned of these experience (ie. by involving UNCDF in the trainings or using the materials produced by UNCDF) to conduct this activity.

66. 100 young entrepreneurs (50% women) will be trained in entrepreneurship / business creation and market access in each pilot commune (Kaya, Zitenga, Ziniaré, Absouya and Korsimoro) (activity 2.4.5). To increase self-employment in the business ecosystem around the Nakambé basin, modules in entrepreneurship, business creation, negotiations with Financial Institutions, business planning, accounting, group purchases and sales, etc. will be developed, digitized and disseminated to the various actors. Based on the high-potential products identified in the WB and IFC report, the entrepreneurs will be equipped to develop the value-chain of these products. This will include the distribution of the needed equipment such as cold storage (for meat and other products) or transformation units for shea, hibiscus, baobab.

67. These trainings and activities will be completed with the involvement of finance institutions (activity 2.4.6). Under UNCDF, this output will facilitate access to several financial instruments (financing through value chains, purchase contracts, agricultural insurance, warehouse receipts). It will be conducted through the establishment of partnerships with Finance Institutions, particularly Microfinance institutions (both in the form of cooperatives – mutuelles – or Société Anonyme – SAs), banks, mobile money operators and technology companies (fintech, agritech, etc.). One of the challenges would be to facilitate access to productive investments using affordable energy services. To this end, grants and technical assistance will be made available to MFIs in collaboration with FinTech to develop sustainable business models for facilitating investments. Another focus of the trainings will be on bank collaterals to align with the specific reality of local households and businesses.

Output 2.4 Indicative Activities:

Activity 2.4.1: Establish Community Enterprises or cooperatives with a specific focus on women and youth;

[31] "Making Access Possible: Financial Inclusion Diagnostic Report", FinMark Trust & UNCDF, 2017

[32] The UNCDF report advises to "use cellphone-based credit provision, building on mobile money/mobile phone usage data that can be used for credit scoring. It will be essential that such products are exempt from existing interest rate caps, or else they will not be viable. For instance, the MoKash micro-credit product provided via mobile money in Uganda has a cost ("facility fee") of 9% for a one-month loan. […] This usually results from a partnership between a mobile money operator (data), a credit institution (bank or MFI), and a fintech company (for the credit scoring algorithm)."

Activity 2.4.2: Structure 250 Community Enterprises or cooperatives to facilitate access to finance;

Activity 2.4.3: Train 500 farmers and informal business owners (50% women and 25% youth) to use digital technology;

Activity 2.4.4: Train at least 100 young entrepreneurs (50% women) in entrepreneurship / business creation and market access in the five pilot communes;

Activity 2.4.5: Establish partnerships with finance institutions and mobile money operators.

Activity 2.4.6: Train target communities, MFIs and local community radios

4.2. Partnerships:

68. The project will build on ongoing experiences in climate change adaptation and index-based agricultural microinsurance in Africa. Partnerships and synergies will be promoted with national programs. Table 2 below shows the initiatives identified:

Table 2: Potential synergies with current projects in Burkina Faso

Project name and implementation period	Intervention zones and areas	Areas of collaboration
World Bank: GCF: Africa Hydromet Program - Approved in March 2018 for a five-year period, the project will provide capacity-building and institutional development; improve hydromet and early warning infrastructure; enhance service delivery and warnings to communities. The National Meteorological Agency is in charge of the project. Duration: 2018-2023	Zones: **Areas of flooding and drought in the Nakambé basin.** The overall project objective is to strengthen the adaptive capacity and climate resilience of vulnerable communities and the economy of Burkina Faso by: a. developing the capacity of national hydro-meteorological and warning services; b. supporting adaptation planning for public and private sector users; and, c. strengthening the existing hydrological monitoring network placed at each of relevant tributaries at the Nakambé basin.	The project will benefit from the strengthened coordination of the meteorological and hydrological network. This will be achieved through the Hydromet project, which will support the project's Outputs 1.1 and 1.3 on the early warning system. a. Expanding and upgrading hydromet observation networks; b. Enhancing data, forecasting and decision support systems; c. Strengthening preparedness and emergency response facilities and operations; and, d. Improving early warning and community preparedness.
World Meteorological Organization (WMO) - Adaptation Fund Project: – *Integrating Flood and Drought Management and Early Warning for Climate Change Adaptation in the Volta Basin***.** Scheduled to start in 2019, for a four-year period. The project is aimed at reducing the risk of droughts and floods and developing early warning systems. Duration: 2019-2022	Area of intervention: **Nakambé basin**. The area of cooperation will focus on: (i) improving knowledge of risks, climate change impacts and risk management capacities; (ii) developing vulnerabilities, capacities, exposure and risks (VCERs); (iii) producing flood and drought risk maps for the Nakambé area; and, (iv) improving flood and drought forecasting instruments and EWS.	The project will share parallel activities in all three components, particularly: 1) developing flood and drought risk maps in Component 1; 2) improving flood and drought forecasting instruments and EWS in Component 2; and, 3) strengthening policy and institutional capacity for integrated flood and drought management at the local level. This will strengthen the project's Components 1 and 2 in terms of resilient and sustainable agriculture, ecosystem resources, climate risk management systems.
Burkina Faso – *World Bank Bagre Growth Pole Project* The objective of the Bagre Growth Pole Project for Burkina Faso is to contribute to increased economic activity in the project area, resulting in increased private investment, employment	Zones: **National level in Burkina Faso** This program consists of the following relevant components: 1. Investment in drinking water supply; 2. Provision of sanitation infrastructure;	This project will build on the results achieved with regards to climate change adaptation strategies, particularly the capacity to deliver alternative livelihood generation activities, enhancing agricultural production in the target communes and building market-based and entrepreneurial capacity of

Project name and implementation period	Intervention zones and areas	Areas of collaboration
generation and agricultural production. Launched in 2019 for a period of six years.	3. Investment on improved knowledge of surface water and groundwater; and, 4. Direct support to smallholders and Small and Medium Size Enterprise (SME).	women's/youth groups and producers. This will strengthen Component 2 of the project on the diversification of local livelihood strategies and, consequently, increase the resilience of subsistence livelihoods.
UNDP GEF Project: Integrated and Sustainable Management of PONASI Protected Area Landscape. The project introduces, for the first time in Burkina Faso, a landscape approach to biodiversity conservation and productive land management, which includes bio-carbon conservation. Scheduled to start in 2023, for a period of six years.	Zones: **Nakambé basin.** **Project Component 1** aims to implement an integrated management at the scale of the PONASI landscape; **Project Component 2** will focus on the management effectiveness of protected areas (PAs), including community PAs; **Project Component 3** will focus on agro-sylvo-pastoral areas in the landscape surrounding PAs and on the livelihoods of local communities based on sustainable use of natural resources linked to PAs; **Project Component 4** will mainstream transversal issues of knowledge and gender into project outputs and outcomes.	The project will benefit from the interventions under Component 3 to improve the sustainability of natural resource management and livelihoods in agro-sylvo-pastoral lands, consistent with the activities to be developed in Outcome 2. Furthermore, the project activities to be developed in Outcome 2 will also benefit from the establishment of tourism microenterprises as part of a landscape-scale strategy in relation to PAs and support for NTFP processing value chains to benefit local communities, especially women.
WMO Project: *Strengthening National Capacities for Early Warning System Service Delivery (CREWS)* The main focus of CREWS in Burkina Faso is to build the capacity of the National Meteorological Service and strengthen its cooperation with key sectoral ministries, departments and other stakeholders working in the above areas to put in place complete systems that deliver warnings and relevant information to end-users. Budget $2,192,200.00 - *$0.48 million quoted as co-financing.* The project duration is three (3) years. (October 2017 - December 2019)	Zones: Burkina Faso and **Nakambé basin.** Key deliverables • Assessment of observation network processes and needs; • Data base improvements; • Short-term forecasting capabilities; • Sub-seasonal to seasonal forecast; • Analysis, nowcasting and climate watch tools; and, • Risk information and forecasting products for flood early warning. • Risk information and forecasting products for agriculture and food security • Institutional strengthening • Monitoring and evaluation	The project will develop capabilities in data management, observation network monitoring and control, implementation of analysis, monitoring and forecasting tools for weather and climate early warning, as well as strengthen the interface with information users. The project will draw on advanced technical expertise from cooperating institutions to ensure access to relevant data, products, tools, training and equipment.
UNCDF Programme: *Programme to support the economic and climate resilience of the people of Burkina Faso through financial and digital innovations (PARI)* The main objective of the programme is to contribute to improve the economic resilience of the populations in Burkina Faso, through the developmet of a more innovative, inclusive and sustainable economy, creating stable and decent employment for women, youth, farmers	Zones: Burkina Faso (with a focus on youth, women, farmers and MSMEs) Outcomes: **Outcome 1:** Generalize the use of digitalinnovations for the strengthening of economic resilience **Outcome 2:** Support enterpreneurship and the creation of economic opportunities for a fair, inclusive and sustainable growth	The activities under the outputs 2.2 and 2.4 of the Reclim project, in particular with regards (i) the conduct of the diagnosis of business ecosystem (activity 2.2.2), (ii) the support to enterpreneurship (activities 2.2.3 to 2.2.6, 2.4.1, 2.4.2 and 2.4.4), and (iii) the use of new technologies for the development of the private sector (activities 2.4.3 and 2.4.5)

Project name and implementation period	Intervention zones and areas	Areas of collaboration
and MSMEs.		

Risks*:*

69. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, or when the impact is rated as 4 and the probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR. However, key risks underlying the project have been analysed and qualitatively assessed within the context of the project activities and the target areas for the project and risk mitigation measures identified (Table 3). The Risk log is provided in **Annex 5** and the SESP is available in **Annex 9**. In addition, risks have been identified to the overall project achievement of its objective and desired outcome:

Table 3: Risk Matrix

Risk	Level	Mitigation
Theft and vandalism could affect early warning and climate monitoring equipment.	Moderate	Public awareness workshops will be held to sensitize communities to the importance of this infrastructure, as well as to involve local stakeholders in its maintenance and surveillance. Incentives may be provided to certain communities to maintain a basic level of operation of the stations. Dedicated "climate observers" will be recruited at the local level and would also be tasked with surveillance. Community-level participation in the maintenance and surveillance of equipment will be mobilized in-kind to ensure long-term sustainability. ANAM will acquire insurance for all its equipment and invest in surveillance and monitoring.
Security in the targeted areas could worsen and jeopardize the project implementation	High	The security situation is followed-up closely in the Nakambe Basin by UNDP and mitigation measures will be appropriately designed in case a risk occurs. During field visits and the conduct of field activities, strict security measures will be adopted by the project team and contractors.
Environmental and social risks might arise.	Moderate	A Social and Environmental Screening Procedure (SESP) was designed during the PPG phase. This has identified possible risks that need to be further considered during the preparatory phase through an Environmental and Social Management Framework (ESMF), to be integrated in the project document, that describes and proposes measures and plans to reduce, mitigate and/or offset adverse impacts and enhance positive impacts.
Requisite human resources and data are unavailable.	Low	The lack of requisite human resources will be mitigated initially by recruiting international consultants who will work closely with in-country counterparts and by targeted capacity-building activities. Training and capacity development activities for local personnel (not least through Output 1.4) are anticipated at all levels and for the various key stakeholders.
Local IT and telecommunication infrastructures are weak (e.g., international bandwidth and local mobile telecommunications networks),	Moderate	ANAM is already connected at international level through GTS (WMO). In-country communications will be secured through contracts with local mobile operators for data transmission via GSM. Where GSM connections are not available, cost-effective solutions for each particular situation will be identified (e.g. satellite and/or radio communications.) Where feasible, automatic stations reporting over the mobile telecoms network will be preferred.

