Part I: Project Information

GEF ID
10099

Project Type
FSP

Type of Trust Fund
LDCF

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Landscape restoration for increase resilience in urban and peri-urban areas of Bujumbura

Countries
Burundi

Agency(ies)
UNDP

Other Executing Partner(s)
Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Executing Partner Type
Government

GEF Focal Area
Climate Change

Sector
Climate Change Adaptation Sector

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Least Developed Countries, Community-based adaptation, Private sector, Innovation, Climate resilience, Climate information, Livelihoods, Disaster risk management, Land Degradation, Sustainable Land Management, Restoration and Rehabilitation of Degraded Lands, Influencing models, Demonstrate innovative approache, Convene multi-stakeholder alliances, Deploy innovative financial instruments, Stakeholders, Type of Engagement, Consultation, Participation, Information Dissemination, Partnership, Private Sector, Financial intermediaries and market facilitators, SMEs, Individuals/Entrepreneurs, Capital providers, Beneficiaries, Civil Society, Non-Governmental Organization, Community Based Organization, Academia, Local Communities, Communications, Awareness Raising, Education, Public Campaigns, Gender Equality, Gender results areas, Participation and leadership, Access to benefits and services, Knowledge Generation and Exchange, Gender Mainstreaming, Sex-disaggregated indicators, Women groups, Gender-sensitive indicators, Capacity, Knowledge and Research, Knowledge Exchange, Targeted Research, Learning, Adaptive management, Theory of change

Rio Markers

Climate Change Mitigation

No Contribution 0

Climate Change Adaptation

Principal Objective 2

Biodiversity

No Contribution 0

Land Degradation

Significant Objective 1

Submission Date

12/23/2022

Expected Implementation Start

9/11/2023

Expected Completion Date

9/11/2028

Duration

60In Months

Agency Fee($)

848,580.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change	LDCF	8,232,420.00	15,980,000.00
CCA-2	Strengthen institutional and technical capacities for effective climate change Adaptation	LDCF	700,000.00	1,020,000.00
		Total Project Cost($)	**8,932,420.00**	**17,000,000.00**

B. Project description summary

Project Objective

Increase resilience of watershed communities in and around Bujumbura through a resilient integrated watershed management for landscape restoration and flood management

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 1: Developing technical capacities for climate-induced flood and erosion risks mapping and their use to inform climate-resilient integrated watershed management and other planning processes.	Technical Assistance	Outcome 1: Enhanced capacity for climate risk modelling and integrated planning in the Ntahangwa watershed and Bujumbura town	Output 1.1 : The community-based climate information system supported and improved to monitor changes in key ecological determinants of ecosystem health and resilience in the Ntahangwa watershed is enhanced Output 1.2 : Training program implemented to enable the use of hydrological and climate models to map out climate-sensitive flood and erosion risks in the Ntahangwa watershed Output 1.3 : A resilient integrated watershed management plan prepared to guide the development and rehabilitation	LDCF	700,000.00	1,020,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
			of the Ntahangwa watershed in areas critical for the provision of ecosystem services for flood and erosion control based on gender responsive approach Output 1.4: Flood and erosion risks maps developed for use in climate-resilient planning (urban development and investment in Bujumbura, local development plans in communes of the Ntahangwa watershed).			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 2: Landscape restoration and flood management measures to protect communities in the Ntahangwa watershed and Bujumbura from flood and erosion risks	Investment	Outcome 2: Ecosystems services for flood and erosion protection restored and flood protection measures implemented to improve the resilience of communities in the Ntahangwa watershed and in Bujumbura.	Output 2.1 : Restoration measures of vulnerable hilltops of the Ntahangwa watershed connected to Bujumbura completed through the methods of tree planting and quickset hedges Output 2.2: Establishment of community-based anti-erosion measures, such as ditches and radical terraces, in vulnerable hills critical for the ecosystem health and resilience of the Ntahangwa watershed Output 2.3: Flood control measures built along the Ntahangwa river channel in areas of Bujumbura where public and private infrastructure	LDCF	5,937,200.00	13,276,190.48

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
			s are at imminent risk of landslide during extreme climate events			
Component 3: Livelihoods options and green entrepreneurship to increase resilience of the urban, peri-urban and rural communities in the Ntahangwa watershed.	Investment	Outcome 3: Community livelihood is improved with sustainable adaptation measures contributing to urban, peri-urban and rural resilience.	Output 3.1 : Private sector mobilized in project areas to engage in value chain activities that promote green entrepreneurship Output 3.2 : capacity building and support for local entrepreneurs and SMEs to develop green entrepreneurship activities are enhanced Output 3.3 : Promote innovative financing with a micro-finance institution to support the development of green entrepreneurship activities for women and youth	LDCF	1,241,220.00	1,600,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 4: Monitoring and Evaluation and Knowledge Management	Investment	Outcome 4: Relevant local and national stakeholders are able to adopt resilient approaches in watershed management, flood management, land restoration and erosion control and green entrepreneurship, drawing from the experience of the project	Output 4.1. Project monitoring system providing systematic information on progress in meeting project outcomes and output targets (Monitoring and Evaluation)	LDCF	255,000.00	

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing ($)	Confirmed Co-Financing($)
Component 4: Monitoring and Evaluation and Knowledge Management	Investment	Outcome 4: Relevant local and national stakeholders are able to adopt resilient approaches in watershed management, flood management, land restoration and erosion control and green entrepreneurship, drawing from the experience of the project	Output 4.2 : A communication strategy aimed at the relevant local and national stakeholders is developed and implemented Output 4.3 : Guidance materials on (i) landscape restoration, and (ii) flood management and protective infrastructures , (III) resilient livelihood options and (iv) green entrepreneurship and startup creation leveraging urban, peri-urban and rural win-win opportunities for climate resilience are prepared and disseminated within Burundi and via South-South exchanges.	LDCF	373,647.00	294,285.72
				Sub Total ($)	**8,507,067.00**	**16,190,476.20**

Project Management Cost (PMC)		
LDCF	425,353.00	809,523.80
Sub Total($)	**425,353.00**	**809,523.80**
Total Project Cost($)	**8,932,420.00**	**17,000,000.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Ministry of Environment, Agriculture and Livestock	In-kind	Recurrent expenditures	5,000,000.00
Recipient Country Government	World Bank funded Project on Landscape restoration and resilience in Burundi (PRRPB)	Public Investment	Investment mobilized	11,500,000.00
GEF Agency	UNDP	Grant	Investment mobilized	500,000.00
			Total Co-Financing($)	**17,000,000.00**

Describe how any "Investment Mobilized" was identified

During the PPG, the Government co-financing identified during discussions and confirmed are specific investments in the Ntahangwa watershed area that will catalyze public resources towards the project. The co-financing corresponds to investment mobilized as part of donor-funded project currently executed by the government in the area of Nathangwa, in particular through the Burundi - Landscape Restoration and Resilience Project (2018-2024). This project aims to enhance people?s livelihoods and improve resilience to climate variability and change. The project ?s activities are planned in Bujumbura Rural and Muyinga Provinces and therefore, part of its intervention area is complementary to that of the proposed LDCF project in the province of rural Bujumbura and more precisely in the Ntahangwa watershed area. The investment mobilized in this project, and particularly related to the objectives of the UNDP/LDCF project, are (1) support to planning and capacity building of stakeholders (component 1), (2) restoration of degraded landscapes covering 7,800 ha through biophysical treatment of gullies, reforestation of land marginal to agriculture, and development of agroforestry on farms (component 2). In addition, fodder shrub hedges installed on anti-erosion ditches will contribute to the increase of vegetation cover and the reduction of erosion. In addition, rainwater harvesting interventions will be carried out to reduce erosion and gullying. All these interventions are complementary to those of the UNDP/LDCF project in the Ntahangwa basin area in the province of rural Bujumbura and will contribute to the fight against erosion and flooding and the restoration of ecosystems. These interventions will also allow to consolidate and extend the stabilization of the Ntahangwa river banks with a larger vegetation surface. Finally, the promotion of good practices (component 5) is in perfect phase with the communication strategy of the UNDP/LDCF project which will also devote such activities. During the PPG process, discussions with the PRRB coordinator aimed to identify gaps te be covered by the proposed LDCF project. It was decided that the LDCF project intervenes in adjacent collines to extend the area of landscape restoration in the Nathangwa watershed and therefore increase the overall impact of both projects. In addition to the

complementary location, the decision was also taken to avoid duplication in terms of capacity building at national and local levels. In addition, the government will also contribute via MINEAGRIE in kind to project components 1, 2 and 3 through institutional support to the project (office, water, electricty and counter staff of the Ministry of Environment, Agriculture and Livestock), animation and mobilization of beneficiaries for their effective participation in the implementation of the project. Finally, UNDP will contribute half a million USD to support project activities and the project management unit.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	LDCF	Burundi	Climate Change	NA	8,932,420	848,580	9,781,000.00
			Total Grant Resources($)		**8,932,420.00**	**848,580.00**	**9,781,000.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

200,000

PPG Agency Fee ($)

19,000

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	LDCF	Burundi	Climate Change	NA	200,000	19,000	**219,000.00**
			Total Project Costs($)		**200,000.00**	**19,000.00**	**219,000.00**

Meta Information - LDCF

LDCF true
SCCF-B (Window B) on technology transfer false
SCCF-A (Window-A) on climate Change adaptation false

Is this project LDCF SCCF challenge program?
false

This Project involves at least one small island developing State(SIDS). false

This Project involves at least one fragile and conflict affected state. false

This Project will provide direct adaptation benefits to the private sector. true

This Project is explicitly related to the formulation and/or implementation of national adaptation plans (NAPs). false

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This Project has an urban focus. true

This Project covers the following sector(s)[the total should be 100%]:*

Agriculture	**0.00%**
Natural resources management	**30.00%**
Climate information services	**20.00%**
Coastal zone management	**0.00%**
Water resources management	**20.00%**
Disaster risk management	**30.00%**
Other infrastructure	**0.00%**
Health	**0.00%**
Other (Please specify:)	**0.00%**
Total	**100%**

This Project targets the following Climate change Exacerbated/introduced challenges:*

Sea level rise false
Change in mean temperature true
Increased climatic variability true
Natural hazards true
Land degradation true
Coastal and/or Coral reef degradation false
Groundwater quality/quantity true

Core Indicators - LDCF

CORE INDICATOR 1

Total
Male
Female
% for Women
Total number of direct beneficiaries
128,050
62,820
65,230
50.94%

CORE INDICATOR 2

Area of land managed for climate resilience (ha)

8,980.00

CORE INDICATOR 3

Total no. of policies/plans that will mainstream climate resilience

0

CORE INDICATOR 4

Male

Female

% for Women

Total number of people trained

500

300

200

40.00%

To calculate the core indicators, please refer to Results Guidance

OBJECTIVE 1

Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaption

OUTCOME 1.1

Technologies and innovative solutions piloted or deployed to reduce climate-related risks and / or enhance resilience

View

OUTCOME 1.2

Innovative financial instruments and investment models enabled or introduced to enhance climate resilience

View

OBJECTIVE 2

Mainstream climate change adaption and resilience for systemic impact

OUTCOME 2.1

Strengthened cross-sectoral mechanisms to mainstream climate adaption and resilience

View

OUTCOME 2.2

Adaptation considerations mainstreamed into investments

View

OUTCOME 2.3

Institutional and human capacities strengthened to identify and implement adaptation measures

View

OBJECTIVE 3

Foster enabling conditions for effective and integrated climate change adaption

OUTCOME 3.1

Climate-resilient planning enabled by stronger climate information decision-support services, and other relevant analysis, as a support to NAP process and/or for enabling activities in response to COP guidance

View

OUTCOME 3.2

Increased ability of country to access and/or manage climate finance or other relevant, largescale, pragmatic investment, as a support to NAP process and/or for enabling activities in response to COP guidance

View

OUTCOME 3.3

Institutional and human capacities strengthened to identify and implement adaptation measures as a support to NAP process and/or for enabling activities in response to COP guidance

View

Part II. Project Justification

1a. Project Description

Describe any changes in alignment with the project design with the original pif

Main changes in alignment with the project design outlined in the original PIF

Section/subject	Change as compared to PIF
Component	A new component has been added in order to deal with all knowledge and management activities as well as Monitoring activities under the same component. This component 4 is named: Monitoring and Evaluation and Knowledge Management.
Outcomes	Following the addition of component 4, a new outcome has been added related to that new component - Outcome 4: Relevant local and national stakeholders are able to adopt resilient approaches in watershed management, flood management, land restoration and erosion control and green entrepreneurship, drawing from the experience of the project.
Outputs	Under component 1: Output 1.3 has been slightly rephrased: Output 1.3: A resilient integrated watershed management plan prepared to guide the development and rehabilitation of the Ntahangwa watershed in areas critical for the provision of ecosystem services for flood and erosion control based on gender responsive approach. Output 2.4 under component 2 and output 3.4 under component 3 have been incorporated into the new component 4 that deals with knowledge management, monitoring and communication activities. Under Component 3, outputs were adjusted and grouped for clarity and new outputs have been created for the new component 4. PPG consultations and field visits have enabled to design concerted deliverables that in combination will reach the outcomes.
GEF project financing	The financing breakdown between the former three components has been changed to allocate funding to the new component 4.
Cofinancing	The list of cofinancing partners has been updated. The following co-financiers have been confirmed: UNDP, MINEAGRIE and World Bank funded Project on Landscape restoration and resilience in Burundi (PRRPB).
LDCF indicators	The indicator for area of managed land for climate resilience was 10,200 ha at the PIF stage because it was planned to cover 80% of the watershed with this target. The PIF target is difficult to measure directly and instead we have proposed to monitor the 3000ha target (also mentioned at PIF) to track this Core Indicator.