Limited institutional capacity may make it difficult to tackle all project components effectively and simultaneously	Low	A robust multi-disciplinary project implementation team will be established and supported with additional training for the Project Manager/Coordinator, if necessary.
Adverse climatic conditions may also pose risks to workforce health and safety or damage the adaptation measures being implemented.	Low	The project will draw up a safety plan to reduce immediate risks of hazard occurrence during works. Safety precautions for the workforce will be established in the inception phase, drawing on lessons from similar projects in challenging terrain. SP-CONASUR will develop early warning contingency plans for vulnerable communes. Contingency and evacuation plans will also be prepared. All sub-contracted firms will need to have H&S insurance for their employees.
Lack of incentives for particular local communities to cooperate in activities that do not yield immediate financial benefits, but aim at longer-term resilience, may reduce stakeholder engagement and comprehensive participation.	Moderate	The project incorporates activities that yield immediate benefits for communities in terms of skill development and income generation (agro-forestry, access to livelihood grants and microfinance). This will be emphasized during all meetings and consultations with community representatives during the inception phase.
Delays in recruitment of qualified project staff may affect the timeframe of different project activities.	Moderate	UNDP will establish a proactive coordination mechanism during the project inception phase. TORs for key project staff have already been prepared
Policy-level adoption of SOPs and EWS protocol may be delayed at basin level.	Moderate	The project steering committee and the project coordination will monitor and design and drafting of SOPs and EWS protocol regularly.
Procurement and installation of hydro-meteorological equipment, including hardware and software, could be delayed because of complications with the release of funds and/or national procurement procedures.	Moderate	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. The use of LTAs available at the UNDP corporate level might be considered at the request of the national implementing agency.
ANAM and DGRE lack the capacity to tailor early warning and climate products to suit vulnerable populations in the Nakambé basin and the target communes by the end of the project.	Moderate	During project development, ANAM and DGRE indicated that they have some experience, based on the first UNDP GEF EWS project, in working with communities and private sector representatives to understand their needs for EW and climate tailored products. The project anticipates a strong supportive training and capacity development programme so that ANAM and DGRE will acquire sufficient capacity to tailor climate products by the end of the project.
Falling market prices for products developed by the value chains could reduce the benefits to the local communities involved.	Moderate	Under Output 2.4, the project will support the development of sustainable value chains, focus on accessing microcredit and ensure, through entrepreneurship, that a market assessment is conducted for each product to reduce uncertainties and risks and gauge the chances of success before generating hope and engaging local communities.
Risk to effective and efficient project implementation due to possible increases in health (COVID-19) or security restrictions	Moderate	The project M&E strategy includes distance monitoring for project activities to effectively continue in case of security or health-related restrictions. The project will also prioritize local contractors and coordination and partnerships with local institutions to reduce the adverse impacts of travel restrictions. Finally, in case of health-related restrictions, safety measures will be closely followed. In addition, the project will adopt an adaptive management and adjust the activities to address some of the limitations (ie. Online meetings, the procurement of adequate equipment)

4.3. Stakeholder engagement plan:

70. The project's potential stakeholders and partners were identified and consulted during project development. Consultation was undertaken at the central and local government levels through field missions organized in the target areas, inception and validation workshops, bilateral meetings and surveys (all of this is detailed in the PPG reports). The list of stakeholders consulted during the project preparation is provided in the PPG Reports **(Annex 16)** and the stakeholder engagement plan is in **Annex 4.**

The summary of key stakeholders in the project formulation and implementation process, with their roles and contributions, follows (Table 3):

Table 4: Stakeholder matrix

Stakeholder identified	**Relevant roles**
National Emergency Relief and Rehabilitation Council (SP-CONASUR)	Under the oversight of the Ministry in charge of humanitarian action, the SP-CONASUR is a national governmental organization in charge of coordinating disaster prevention, emergency management and rehabilitation actions. In this capacity, its role is to: (i) ensure implementation of the national organization and coordination of emergency relief and rehabilitation plan; (ii) advocate, mobilize and support the prevention and management of emergency relief and rehabilitation; (iii) adopt annual programs and activity reports; (iv) ensure the functionality of the reception and reintegration mechanism for emergency returners and large-scale internal migration; (v) propose any emergency measures to safeguard the rights of victims of natural disasters or other national emergencies. As part of this project, SP-CONASUR will be responsible to disseminate alerts. It will coordinate disaster management actions related to extreme hydro-meteorological phenomena (floods and high winds) based on its presence in the regions, provinces and communes. It will also be responsible for relief organization. SP-CONASUR will be the responsible partner for the output 1.3. It might also be invited to participate to the project meetings as a resource organization.
Directorate General of Civil Protection (DGPC)	Under the Ministry of territorial administration and security, the DGPC will be responsible to coordinate disaster management activities and recovery, in collaboration with the SP-CONASUR.
National Observatory for Environment and Sustainable Development (ONEDD)	ONEDD's main objective is to collect and process environmental information available in the country to promote and disseminate indicators, data and metadata. It will also be responsible to monitor relevant indicators of stress, impact and response in terms of the environment and sustainable development. ONEDD will provide the necessary institutional support to set up a pilot project community-based EW system (CB-EWS) and will be active in supporting dissemination of climate information and products, including early warning messages and advisories for anticipatory planning to these remote areas.
National Council for Sustainable Development (CNDD)	CNDD will coordinate the sustainable development project by playing a key role in supporting the project and by coordinating and synergizing with other projects, programmes and initiatives. It will also provide the necessary institutional support as the leading executing partner. The CNDD will act as Implementing Partner for this project under the MEEVCC.
Nakambé Water Agency (DG-AEN)	The DG-AEN is responsible to coordinate actions to implement IWRM in the basin. As part of the project, the DG-AEN, through its various bodies (e.g. CLEs), will coordinate IWRM trainings and raise awareness of good practices in the basin. To that end, it will organize and lead foras of basin actors on key issues of vulnerability, risk and adaptation to climate variability. This agency will also support project activities for the preparation of vulnerability and risk assessments, using the climate projection model, the climate impact model and the vulnerability and risk assessment approach. The DG-AEN will act as Responsible Partner for the outputs 1.2, 2.2 and 2.3.
Ministry of the Environment, Energy, Water and Sanitation (MEEEA)	The MEEEA guarantees the institutional coordination of environmental quality in Burkina Faso. In this regard, it ensures that the government's environmental and sustainable development policy is implemented and monitored. It is responsible for fire management in

Stakeholder identified	Relevant roles
	forest and rangelands and for monitoring performance against the UNCCD.
Ministry of Agriculture, livestock and water resources (MARAH)	The MARAH is responsible for conducting agricultural policy in Burkina Faso. It is organized into several directorates, including the General Directorate for Sectoral Studies and Statistics (DGESS), which houses the service that drives the early warning system and the regional directorates for local technical supports for farmers. It is also responsible to design and implement livestock and fisheries policies in Burkina Faso. It is organized into several directorates, including the General Directorate for Sectoral Studies and Statistics (DGESS) and regional directorates for local technical support for breeders and fishermen. It is one of main actors for National Food Security As a supporting structure, the Executive Secretariat of the National Committee for Food Security (CNSA) is also involved.
Ministry of Women, National Solidarity and Family	The Ministry of Women, National Solidarity and Family, through the Permanent Secretariat of the National Emergency Relief and Rehabilitation Council (SP/SP-CONASUR) and its deconcentrated structures, ensures planning and implementation of emergency response and coordination of prevention activities among different sectors. The Permanent Secretariat of the National Gender Council, which seeks to mainstream gender in all sectoral ministries, is also relevant.
Ministry of Territorial Administration and Decentralization and Social Cohesion (MTADSC)	The Ministry is responsible for local authorities (governors and local community councils). It is in charge of the local disaster management structures – CORESUR, COPROSUR, CODESUR and COVISUR – at regional, provincial, departmental and village levels, respectively. These structures will also be critical in disseminating early warning messages.
National Meteorological Agency (ANAM)	This agency will improve coordination of the SAP's activities. Its mission is to evaluate and monitor continuously the meteorological network in the basin and ensure the prevention and monitoring of extreme weather and climate phenomena in the Nakambé basin. It will also participate in disseminating agro-meteorological information to farmers. ANAM will strengthen local technical and operational capacities (including SP-CONASUR agencies, communes and, producer organizations) to disseminate alerts and understand the technical jargon of meteorological bulletins and other climate-related information. Under the project, ANAM will be responsible for: • agro-meteorological monitoring supporting agro-silvo-pastoralism and fisheries activities in the project's intervention communes; • developing daily and 10-day agrometeorological bulletins for the communes; • assessing priority needs for climate information services and communication channels; • designing context-specific climate information and services tailored to the needs of project beneficiaries; • providing climate services and information; and, • monitoring and evaluating beneficiaries' use and effectiveness of climate information and services with a view to scaling up. ANAM will be the responsible partner for the output 1.1 and 1.4
Directorate General of Water Resources (DGRE)	The DGRE is responsible for the operation and maintenance of a hydrological monitoring network in the Nakambé basin. Within the project framework, through its technical directorate, the DEIE, DGRE will be able to: • continue operationalization of the national water information system (SNIEau); • monitor and communicate regarding extreme events in real time (floods, droughts, etc.) for decision-making; • develop, in synergy with ANAM, a local early warning model (floods/droughts); • develop and periodically disseminate water information products; • contribute to updating water statistics; • support the partner structures to establish and promote, at the national level, a water information and monitoring system, uses, water-related risks, and water needs of the environment; • contribute to leading the environmental unit; and, • support all central and deconcentrated structures and all other actors in water resource management.
General Directorate of Hydraulic Infrastructures	The DGIH is responsible for studying, carrying out and/or rehabilitating hydraulic works (dams and reservoirs) for the benefit of the basin's population.

Stakeholder identified	Relevant roles
(DGIH)	Within the project's framework, the DGIH, through its technical department, will support vulnerable communities to build/rehabilitate dams and other associated infrastructure.
PS/IWRM	The IWRM Permanent Secretariat (PS) is responsible for IWRM implementation at the national level. Under the project, PS/IWRM could capitalize on the positive achievements made throughout the project implementation process. It will provide technical, material and financial support to central or deconcentrated technical structures and project stakeholders. Last, it could also initiate training actions on IWRM and related topics.
National Office of Water and Sanitation (ONEA)	ONEA is responsible to produce and distribute water in urban and semi-urban centres from underground (boreholes) or the water (dams). It is particularly involved in the Ziga (200 million m3), Loumbila (35 million m3) and Dem (4 million m3) dams, which are all in the project area. Under the project, it will play an important role in implementing activities linked to the protection of the waters and banks of these important water bodies.
UNCDF	The experience of UNCDF in the involvement of the private sector and the conduct of in-depth studies will be very valuable as lessons learned and building blocks to some of the activities, in particular under the output 2.4. In view of the potential for partnerships, the project team will work closely with UNCDF to develop synergies and consider UNCDF in the role of responsible partner.
NGOs and civil society, including organizations and the Associations of Women of Burkina Faso	NGOs such as the Women's Environmental Programme-Burkina Faso and Associations of Women of Burkina Faso will cooperate actively with the project during implementation. Their key aim is to protect and the promote environment, while addressing gender inequalities on issues relating to the environment and women's economic and social rights, among other objectives. Their role is to provide an interface between ministerial stakeholders and communes. The role of NGOs and civil society will be fundamental throughout the project, particularly in training and awareness-raising, and in the emerging partnership between the public and the private sector. They will also play a key role in disseminating climate products and services, including alerts, thereby mainstreaming gender equity and sharing project experiences. The project will also identify community organizations from the communes where the project will be implemented, including youth organisations.
Community grassroots organizations and agricultural associations	They are the main beneficiaries of the project services, since the project focuses on community-based management of climate risks. Grassroots community organizations will be the cornerstone of the production of the services and products of the entire project.
Private sector organizations	Insurance companies: Further discussions will be held with insurance companies (for example, Colina, Sonar, Générale des Assurances and UAB) to identify their interests in climate risk, micro-insurance, microfinance and weather information. Risk hazard maps may be of interest to insurance companies for more accurate premiums and payout calculations. Mobile phone companies: Telmob, Telecel and Zain may be interested in providing weather forecasts over the phone. Hydropower industry: SONABEL, ONEA and VBA are likely to use EWS alerts given their need to operate turbines and reservoirs based on extreme weather performance. Agro-businesses: the cotton and sugar industries (including, for example, SOFITEX and SOSUCO, respectively) may be interested in agromet advisories for drought onset, extreme rainfall events or irrigation scheduling, Technology companies (fintech, agritech, etc.):

4.4. Gender equality and women's empowerment:

71. The project will ensure the participation of the most vulnerable groups, including women, in the implementation process. Women and young people will be the main beneficiaries of the investments. To ensure the participation of the most vulnerable groups during project implementation, a gender analysis in the target communes and a detailed Gender Action Plan (included as **Annex 10**) were developed. Specific gender-

disaggregated indicators will be used for monitoring and a gender specialist will intervene during project implementation to facilitate improvements to gender equality and women's empowerment.

72. In most Burkinabe communities, a patriarchal system dominates and dictates production. Women and children are simply seen as productive assets or, simply, an unpaid workforce that does not participate in decision-making. In addition, men are migrating increasingly to urban centres to find new income that will fill the gap caused by the reduced productivity of their previous livelihoods, leaving women responsible for the household.

73. The gender analysis has identified several factors that hinder the effective participation of women in the adaptation and resilience enhancement process: women in the Nakambé basin are the primary victims of floods and droughts; their income from forest resource exploitation is low; and, they have very limited access to production, human capital, financial and extension services, equipment, agricultural inputs, technologies, and credits. These factors place a significant constraint on women's productivity. Lack of access to credit disadvantages women and young people in particular as they have difficulty finding mortgages to guarantee those credits. Indeed, women in the Nakambé basin have extremely low access to credit to develop forest resource-based income-generating activities and to support the development of value chains.

74. This is the context in which the project outcomes were designed and will contribute to understanding how adaptation responses can strengthen gender equality. More specifically, women's and youth groups will receive priority for training and technical assistance to acquire the skills and tools to develop small-scale adaptive livelihoods. This includes training women and men in agriculture, forestry and fishery techniques, such as building irrigation systems and cultivating high-value crop varieties (Outcome 2). Furthermore, the project will implement other activities, such as disseminating seasonal climate forecasts and advisories (including SMS-based protocol), which will target primarily women's groups in the communes. Women's groups will lead ecosystem-based approach activities in the five target communes; specifically, running nurseries for seedling production (Output 2.1). In collaboration with the rural extension services and DRAAH, smallholder farmer groups/cooperatives/women will multiply locally specific, climate-resilient varieties of drought- and flood-resistant seeds (Output 2.3). Finally, specific grants to be awarded to local CLEs will give priority to local women vegetable producers' microenterprises. By implementing this range of activities, the project seeks to mainstream gender issues and contribute to women's empowerment in the Nakambé basin.

4.5. South-South and Triangular Cooperation (SSTrC):

75. Learning opportunities and technology transfer from peer countries will be explored further during project implementation. To present opportunities for replication in other countries, the project will codify good practices and facilitate dissemination through South-South and global platforms, such as the Africa Solutions Platform, the UN South-South Galaxy knowledge sharing platform and PANORAMA.[33]

76. In addition, to bring Burkina Faso's voice to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on risk reduction and integrated flood and drought management. The project will also provide opportunities for regional cooperation with countries implementing risk reduction and integrated flood and drought management initiatives in geopolitical, social and environmental contexts relevant to the proposed project in Burkina Faso.

77. The project will implement parallel activities in the Nakambé basin with the Flood and Drought Volta project. This project will assist six countries (Benin, Burkina Faso, Côte d'Ivoire, Ghana, Mali and Togo) to implement coordinated and joint measures to improve their existing management plans at the regional, national and local levels and to build on the lessons learned from past and current projects related to disaster risk reduction and climate adaptation.

[33] https://panorama.solutions/en

78. Furthermore, the project will promote South-South cooperation with other countries in the region that are implementing similar initiatives. Under Outcome 2, the project will explore two options. One will involve exchanges with UNDP-supported projects in the region that also include innovative financing mechanisms (UNDP is working on similar initiatives in Senegal and Chad). This could be achieved through exchange workshops with the Country Offices and UNDP Regional Service Centre for Africa. The other will build on the Great Green Wall for the Sahara and the Sahel Initiative (GGW) programme, by sharing interdisciplinary and traditional knowledge, to be gathered in the forestation and afforestation activities with other participating countries (including Mali, Niger, Nigeria, Senegal and the Gambia).

79. SSC will also be achieved through the UNCDF network in Africa. UNCDF has an increasing experience in Africa on the expansion of the financial sector for vulnerable communities. A large amount of lessons learned have been collected by UNCDF and will be shared with the project through the strong coordination developped between the PARI project and the Réclim project.

4.6. Innovativeness, Sustainability and Potential for Scaling Up:

80. This Réclim project will build on the recently closed UNDP LDCF EWS project - particularly Outcome 1 - by enhancing the capacity of ANAM, DGRE, DG-AEN, AGROMET and communities via several additional training and capacity development initiatives that require minimum equipment installation. All these activities will be automatically absorbed by the existing institutional framework. Specifically, the project will support these national institutions to strengthen their engagement in collecting, analysing and disseminating hydro-climatic information. This will be achieved through technical assistance to strengthen public policies on EWS and a series of trainings on (i) collecting, analysing and disseminating hydro-climatic information and issuing alerts through appropriate channels; (ii) using and applying forecasting models; and, (iii) the impacts and risks of climate change. In addition, SOPs designed under the UNDP LDCF EWS will be strengthened to ensure coordination among the different levels (regional to local) and, thus, respond efficiently to alerts. The increased understanding of these systems and their need, combined with improved coordination among the key actors at the local level in the Nakambé basin, will ensure that useful hydro-climatic information is disseminated efficiently and over the long term, and the gaps of the UNDP LDCF EWS will be taken into account to increase the sustainability of the interventions.

81. The ecosystem-based approach, including reforestation and afforestation and the characterization and dissemination of climate-resilient adapted seeds, to be implemented under Outcome 2 will be supported by capacity-building activities to strengthen the ownership and institutionalization of these measures at the local level. This will ensure the long-term viability, sustainability and scaling up of the adaptation actions across the Nakambé basin. Strengthening the overall expertise of decentralized government staff on vulnerability and climate risk management will facilitate the scaling up and dissemination of the tools for integrating adaptation into the development process. The establishment of 'inclusive' value chains and increased value addition for key crops included in Outcome 2 is in line with the GoBF's strategy and priorities to increase local production and reduce post-harvest losses. This initiative, combined with increased access to credit through microfinance and microinsurance products, will scale up the effects of this initiative and further strengthen the ownership and future sustainability of the proposed adaptation options.

82. Innovative approach will be tested in the Nakambé Basin, building on the existing opportunities in Burkina Faso, such as the development of mobile money, and more broadly the development of mobile use and network coverage. The development of PPPs will be explored to improve access to climate and agromet information and advice as well as market information using mobile phones. The different trainings and sensitization workshops for vulnerable communities will also give the opportunity to grant and credit beneficiaries under outputs 2.2 and 2.4 to develop innovative practices for improved and more resilient livelihoods.

83. The project will also conduct cross-community peer review, learning and sharing mechanisms to support replication and up-scaling in other vulnerable communities, as well as exchange visits and knowledge experience sharing for the capacity-building activities. The project will also collaborate closely with UNCDF, which has

extensive experience in promoting the private sector in Burkina Faso, as well as increasing access to microfinance for vulnerable communities, in particular women.

4.7. Cost efficiency and effectiveness:

84. Cost efficiency of the project will be achieved through close collaboration and partnerships with ongoing initiatives These partnerships are presented in section IV.

85. The LDCF project activities under the Outcome 1 will build on existing networks, achievements and planned actions by ANAM, DGRE, DG-AEN. This will allow institutional capacity to be built cost-effectively, which will ultimately assist in planning and implementing the flood forecast and early warning service for the Nakambé Basin. The LDCF project will also work closely with existing ANAM and DGRE projects and promote cost shar-ing with other on-going projects, reducing overheads and enhancing cost-effectiveness.

Outcome 1:
An alternative to outcome 1 would be to strengthen the current post-disaster response plans put in place, which are reactive rather than preventive. This would involve strengthening the capacity of authorities to react faster and more efficiently in case of climate hazard. This approach does not address the root causes and is considered less cost-effective considering the resources and the time needed to address the impact of a disaster. Impacted communities will have to cover the cost of the losses, in particular farmers will have to address the loss of their livelihoods while waiting for support from the exisiting reactive system – if any support. The approach proposed by this LDCF project provides an opportunity to address the root causes of vulnerability in the Basin (economic, institutional and environmental) by offering a preventive strategy, thereby avoiding human and material losses and achieving lasting impact in the selected sites and at national scale.

Under outcome 2, alternatives were considered for some of the outputs as follows:
Under output 2.1, a focus was put on EbA measures, which are expected to have longer term impacts in terms of adaptation, as compared to gray infrastructures, especially given the existing information gaps and uncertainties around localized risk projections. The role of forests has long be recognized as critical for the fight against erosion, in addition to providing increasing benefits over the years (through their NTFP, the soil regeneration, etc.). Even though communities might sometimes consider gray infrastructures as more effective due to the immediate benefits, the PPG team has opted for more sustainable solutions, combined with awareness raising to ensure the engagement of local populations.

Under output 2.2, the PIF had initially identified CLEs as the most adequate stakeholder for the provision of livelihood grants to local communities. The PPG team observed during field visit and stakeholder consultations that CLEs are not present in all the targeted communities and that CCCos would be more appropriate to support this output. To the extent possible, CLEs will be included into CCCos and will provide technical guidance for the output delivery.

Under the output 2.4, alternative options included the development of fair trade for some high value products with potential market in Ouagadougou or even internationally (ie. shea butter, hibiscus, mangoes). In particular, the work from UNCDF is strongly supporting the development of the private sector and has recognized the opportunities for fair trade. However, based on consultations with communities and the realities in these highly vulnerable communities, some innovative approaches cannot realistically and sustainably be introduced at this stage, until a more enabling environment is created, with important domestic value chains for local food security and livelihoods. Future programming might therefore support more innovative interventions.

V. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): ***Goal 5*** *Achieve gender equality and empower all women and girls;* ***Goal 6*** *Ensure availability and sustainable management of water and sanitation for all;* ***Goal 10*** *Reduce inequality within and among countries;* ***Goal 11*** *Make cities and human settlements inclusive, safe, resilient and sustainable;* ***Goal 13*** *Take urgent action to combat climate change and its impacts; and* ***Goal 15*** *Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.*

This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD):

Related UNDAF Outcomes: Outcome 3.2 By the end of 2020, populations, especially young people and women in the intervention areas (urban / rural) increase their income, adopt sustainable production and consumption patterns and improve their food security ; Outcome 4.2 By 2020, populations, especially vulnerable groups, in target areas are more resilient to climatic and environmental shocks

Related CPD Outputs: Output/2.4: Local communities in the Sahel, Mouhoun, Central North, Central-South and Central West enabled to apply sustainable and climate-adapted agricultural techniques

	Objective and Outcome Indicators	Baseline	Mid-term Target	End of Project Target
Project Objective: To increase the resilience of Nakambé basin communities by safeguarding lives and livelihoods from droughts and floods	**Indicator 1:** Number of direct project beneficiaries (men and women farmers, forest and agricultural labourers/herders, men and women in value chains and entrepreneurs) benefiting from livelihoods created or improved in relation to sustainable natural resource and ecosystem management, disaggregated by gender.	*0*	33,099 (50% women)	≥100,000 (50% women)
	Indicator 2: Number of communes that develop ecosystem-based measures for sustainable natural resource management.	*0*	Two communes develop ecosystem-based measures for sustainable natural resource management.	Five communes develop ecosystem-based measures for sustainable natural resource management.
Component 1 Outcome 1: Enhanced national capacity, enabling communities to benefit from climate and hydrological information/services for extreme climate risk management in the Nakambé basin.	**Indicator 3:** Frequence of forecasting products and Agromet advisory products issued specifically to Nakambé basin communities.	Currently *no* forecasting product and Agromet advisory product is issued specifically to Nakambé basin communities.	Forecasts are issued daily and Agromet advisory products are issued every 10 days, specifically targeting Nakambé basin communities.	Forecasts are issued daily and Agromet advisory products are issued every 10 days, specifically targeting Nakambé basin communities.
	Indicator 4: Number of AWS that transmit data to strengthen ANAM, DGRE and Agric NOWCAST forecasting and development of early warning and advisory products.	Five synoptic stations transmitting; 17 agromet and weather stations transmitting manually; 35 automatic rainfall stations manually operative.	17 Agromet and weather stations are transmitting automatically; 35 automatic rainfall stations are operating automatically and transmitting data.	21 Agromet and weather stations are transmitting automatically; 45 automatic rainfall stations are operating automatically and transmitting data.

Component 2 Outcome 2: Climate risk management through EbA and sustainable livelihoods practices adopted by smallholder farmers.	**Indicator 5:** Total land area that benefits from the project's forestation and afforestation interventions.	*0*	20 ha in Absouya Communal Forest; 100 ha in Korsimoro Nakambé Classified Forest; 20 ha in Ladwenda wood energy; 20 ha in Bissiga wood energy.	45 ha in Absouya Communal Forest; 250 ha in Korsimoro Nakambé Classified Forest; 45 ha in Ladwenda wood energy; 45 ha in Bissiga wood energy.
	Indicator 6: Number of women and youth microenterprises mobilize local savings (from saving groups or MFIs) for adaptive livelihoods.	*0*	50 micro-enterprises	250 micro-enterprises

VI. MONITORING AND EVALUATION (M&E) PLAN

86. The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored annually and evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. The Monitoring Plan included in Annex details the roles, responsibilities, frequency of monitoring project results.

87. Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP and UNDP Evaluation Policy. The UNDP Country Office is responsible for ensuring full compliance with all UNDP project monitoring, quality assurance, risk management, and evaluation requirements.

88. Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[34]. The costed M&E plan included below, and the Monitoring plan in Annex, will guide the GEF-specific M&E activities to be undertaken by this project.

89. In addition to these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed during the Project Inception Workshop and will be detailed in the Inception Report.

Additional GEF monitoring and reporting requirements:

90. Inception Workshop and Report: A project inception workshop will be held within 60 days of project CEO endorsement, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
c. Review the results framework and monitoring plan.
d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
g. Plan and schedule Project Board meetings and finalize the first-year annual work plan. Finalize the TOR of the Project Board.
h. Formally launch the Project.

GEF Project Implementation Report (PIR):

91. The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. Any environmental and social risks and related management plans will be monitored regularly, and progress will be reported in the PIR. The PIR submitted to the GEF will be shared with the Project Board. The quality rating of the previous year's PIR will be used to inform the preparation of the subsequent PIR.

[34] See https://www.thegef.org/gef/policies_guidelines

Knowledge management:

92. The project team will ensure extraction and dissemination of lessons learned and good practices to enable adaptive management and upscaling or replication at local and global scales. Results will be disseminated to targeted audiences through relevant information sharing fora and networks. The project will contribute to scientific, policy-based and/or any other networks as appropriate (e.g. by providing content, and/or enabling participation of stakeholders/beneficiaries).

93. More specifically, and in conformity with the GEF Knowledge Management strategy[35], the project will ensure lessons learned from this project are captured and capitalized and the knwoledge from other projects is also used in this project. In particular, the Table 2 (Potential synergies with current projects in Burkina Faso) and Table 3 (Stakeholder matrix) give a good overview of the projects and institutions from which knowledge can be collected and used. The first task of the communication and Knowledge Management expert, as per its ToR is to "Develop a project communications strategy / plan, incorporate it with the annual work plans and update it annually in consultation with project stakeholders; coordinate its implementation work closely". A careful attention will be given not to reproduce gender-biases in communication documents. This will follow the 7 areas of focus of the GEF KM strategy, and will be continuous throughout the project[36]:

94. Moreover, the Great Green Wall Initiative for the Sahara and the Sahel (GGWISS) is already carrying out actions on the ground which would benefit from being capitalised on before the effective start of the project. This is why a meeting will be organised between the project actors and GGWISS before the start of the project. This meeting will ensure a synergy of actions for more visibility and complementarity. This will take into account other ongoing initiatives, the establishment of climate information systems, and the improvement of the data sharing system between institutions. The conclusions of the meeting will be consolidated in a report that will be transmitted to the project management team for consideration during the implementation of the projec

Area of focus of the KM strategy	**Responsibility**	**Additional details on the strategy**
Overview of existing lessons and best practice that inform the project concept	Project formulation team PCU (including Communication and KM expert)	The project formulation team and UNDP have supported the identification of existing and past project that are aligned with the LDCF RECLIM project. The list will be updated at the inception of the project. Consultations with the stakeholders of the projects (in particular project coordinators) will be conducted to seek areas of synergies and integrate lessons learned into the project workplan and activities.
Plans to learn from relevant projects, programs, initiatives & evaluations	PCU (including Communication and KM expert)	The Communication and KM expert will formulate a detailed plan for the introduction of lessons learned from identified projects in Burkina Faso. The expert will also explore lessons learned from similar initiatives in the sub-Saharan region.
Proposed processes to capture, assess and document information, lessons, best practice & expertise generated during implementation	PCU (including Communication and KM expert)	Five UNVs are recruited as part of the project and will be based in the 5 targeted communes for the continuous monitoring and the collection of information, best practices and expertise generated during the implementation.

[35] https://www.thegef.org/sites/default/files/events/Knowledge%20Management%20Requirements%20Jan-2020.pdf

[36] The strategy is based on the presentation on GEF KM requirements https://www.thegef.org/sites/default/files/events/Knowledge%20Management%20Requirements%20Jan-2020.pdf

		Options to use innovative Information and Communication Technologies (ICT) for a more accurate, transparent and regular monitoring will also be explored by the communication and KM expert. In particular, companies like Sealr[37] can support the monitoring and documentation of the different rehabilitation activities under output 2.1, allowing the PCU and UNDP to precisely observe the developments, swiftly identify issues and provide a timely response. In the process, the app would provide the PCU and UNDP with content for communication campaigns, reduce cost related to on-site monitoring, and improve the sustainability of projects by ensuring M&E during times of travel restrictions (whether security-related or health-related as experienced during COVID19). An app could also support output 2.2 with the documentation and verification that grants are reaching the intended target group and that the projects funded under the call for proposal are effectively monitored at low cost.
Proposed tools and methods for knowledge exchange, learning & collaboration, including knowledge platforms and websites	PCU (including Communication and KM expert) Communication officer in the UNDP CO and UNDP regional office	Content will be prepared to populate the project website and UNDP's adaptation platform. The PCU will participate to national, regional and global events to present the results of the project and the lessons learned. As mentioned above, innovative ICTs can be used to access regularly updated content for knowledge exchange and communication. The project could equip voluntary beneficiaries with the needed knowledge and tools (ie. smartphones) for an effective communication on project results. The field based UNVs will complement the information during their field visits.
Proposed knowledge outputs to be produced and shared with stakeholders	Communication and KM expert	This will be further defined by the communication and KM expert during the implementation of the project but it will include (i) articles to be shared on national and international platforms (newspapers, websites…), (ii) short and easy to understand publication for local beneficiaries on the project and expected/realized impacts, (iii) tool guides for decision-makers, including lessons learned from the project, (iv) visual content such as videos to showcase the project results during national and international events (ie. Environment days, CoPs, UN biodiversity conferences)
Discussion on how knowledge and learning will contribute to overall project/program impact and sustainability	PCU	During the preparation of the annual workplan, a session will be specifically dedicated to the presentation of lessons learned over the previous years of implementation, and will include in-depth discussions on how these lessons

[37] Sealr is a mobile application and dashboard database to: (i) Remotely monitor projects through verified imagery and videos, (ii) Conveniently receive credible documentation of ground realities (iii) Enable beneficiaries to report on the impact to local communities of project interventions (iv) Analyze in real time on project developments through a mappable and searchable dashboard (v) Track items and packages over time with logo, QR code and text-recognition technology (vi) Allow monitoring and reporting in countries with erratic and unstable internet (vii) Improve project management through an easy-to-use and adopt tool with low environmental impact.

		learned can be fully embedded into the upcoming AWP to maximize the project benefits. This discussion will also be conducted with the MTR and TE teams, with a specific focus on the sustainability of the activities. The filling of the PIR will also give the opportunity, at mid-year, to review the effective introduction of lessons learned into the activities. The introduction of ICT like Sealr, would provide a strong framework for the identification of new knowledge and lessons learned (including challenges and failures). In addition, such technologies can offer a reliable redress mechanism that would be in the hands of the beneficiaries and would enable a timely response and the storage of practices adopted to address the case.
Plans for strategic communications	PCU (including Communication and KM expert)	This will be discussed during the project implementation as opportunities arise to contribute to strategic communications. However, by contributing to the NDC and other strategic policies of the government, the results of the project will be included in communication regarding the achievement of national climate objectives.

95. S/he will work with the M&E specialist on knowledge management aspects of the project. Processes such as the PIRs and MTR will be important tools to understand the knowledge generated by the project. The roles of the M&E specialist and Communication and KM expert are detailed in the ToRs available in Annex 8.

LDCF Core Indicators:

96. The LDCF Core indicators included as Annex will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the indicator status. The updated monitoring data should be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website. If relevant to the project: The required Protected Area Management Effectiveness Tracking Tool (METTs) have been prepared and the scores include in the GEF Core Indicators.

Independent Mid-term Review (MTR):

97. The terms of reference, the review process and the final MTR report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC).

The evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired by UNDP evaluation specialists to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the consultants should not be in a position where there may be the possibility of future contracts regarding the project under review.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate.

The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC by August 27, 2025. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's completion.

Terminal Evaluation (TE):

98. An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance prepared by the UNDP IEO for GEF-financed projects available on the UNDP Evaluation Resource Center.

The evaluation will be 'independent, impartial and rigorous'. The consultants that will be hired by UNDP evaluation specialists to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the consultants should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from the UNDP-GEF Directorate.

The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by November 27, 2027. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report's completion.

Final Report:

99. The project's terminal GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

100. Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information**:** To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy[38] and the GEF policy on public involvement[39].