1/ Global environmental and adaptation problems, root causes and barriers to be addressed

Problem statement

1) Adaptation problems (problem statement)

? Burundi is **a landlocked country** (see figure 1) in East Africa at the northern end of Lake Tanganyika with total population of 12,255,429 million inhabitants in 2021[1][1]. The land has a total of 27,834 km2 and Burundi is thus one of the smallest countries in Africa by area and ranked 147th worldwide. Burundi is one of the most densely populated countries in sub-Saharan Africa with rapid population growth (3.3 percent per year over the past two decades)[2][2]. Thus, the country is experiencing an explosive demographic trend that is expected to exceed 20 million in 2050[3][3]. The average population density was 477hab/km? in 2021[4][4] and exceeds 600 inhabitants/km? in some regions of the country as in the province of Kayanza[5][5]. An exceptionally high proportion of residents (86%) belong to the rural population. The population is constituted by two main groups, Hutus (85% population) and Tutsis (14%), and a third more marginalized group, the Twas, who self-identify and are recognized by the national Law as indigenous peoples. The Burundi Household Living Conditions Survey (ECVMB) reveals that between 2013-2014, 64.6% of the population lives below the national poverty line of 1,744 Fbu per day, or US$ 1.27; while 80.2% lives on less than US$ 1.90 per day. Consequently, the Human Development Index rank of Burundi is 185th out of 189 in 2020[6][6], including a Gender Inequality Index of 0,504 (124th out of 189). Globally, some progress on women?s rights has been achieved. However, women still bear a disproportionate burden of the farm work and house chores responsibility and are particularly vulnerable to climate change.

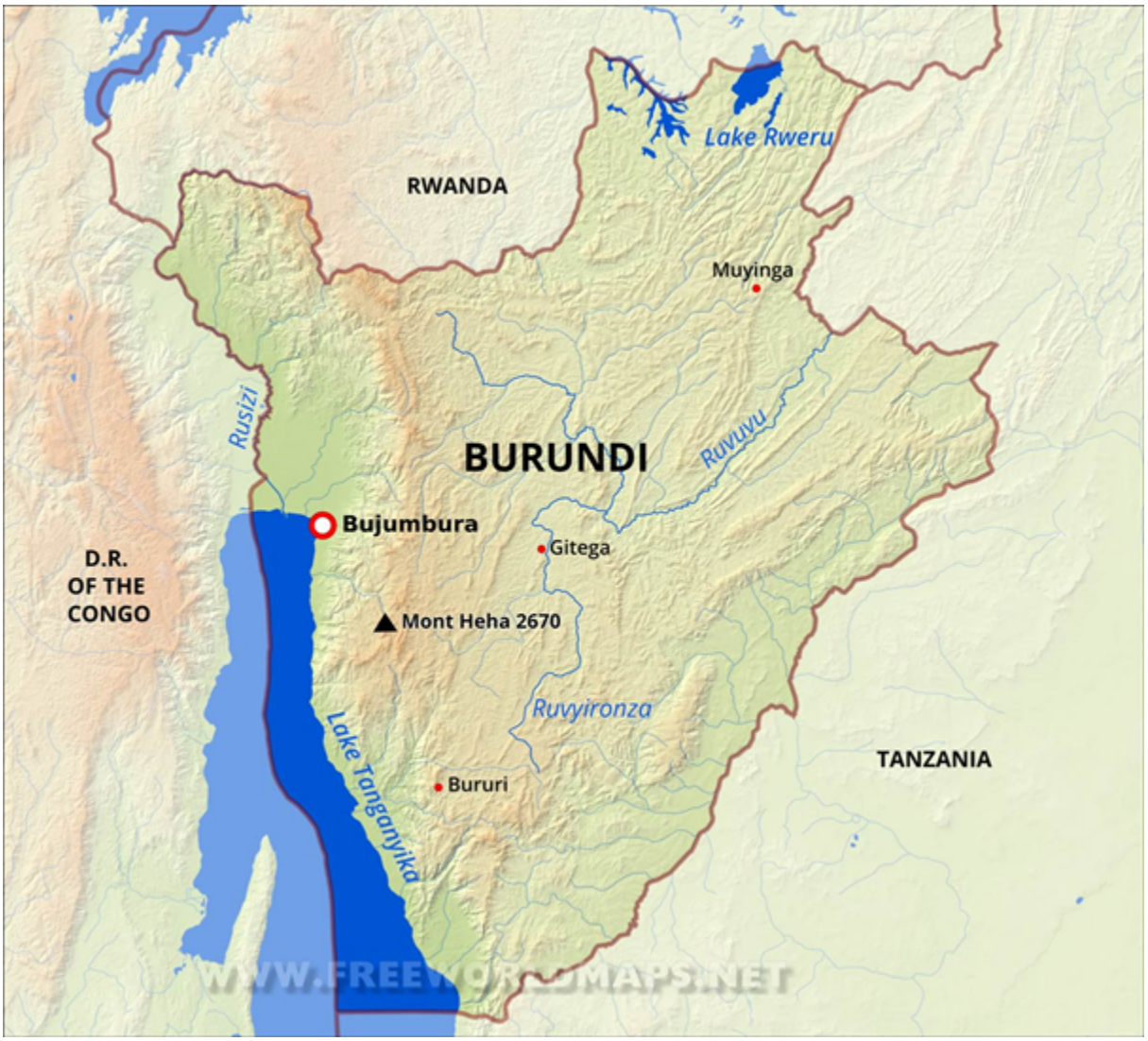


Figure 1*: Physical map of Burundi (www.freeworldmaps.net)*

? The Burundian economy relies **mainly on subsistence agriculture** which accounts for 93% of the labour force (including 80% of women, contributes 39.6% to GDP, provides 84% of jobs, provides 95% of the food supply and is the main source of raw materials for agro-industry [1]. The explosive population pressure observed across the country is the major contributing factor of deforestation through land use change for farming and because of household dependence on wood for domestic energy uses[2].

? The national average size of **land availability per household varies from 0.5 to 0.8 ha** depending on the region. This size of operation is shrinking from year to year due to legacy systems and the resulting fragmentation of land. As a result, crops are grown on marginal land. Fallow has disappeared, causing the emergence of bare soils unfit for agriculture. All these factors, combined with a very rugged topography of the country, lead to phenomena of severe erosion and hence a decrease in soil productivity.

? Burundi?s landscape presents large swath of mountainous areas with elevations ranging from 770 m up to 2,670 m. On the eastern part of the country, the terrain is dropping to a flat plateau (See *Figure 1* for a physical map of Burundi). Burundi lies at an average elevation of 1504 m above sea level and is therefore one of the highest countries in the world. The highest mountain peak (Mont Heha) is at 2,670 meters. There is no access to the open sea. There are direct national borders with the three neighbouring countries Congo (Democratic Republic), Rwanda and Tanzania[9][7]. The country is divided into five agroecological zones[10][8], based on rainfall, elevation and topography as shown in Table 1: (i) the western plain of Imbo, (ii) the western escarpment of Mumirwa, (ii) the Congo-Nile divide, (iv) the central highlands, and (v) kumoso depression to the east and Bugesera depression to the north-east.

Table 1: Agroecological zones in Burundi

Eco-Climatic Zone	% Land area of country	Elevation (m)	Ave Annual Temp (?C)	Ave Annual Precipitation/(mm)
Imbo plains	7	800-1,100	23	800-1,100
Mumirwa slopes	10	1,000-1,700	18-28	1,100-1,900
Congo-Nile divide	15	1,700-2,500	14-15	1,300-2,000
Central highlands	52	1,350-2,000	17-20	1,200-1,500
Kumoso and Bugesera	16	1,100-1,400	20-23	1,100-1,550

Spring: Rep. of Burundi, National Strategy and Action Plan to Combat Land degradation, 2011-2016

? Burundi?s efforts **to combat poverty and follow the sustainable development path** are undermined by demographic burden and situations of fragility resulting from its conflict-ridden socio-political history[1] and vulnerability to climate change. These fragilities combined with economic volatility are putting a break on the country?s growth prospects. In addition, political, institutional, economic, and environmental fragility are highly intertwined and, in many ways, feed on each other[12].

? Burundi has **been negatively affected by and is still recovering from the socio-political crisis of 2015.** In addition, Burundi fell into a recession in 2020, largely the result of the effects of the COVID?19 pandemic. Indeed, the GDP of Burundi had slightly risen to 1.8% in 2019 thanks to higher agricultural yields but registered a contraction of 1% in 2020. As a result, public debt increased to 67 percent of the GDP in 2020 from 58.5 percent in 2019 due to reduced revenues and higher spending on health[13][9]. The country registered a decline in the export prices of main export commodities of respectively of 4.4% and 10.4% for coffee and tea[14]10. In 2021, the public debt continued its increase (71,9% of the GDP), despite an increase in economic growth at 2.2 percent, driven by agriculture and a

recovery in services[15][11]. Growth is projected to range between 2.5 - 4.1 percent in 2022-24, however, this outlook maybe revised downwards due to further spillover effects of the Ukraine/Russia conflict and persistence of COVID-19[16][12].

? The socio-political crisis that leads to population movements, creating vulnerable groups and a polarization of the population in general. It is also important to highlight the situation of women, who, despite the efforts identified over the last years with regards to political and economic aspects, are still facing inequalities in terms of rights- in particular access to private property. Indigenous Twa Peoples, despite legal recognition as a distinct ethnicity, are still mostly landless and face many difficulties relating to land-rights, either through lack of title and failure to recognize customary land rights, or discriminatory practices relating to allocation on the part of the authorities. Young people represent a key part of Burundi?s workforce, but opportunities for employment, including those with university degrees, is lacking and fails to fully tap into their potential. The Government has made youth employment a priority and a key pillar of its social protection policy.

? COVID-19 crisis is impacting Burundi?s economic recovery. Indeed, Burundi reported its first case of COVID-19 in March 2020. As of September 2022, the country reported 50,026 confirmed cases and 15 deaths to WHO[17][13]. Most confirmed cases were reported in the Bujumbura province. The COVID-19 outbreak has increased the economy?s vulnerability with a deterioration of macroeconomic accounts. A recent survey revealed that off-farm incomes decreased and food insecurity rose while large proportions of businesses reported declining sales, difficulty accessing inputs and cash flow crunches[18][14]. The COVID-19 recovery efforts present opportunities for Burundi to use ecosystem-based adaptation and green economy principles to create jobs, strengthen agricultural value chains and supply chains from urban and rural areas and rebuild Burundi?s economy while addressing climate vulnerabilities and drivers of land degradation.

Burundi?s population?s high reliance on subsistence agriculture has led all potential lands to be used for agricultural production including forest lands that account now for only 6.6 percent of the country ?s territory. Indeed, cultivations have been extended in the steep hillsides and mountains in tiny plots without erosion control[19][15]. Therefore, forests **and agricultural lands are under pressure** with unsustainable practices leading to loss of soil fertility and increasing land degradation.

? In addition to the socio-economic challenges that undermine the development of Burundi, the country?s population **is also vulnerable to the impacts of climate change and natural disasters. Burundi is one of the most vulnerable countries to climate change**, ranking 171 out of 181 in the ND-GAIN [20][16] index for climate vulnerability, the 6th lowest in Africa, the 14th most vulnerable country and the 16th least ready country to combat the expected impact of climate change. Burundi has a history of extreme climate-related events, with natural disasters such as droughts, wildfires, floods, and landslides. The frequency and intensity of climate events such as torrential rains, flash floods, and

droughts, have increased, leading to more frequent landslides in the hilly farmed areas. In addition to life danger, these events are directly affecting topsoils and cultivable land, thereby, increasing the pressure to convert remaining forests into agricultural lands.

Climate-induced natural disasters and cyclical phenomenon like El Nino, while becoming more frequent, increase the country?s vulnerability in different sectors, especially infrastructures, transport, housing schemes and urban planning, as roads, households and infrastructures are destroyed by natural disasters. This increased exposure to the impacts of climate change, together with the high poverty rate ? 67% of the population living under the poverty threshold[22][17] - put the economy of Burundi in a very vulnerable and fragile situation.

The impacts of these climate change phenomenon of warmer temperatures and extreme weather events (droughts and floods) has had an impact on Burundi's main economic sectors[23][18]:

? Agriculture:

o a decrease in yield per hectare for all food crops;

o rapid decline in plantation productivity due to climate variations;

o degradation of soil fertility in the Imbo plains and Bugesera due rapid deforestation and droughts;

o disappearance of some cultivars leading to genetic erosion of traditional species and varieties of sorghum, beans and potato seed;

? Livestock[24][19]:

o decrease in the quantity and quality of fodder and therefore in the productivity of the livestock due to prolonged drought;

o extreme rainfall events that led to forage crops and national grazing lands never reaching full maturity;

o extreme drought has raised the mortality rate of the animal population;

o Reduced feed and water sources for herders;

o Increased risk of pests and diseases.

? Public infrastructure and transportation: experienced severe and recurrent flooding of the Ntahangwa river since the 1980s caused enormous losses in Bujumbura[25][20], including the destruction

of houses, schools, deterioration of equipment in the industrial areas, and destruction of warehouses stocks.