Monitoring and Evaluation Plan and Budget:			
GEF M&E requirements	**Responsible Parties**	**Indicative costs (US$)**	**Time frame**
Inception Workshop	Implementing Partner Project Manager	Total: 30,000	Within 60 days of CEO endorsement of this project.
Inception Report	Project Manager	None	Within 90 days of CEO endorsement of this project.
Monitoring of indicators in project results framework	Project Manager will oversee national institutions/agencies charged with collecting results data.	Per year: 5,000 (Gov. contribution /staff time) Total: 25,000	Annually prior to GEF PIR. This will include GEF core indicators.
GEF Project Implementation Report (PIR)	Regional Technical Advisor UNDP Country Office[40] Project Manager	None[15]	Annually typically between June-August

[38] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

[39] See https://www.thegef.org/gef/policies_guidelines

[40] Or equivalent for regional or global project

Monitoring and Evaluation Plan and Budget:			
GEF M&E requirements	**Responsible Parties**	**Indicative costs (US$)**	**Time frame**
Monitoring all risks (Atlas risk log)	Project Manager	None	On-going.
Monitoring of ESMP and Biodiversity Action Plan	Project Safeguards Officer	20,000	On-going.
Monitoring of stakeholder engagement plan	Project Stakeholder Engagement Officer	Paid through Component 1 and 2 (M&E expert and Project Manager)	On-going.
Monitoring of gender action plan	Project Gender Officer	Gender-based activities are included in the project budget of Components 1 and 2	On-going.
Supervision missions	UNDP Country Office14[14]	None[41]	Annually
Oversight missions	UNDP-GEF RTA and UNDP-GEF Directorate	None[15]	Troubleshooting as needed
Mid-term LDCF Core indicators	SP/CNDD M&E specialist	*USD 10,000*	*Before mid-term review mission takes place.*
Independent Mid-term Review (MTR)	Independent evaluator	*USD 80,000*	November 16th, 2025
Terminal *LDCF* Core indicators	SP/CNDD M&E specialist	*USD 10,000*	Before terminal evaluation mission takes place
Independent Terminal Evaluation (TE)	Independent evaluator	USD 50,000	May 16th,2028
TOTAL indicative COST		*225,000*	

[41] The costs of UNDP CO and UNDP-GEF Unit's participation and time are charged to the GEF Agency Fee.

VII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities of the project's governance mechanism:

101. Implementing Partner: The Implementing Partner for this project is the SP-CNDD, under the Ministry of Environment, Energy, Water and Sanitation (MEEEA). The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

102. The project will be implemented following UNDP's national implementation modality, according to the Standard Basic Assistance Agreement between UNDP and the Government of Burkina Faso, and the Country Programme.

103. The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

104. The implementing partner is responsible for:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Risk management as outlined in this Project Document;
- Procurement of goods and services, including human resources;
- Financial management, including overseeing financial expenditures against project budgets;
- Approving and signing the multiyear workplan;
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report of the funding authorization and certificate of expenditures.

105. Responsible Parties: The SP-CNDD will execute the project nationally in close collaboration with the National Meteorological Agency (Agence Nationale de la Meteorologie, ANAM), The Directorate General of Water Resources (DGRE), Nakanbe Water Agency (DG-AEN), The Ministry of Agriculture and Hydraulic Facilities (MAAH), The National Emergency Relief and Rehabilitation Council (SP-CONASUR) and the Directorate General of Civil Protection (DGPC) as responsible parties, as well as the NGO's & CBO's collaborating in local level pilot interventions of the project in selected pilot communities of Kaya, Zitenga, Ziniaré, Absouya and Korsimoro in the provinces of Oubritenga and Sanmatenga.

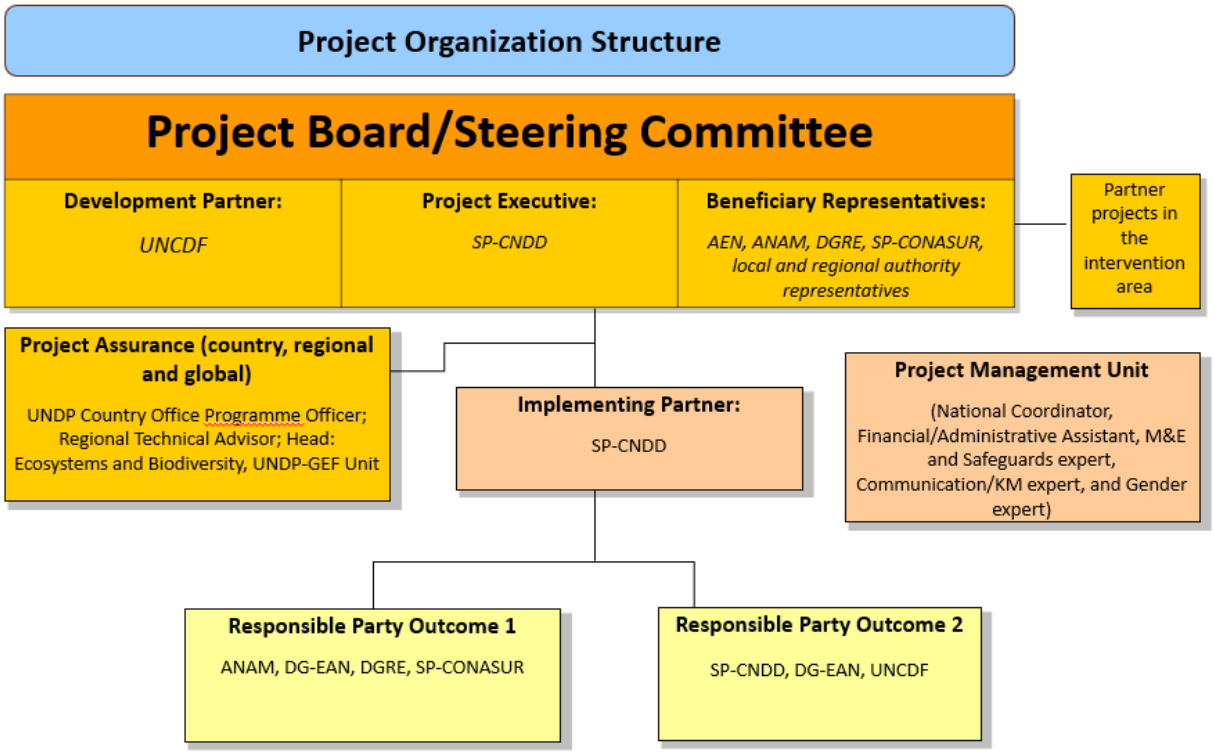
106. The National Council for Sustainable Development (CNDD) will act as key coordinator for the overall project and implement activities related to Output 2.1 particularly those related to ecosystem-based approach, as well as leadership for activities in Components 2 in close partnership with MAAH (Output 2.3), DG-AEN (Output 2.2) and UNCDF (Output 2.4). The National Meteorological Agency (Agence Nationale de la Meteorologie, ANAM) in straight collaboration with The Directorate General of Water Resources (DGRE), will lead the activities in Output 1.1 and 1.4 in conjunction with DG-AEN. These three institutions (ANAM, DGRE & DG-AEN) will cooperate with SP-CONASUR and DGPC who will lead in the delivery of the specific activities in Output 1.3 (SP-CONASUR as the responsible partner). Finally, DG-AEN will be the responsible partner for the implementation of activities under Output 1.2 with the necessary support from ANAM, DRGE and CNDD. The matrix of partnership and collaborations envisaged for the implementation of the various Outputs and Activities is shown in the Table below.

Leading Responsible Parties	Outcome	Output	Close Partnership	Support from
ANAM	1	1.1	DGRE & DG-EAN	SP-CONASUR
DG-EAN	1	1.2	ANAM &DGRE	CNDD
SP-CONASUR	1	1.3	ANAM &DGRE	CNDD & DGPC
ANAM	1	1.4	DGRE & DG-EAN	SP-CONASUR & DGPC
SP-CNDD	2	2.1	DG-EAN	DGRE
DG-EAN	2	2.2	SP-CNDD	MAAH
DG-EAN	2	2.3	MAAH	ANAM
DG-EAN	2	2.4	SP-CNDD	MAAH

107. Project stakeholders and target groups: The CCCos will be the platform at the local level to give local partners the opportunity to give recommendations regarding project management, including implementation of plans and project reviews /evaluation, and also to provide guidance on technical aspects of the project, including to consultants. In addition, at the local level, communities, local organizations, and the private sector will have an effective participation in decision-making as part of the landscape-level planning, in the development and negotiation of agreements, and dialogue for the development, promotion and implementation of practices for the sustainable management of forested areas and natural resources and environmentally sound production practices and biodiversity-friendly value chains in the Nakambé Basin. These arrangements will ensure the contribution of traditional knowledge in determining sustainable natural resource management measures as well as taking into account local rights, priorities and needs of communities in decision-making and planning processes. They will ensure the contribution of local actors to document / inform the outcome indicators that affect them. These consultations will play a central role in the process of prior dissemination of information regarding the project's interventions with local communities and the obtaining of consent agreements to participate in them, as well as in the reporting mechanism of incidents and grievances.

108. UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP is also responsible for the Project Assurance role of the Project Board/Steering Committee.

109. The project organisation structure is as follows:



110. The Project Board (also called Project Steering Committee) is responsible for taking corrective action as needed to ensure the project achieves the desired results. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

111. In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

112. Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
- Agree on project manager's tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded;
- Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;
- Ensure coordination between various donor and government-funded projects and programmes;
- Ensure coordination with various government agencies and their participation in project activities;
- Track and monitor co-financing for this project;
- Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
- Appraise the annual project implementation report, including the quality assessment rating report;
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- Review combined delivery reports prior to certification by the implementing partner;

- Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Address project-level grievances;
- Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
- Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest

113. The composition of the Project Board must include the following roles:

a. Project Executive: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive is: the SP-CNDD
b. Beneficiary Representatives: Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often civil society representative(s) can fulfil this role. The Beneficiary representative (s) is/are: *AEN, ANAM, DGRE, SP-CONASUR, local and regional authority representatives*
c. Development Partner: Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project. The Development Partners is UNCDF.
d. Project Assurance: UNDP performs the quality assurance role and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. UNDP provides a three – tier oversight services involving the UNDP Country Offices and UNDP at regional and headquarters levels. Project assurance is totally independent of the Project Management function.

Project extensions: The UNDP-GEF Executive Coordinator must approve all project extension requests. Note that all extensions incur costs and the GEF project budget cannot be increased. A single extension may be granted on an exceptional basis and only if the following conditions are met: one extension only for a project for a maximum of six months; the project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs will be covered by non-GEF resources; the UNDP Country Office oversight costs during the extension period must be covered by non-GEF resoruces.

Composition and operation of the executing body or project coordination unit

114. The role of the executing body is to coordinate the activities of the project, to ensure the mobilization and proper management of resources, to ensure the accountability of the beneficiaries, and to ensure the Secretariat of the consultation/dialogue framework of the project.

115. Under the direction of the Coordinator (ToRs available in Annex8), the executing body is composed as follows:

- An administrative and financial assistant (ToRs available in Annex8);
- 3 drivers;
- A full-time expert responsible for monitoring and evaluation and safeguards (ToRs available in Annex8);
- An expert on gender issues on a part-time basis (ToRs available in Annex8);
- An expert in communication and knowledge management on a part-time basis (ToRs available in Annex8).

VIII. FINANCIAL PLANNING AND MANAGEMENT

116. The total cost of the project is USD 24,564,389.45. This is financed through a LDCF grant of USD 4,416,210, USD 500,000 in cash co-financing to be administered by UNDP and USD 19,648,179.45 in other co-financing. UNDP, as the GEF Implementing Agency, is responsible for the oversight of the GEF resources and the cash co-financing transferred to UNDP bank account only.

117. Confirmed Co-financing: The actual realization of project co-financing will be monitored during the *mid-term review* and terminal evaluation process and will be reported to the GEF. Co-financing will be used for the following project activities/outputs:

Co-financing source	**Co-financing type**	**Co-financing amount**	**Planned Activities/Outputs**	**Risks**	**Risk Mitigation Measures**
UNDP	Cash	500,000	Staff costs and general operation expenses for quality assurance and oversight and support to NIM functions. Details are available in the budget notes.	No significant risk	N.A.
The Ministry of Agriculture and Hydraulic Facilities (MAAH)	Grant	10,289,091	Lac Bam project (with BOAD financing): • Strengthening the food resilience of communities with the support to production (market gardening) • Support to the the development and the promotion of NWHP and linking with the market • Support to the safeguard and restoration of classified forests, of river banks and associated ecosystems • Support to the stocking of water ponds and to good aquculture practices Project Neer-Tamba (with IFAD financing): • Strengthening the resilience of populations • Support to the development/promotion of NWHP and linking with the market • Support to the stakeholder organisation in a network	The late approval of the project and delays in the project start will lead to a project start after the close of the Lac Bam project.	The UNDP Country Office will monitor the co-financing contributions to the project

Nakambe Water Agency (DG-AEN)	Grant	912,310		No significant risk	The UNDP Country Office will monitor the co-financing contributions to the project
National Meteorological Agency (ANAM)	Grant	6,180,000	Africa Hydromet project (supported by the World Bank, with GCF financing): • Institutional development and capacity building for hydrometerology • Improve and strengthen the infrastructures and the EWS • Strengthen the dissemination services for the alerts to communities Strengthening National capacities for EWS service delivery (CREWS) • Strengthen ANAM and DGRE capacities for the maintenance of numerical databases, forecasts and climate and flood modelsto improve seasonal and non-seasonal forecasts • Support the development of the EWS • Develop ANAM institutional capacities Integrating flood and drought management and EW for CCA in the Volta basin • Establish a concertation and development framework for capacity development at the local, national and regional level for informed decision making • Through an integrated approach, develop sustainable and concrete adaptation actions Strengthen policies and institutional capacities for the integration of flood and drought management and the local, national and cross-border levels	No significant risk	The UNDP Country Office will monitor the co-financing contributions to the project

Agence Italienne pour la Coopération au Développement *Project for the strengthening of population's resilience to food insecurity in Centre Nord and Sahel (P2RPIA-CNS project).*	Grant	2,016,778.45	The project will support (i) land management, (ii) access to credit through MFI for IGAs, (iii) pastoral perimeters and (iv) the local governance of natural resources. This will provide lessons learned and cooperation opportunities for the Reclim project.	No significant risk	The UNDP Country Office will monitor the co-financing contributions to the project
UNCDF	Grant	250,000		No significant risk	The UNDP Country Office will monitor the co-financing contributions to the project
Total $		20,148,179.45			

118. Implementing Partner (IP) request for UNDP to provide country support services: The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of USD$ 15,810 for the full duration of the project, and the GEF OFP has agreed to this request. The GEF execution support letter (signed by the GEF OFP) detailing these support services is included in Annexes 17 (signed, in French) and 18 (not signed, in English). To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services (i.e. not done by same person to avoid conflict of interest). See latest guidance available from BPPS NCE-VF team.

119. Budget Revision and Tolerance: As per UNDP requirements outlined in the UNDP POPP, the project board will agree on a budget tolerance level for each plan under the overall annual work plan allowing the project manager to expend up to the tolerance level beyond the approved project budget amount for the year without requiring a revision from the Project Board. Should the following deviations occur, the Project Manager and UNDP Country Office will seek the approval of the UNDP-GEF team to ensure accurate reporting to the GEF: a) Budget re-allocations among components in the project with amounts involving 10% of the total project grant or more; b) Introduction of new budget items/or components that exceed 5% of original GEF allocation.

120. Any over expenditure incurred beyond the available GEF grant amount will be absorbed by non-GEF resources (e.g. UNDP TRAC or cash co-financing).

121. Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies.

122. Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

123. Operational completion: The project will be operationally completed when the last UNDP-financed inputs have been provided and the related activities have been completed. This includes the final clearance of the Terminal Evaluation Report (that will be available in English) and the corresponding management response, and the end-of-project review Project Board meeting. **Operational closure must happen with 3 months of posting the TE report to the UNDP ERC**. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. At this time, the relevant parties will have already agreed and confirmed in writing on the arrangements for the disposal of any equipment that is still the property of UNDP.

124. Transfer or disposal of assets: In consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project. In all cases of transfer, a transfer document must be prepared and kept on file[42]. The transfer should be done before Project Management Unit complete their assignments.

125. Financial completion (closure): The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).

126. The project will be financially completed **within 6 months of operational closure or after the date of cancellation**. Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to the BPPS/GEF Unit for confirmation before the project will be financially closed in Atlas by the UNDP Country Office.

127. Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/GEF Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF Trustee.

[42] See https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default.

IX. TOTAL BUDGET AND WORK PLAN

Total Budget Workplan			
Atlas Award ID	00115815	**Atlas Output Project ID**	00113228
Atlas Proposal or Award Title	Climate Reslience in the Nakambe Basin RECLIM		
Atlas Business Unit	BFA10		
Atlas Primary Output Project Title	Climate Reslience in the Nakambe Basin RECLIM		
UNDP GEF PIMS No.	5429		
Implementing Partner	SP-CNDD		

SOF (e.g. GEF)	Responsible / Implementing Party	Fund ID	Donor Name	Acc Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budg. Notes
OUTCOME 1:	**SP-CNDD**	**62160**	**LDCF**	71200	International consultant	-	30,000.00	30,000.00	-	-	**60,000.00**	1
				71300	Local Con-sultants	20,000.00	20,000.00	7,500.00	7,500.00	5,000.00	**60,000.00**	2
				71400	Contractual Services - Individual	24,000.00	59,000.00	39,000.00	24,000.00	19,000.00	**165,000.00**	3
				72100	Contractual Services - Companies	130,000.00	110,000.00	95,000.00	55,000.00	40,000.00	**430,000.00**	4
				72300	Materials and Goods	295,000.00	60,000.00	10,000.00	10,000.00	10,000.00	**385,000.00**	5
				74200	Audio Visual and Print Production Costs	2,000.00	2,000.00	2,000.00	2,000.00	2,000.00	**10,000.00**	6
				75700	Training, Workshops and Confer-ences	40,000.00	40,000.00	40,000.00	-	-	**120,000.00**	7

SOF (e.g. GEF)	Responsible / Implementing Party	Fund ID	Donor Name	Acc Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budg. Notes
				71600	Travel	6,000.00	11,000.00	11,000.00	11,000.00	6,000.00	**45,000.00**	8
				72200	Equipment and Furniture	6,500.00	6,500.00	6,000.00	6,000.00	335	**25,335.00**	9
				Total Outcome 1		**523,500.00**	**338,500.00**	**240,500.00**	**115,500.00**	**82,335.00**	**1,300,335.00**	
OUTCOME 2: Climate risk Management through Eco-system Based Approach (EbA) and sustainable livelihoods practices adopted by smallholder farmers.	**SP-CNDD**	**62160**	**LDCF**	71200	International consultant	-	15,000.00	30,000.00	15,000.00	-	**60,000.00**	10
				71300	Local Con-sultants	20,000.00	30,000.00	30,000.00	7,500.00	17,500.00	**105,000.00**	11
				72100	Contractual Services - Companies	359,500.00	299,500.00	289,500.00	239,500.00	35,000.00	**1,223,000.00**	12
				72300	Materials and Goods	40,500.00	25,175.00	25,175.00	25,175.00	7,675.00	**123,700.00**	13
				72600	Grants	120,000.00	150,000.00	100,000.00	-	-	**370,000.00**	14
				74200	Audio Visual and Print Production Costs	4,000.00	4,000.00	4,000.00	14,000.00	14,000.00	**40,000.00**	15
				75700	Training, Workshops and	60,000.00	15,000.00	15,000.00	15,000.00	15,000.00	**120,000.00**	16
				71600	Travel	11,000.00	11,000.00	11,000.00	11,000.00	11000	**55,000.00**	17
				72200	Equipment and Furniture	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	**25,000.00**	18
				71800	Contractual Services - Individual	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00	**90,000.00**	19
				71500	UN Volun-teers	85,095.00	85,095.00	85,095.00	85,095.00	85,095.00	**425,475.00**	20

SOF (e.g. GEF)	Responsible / Implementing Party	Fund ID	Donor Name	Acc Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budg. Notes
				Sub-total Outcome 2 GEF		**723,095.00**	**657,770.00**	**612,770.00**	**435,270.00**	**208,270.00**	**2,637,175.00**	
		4000	**TRAC**	72200	Equipment and Furniture	47,700.00	0.00	0.00	0.00	0.00	**47,700.00**	21
				Sub-total Outcome 2 TRAC		**47,700.00**	**0.00**	**0.00**	**0.00**	**0.00**	**47,700.00**	
Outcome 3: KM and M&E (as per Table B of CEO endorsement request)	**SP-CNDD**	**62160**	**LDCF**	71300	Local Consultants	4,000.00	4,000.00	54,000.00	4,000.00	54,000.00	**120,000.00**	22
				75700	Training and Workshops	35,000.00	5,000.00	35,000.00	5,000.00	5,000.00	**85,000.00**	23
				71800	Contractual Services - Individual	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	**20,000.00**	24
				Sub-total M&E		43,000.00	13,000.00	93,000.00	13,000.00	63,000.00	**225,000.00**	
				75700	Contractual Services - Individual	14,000.00	14,000.00	14,000.00	14,000.00	14,000.00	**70,000.00**	25
				Sub-total KM		14,000.00	14,000.00	14,000.00	14,000.00	14,000.00	**70,000.00**	
				Total Outcome 3 GEF		**57,000.00**	**27,000.00**	**107,000.00**	**27,000.00**	**77,000.00**	**295,000.00**	
PROJECT MANAGEMENT COSTS (PMC)	**SP-CNDD**	**62160**	**LDCF**	75700	Training and Workshop	8,000.00	8,000.00	8,000.00	8,000.00	8,000.00	**40,000.00**	26
				71400	Contractual Services - Individual	18,000.00	18,000.00	18,000.00	18,000.00	18,000.00	**90,000.00**	27
				74100	Professional Services	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	**20,000.00**	28

SOF (e.g. GEF)	Responsible / Implementing Party	Fund ID	Donor Name	Acc Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD)	Total (USD)	Budg. Notes
				72800	Info. Tech. Equip	3,000.00	3,300.00	2,800.00	2,800.00	2,800.00	**14,700.00**	29
				74596	Direct Proj Costs.	3,162.00	3,162.00	3,162.00	3,162.00	3,162.00	**15,810.00**	30
				72500	Office Sup-plies	1,000.00	690.00	500.00	500.00	500.00	**3,190.00**	31
				Sub-total PMC LDCF		**37,162.00**	**37,152.00**	**36,462.00**	**36,462.00**	**36,462.00**	**183,700.00**	
		4000	**TRAC**	71800	Contractual Services - Individual	48,600.00	48,600.00	48,600.00	48,600.00	48,600.00	**243,000.00**	32
				72200	Equipment and Furniture	88,500.00	18,500.00	18,500.00	18,500.00	18,500.00	**162,500.00**	33
				72500	Office Sup-plies	9,962.00	6,962.00	6,462.00	5,962.00	4,952.00	**34,300.00**	34
				74500	Miscellaneous	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	**12,500.00**	35
				Sub-total PMC TRAC		**149,562.00**	**76,562.00**	**76,062.00**	**75,562.00**	**74,552.00**	**452,300.00**	
				Total PMC		**186,724.00**	**113,714.00**	**112,524.00**	**112,024.00**	**111,014.00**	**636,000.00**	
				Total LDCF		**1,340,757.00**	**1,060,422.00**	**996,732.00**	**614,232.00**	**404,067.00**	**4,416,210.00**	
				Total TRAC		**197,262.00**	**76,562.00**	**75,062.00**	**75,562.00**	**74,552.00**	**500,000.00**	
				Total Project		**1,538,019.00**	**1,136,984.00**	**1,072,794.00**	**689,794.00**	**478,619.00**	**4,916,210.00**	