The impacts of climate change also affect the public health of Burundi[26][21]:

o increased temperatures during the rainy seasons favors the transmission of diseases such as malaria meningitis and cardiorespiratory diseases.

o damaging floods cause destruction of infrastructure, notably infrastructure to drinking water.

o women internally displaced as a result of climate-related disasters are more prone to gender-based violence, a public health issue in Burundi.

? Bujumbura is Burundi?s biggest city and until February 2019, the capital city before it was moved to Gitega. Bujumbura remains the main economic centre of the country and concentrates services and most of the infrastructure investments. The city is particularly prone to damage during flooding due to its geographical situation in lowlands surrounded by mountains prone to erosion and landslides. In addition, The Ntahangwa river passes around main industries / factories that are important for economic growth in Burundi for instance the national Brewery, COGERCO for cotton etc. and these have been experiencing repetitive flooding caused by River Ntahangwa. Therefore, the livelihoods and resilience of urban communities of Bujumbura along the bank of the Ntahangwa river and of highland communities living in the upstream part of the watershed are highly threatened by flooding, erosion, and landslides. Moreover, with an Index of Gender inequality 0.504[27]22, the existing climate shocks are prone to worsen gender inequality. Women make up more than 90% of the agricultural workforce in Burundi and are responsible for securing water, food and fuel for their family. Climate impacts their ability to access those resources, making them more vulnerable and further reducing their already limited opportunities, in particular in accessing education. Identifying the gender differences in adapting and coping to these environmental impacts will be key throughout the LDCF project**.**

Climate analysis: historical trends and climate projections

Burundi has a humid tropical climate influenced by its altitude which varies between 773 m and 2670 m and its location south of the equator. It is characterized by four seasons[28][23]: (i) the long-wet season (February-May); (ii) the long dry season (June -August); (iii) the short-wet season (September-December); (iv) The short dry season (mid-January to mid-February).

Strong temperature and rainfall variations are found across the country due to the mountainous landscape. Rainfall is highest over the central parts of the country and lowest over the northeast and the lower elevation of the southwest[29][24]. The rainfall distribution is also uneven, and the average amount of precipitation varies between 773 m and 2,670 m. The minimum rainfall falls on the Lowlands of the Imbo zone and the Rusizi plain, while the maximum occurs in areas of high altitude such as the crest of

the mountain divide between the Congo and Nile basins (see Table 1). The annual average highest temperature is 24.1?C (Imbo plain) while the lowest is 15.6?C (Rwegura). Monthly average maximum temperatures are highest at the end of the dry season (September- October) while monthly average minimum temperatures are lowest during the dry season[30][25].

? Current trends have shown an overall decrease in precipitation creating shorter wet seasons and a prolonged dry season. An increase in mean temperature of 0.7-0.9?C has been observed since 1930[31][26]. Climate-induced natural hazards have become more frequent in the past decades with an increase in flood and drought as well as storm surges and landslides[32][27]. Severe droughts frequently affect Burundi and account for a third of all natural hazards occurring in the country and torrential rains have caused major flooding issues around Lake Tanganyika, including Bujumbura. Between 1999 and 2007, the combined losses from severe flood (2006, 2007) and drought (1999, 2000, 2005) episodes were estimated by the government at 5% of the country?s GDP[33][28]. Severe flooding and landslide have become a common yearly occurrence due to heavier rains than usual during the wet seasons. The country has reported important damages to crops, soil, and infrastructure together with the increased presence of pests and disease that affect food crops and livestock. With climate change, the frequency and intensity of severe meteorological and hydrological events (deadly flash floods and landslides...) are likely to continue escalating, amplifying the risks of further soil erosion and crop yield reduction as well as deforestation. Environmental degradation in Burundi is mainly due to human pressure on natural resources exacerbated by climate change.

? Between 2013 and August 2020, the International Organization for Migration (IOM) recorded 131,336 internally displaced people (IDPs), 83% of them as a result of natural disasters. A major part of these displacements occurred in the provinces of Bujumbura Mairie and Bujumbura Rural where 60,207 IDPs are on records[34][29]. In 2021, weather-related hazards including rains, strong winds, floods and landslides triggered 87,000 internal displacements, up from 51,000 in 2020. Thus, , torrential rains raised the water level of Lake Tanganyika, Africa?s second-largest lake. Subsequent flooding in the provinces of Bujumbura, Bujumbura Mairie, Rumonge and Makamba triggered 57,000 movements. The floods, which were accompanied by landslides in some areas, damaged and destroyed crops, increasing food insecurity for those, including IDPs, who rely primarily on agriculture for their livelihoods. Around 14 percent of the population, or 1.6 million people, were left facing emergency and crisis levels of food insecurity as a result. This and other lesser disasters pushed thousands of people into longer-term displacement as their homes were damaged or destroyed. Funding to meet their humanitarian needs, however, was limited. Around 131,000 IDPs needed assistance with shelter and non-food items in 2021, which tends to indicate a significant increase in the risk of poor health and hygiene and exposure to protection issues. The impacts of Covid-19 further undermined IDP?s livelihoods and heightened their vulnerability to future shocks. Around 94,000 people were living in displacement as a result of disasters at the end of the year 2021. Uninhabitable homes in return areas, whether because they are still flooded or in danger of recurrent flooding, and difficulties in identifying land for resettlement, impede IDPs?

pursuit of durable solutions. The repeated disruption of livelihoods also undermines communities? resilience, which highlights the country?s high vulnerability to climate change impacts[35][30]. Displacement Tracking Matrix (DTM) identified 84,791 Internally Displaced Persons (IDPs) in 19,407 households in the 18 provinces of Burundi during the month of April 2022. Among those identified, 91 per cent were displaced due to environment-related disasters while 9 per cent were a result of other reasons[36][31].

? UN OCHA reported thousands of hectares of crops ready for harvest destroyed as well as an increased trend in prices for basic food commodities. Further increases are expected as traders try to preserve their stocks in anticipation of poor harvests[37][32].

? A recent mapping exercise in 2022 [38][33] shows that Burundi is prone to the following five main natural, including torrential rains, floods, landslides, high winds and earthquakes. Fifty municipalities in the country are more exposed to the risk of disasters. Bujumbura City Hall is more prone to natural disasters than other provinces with estimated socio-economic losses of USD 35 million per year (see figure 2). Therefore reducing the vulnerability of Bujumbura Mairie and Bujumbura rural ?zones and communities prove to be among the priorities of the Government of Burundi.

? During the PPG process consultations in Bujumbura Mairie and Bujumbura rural, the identified project zones, populations explained that climate change was characterized by (i) variations in average temperature; (ii) a decrease in the number of rainy days (combined with a longer period of the dry season), (iii) high winds or hail and a greater frequency of extreme climate events.

? The main consequences of the effects of climate change are the occurrence of floods, enlargement of ravines and frequent landslides, especially along the Ntahangwa River. The river begins its path T upstream in the foothills surrounding Bujumbura and crosses peri-urban and urban zones of the city downstream to flow into Lake Tanganyika. tIssues and vulnerabilities affecting the watershed, in particular the integrity of hils in rural and peri-urban areas, further compound problems experienced in urban areas, found downstream in Bujumbura. As a result, the soil structure and steep slopes are such that the coefficient of runoff is higher than the coefficient of infiltration; this causes landslides and instability of the soils upstream that in turn cause flooding downstream in the plain.

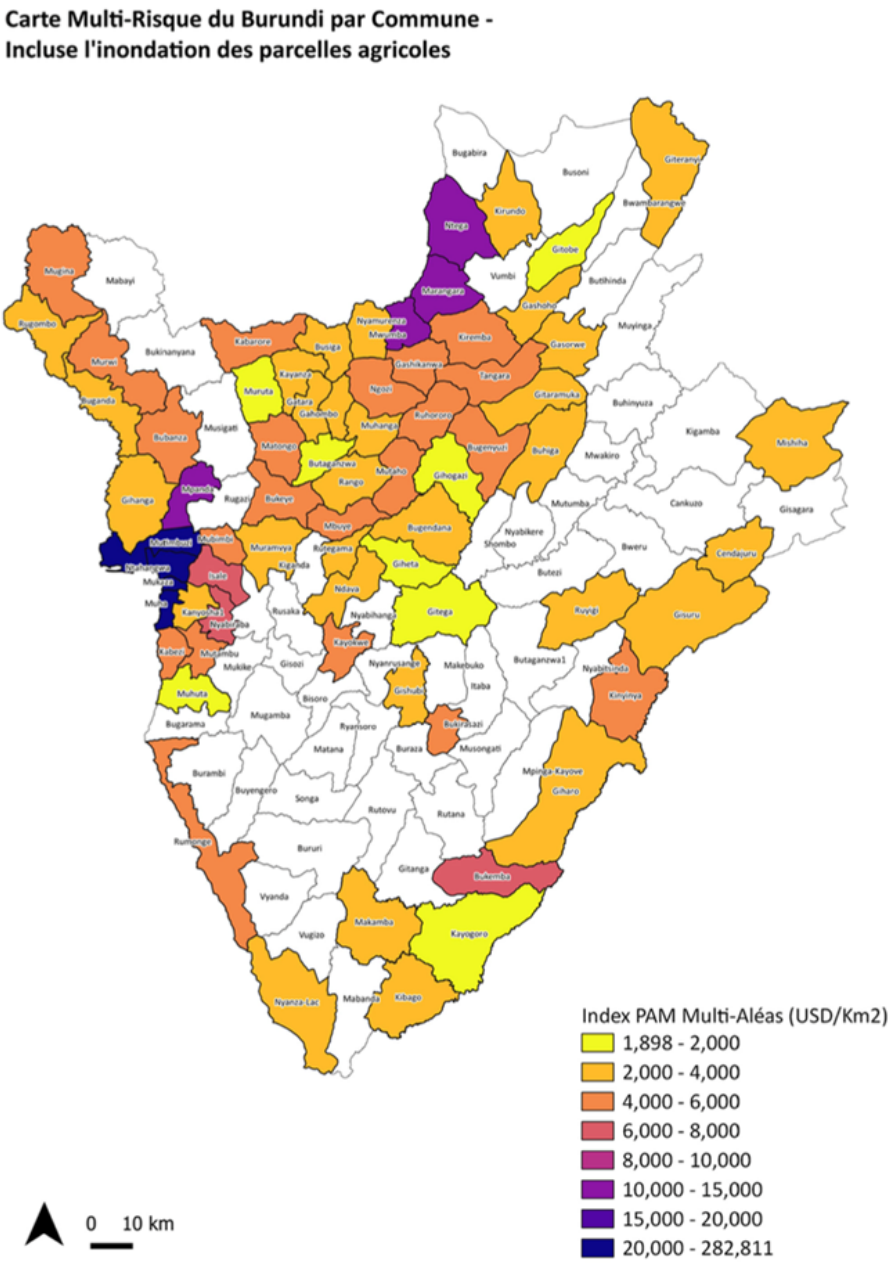


Figure 2: *Multi-Risk map of Burundi, by average annual loss (AAL/PAM pertes average annual), source* IOM & Al, (2022), *Evaluation and multi-hazard mapping in Burundi*, Risk Atlas, February 2022

? Regional climate models using both low and high emission scenarios (RCP 4.5 and RCP 8.5 respectively) indicate that the average annual temperature in the country could increase by 1.7-2.1?C by 2060 and 2.2-4.2?C by 2100 (mean change compared to the average for the 1970?1999). The highest

increase is projected to occur during the dry season, which could lead to longer heat waves and more severe drought episodes. Climate models indicate an increase in mean annual precipitation of 5.7%-7.7% by 2060 and 8.6-13.2% by 2100 compared to 1970-1999 (See *Table 2* and *Table 3* below for annual rainfall and temperature projections). Furthermore, most of the regional climate models show an increase in precipitation during the main wet season (November-February) and all the models agree on a positive trend for the months of November and December and dryer conditions the months before the onset of the rainy season[39][34].

Table 2: *Changes in average annual rainfall (multi-model mean)*

	1970-1999	2031-2060			2071-2100		
	Mm	**Ave. [mm]**	**%**	**Mm**	**Ave. [mm]**	**%**	**Mm**
RCP 4.5	1479	1563	5.7	84.1	1607	8.6	127.4
RCP 8.5	1479	1593	7.7	113.6	1675	13.2	195.9

Source: Climate Change Projections for Burundi, GIZ, 2014.

Table 3: *Changes in air temperature (multi-model mean)*

	1970-1999	2031-2060		2071-2100	
	?C	**Ave. [?C]**	**K**	**Ave. [?C]**	**K**
RCP 4.5	19.4	21.1	1.7	21.7	2.2
RCP 8.5	19.4	21.5	2.1	23.6	4.2

Source: Climate Change Projections for Burundi, GIZ, 2014.

? Across all emission scenarios, temperature is projected to increase in Burundi throughout the end of the century[40][35] (see figure 3). For the precipitation, the projections present uncertain precipitations (with most models showing an increase) and shifts in intra-seasonal rainfall with more frequent and intense heavy rainfall and flooding in the low-lying areas (e.g. Imbo plains) as well as droughts in the northern part of the country.