Summary of Funds

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Amount Year 5	Total
LDCF	1,340,757.00	1,060,422.00	996,732.00	614,232.00	404,067.00	**4,416,210.00**
UNDP	197,262.00	76,562.00	76,062.00	75,562.00	74,552.00	**500,000.00**
Government	3,929,635.04	3,929,635.04	3,929,635.04	3,929,635.04	3,929,639.28	**19,648,179.45**
TOTAL	**5,567,654.00**	**5,166,619.00**	**5,102,429.00**	**4,719,429.00**	**4,508,258.24**	**24,564,389.45**

Budget Notes

No.	Budget Notes
1	International consultant **– 60,000** All Consultancies costs below include travelling and DSA. • C – Early Warning and Disaster Management Expert to train and carry out revitalization of harmonized agreements and interagency protocols for operationalization of Warning dissemination in Nakambé Basin. @$30,000ea. Year 3. • IC – Meteo & Hydromet Maintenance Engineer - to support HPC upgrading and functioning and training and establishment of a systematic maintenance platform for the above for ANAM, DGRE, DG-AEN and the Civil Protection. @$30,000ea. Year 2.
2	Local Consultants – **60,000** All Consultancies costs below Include travelling and DSA. • LC - Agrometeorology Expert to support Agromet monitoring and Advisories activities for the Nakambé Basin. @$15,000. Spread over Years 1 & 2. • LC - Early Warning and Disaster Management Expert to support IC. @$15,000. Year 3. • LC - Expert for field data collection, to train and carry out Community Participatory Vulnerability Assessments (CPVA) @$15,000ea. Years 1, 3 and 5. • LC - Socio-economic development Expert – will give support to the development of multi-sectoral adaptation strategies and measures under the given climate scenarios for the 5 targeted communities. @$15,000. Years 3 & 4.
3	Contractual Services (Individual) to support ANAM, DGRE and DG-AEN on activities concerning the installation of all Automatic Weather Stations (AWS) and make arrangements for testing of remote transmission system to ANAM, DGRE and DG-AEN. @$**20,000**. Year 2 & 3. • Contractual Services (Individual) to undertake development of a DST, together with DG-AEN, to guide the selection and planning of appropriate adaptation options for the Nakambé Basin; Train the DG-AEN to formulate and analyse adaptation policy options; develop the multi-sectoral adaptation strategies and implement action plans. @$30,000. Year 3 & 4. • Contractual Services (Individual) to Conduct training for the DG-AEN and ANAM on the generation of climate projection and climate impact scenarios in the Nakambé Basin. @ $30,000. Year 2. • Contractual Services (Individual) to undertake vulnerability assessment for the Nakambé Basin and climate change impacts analysis for key sectors, communities, ecosystems and infrastructure. @ $20,000. Year 1 & 5. • Contractual Services (Individual) for assessment of sites and supporting installation of 5 AWS and 10 Rainfall gauges in Kaya, Zitenga, Ziniaré, Absouya and Korsimoro (equipment housing, security, personnel); @$5,000. Year 1. • Contractual Services (Individual) to gather local knowledge related to flash floods and the responses in case of extreme rainfall events in Kaya, Zitenga, Ziniaré, Absouya and Korsimoro to incorporated into the scientific knowledge of weather and climate forecasting. @ $15,000. Spread over Year 2 & 3. • Communication and KM specialist (50%). $1,500/month over 5 years. Total cost: @18,000/year over Year 1, 2, 3, 4 & 5. TOTAL: 45,000 (18,000*5y*0.5)
4	Contractual Services – Companies **430,000** • Hire Consultancy Services to support ANAM and DGRE in the rehabilitating all Automatic Data transmission systems and upgrading their Data base Handling Expert. @$30,000ea. Year 1 & 2. • Hire Consultancy Services in Hydrology to support DGRE in hydrological monitoring and the implementation of a Flood Forecasting and early warning system (FFEWS) for the Nakambé Basin. @$30,000. Year 1 & 2. • Hire Consultancy Services in GIS climate change modelling/risk and vulnerability assessment and mapping to support DG-AEN to undertake regional climate change scenarios using historical data/information and mapping of vulnerability and risk for the Nakambé Basin. @30,000. Year 1 & 2. • Hire Consultancy Services to carry out GIS climate change modelling/risk and vulnerability assessment and mapping for erosion risk mapping in the 5 priority sub-catchment. @$30,000ea. Spread over Year 1 & 2.

	• Hire Consultancy Services to set up an interactive user-friendly web portal for DG-AEN to disseminate vulnerability and risk mapping information. @ $30,000. Year 3. • Hire Consultancy Services to develop and/or operationalize Meteorology Application Software such as FrontlineSMS based MetApp) to enable users in the five vulnerable Communes of Kaya, Ziniaré, Zitenga, Absouya and Korsimoro to receive ANAM/DGRE climate information and products, including early warning messages and advisories for anticipatory planning. @ $30,000. Year 1 & 2. • Hire Consultancy Services to carry out Baseline study to update Baseline information, including RF indicators and targets at the start of the Project implementation @$60,000ea. Year 1. • Hire technical services to Install/strengthen/upgrade suitable fast and reliable telecommunication network via mobile phone (or optic fiber if possible) to ANAM, DGRE and DG-EAN existing (faulty) field equipment. @ $50,000. Year 2 & 3. • Hire Consultancy Services to establish a communication and institutional framework for the dissemination of climate information and tailored early flood and weather forecast to DG-AEN and Communities in the Nakambé Basin. @ $25,000. Year 3. • Operating Expenses for supporting SP-CONASUR to develop Early Warning Contingency Plans in the five targeted communities. @$25,000. Spread over Year 2 & 4. (Activity 1.3.5) • Operating Expenses for supporting SP-CONASUR, ONEDD and Civil Protection to conduct at least two drills per year. @$10,000. Spread over Year 3 & 5. (Activity 1.3.6) • Operating Expenses for supporting the strengthening of Local Community Radio stations to strengthen dissemination service to community in Kaya, Ziniaré, Zitenga, Absouya and Korsimoro. @$30,000. Spread over Year 2 & 5. (Activity 1.3.4) • Service providers for mobile communications and data transfer from ANAM, DGRE and DG-EAN. @$50,000. Year 1, 2, 3, 4 & 5
5	Materials and Goods 385,000 • Four (4) advanced workstations with PC for ANAM and DGRE for downscaling and forecasting purposes (hardware and software) and ensure connectivity (internet modems and access) @$10,000a. Year 1. • Procure and acquire five (5) complete Agromet (AWS) with transmission facility to be located at each of the four targeted Communes of Kaya, Ziniaré, Zitenga, Absouya and Korsimoro. @$85,000. Year 1 & 2. • Procure and acquire Two (2) Personal-sized clusters (e.g. Deskside clusters in chassis) to increase Climate and weather Data storage capacity at ANAM-HQ and DGRE-HQ. @$50,000. Year 1. • Procure and acquire Ten (10) Automatic Rainfall Stations with transmission (GSM/GPRS) capacity for DG-AEN. @$85,000. Year 1. • rocure and acquire Two (2) widescreen for interactive visualization of downscaled forecasting modeling products for ANAM and DGRE. @$5,000. Year 1. • Purchase/operationalize Hydrological modelling licenses (MikeBasin). @$25,000. Year 1. • Purchase/operationalize Meteorological modelling licenses (Limited Area Models WRF and COSMO). @$25,000. Year 1. • Purchase One (1) Automatic Plotter for ANAM forecasting activities with all ancillary components to connect HPC. @$5,000. Year 1. • Two (2) advanced workstations with PC for SP-CONASUR and Civil Protection to exchange and archive the data. Procure equipment (hardware and software) to ensure connectivity @$5,000ea. Year 1. • Purchase for DG-AEN: 2 advanced workstations to assist climate and river monitoring management; 1 Widescreen Monitor for data control and display; advanced GIS with facilities/tools/programme and software (ArcGIS 9.2 or higher and Spatial Analyst Extension if possible). @$20,000ea. Year 1. • Purchase for Civil Protection: boats, 5 VHF radios for communication and dissemination of disaster preparedness. @$20,000ea. Year 1 • Cost of service providers for mobile communications and data transfer from Nakambé Basin. @$50,000. Year 1, 2, 3, 4 & 5
6	Audio Visual and Print Production Costs **10,000** • Printing materials for at least 10 training workshops and awareness activities in target communities. @$10,000. Year 1, 2, 3, 4 & 5.
7	Training Workshops and Conferences **120,000** • Training costs of Seven (7) Hydrologists; Five (5) Civil Protection workers; Four (4) Maintenance technicians (within DG-AEN, ANAM, DGRE and SP-CONASUR); Ten (10) provincial government officers (at least 4 DG-AEN staff). @$120,000. Spread over Year 1, 2 & 3.

8	Travel **45,000** • Travel cost associated with activity implementation under Output 1. @$45,000. Year 1, 2, 3 4 & 5
9	Equipment and Furniture **25,335** • Procurement and acquisition of Office Tables, chairs, mobile phones, field cameras, GPS sets, computers, office general equipment (photocopying machines and scanners) and consumables for IPs Outcome 1. Total @$25,335. Spread over Year 1, 2 3 & 4.
10	International consultant - All Consultancy costs below include travelling and DSA. **60,000** • IC EbA Forestry Expert to support the implementation of afforestation, reforestation and agroforestry activities to increase infiltration and reduce erosion. **@$30,000ea**. Spread over Years 2 & 3. • IC - Training and Livelihood Expert to support the development, assessment and implementation of Climate Change Adaptation Investment Plans (CCA-IP). **@$30,000ea.** Spread over Years 3 & 4.
11	Local Consultants: **105,000** • LC for supporting the implementation of afforestation, reforestation and agroforestry activities to increase infiltration and reduce erosion. @$30,000ea. 2,3 • Specialist in Environmental and Social Impact Assessment to prepare an Environmental and Social Management Plan. Rate: $20,000 in the 1st year, paid as a lump sum based on the deliverables. • LC for Translation of MTR and TE reports into French. @$10,000. Year 5. • LC - Land Use and Soil Erosion Control Expert – to carry out training of community members in implementation of water and soil conservation measures and soil defense and restoration (CES / DRS) for land recovery and management. @$15,000ea. Spread over Year 2 & 3. • LC - Community Engagement Specialist to support development and dynamization of village forests, forest management and production/collection of NTFP resources. @$15,000ea. Spread over Years 3 & 4. • LC - Agriculture /Agronomist Expert to support IC in providing technical support and continuity in seed propagation and screening activities in the Nakambé Basin. @$15,000ea. Year 2 & 3.
12	Contractual Services – Companies **1,223,000** • Hire technical services to produce forestry seedlings and carry out forestation and afforestation activities for 385 ha (45 ha in Absouya - Communal Forest; 250 ha in Kor-simoro Nakambé - Classified Forest; 45 ha in Ladwenda - wood energy; 45 ha in Bissiga - wood energy). Total cost @$333,000. Year 1,2,3 & 4. • Hire technical services to support with heavy mechanization required in forestation and afforestation activities, such as the opening of trenches for water retention and minimize runoff, earth bounds, etc. and hire technical services to protect 50 km of river and lake bank around Dem Lake through PRD and local population work contribu-tion for ownership. Total cost @$150,000. Total cost Year 1,2,3 & 4. • Hire technical services to undertake development, assessment and implementation of Climate Change Adaptation Investment Plans (CCA-IP). Total cost @$30,000. Year 1 &2 • Hire technical services to support with seed provision, land preparation, husbandry including water provision, harvesting and storage for the activities concerning screening & uptake of locally specific, climate-resilient, varieties of drought- and flood-resistant seeds (particularly for sorghum, millet, maize and food crops) and establish Five (5) demonstration sites (one in each of the targeted communes), for in-situ characterization. Total cost @$50,000. 1,2,3 & 4. • Hire technical services to provide transport, rock, wood, labour, equipment and other material to support implementation of water and soil conservation measures and soil defense and restoration (CES / DRS) for land recovery and management in the five Communes. @$30,000. 1,2,3 & 4 • Hire technical services to establish, implement an effective and functioning dissemination mechanisms for seasonal climate forecasts and Advisories (through Community radios and SMS) to support the adequate use of climate-resilient seed in the Basin and extension outreach. Total cost @$30,000. Year 1 ,2 & 3. • Hire technical services to provide support through transport, equipment, infrastructure, training for effective and functioning local Produce Transformation to help local Women & Youths micro enterprises under CLEs to improve product processing capacity.@$30,000ea. Year 2 ,3 & 4. • Capital for MFIs willing to cooperate with offer of at least 3 adaptative financial services (including access to micro-credits, micro-insurance, marketing of products, manag-ing the value chains, mobile banking, etc.), to the communities, particularly focusing on women's and youth groups Total cost @$300,000. Year 1,2,3 & 4.