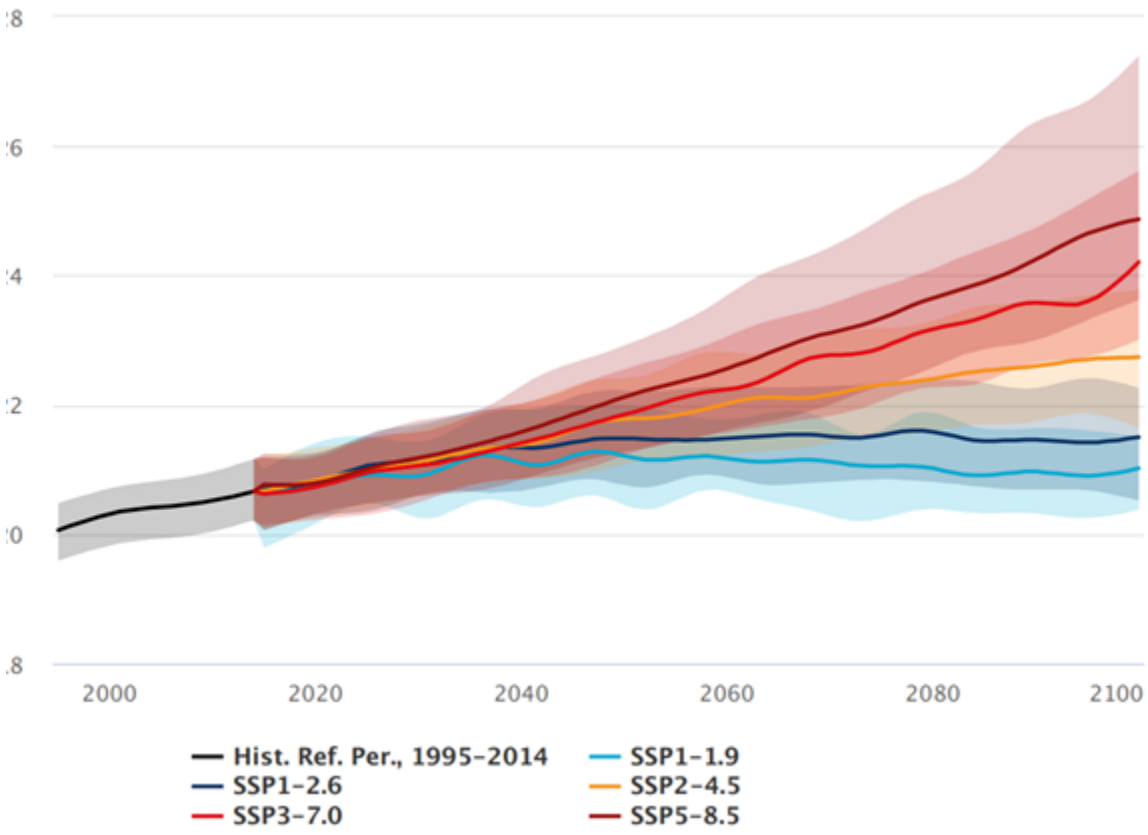
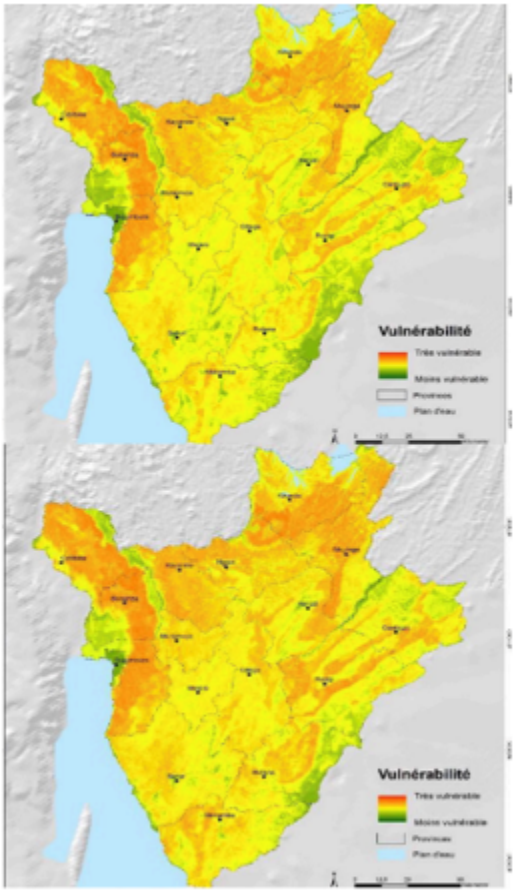


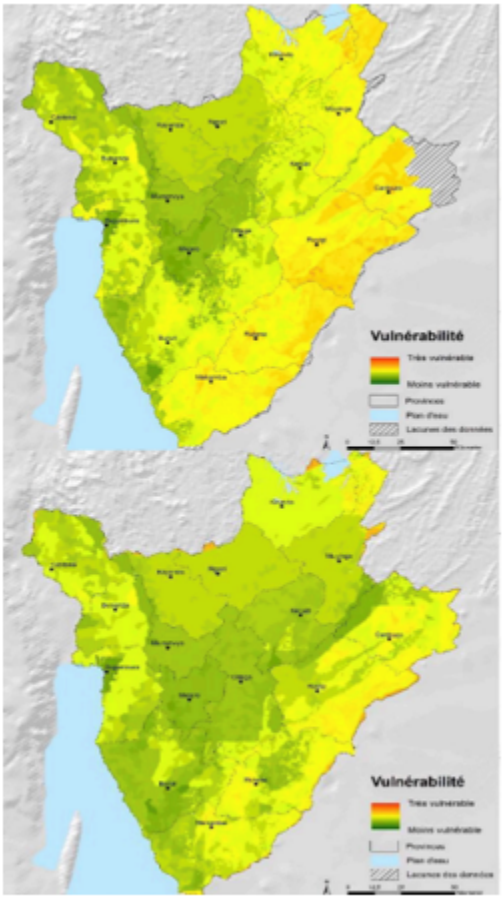
Figure 3: Projected Mean-Temperature Burundi, Burundi (ref. Period 1995-2014), Multi-Model Ensemble [41][36]

? These changes and variability will result in challenges to agricultural productivity, food security and livelihoods and a likely increase in the occurrence of climate disasters already observed. While evapotranspiration will increase due to higher temperatures, the surplus of water from the precipitations is likely to increase the risk of extreme rainfalls, flash floods and landslides. Indeed, the results of a recent study[42][37] reveal that future climate change will impact the mean climatology in Burundi (i.e., the annual mean and the seasonal mean) as well as the extreme values of hydroclimate variables. Besides, changes in precipitation extremes increase the risks related to flood extremes and damage socioeconomic

sectors and the daily maximum runoff, which is likely to increase the flood risk, increases in the future period irrespective of the type of climate projection. The Nathangwa watershed zone in Bujumbura and Bujumbura rural where the project sites are located, are one of the most vulnerable zones of Burundi to flood and erosion risks in present and future if no urgent measures are taken to protect that zone. A vulnerability analysis of Burundi[43][38] showed that the area surrounding Bujumbura is particularly sensitive to erosion due to its mountainous landscape and soil profile, a situation that is likely to continue or worsen over time with climate change (See *Figure 4*). On the other hand, the vulnerability analysis shows that drought is and will continue to remain an issue in the eastern and southern part of the country.



Map: Vulnerability to erosion in 2014 (top) and 2071-2099 (Bottom)



Map: Vulnerability to drought in 2014 (top) and 2071-2099 (Bottom)

Map: Vulnerability to drought in 2014 (top) and 2071-2099 (Bottom)

Figure 4: *Maps showing Burundi?s vulnerability to erosion and drought* ***[44][39]***

? Many efforts have been done by the Government to address these issues, in particular reforestation and anti-erosion policies**.** However, most of the interventions have been reactive**,** and some have

inadvertently led to inappropriate introduction of alien species that have become invasive and led to further biodiversity decline. A more proactive approach is needed to address the root causes upstream and develop simultaneously upstream and downstream measures to secure infrastructure and populations from climate change induced disasters and provide technical support to farmers. In addition, a ?Flood contingency plan? has been prepared by the National Platform of Prevention and Management of Disaster Risks in partnership with UN Agencies?. However, its implementation has been challenging due to the lack of technical and financial resources.

? According to a UNDP study (2011)[45][40], estimates of the costs of inaction of land degradation in the agricultural sector amount to US$21 million per year for cereals, US$73 million/year for pulses and US$400 million for food crops. For the forestry sector, these costs amount to approximately US$3,363 million, or 8 times the amount of ODA received by Burundi in 2008. In addition, the Burundi Country Environmental Analysis (CEA)[46][41] has estimated that the annual cost of yield losses of major crops (beans, maize, and sweet potato) because of soil erosion amount up to US$209 million, while that of flood risk due to unsustainable land management is about US$3.3 million.

Intervention project area: Ntahangwa Watershed in the Mimurwa region

? The intervention project area is the Ntahangwa River watershed area, in both provinces, Bujumbura Rural and Bujumbura Mairie as specified in the PIF. This area is mainly characterized by two ecological zones: the Mumirwa and the plain of the Imbo. The river Ntahangwa takes its source in the heights of the Mirwa to flow into Lake Tanganyika. In addition to the Ntahangwa, other rivers such as Kaburantwa, Muhira, Kanyosha, Muha, Dama, Murembwe Siguvyaye, Rusizi and Nyengwe drain the Mumirwa escarpment, cross the plain and flow into Lake Tanganyika. This natural region of Mumirwa, where these rivers spring, is characterized by a very rugged landscape (up to 50% slope), formed by high hills with narrow peaks and sharply dissected slopes with very steep slopes. Following the socio-political crisis that has shaken the country since 1993, the tops of these hills, once covered by forest plantations, have been systematically deforested. Agroforestry and fruit trees that were installed on the farms were destroyed to satisfy the needs of the local population and the town of Bujumbura in wood for domestic energy uses. In the meantime, no forestry and agroforestry rehabilitation measures have been considered and carried out.

? Most of the population, peri-urban in particular, lives from agriculture, mainly food crops (cassava, maize, beans, and bananas?). There are also orchards and vegetable crops (e.g. tomato, cabbage, cucumbers, *lenga lenga* and various fruits such as guava, plums, mangos, oranges...), cash crops (coffee and oil palm) and flowers in the municipality of Kanyosha. With a high population density of 568 inhabitants/km?, the area is experiencing strong demographic pressure on agricultural land that leads to land degradation and a decrease in agricultural production. Livestock farming

consists mainly of cattle, sheep and goats and is carried out by less than 10 % of the population on small and steep plots due to the ban on free grazing since 2018[47][42].

Deforestation is particularly intense in the Ntahangwa watershed, mainly caused by:

? demographic pressure, compounded by flows of "internally displaced" people

? proximity to a major urban charcoal market

? the use of wood for timber in the building sector

Land degradation in this region has serious socio-economic and ecological impacts. Land degradation leads to the disappearance of arable land at a rate of more than 100 tons/ha/year according to ISABU [48][43] sedimentation of downstream streams, pollution of Lake Tanganyika, an increase in carbon emissions and a decrease in the potential for carbon sequestration. It also disrupts the functioning of watersheds and streams and transforms natural habitats by causing a decrease in genetic stock and biological diversity.

As a consequence, food insecurity and acute malnutrition are mainly observed among children under 5 years old and pregnant women. In addition, pests and crop diseases in the region increase the vulnerability of communities in the area.

? In addition, illegal constructions on the ?unoccupied? and ?untitled? public areas along the banks of the Ntahangwa, associated with poor farming practices and people extracting rubble, sand, gravel, and stones in the river make the situation worse. Even the trees planted to protect the banks of the river are washed away. As a result, in some locations, the river has no longer ?plant brakes? capable of withstanding significant precipitation or a ?slope ice? that can absorb flood attacks. In addition, the anarchic exploitation in rivers and non-compliance with laws contribute to the degradation of infrastructure around the river and also the lack of accountability of the administration for the sustainable management of these resources.

? The selection of the specific project zone within the Nathangwa watershed was realized in a participatory manner during the PPG launching workshop and consultations with national authorities. The main criteria for the selection of the specific sites (*collines* and *sous-collines*) were their vulnerability to the impact of the CC as follows: the degree/severity of land degradation, the frequency of landslides and the level of vulnerability of public and private infrastructure. The presence of other development partners for synergy/complementarity as well as the availability of support/support services helped refine the selection to meet the requirements of the Government of Burundi via the Ministry of Environment, Agriculture and Livestock (MINEAGRIE). Indeed, the Ministry insisted that the project should allow: (i) the consolidation of the achievements of the previous CDRM UNDP/GEF project, (ii) the concentration of activities in a well-defined area in order to achieve positive and visible impacts of the project and (iii) complementarity and synergy with other projects operating in the same area. The

selection of the specific *collines* were discussed during the inception workshop and consultations with stakeholders during PPG process[49][44].

In addition, the LDCF project aims to expand the CDRM UNDP/GEF project that ended in 2020. The terminal Evaluation of CRDM included recommendations relevant to this LDCF project and that have been considered, including further investment to address capacity needs of the government at the sub-national level as well as addressing remaining gaps in livelihood investments[50][45] :

? Based on the above, the four communes have been identified and project activities will specifically take place in the following sites:

? Isare Commune on the Nyambuye, Nyakibande, Kibuye and Sagara hills;

? Kanyosha Commune on the rural Sororezo, Coga, Muyira and Kirombwe hills;

? Commune Mukaza on the neighborhoods above the Pont de la R?publique, namely: Mutanga Sud, Mugoboka and Sororezo urbain.

? Ntahangwa Commune in North Mutanga and Gikungu.

The following map (see figure 5) shows the geographic location of the project area, highlighting the target communes and hills in the provinces of Bujumbura and Bujumbura Mairie.

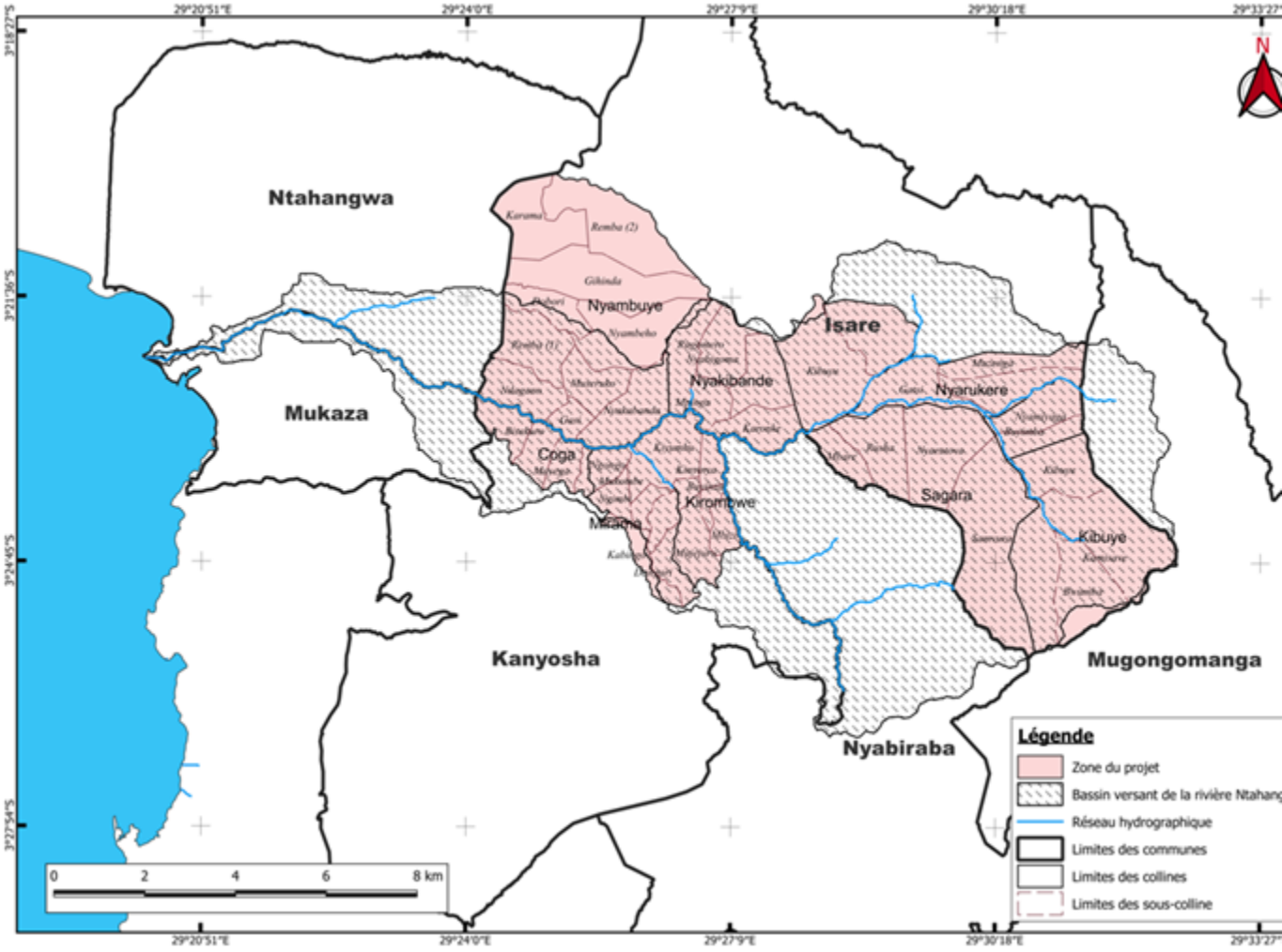


Figure 5: Projects sites, IGEBU, 2022

Root causes and drivers of climate vulnerability

Root causes

? The **roots of climate vulnerability to natural disasters** in the Ntahangwa watershed are first explained by the geophysical features of the zone combined with the **widespread poverty and growing populations pressure.** This results in increasing rates of resource extraction from natural ecosystems combined with dependency from rural communities in marginal returns from subsistence-scale agriculture and fishing and unsustainable land management practices**.** In Isare, 62% of the population relies on subsistence agriculture and 7.3% on livestock farming (cattle, sheep, and goats)[51][46] . Alike Isare, most of the population in Kanyosha relies on subsistence agriculture; livestock activities remain limited.

Despite, the importance of agriculture in the Burundi?s economy, the level of **food insecurity** is more than double the overall average in sub-Saharan Africa [52][47]. The project zone is classified at level 3 of **IPC[53][48] Chronic Food Insecurity** classification[54][49] (e.g.29% moderate chronic food insecurity). The proximity of Bujumbura provides an advantage in terms of access to social infrastructure, but this is more than offset by the very high population density. Thus, poverty and vulnerability to Climate change (CC) in the project zone are very high, especially in the more remote agricultural areas.

? **Conflict over land and use of ecosystems** is an issue in Burundi and in the region of the project due, among others, to limited available land. Thus, **population pressure** leads to lands atomicity leading to agricultural **expansion in fragile ecosystems.** This is exacerbated by (i) poor planning and management of climate-induced flood and erosion risks along the Ntahangwa watershed; (ii) the lack of coordination between urbanization and sanitation, the inadequacy of the design of the rainwater collection system and the establishment of housing and social infrastructure in areas known for their flooding character and (iii) the absence of a monitoring and alert system, to identify the danger of containment in the river bed to evacuate populations in a preventive manner when the heavy rain is forecast.

Drivers

? Land degradation reduces supply of ecosystem goods and services from natural ecosystems and agricultural landscapes. Due among others to traditional agricultural practices on steep slopes and upstream deforestation, land degradation reduces the potential for soil infiltration and contributes to the rapid concentration of flows from watersheds to urbanized or agricultural areas[55][50]. In addition, other factors such as construction in flood-prone areas, illegal constructions on the ?unoccupied? and ?untitled? public areas along the banks of the Ntahangwa, slope modifications for road construction, lack of manifold maintenance and cleaning, combined with extraction of rubble, sand, gravel and stones in the river are causing erosion and landslides contributing to land degradation.

? The causes of erosion (the gradual deepening of downstream minor beds and therefore their widening, often threatening homes and infrastructure) are (i) deforestation and lack of vegetation cover in all watersheds, including and especially in the hills, which lead to a very significant increase in initial flows (ii) the level of Lake Tanganyika, which directly influences the equilibrium of the river profile by a regressive erosion phenomenon.

? Land losses in the Mumirwa region is well over 100 ? 200 t/ha/year and will increase if no measure is taken[56][51]. Indeed, deforestation linked to the search for agricultural land and the heavy dependence of households on wood as the only source of energy for domestic uses will increase in the future due to demographic pressure.

The frequency and intensity of severe meteorological and hydrological events are likely to continue escalating with climate change in Burundi and will amplify the risks of further land degradation and infrastructures destruction. There is an urgent need to stop the vicious circle of land degradation contributing to increase negative climate change impacts and vice versa. Indeed, this vicious circle has a huge socio-economic impact for the communities relying heavily on the ecosystems for their living.

The proposed LDCF project therefore aims at reducing vulnerability to the increased frequency of floods, storm runoffs and landslides and enhance the resilience of urban and peri-urban communities of Bujumbura and the Ntahangwa watershed in and around Bujumbura and then ecosystems upon which they depend. The project will strengthen integrated watershed management and flood management of the Ntahangwa river connected to Bujumbura to ensure and increase the resilience of both upstream highland communities and downstream lowland communities living in urban areas. Considering the entirety of the watershed will ensure that the project benefits from the connectivity of the river system to ensure that interventions benefit communities in all parts of the watershed. This is especially important for protective measures upstream that will directly contribute to reducing vulnerabilities downstream. The project will require a proactive approach including upstream and downstream populations and mechanisms to avoid conflict over land and use of ecosystems. Therefore, it will include a comprehensive planning and management approach making use of climate information available in the country together with specific investments in landscape restoration, flood management measures and resilient livelihoods support. Landscape restoration in areas connected to Bujumbura will help restore flood-related ecosystem protection for both highland upstream communities and lowland urban communities with adaptive solutions ranging from tree planting to watershed protection and reinforcement of riverbanks structures. To complement the restoration efforts, livelihood activities are needed to reduce the vulnerability of populations by promoting green entrepreneurship and providing better access to markets (at this stage, the main sectors targeted are agriculture and agro-industry as well as the charcoal sector) connecting urban communities to peri-urban communities in the watershed. The charcoal sector?s reliance on trees makes it a prime sector to target through a climate-resilient value chain approach. The agro-business sector will benefit from increasing the value of agricultural products and creating new investment opportunities. The urban focus of this project opens new doors to tap into the nascent start-up ecosystems of Bujumbura while providing support for youth entrepreneurship and employment opportunities. Resilient livelihood options and green entrepreneurship are important strategies to rebuild Burundi?s economy as part of its post-COVID-19 recovery efforts. Thus, the project will contribute to increasing the resilience to climate change and improve the overall living conditions of watershed communities by proposing alternative and diversified income-generating activities with climatic and environmental co-benefits.

Barriers

? Several **barriers** to achieve the project objective have been identified. They will need to be addressed by the proposed LDCF project.

? **Barrier 1: Limited institutional and technical capacity for mapping and analyzing climate risks in support of resilient integrated watershed management (including flood management).** While a climate information system for early warnings has been established in Burundi, and operators are receiving training to operationalize the system, their capacities to make use of data and information

beyond early warning (e.g., planning and management) are and will remain limited without dedicated resources. A recent needs? assessment[57][52] on capacity building for Disaster Risk Reduction (DRR) management, revealed the need to strengthen capacities (1) in creating and analyzing mapping data, (2) mainstreaming risk management into plans and (2) developing and operationalizing contingency plans at communal and local levels. Those capacity gaps need to be addressed before national authorities can analyze trends and develop models to understand flood and erosion risks and support policy and planning processes that can ensure a resilient integrated watershed management of the Ntahangwa river. In addition, the development of community development plans (PCDC) has been an important tool to ensure community engagement in shaping programming and investment priorities. However, the absence of an overarching strategic planning process at the watershed level leads to fragmentation and difficulties in developing and measuring the overall impact of interventions across the watershed and broader productive landscape. Finally, a better inter-sectoral coordination (between the different ministries involved), vertical coordination between the government, town hall and district municipalities, and horizontal between the 13 component municipalities and the municipality of Bujumbura, is a prerequisite for providing an adequate response and disaster risk management measures. Thus, in 2012 and 2013, the Directorate-General for Water Infrastructure and Sanitation and the Directorate-General for Urban Planning developed master plans for urban planning and stormwater treatment in a totally independent manner. The improved coordination between the various ministries and with the 13 municipalities of Bujumbura, is a prerequisite to provide an adequate response and manage crosscutting risks with a long-term approach[58][53].

? **Barrier 2: Lack of climate resilient infrastructure solutions and Ecosystem-based Adaptation (EbA).** Local authorities do not have the knowledge, expertise and funding to manage climate risks appropriately at their level, even when management measures are identified in a local development plan. Preventive measures are therefore not prioritized and the response to climate-related disasters remains reactive. This results in significant damages and losses (human,physical assets), which reduces productivity and leads to negative externalities and maladaptation. Most of the public as well as private infrastructure are highly vulnerable to flooding and landslides, especially in Bujumbura?s neighborhoods. . Moreover, climate change risks are not properly considered while building infrastructure and an urgent need for climate resilient infrastructure solutions. In addition, communities of the watershed have limited exposure to ecosystem-based adaptation solutions that can restore ecosystem services for flood and erosion protection. They lack the capacity to implement EbA interventions and are not incentivized for doing so. In addition, conflicts over land use slows the adoption and implementation of EbA. At present, mediation and conflict resolution is done at colline level through a person designated by the communities, which has limitations and does not consider climate factors comprehensively. While funding for local development is scarce, human resources are abundant and communities all over the nation willingly give time and effort to benefit their own community. This approach referred to as ?labour intensive public work? does not focus on climate resilience but could be leveraged for the implementation of climate-resilient initiatives with the right incentives.

? **Barrier 3: Limited livelihood options and entrepreneurship support for climate resilience, for vulnerable and under-represented populations such as women and the youth.** Competing needs

and interests make it difficult for vulnerable populations to factor in climate risks in their decisions. The lack of resilient alternative livelihood options means they often are forced to continue with maladapted practices despite experiencing increasing negative impacts from climate change every season. Deforestation and unsustainable agricultural practices worsen the slopes? stability and compound the problems as climate change impacts worsen. Alternative options to reduce those pressures are extremely limited or not realistic due to lack of access to markets. While highland upstream areas become more prone to landslide and erosion during intense rainfall, they also worsen the situation of communities in the lowland downstream areas who face increasing risks of flood, flash floods and landslides. For the Ntahangwa watershed, demand for food and agricultural products is driven by urban population in Bujumbura while some of their needs are met by rural communities upstream. Despite this obvious link, there is a disconnect between the activities to meet urban demand and their impact on ecosystem services that protect them against flood and there are no win-win mechanisms to use market levers to encourage a shift to resilient livelihood options that meet urban demands while reducing pressure on ecosystem services that also benefit urban populations. In general, lack of market access is a barrier making those livelihood options difficult to implement as tools and mitigating strategies to overcome those barriers are limited/inexistent. Support for small business creation by the government is limited, even more for the implementation of innovative technological solutions deemed risky.