	• Hire technical services to develop an Environmental and Social Management Plan (ESMP) for the Nakambé Basin. Total cost @$90,000. Year 1. • Structuring women and young people in community enterprises positioned on the various links of identified value chains and high economic potential. Total @$140,000. spread over Year 1, 2, 3 & 5; • Structuring Community Enterprises to facilitate access to finance. Total @$40,000. spread over Year 1 & 2.
13	Materials and Goods **123,700** • *Seed packets of climate-resilient, varieties of drought- and flood-resistant seeds (particularly for sorghum, millet, maize and food crops) for dissemination.* ***@$20,000ea****. Spread over Year 1, 2, 3 & 4.* • *Agriculture inputs and supporting ancillary agriculture goods and materials for in-situ characterization and dissemination of climate-resilient, varieties of drought- and flood-resistant seeds.* ***@$20,000ea****. Spread over Year 1, 2, 3 & 4.* • *Material and equipment for production/collection of NTFP resources and value addition processing.* ***@$30,000ea.*** *Spread over Year 1, 2, 3 & 4.* • *Material and equipment for nutritive gardens. @30,000. Spread over years 1, 2, 3, 4 and 5* • Procure one mobile AWS for Meteo and Hydro field calibrations @ $17,000 and annual maintenance and spare parts reserve for the duration of the project @ 1,340 average/ year. **Total cost: 123,700.** Year 1, 2, 3, 4 and 5.
14	Grants **370,000** • Small Grants: to be provided to CLEs, to finance: (i) productive livelihood initiatives and other income generating activities; (ii) the set-up of micro enterprises; (iii) supportive farming infrastructures. @$**185,000**ea. Spread over Year 1. 2 & 3. • Small Grants: specific grant to be provide for CLEs to support local Women Vegetable Producers micro enterprises under CLEs. @$**185,000**ea. Spread over Year 1. 2 & 3. These two grants will be implemented for Output 2.2, on the basis of a proposal in response to a specific call for proposals. This will involve the launching of a call for proposals to be issued through DG-AEN for the CLEs in the five target communities, targeting women and youth in accordance with UNDP guidelines for low-value grants.
15	Audio Visual and Print Production Costs **40,000** • Cost of translation into local languages of film and leaflets, individual reports and other information and communication materials produced on climate risks and adaptation measures demonstrated in each of the 5 sites into local languages. @$**20,000**. Year 4 & 5. • Printing and audio-visual material (booklets and videos) @$**10,000**. Spread over Year 1, 2, 3, 4 & 5 • Cost of editing, printing and publishing protocols, maps, handbooks, policy and information briefs and/or guidelines. @$**10,000**. Year 1, 2, 3, 4 & 5.
16	Training, Workshops and Conferences **120,000** • Cost of training: Provide trainings/technical assistance to CLEs to develop, assess and implement CCA-IP. @$**10,000**. Year 1 • Conduct sensitization workshop for local communities on inadequate land management practices. $**15,000**. Y1 • Cost of training: Provide training on the establishment of nutritive gardens. @$**10,000**. Year 1 • Cost of training: Provide training to CLEs to support the implementation of adaptive livelihoods. @$**10,000**. Year 1 • Project Board Meetings. @$**45,000**. • National Conference for Final Project Results presentation and discussion at National Level. @$**30,000**. Year 5.
17	Travel **55,000** • Travel cost associated with activity implementation under Output 2. @$**55,000.** Year 1, 2, 3 4 & 5.
18	Equipment and Furniture **25,000** • Tables, chairs, mobile phones, field cameras, GPS sets, computers, office general equipment (photocopying machines and scanners) and consumables for IPs Outcome 2. @$**25,000**. Year 1, 2, 3 4 & 5

19	Contractual Services: 90,000 • Project Coordinator Salary (25%) . $3,000 /month over 5 years. Total cost: @$36,000/year over Year 1, 2, 3, 4 & 5. TOTAL: 45,000 (36,000*5y*0.25) • Communication and KM specialist (50%). $1,500/month over 5 years. Total cost: @18,000/year over Year 1, 2, 3, 4 & 5. TOTAL: 45,000 (18,000*5y*0.5)
20	• Five UNV full time Contractual Services (Individual) for Outcome 2 Project Focal Points for Kaya, Zitenga, Ziniaré, Absouya and Korsimoro. each costing 85,095USD for the total duration of the project (total of 427,475)
21	Procure a 4x4 vehicle for the mobile AWS (standing at ANAM) for Meteo and Hydro field calibrations @ $47,700, Year 1.
22	Local Consultants: **120,000** • LC for Independent Mid-term Review (MTR) and management response. @$50,000. Year 3. • LC for Independent Terminal Evaluation (TE) and management response. @$50,000. Year 5 • LC for Lessons learned and knowledge generation. @$20,000. Year 1, 2, 3, 4 & 5.
23	Training and Workshops**: 85,000** • National Inception Workshop @$30,000. Year 1 • Mid-Term National Conference to support Mid- Term Evaluation process of Project Results. @$30,000. Year 3. • Monitoring of indicators in project results framework. @$25,000. Year 1, 2, 3, 4 & 5.
24	Contractual Services – Individual: **20,000** • Pro-rata costs for Expert in M&E / Gender & Safeguards Project monitoring. $1,500 /month. Total cost: @$18,000/year over Year 1, 2, 3, 4 & 5. TOTAL 20,000 (4,000*5y)
25	Contractual Services – Individual**: 70,000** • Pro-rata costs for Expert in M&E / Gender & Safeguards Project monitoring. $1,500 /month. Total cost: @$18,000/year over Year 1, 2, 3, 4 & 5. TOTAL 70,000 (14,000*5y)
26	Training and Workshop: **40,000.00** • Cost of Project Steering Committee Meetings. @$**25,000**ea. Year 1, 2, 3, 4 & 5. • Technical Committee Meetings. @$**15,000**. Year 1, 2, 3, 4 & 5.
27	Contractual Services - Individual - **$90,000** • Finance and Administrative Assistant (100% for management). $1,500 / month in years 1 to 5; Total cost: @**18,000**/year over Year 1, 2, 3, 4 & 5.
28	• Annual Project Audit costs. @$**20,000**. Year 1, 2, 3, 4 & 5.
29	• Info. Tech. Equip: **14,700** • Computer equipment for the PCU office, including 1 Laptop for the Project Coordinator, external monitor and docking station @ $2,500, 1 Laptop Financial Assistant, external monitor and docking station @ $2,500; 1 Digitizer @ $300, Multifunction Printer (1) @ $1000, 1 Digital Camera @ $400, 1 Video Projector @ $500. Total cost: $**7,200** • Internet subscription for the office of the PCU @ 30 $ / month x 60. Total cost: $**1,800** • Mobile phones, GPS sets and photocopying machines and scanners. Total cost: $**5,700**
30	Direct Project Costs: $**15,810** • Direct Project Costs for the implementation of the activities – See Annex 9 for more details. @$15,810
31	Office Supplies: **3,190** • Office furniture including 3 work desks, tables, chairs, filing cabinets, shelves, etc (shared between LDCF and UNDP TRAC)

32	Contractual Services - Individual: 243,000 • Project Coordinator Salary (75%). $3,000 /month over 5 years. Total cost: @$**36,000**/year over Year 1, 2, 3, 4 & 5. • 3 Project drivers $600/month (100%) for 60 months - Total cost: $**108,000** spread over Year 1, 2, 3, 4 & 5.
33	• Equipment and Furniture **$162,500** • One 4x4 vehicle for PCU for supporting logistics and implementation of activities @ $ 55,000 and annual maintenance and spare parts reserve for the duration of the project @ 4,000 / year. Total cost: **75,000** • One 4x4 vehicle for DG-AEN for supporting logistics and implementation of activities in Nakambé Basin @ $ 55,000 and annual maintenance and spare parts reserve for the duration of the project @ 3,500 / year. Total cost: **72,500**: Year 1 • 6 motorcycles: including spare parts to support UNVs in the five Communes; Five motorcycles to support the UNVs Project Focal Points and One motorcycle to support SP-CONASUR to develop Early Warning Contingency Plans @$**15,000**. Year 1
34	Office Supplies: **$34,300** • Office furniture including 3 work desks, tables, chairs, filing cabinets, shelves, etc ((shared between LDCF and UNDP TRAC))
35	Miscellaneous: $**12,500** * Project management incidental expenses: $1,500/year in years 1 to 5. * Insurance 1000/year over 5 years

X. LEGAL CONTEXT

128. This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Burkina Faso and UNDP, signed in July 1976. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner.

129. This project will be implemented by the SP-CNDD under the Ministry of Environment, Energy, Water and Sanitation ("Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

130. The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations or UNDP concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries.

XI. RISK MANAGEMENT

131. Consistent with the Article III of the SBAA [or the Supplemental Provisions to the Project Document], the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

132. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

133. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via http://www.un.org/sc/committees/1267/aq_sanctions_list.shtml.

134. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

(a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

(b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment.

135. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;
ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;
iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof ;
iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and
v. Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

136. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

137. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

138. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

139. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds. The Implementing Partner will ensure that its financial management, anti-corruption and anti-fraud policies are in place and enforced for all funding received from or through UNDP.

140. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org. ~

141. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation,

and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

142. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

143. Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

144. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

145. Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud or corruption, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

146. Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

147. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

148. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

149. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, mutatis mutandis, in all sub-contracts or sub-agreements entered into further to this Project Document.

XII. MANDATORY ANNEXES

1. Project Map and geospatial coordinates of the project area
2. Multiyear Workplan
3. Monitoring Plan
4. Stakeholder Engagement Plan (as annex or in main body)
5. UNDP Atlas Risk Log
6. Letters of co-financing
7. Overview of technical consultancies/subcontracts
8. Terms of Reference for Technical services to be provided by UNDP, the Project Board, Project Manager, Chief Technical Advisor and other positions as appropriate
9. Social and Environmental Screening Procedure (SESP)
10. Gender Analysis and Gender Action Plan
11. Procurement Plan – for first year of implementation especially
12. LDCF Core indicators (see template below)
13. GEF Taxonomy (see template below)
14. Partners Capacity Assessment Tool and HACT assessment
15. UNDP Project Quality Assurance Report (to be completed in UNDP online corporate planning system.
16. PPG Reports
17. Letter of Agreement for Direct Project Costs (signed, in French)
18. Letter of Agreement for Direct Project Costs (not signed, in English)