? **Barrier 4: Lack of enabling environment for mobilizing private investment in EBA interventions projects and programs for resilient green entrepreneurship activities**: The Ntahangwa Basin region does not yet have a significant industrial or even manufacturing presence. Indeed, the city of Bujumbura and its agglomeration concentrate all non-agricultural activities: the sectors using agricultural raw material in the region are the initiative of the urban populations and all the activities of added value is managed from Bujumbura, namely the activities of transport, storage, processing, refrigeration, industrial processes, and final marketing value chains. In the area of support for start-ups and SMEs, capacity to encourage entrepreneurship and support start-ups in Burundi remains weak. For small-scale rural and/or agro-processing enterprises, these obstacles are often totally insurmountable, even if the use of informal means limits their difficulty. However, the country has a small network of incubators and accelerators (often very active and very open), as well as a significant number of micro-credit or microfinance institutions, most often created and supported by NGOs or international organizations. The obstacles to entrepreneurship are numerous in Burundi, and in rural areas in particular. The proximity of the city allows a part of the population to have personal contacts or direct commercial relations with economic actors of the city, but this remains marginal. The complexity of the procedures and the requirement for guarantees or mortgages mean that even Cooperatives of Savings and Credit (COOPEC) are inaccessible to the majority of households in the area. As a result, only a small proportion of households in the Bujumbura Basin region currently benefit from micro-credits or microfinance. Moreover, private sector investors, credit unions and financial institutions have an insufficient evidence base on the benefits of EbA to assess the commercial viability of natural resource-based businesses that could emerge from investments in EbA. At present, there is a limited understanding of the monetary and economic value of functional ecosystems and natural resources, and in consequence there are insufficient funds allocated to natural resources in both government budgets and the private sector to enable large-scale investments in EbA in Burundi.

2/ Baseline scenario

In Burundi, the high population density of 477 hab/km? in 2021 (29th most densely populated country)[59][54], with 27,834 km? of surface area for a population of 12,255,429 million inhabitants, makes the pressure on land and water resources very strong. This leads to soil degradation due to the use of unsustainable agricultural practices which is further exacerbated with climate change impacts. Climate change is leading to increased occurrence and intensity of droughts and floods, a change in season cycles with late beginnings of the rainy season and the early end of the same, land erosion, reduced and irregular rainfalls, etc. The Ntahangwa river flows from the eastern part of Bujumbura and ends in Lake Tanganyika. The basin covers an area of 97 km2, with an upstream area in mostly hilly highland landscapes and lowland urban areas downstream. The highland area is prone to erosion and landslide. Their impacts will worsen over time and prevent ecosystems from acting as a buffer against flood due to low infiltration rates causing rapid flowing water runoffs. With a combination of poor urban planning and weak infrastructures, Bujumbura gets more affected by the intensified occurrence of floods and landslides.

In a business-as-usual scenario, climate-sensitive agriculture and deforestation will continue to cause widespread degradation on the hills of the watershed and communities will become increasingly vulnerable to the impacts of climate change and land degradation. These impacts will be disconnected from the problems facing the downstream urban and peri-urban areas as planning and management of the watershed will remain fragmented with urban development planning and rural development planning processes conducted separately. A climate information system covers critical areas of the Ntahangwa watershed and was supposed to provide early warnings to population by 2021. In theory, the data from the climate information system could be exploited for modelling and decision-making purposes, but lacking technical capacities limit the scope of their use beyond early warning, for example to model climate risks and to provide tailored risk intelligence that could be used for development planning and decision-making. If nothing is done, this treasure trove of data collected by the climate information system will remain unexploited.

The demand for food, agricultural products and charcoal in Bujumbura will continue to drive unsustainable practices in the watershed areas critical to Bujumbura?s protection. Opportunities for alternative livelihood options contributing to maintaining slope?s stability while meeting the needs of urban areas are ignored and prevented by difficulties in accessing those markets. Lack of capital (land and savings) and social norms make it harder for women and youth to seek those opportunities as they are bound to rely on family and their decisions for livelihood options.

Capacity to integrate climate change adaptation into policies is generally limited and the impacts of climate change are not always understood and considered. The government has developed strategies and plans to address issues related to climate change, natural disasters, and land degradation, but the realization of the ambitions set in those documents relies heavily on externally funded investments.

Several initiatives have been tested and other are being developed to promote engagement of women and youth in small revenue generating businesses through cooperatives:

? **UNDP/Burundi 3x6 approach**: The support to socio- economic reintegration of former combatants commonly known as **3x6 approach** is based on three phases: phase 1 inclusion aims to provide opportunities for temporary employment that generate incomes and to save the part of the income), phase 2 appropriation aims to promote economic development via creation of associations and phase 3 towards sustainability aims to provide projects with investment support and market expansion. This strategy consisted in engaging reintegrated persons into high intensity of labor (HIL) and other lucrative activities on a voluntary basis, at the same time promoting savings for the sake of creating small businesses at the end, proved to be very successful. As one of the outcomes of this approach, some self-sustained businesses are now still running and have succeeded to create long-term employment[60][55].

? Moreover, as a response to the overwhelming current problem of unemployment in Burundi, mostly among the youth, UNDP/Burundi is also engaged in a project on **Resilience and social cohesion through rural integrated village at Mayengo** which emphasizes on empowering interned displaced population to be more creative in terms of entrepreneurship.

? **The Association for Women Entrepreneurs in Burundi (AFAB):** AFAB was created in 1992 by a women association that was conscious of the role women had to play in the economic development of Burundi. It is promoting women entrepreneurship through trainings, gatherings, support to the improvement of the business regulatory framework in Burundi and the establishment of international and regional partnerships.

These **baseline projects** have interventions in parts of the Ntahangwa watershed or have activities that could affect the management of the watershed:

? **Project to support the rehabilitation of natural landscapes and adaptation to climate change in the provinces of Mumirwa in Bujumbura and Bujumbura Mairie through Farmer Field Schools (2019 ? 2023),** funded by the GEF-LDCF fund and implemented by MINEAGRIE with the support of FAO, the project uses the Farmer Field Schools approach to address the root causes of climate change-induced landscape degradation and unsustainable land uses in the target areas.

? The **Burundi - Landscape Restoration and Resilience Project (2018-2024)** funded by the World Bank includes a component on sustainable landscape management practices in the commune of Isare covering parts of the Ntahangwa watershed. The funding supports landscape restoration and erosion control and improved practices of crop production. The project aims to improve soil productivity and food security while providing co-benefits in terms of climate change adaptation. The LDCF intervention will build on and complement this project by developing capacities for resilient integrated watershed management in the Ntahangwa watershed, with a focus on addressing the underlying causes of vulnerability to climate change in the watershed under components 1 and 2. The project is extended till the end of 2024 and will cofinance the proposed LDCF project up to US$11,5 M.

? The ?**Lake Tanganyika Water Management**? project is financed by the European Union as part of a regional programme and implemented by Enabel. It supports the Lake Tanganyika Authority in improving the sustainable use of the Lake?s water resources. Water quality and fisheries in the Lake is

affected by erosion and sedimentation coming directly from rivers connected to the Lake, including the Ntahangwa river.

? The reforestation project **?Ewe Burundi Urambaye** was launched in November 2017 by the Government of Burundi for a period of seven years. This project aims to contribute to the reduction of deforestation, and land degradation, by planting trees in all the forests of the country with the overall objective of contributing to the regeneration of nature in order to improve the social, economic and environmental conditions of the country.

3/ Proposed alternative scenario

The Government of Burundi is requesting funding from the LDCF to develop the long-term adaptive capacity of communities to employ strategies that reduce land degradation and diversify livelihoods for a transformative and climate resilient development. The target regions will include Bujumbura city and surroundings areas connected to the Ntahangwa river flowing through the city. Bujumbura, while not the capital city, is the economic powerhouse of the country and the government made its protection a priority. The alternative scenario will address the main barriers to climate resilience and the root causes of vulnerability in the Ntahangwa watershed, using an integrated watershed management approach as leverage to connect urban, peri-urban and rural communities in the watershed for increased resilience. Therefore, the project will seek for win-win adaptation solutions allowing the improvement of community livelihoods and food security while protecting ecosystem services from present and future climate change effects. The project objective is to ?Increase resilience of watershed communities in and around Bujumbura through a resilient integrated watershed management for landscape restoration and flood management?.

This will be achieved through four main components:

? Component 1: Developing technical capacities for climate-induced flood and erosion risks mapping and their use to inform climate-resilient integrated watershed management and other planning processes

- o Outcome 1: Enhanced capacity for climate risk modelling and integrated planning in the Ntahangwa watershed and Bujumbura town

? Component 2: Landscape restoration and flood management measures to protect communities in the Ntahangwa watershed and Bujumbura from flood and erosion risks

- o Outcome 2: Ecosystems services for flood and erosion protection restored and flood protection measures implemented to improve the resilience of communities in the Ntahangwa watershed and in Bujumbura.

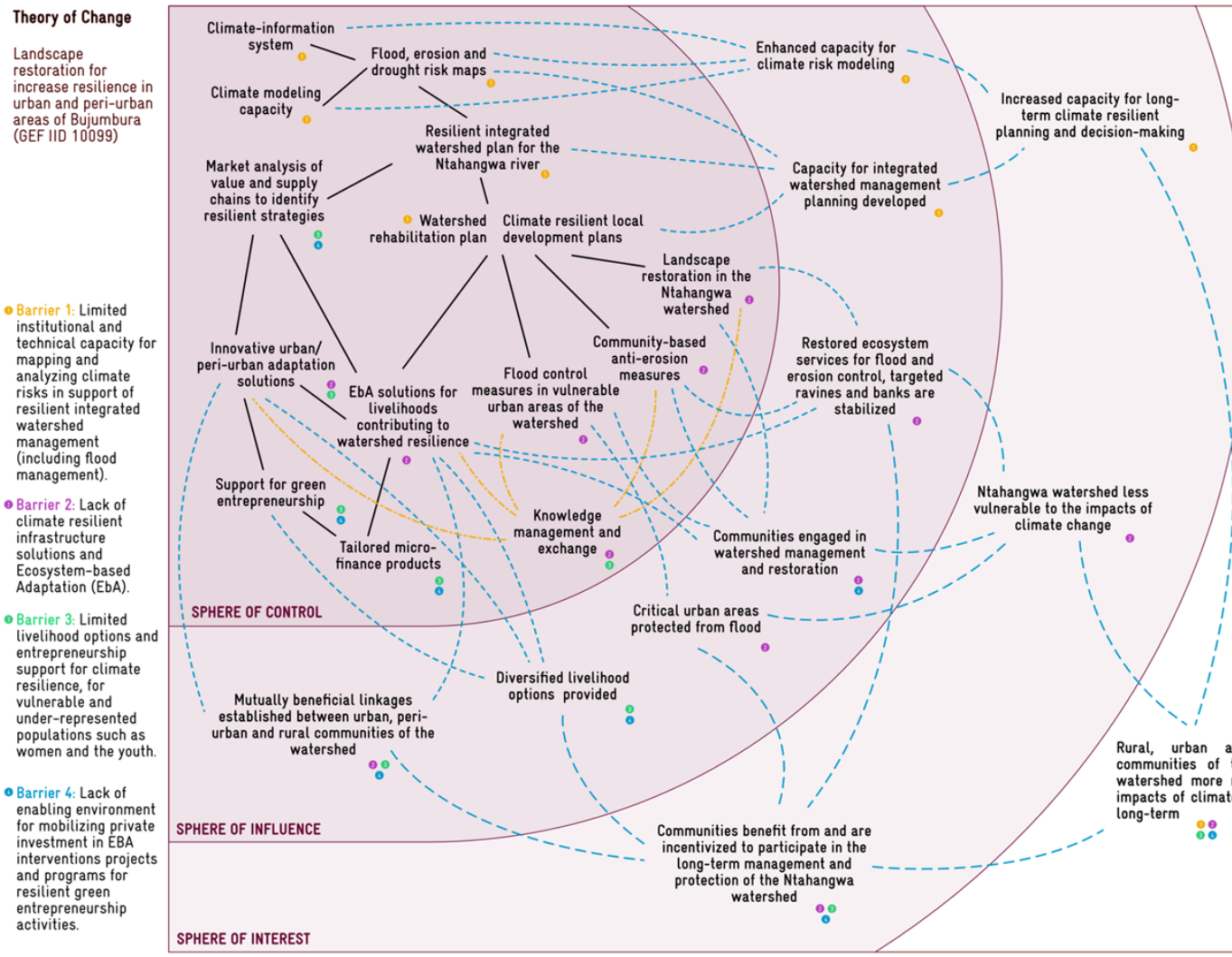
? Component 3: Livelihoods options and green entrepreneurship to increase resilience of the urban, peri-urban, and rural communities in the Ntahangwa watershed

- Outcome 3: Community livelihood is improved with sustainable adaptation measures contributing to urban, peri- urban and rural resilience.

? Component 4: Management, coordination, Monitoring and Evaluation, and communication of the project

- Outcome 4: Relevant local and national stakeholders are able to adopt resilient approaches in watershed management, flood management, land restoration and erosion control and green entrepreneurship, drawing from the experience of the project

Theory of change



Key Assumptions

A1 ? Quality gender-responsive data generated and other knowledge products developed through the project are used effectively in climate risks and resilient watershed management planning.

A2 ? Coordination on climate risks management among central and decentralized government entities leads to coordinated risk management activities is effective.

A3 ? Landscape restoration efforts developed through the project are not jeopardized by inappropriate agricultural practices.

A4 ? Capacity-building at institutional and communities level provided by the project allows the increase in EbA interventions.

A5 ? The global COVID-19 pandemic recedes and opens new opportunities for green growth initiatives.

A6 ? Women and youth are able to, and willing, to take part in new business initiatives.

A7 - The private sector is interested in taking a leadership role in green entrepreneurship activities.

Description of the project components

(for more detailed descriptions of the outputs and planned activities, please see the Project Document section 4 ? Results and Partnerhips)

Component 1: Developing technical capacities for climate-induced flood and erosion risks mapping and their use to inform climate-resilient integrated watershed management and other planning processes.

The Ntahangwa river connected to Bujumbura is a strategic asset that provides opportunities for productive sectors (e.g., agriculture, fisheries) but is also prone to climate risks and causes important damage due to erosion and landslides during wet seasons. Investments in parts of the Ntahangwa watershed have been made in the past, but they are insufficient to yield their intended results as they are scattered and not chosen based on an overall understanding of the watershed hydrologic processes and ecosystem services. A comprehensive integrated approach to land and water resources management of the Ntahangwa watershed is required to ensure long-term flood and erosion control and increased resilience of the communities in the watershed, including in areas at high risk of flood in densely populated areas of Bujumbura.

The aim of this component is to enable provincial, communal, and local communities to be better prepared to face natural disasters (in particular flood and erosion) in the Ntahangwa watershed zone through data collection and analysis and integrated planning.

Under this component 1, capacities to analyze climate data and develop climate risk models will be enhanced to support climate-resilient integrated planning at the watershed level and inform communal development plans and flood-resilient urban development plans. This will be done through a resilient and integrated watershed approach, including technical assistance (TA), workshops, operational costs, and equipment.

Outcome 1: Enhanced capacity for climate risk modelling and integrated planning in the Ntahangwa watershed and Bujumbura town

The outcome under this component will address barriers 1 and 2 to the long-term solution identified in section I. Under the LDCF project ?Community based climate change related disaster risk management?, a community-based climate information system was developed to collect hydrological information and disseminate early warning information. 30 hydrometeorological stations were installed, with information collected centrally by the Geographic Institute of Burundi (IGEBU) and already covering the Ntahangwa watershed. Despite these efforts, hydrological sensors are currently needed to operationalize some of the

stations. Therefore, the project will support the EWS to be fully operational. The improvement in technical capacity combined with definition of tools and methodologies to be scaled up in the framework of the landscape approach will contribute to the sustainability of the system. In addition, ownership and implementation by government institutions is an incentive for sustainable resource management. In addition, the project will assist the government in accessing resources from the newly established WMO Systematic Observations Financing Facility (SOFF) to supplement investments in the national climate information system and unlock performance-based payment options for network maintenance in the long-term.

The LDC/CDRM final evaluation[61][56] recognized that training IGEBU on hydrometeorological forecasting was not achieved due primarily to the COVID-19 and insufficient financial resources to cover all concerned stakeholders. Indeed there is still a strong need for training of provincial, communal services and local communities for disaster risks preparedness and responses management to ensure long term and sustainable emergency and reconstruction phase. Therefore, the outcome 1 will focus on the passing of local knowledge through community groups and decentralized services empowering local administrations- In addition, it will build government capacities to expand the use of the climate information to better understand ecosystem health and their capacity to deliver benefits in terms of resilience under the current human, environmental and climate-related pressures. Modelling capacities also need to be enhanced to develop hydrological models to determine climate risks, more specifically flood and erosion risks, in the Ntahangwa watershed based on current climatic trends and future climate change scenarios. Those are pre-requisites for the development of an evidence-based, climate-resilient, integrated watershed management plan for the Ntahangwa river, as they will guide planning and decision-making processes that will be developed under this outcome.

Therefore, outcome 1 will support the other outcomes by creating the necessary basis upon which this LDCF project can conduct ecosystem restoration, flood protection and livelihood development activities to increase the resilience of communities in the watershed (in rural, urban, and peri-urban areas). The evidence-based framework for planning and investment decisions will help ensure the sustainability and scalability of the project. Improvements to the climate information system will also help with collection of data and information that make monitoring and evaluation of the project?s impact easier to measure quantitively.

The former partnership under the LDCF/CDRM project with Niger-based African Centre of Meteorological Application for Development (ACMAD) and the CIMA foundation should be maintained and reactivated. Indeed, ACMAD has agreed to provide on-line training on a subsequent phase of the CDRM Project with the Burundi Red Cross to deliver services related to training of IGEBU and the communities on the operationalized EWS.

The Burundi - Landscape Restoration and Resilience Project (2018-2023) funded by the World Bank the landscape restoration and resilience project in Burundi and operating in the province of Bujumbura in the commune Isare and the commune of Buhinyuza in the province of Muyinga, has similar activities, under *component 1, Institutional development and capacity Building for Landscape restoration and*

resilience This project will co finance the proposed LFCF project up to US $ 11,500,000 for both components 1 and 2.

The ?Lake Tanganyika Water Management? project is financed by the European Union as part of a regional programme and implemented by ENABEL, the Belgian Development Agency. It supports the Lake Tanganyika Authority in improving the sustainable use of the Lake?s water resources. Water quality and fisheries in the Lake is affected by erosion and sedimentation coming directly from rivers connected to the Lake, including the Ntahangwa river. The project includes a regional component on water quality and pilot projects in five cities bordering Lake Tanganyika. The proposed LDCF project will liaise with ENABEL to benefit from the LATAWAMA investments on water quality and water sanitation piloted in Bujumbura and the use of information on water and water quality from monitoring and control network.

? *Output 1.1: The community-based climate information system supported and improved to monitor changes in key ecological determinants of ecosystem health and resilience in the Ntahangwa watershed is enhanced*

? *Output 1.2: Training program implemented to enable the use of hydrological and climate models to map out climate-sensitive flood and erosion risks in the Ntahangwa watershed*

? *Output 1.3: A resilient integrated watershed management plan prepared to guide the development and rehabilitation of the Ntahangwa watershed in areas critical for the provision of ecosystem services for flood and erosion control based on gender responsive approach*

? *Output 1.4: Flood and erosion risks maps developed for use in climate-resilient planning (urban development and investment in Bujumbura, local development plans in communes of the Ntahangwa watershed).*

Component 2: Landscape restoration and flood management measures to protect communities in the Ntahangwa watershed and Bujumbura from flood and erosion risks.

The area surrounding Bujumbura is the most prone to erosion and landslides, a situation which will increase over time according to climate projections[62][57]. Component 2 will build on the evidence base and the climate-resilient integrated watershed management plan provided in Component 1 to implement ecosystem-based adaptation (EbA) interventions and flood protection measures in strategic locations across the Ntahangwa watershed. The EbA interventions will restore or maintain ecosystem services for flood and erosion control while protective measures against flood will help stabilize critical riverbanks in at-risk populated areas of Bujumbura. This component represents the bulk of the investments proposed by this LDCF project and will complement and strengthen other investments made in landscape restoration, afforestation, and resilience-building activities in parts of the Ntahangwa watershed and, it will strengthen the outcomes of the CDRM project and follow the recommendations and lessons learned from that project. (See *Section 2* on *Associated baseline projects*). The project will adopt an integrated

approach to the management of the Ntahangwa River watershed through the reforestation of hilltops and other degraded sites. As a result, 3000 ha of degraded landscapes will be reforested with hopefully multi-purpose, fast-growing forests.

In order to ensure the sustainability of the activities under this outcome, a planning and participatory management of these afforestations will be put in place while involving the affected populations. To this end, forest management plans will be drawn up with the participation of the populations organized in Forest Management Group (*Groupement de Gestion foresti?re* (GGF)). A cost-benefit sharing agreement linking The GGFs, the municipality and the Burundian Office for Environmental Protection will be signed by the 3 stakeholders.

Outcome 2*:* Ecosystems services for flood and erosion protection restored and flood protection measures implemented to improve the resilience of communities in the Ntahangwa watershed and in Bujumbura.

This outcome will address barriers 2 and 3 identified under section I. Between 2018 and 2020, The LDCF/CDRM interventions included under its component 3, the slope stabilization works on Ntahangwa River with 17,720 mof gabion to stabilize nearly 1 km of riverbank with 50 houses saved directly from the landslides and 150 m of Mukaraka road reconstructed. In addition, 1,400 km of erosion control vegetated ditches in Mumirwa, Bugesera and Imbo, 2,886 km of vegetated anti-erosive ditch in Bujumbura province, 1,643ha upstream on the Ntahangwa River Basin was replanted, and 1,037,566 agroforestry trees produced and planted in the local communities for agricultural exploitation.

Previous investment made through the CDRM were never meant to be a sustainable solution but a measure to start the long process of watershed rehabilitation that would have the ability to catalyze more investments into disaster risk management for Burundi. There is therefore the need for follow-up investments in watershed protection. This project aims to contribute to carry on the work of the CDRM project on the Ntahangwa watershed. There is a need for rehabilitation of more critical sites in the area of the Ntahangwa watershed to reduce climate risks on community and public infrastructure in the Ntahangwa watershed zone around Bujumbura. In particular, the repair of ravines near public buildings (Mugoboka I and II Secondary Schools) and other observable ravines in the South Mutanga District were identified as a priority.

Under this outcome, the project will promote ecosystem-based adaptation techniques in the highland upstream areas of the Ntahangwa watershed. The specific measures include landscape restoration techniques and community-based anti-erosion measures. Landscape restoration techniques will focus on planting trees and creating quickset hedges to stabilize hills in the watershed and will be complemented by anti-erosion contour trenches and terraces. Those techniques are meant to reduce soil erosion, increase soil moisture, and reduce surface water runoff, therefore improving ecosystem services provided by the watershed and its streams. During intense rainfall, contour trenches channel water runoff and reduce erosion and crop losses due to flooding. By increasing soil moisture, they also provide added protection against drought and heat waves on crops. These EbA techniques increase land productivity and food security. They bring additional economic benefits to communities as most of the hills in the watershed are used for agricultural production.

The landscape restoration efforts will be implemented directly with the local communities in each of the targeted hills in selected communes of the Ntahangwa watershed. Local authorities and local communities will enforce a ban on tree cutting and maintain anti-erosion trenches as part of their community work (half a day per week is dedicated to community work) under a labor-intensive public works (LIPW) scheme. Those EbA techniques are appropriate for a LIPW approach as they are low-tech and easy to implement and maintain with little capital. The LIPW approach has been applied successfully in Burundi for many years and is one of the approaches used to implement activities of the local development plans (e.g., *Plan Communal de D?veloppement Communautaire (PCDC))*. The strategies and modalities of operation under LIPW can either facilitate or hamper women?s participation in the programme and therefore their share of benefits. Under this outcome, the project will develop a gender perspective that does not end at objective-setting but runs through planning and implementation. For that, all project communication programs and materials will include information on women?s critical roles in the project to increase gender awareness. In addition, gender-responsive approach will acknowledge women not as passive beneficiaries, but as active decision-makers and drivers of the development of gender-responsive landscape restoration activities.

During the phase of identification of stakeholders needs, knowledge and use of natural ecosystems, as well as interests, priorities, roles, and responsibilities for potential landscape restoration initiatives, the project will encourage more of women to join in the planning and decision-making processes as well as in their actual implementation. Women rely mostly on agriculture for subsistence and have a major role to play in landscape restoration activities. Gender considerations will therefore be essential to the success of those activities. Gender considerations need to be meaningfully integrated throughout restoration assessment, planning and implementation processes; entry points for action and reform must be identified in collaboration with local stakeholders; and opportunities to strategically support women?s and men?s participation must be seized. As specified in the GAP, particular attention will be paid to the level of engagement of women in project consultation, striving for equal right to expression and equal opportunity to influence decisions. Women will actively participate in project consultation, accounting for 50% of representatives, including representatives of different communities, women of all ages, and marital status; women will express their opinions and these will be taken into account in influencing each decision -making process related to the project.

The risk mapping and modelling exercise undertaken under Outcome 1 and the watershed rehabilitation plan developed under output 1.2, will help prioritize the hills and communes of the watershed based on their vulnerability to erosion and landslide and their contribution to the ecological status of the river and streams. This prioritization will also consider current and previous investments in the watershed to avoid overlaps and duplication as well as ensure that other interventions in contribute to addressing the climate threats facing the watershed. In total, the project will cover 3,000 ha of afforestation and agroforestry with local varieties trees and herbaceous/shrubby quickset hedges in critical degraded areas and agricultural lands as well as establish 1,000 km of contour trenches and progressive terraces. The local variety trees will be selected for their environmental benefits (e.g. deep rooting, water and soil conservation ?) as well as their ability to provide ecosystem services (e.g medicinal plants, insecticide) and economic benefits (e.g wood and timber production, oil production).

Additional protection from flood will be provided through investment in protective infrastructures in lowland downstream areas, more specifically at-risk populated areas of Bujumbura close to the river. While Bujumbura is less prone to erosion, floods have devastating impacts on the city and the rivers flowing through it, including the Ntahangwa river where critical infrastructures such as schools, churches and habitation are directly at risk of collapsing. Climate change projections indicate that this situation will worsen over time, with increased variability between seasons and increased rainfall causing will increase the frequency of flash flood and landslides. Initial investments in flood protection measures were conducted along the river as part of the previous LDCF intervention. Those measures were considered a success by beneficiaries and the government. The risk mapping exercise under Component 1 will be used to determine the physical location and protective infrastructures options for implementation at a fine-scale level. This work involves civil engineering techniques to reinforce the sides of the river channel with gabions and terraced surfaces. Prior to this work, a feasibility study will be conducted as well as an ESMP completed by a waste management Plan and labour Management procedures. For these infrastructures, the project will ensure that women are engaged and participating in project consultations for the identification of the projects sites and the preparation of technical and safeguard related documentation planned (e.g. feasibility study, ESMP, Waste management Plan.) to address gender-based barriers and respect gender differences as well as identify gender actions in order to be gender responsive.

These interventions will be supported by tools and technologies to increase communication and knowledge management at the community level to ensure better responses and handling when climate-related disasters occur. These will aim to create awareness and promote targeted interventions to shift response behaviours to improve climate resilience. South-South cooperation and exchanges of experience and lessons learned on EbA solutions for landscape restoration and urban-based flood protection measures will also be explored during the implementation phase. These activities will promote the sustainability and scalability of the project, for their application in other rivers and watersheds connected to Bujumbura and Lake Tanganyika.

During the PPG consultations, it was found that there are many lessons learned for watershed management techniques and approaches. The "watershed -wetland" approach initiated by ENABEL is very relevant and the project will draw lessons for its implementation. This approach aims to manage watershed and connected wetlands in an integrated manner.

In order to consolidate the anti-erosion plant measures, innovative agricultural practices will be initiated in the project zones. These include mulching, log cropping, crops against slopes, etc. These agronomic practices have yielded satisfactory results in terms of increasing agricultural productivity and production in development projects initiated by Development Partners in Burundi such as IFAD, FAO, the World Bank and PAIOSA.

The Burundi - Landscape Restoration and Resilience Project (2018-2024) funded by the World Bank the landscape restoration and resilience project in Burundi and operating in the province of Bujumbura in the commune Isare and the commune of Buhinyuza in the province of Muyinga, has similar activities, under *component 2 sustainable landscape Management practices, subcomponent 2.1 Landscape restoration and erosion control*. This project will co-finance the proposed LDCF project up to US $ 11, 500,000 for both components 1 and 2.

? *Output 2.1: Restoration measures of vulnerable hilltops of the Ntahangwa watershed connected to Bujumbura completed through the methods of tree planting and quickset hedges;*

? *Output 2.2: Establishment of community-based anti-erosion measures, such as ditches, in vulnerable hills critical for the ecosystem health and resilience of the Ntahangwa watershed.*

? *Output 2.3: Flood control measures built along the Ntahangwa river channel in areas of Bujumbura where public and private infrastructures are at imminent risk of landslide during extreme climate events.*

Component 3: Livelihoods options and green entrepreneurship to increase resilience of the urban, peri-urban, and rural communities in the Ntahangwa watershed.

Component 3 aims to support and strengthen the watershed restoration activities under Component 2 by inducing a shift away from unsustainable and vulnerable practices and livelihoods. Livelihoods enhancements and diversification activities proposed under this component will provide incentives to ensure participation and ownership of the project activities by beneficiaries and improve the long-term sustainability of the project results after it ends. The Ntahangwa river is strategic due to its geographic situation connecting highland areas highly sensitive to climate with major strategic assets for Burundi, the city of Bujumbura and Lake Tanganyika. While the connection between the urban, peri-urban, and rural communities of the Ntahangwa watershed has been ignored or overlooked, the project will identify and build on the synergies between those communities to deliver win-win adaptation solutions benefiting populations of the watershed, no matter their location or situation. The win-win adaptation solutions aim to ensure food security and secure livelihoods of the community while maintaining ecosystems services in the face of anticipated climate shocks.

This component also provides specific entry points to support women, young people and indigenous people with concrete resilience-building solutions or opportunities and tailored support and incentives. Although rural areas have higher poverty rates, the COVID-19 has had immediate and severe impact in urban areas due to the high dependance of the urban poor on informal and non-wage income streams which easily succumb to crises due to low capacity to adapt to sudden changes in market conditions. The livelihood options and green entrepreneurship opportunities proposed under this component build climate resilience while creating green jobs and contributing to building back better as part of the COVID-19 recovery efforts.

A Biodiversity Action Plan (BAP) will be designed after project validation but before component 3 activities start, in order to frame component 3 activities. The BAP will include a list of criteria for businesses and SMEs to be supported and of types of activities which should not be supported by the project. The ProDoc already indicates that the project involves planning for sustainable development of existing, or to be created, nature-based value-chains that provide adaptive benefits, and that the support to SMEs is planned for promoters of enterprises based on the sustainable use of natural resources.

Outcome 3: Community livelihood is improved with sustainable adaptation measures contributing to urban, peri-urban, and rural resilience.

This outcome will address barriers 3 and 4 identified under section III. Outcome 3 introduces adaptation measures promoting resilient livelihoods options and green entrepreneurship opportunities building on synergistic opportunities between populations in urban, peri-urban, and rural areas of the watershed and resulting in increased resilience to climate change for populations in the watershed. The options and strategies will be informed by a climate-sensitive market analysis looking at demand levers that could be used to trigger climate-resilient offerings reducing land degradation in the watershed. The results of the market analysis will be used to inform urban and local development plans supported as part of Outcome 1.

Under outcome 3, the project aims to foster innovation by supporting green entrepreneurship for urban/peri-urban adaptation through investment and skill training. This outcome aims to enhance engagement of the private sector as well as the micro-finance sector into green entrepreneurship business and agri-food processing. For that, the project will engage through consultations and capacity building activities in order to attract investments and business development to diversify options beyond traditional on-farm rural-based employment. In addition, activities under this outcome aim to encourage micro-finance sector to make effort with specific derisking measures for micro-finance and micro-insurance products on one hand, and to bring together MFI and entrepreneurs who can greatly benefit from those services and hedge their risks associated with the climate change impacts on their activities.

During the PPG process, consultations with private sector entities have been organized (see ANNEX 9 Stakeholder engagement plan) and many expressed their interest in participating in this project. However, the project will have to support capacity building activities in order to raise their awareness on the benefit of investing in ecosystems and ecosystems services in one hand and how to develop projects and access to credit.

The dynamism of start-ups and very small enterprises (TPE) in Burundi was observed during the PPG process. Start-up support organizations are concentrated in Bujumbura (Bujahub, Adisco, BBIN, Spark, Impact Hub, Kit Hub, Yan.). In addition to a network of microfinance organizations and related services, there are dedicated financing institutions have been identified, including the ?Youth Bank? which depends on the state. This project will involve these stakeholders under this component.

In addition, UNDP has launched Accelerator Lab facilities in several locations across Africa and other funds are in place to provide support for incubation and acceleration of innovative ideas, including for climate change adaptation and resilience. The urban focus of the LDCF intervention will make it easier to connect with innovators in Bujumbura. UNDP has initiated contact with Impact Hub Bujumbura to connect with this group of stakeholders, the youth and women, in particular those with higher education who have difficulties finding opportunities in innovative technology development matching their ambitions and expectations. The project will have to reactivate this contact towards building partnership with this group of stakeholders.

The proposed LDCF project will also liaise and build on experiences of the following existing UNDP projects : 1) PADDEL (*Support to decentralization and local economic development project*) that aims

to (i) improve the economic performance of local economic actors so that they can better play their role in gender-responsive development; (ii) Strengthen the technical and operational capacities of local actors for the implementation of the competencies transferred to the Communes and citizen participation. 2) Support to the Socio-Economic Empowerment of Women in Burundi project which aims to improve women?s livelihoods and social status.

? *Output 3.1: Private sector mobilized in project areas to engage in value chain activities that promote green entrepreneurship*

? *Output 3.2 : Capacity building and support for local entrepreneurs and SMEs to develop green entrepreneurship activities are enhanced*

? *Output 3.3: Promote innovative financing with a micro-finance institution to support the development of green entrepreneurship activities for women and youth.*

Component 4 : Monitoring and Evaluation, and Knowledge management

This component aims to secure the long-term adoption of resilient integrated watershed management, flood management, land restoration and erosion control, green entrepreneurship approaches within the project zones, and to inform the upscaling of theses interventions in other watersheds in Burundi. It will promote communication and knowledge management, and explore mechanisms to share experience and lessons learned and promote sustainability and scalability of the project?s livelihood options for EbA and green entrepreneurship initiatives developed under components 2 and 3. This will be achieved through use of the M&E data, lessons learned and best practices from the first three components to develop a strategy for scaling-up. This knowledge will be particularly relevant to inform planning and budgeting at the local, communal, provincial and national levels and for the continuous capacity building of stakeholders to support scaling-up beyond the life of the project. While this component is preparing the exit strategy of the project by capitalizing the knowledge acquired in the three first components, the activities will be carried-out all along the project implementation.

Outcome 4: Relevant local and national stakeholders are able to adopt resilient approaches in watershed management, flood management, land restoration and erosion control and green entrepreneurship, drawing from the experience of the project

? *Output 4.1. Project monitoring system providing systematic information on progress in meeting project outcomes and output targets*

? *Output 4.2. A communication strategy aimed at the relevant local and national stakeholders is developed and implemented*

? *Output 4.3: Guidance materials on (i) landscape restoration, and (ii) flood management and protective infrastructures , (III) resilient livelihood options and (iv) green entrepreneurship and startup*

creation leveraging urban, peri-urban and rural win-win opportunities for climate resilience are prepared and disseminated within Burundi and via South-South exchanges.

4/ Alignment with the GEF focal area

The project is fully aligned with the GEF LDCF programming strategy, and all the activities contribute to increase adaptive capacities of beneficiaries in the project target areas. The project responds to needs clearly identified by the government and confirmed during the PIF preparation to ensure full ownership of the project by the executing agency. Additional considerations include vulnerable groups as beneficiaries of this project, youth, and women. Incidentally, this aspect will also support stronger engagement of the private sector in this project in line with the GEF-7 strategic considerations provided to the GEF Agencies. In particular, the project is designed to address two GEF7 focal areas:

CCA1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation

The project will provide specific solutions to put in place resilient techniques for watershed rehabilitation and river protection techniques that will reduce the vulnerability of communities at different levels of the watershed, be they in urban, peri-urban, or rural areas. Some of those solutions will involve innovation and technology transfer for increased resilience (land restoration, anti-erosion techniques, flood protection measures). The EbA options for watershed resilience and livelihood diversification proposed by the project will also favor innovation and technology transfer. The support to green entrepreneurship aims to foster the creation of businesses and start-ups developing innovative technological solutions specifically tailored to the local context and specificities of Bujumbura. The project will provide tools, support, and partnership opportunities to ensure to create the best possible conditions for innovation and technology development and transfer to occur.

CCA2: Strengthen institutional and technical capacities for effective climate change Adaptation

Component 1 of the project will provide capacity building and training to broaden the use of climate information for climate risk modelling, planning and decision-making, creating the evidence base necessary to facilitate the adoption of a climate-resilient integrated watershed management approach. These activities will create the necessary conditions for a comprehensive, effective, and integrated management of the Ntahangwa watershed that can plug into and inform key development planning tools in Burundi, including the PDCD and urban development plans in Bujumbura.

5/ Incremental cost reasoning

In the baseline scenario, several initiatives and investments in landscape restoration, water resources management and flood protection measures undertaken, have limited results because they did not adopt **a proactive approach to address the root causes upstream** and develop simultaneously upstream and downstream measures to secure infrastructure and populations from natural disasters and climate extremes. Indeed, Climate considerations are rarely included in the design of public infrastructures or land management. This directly affects the resilience of infrastructures and productive lands to climate change impacts and extreme-weather events. At present, investments in resilient infrastructure are limited and recent floods, erosion and landslides are already impacting the country?s economy with increased incidents and deaths in period of floods as well as the destruction of homes, community structures, and public roads in Bujumbura and around. The World Bank estimates that land degradation and deforestation is costing Burundi 12% of its Gross Domestic Products, a situation set to worsen over time with climate change. By strengthening landscapes in the Ntahangwa watershed, the project will contribute to increasing land productivity and resilience as well as restore ecosystem services in terms of erosion and flood control in the downstream part of the watershed, which is critical for Bujumbura, the economic powerhouse of the country. Flood control in Bujumbura is necessary along stretches of the Ntahangwa identified as high risk of landslide during periods of floods, in some case as last resort measures to save the imminent collapse of buildings, entire streets and public roads. Disaster risk reduction is also a cost-effective measure to ensure that the population is informed and can react to extreme weather events that may affect them. This will be achieved at a low-cost by the project making use of the already existing Early Warning System adapted to send tailored messages for populations in the target area. Meteorological and hydrological instruments are already spread throughout the Ntahangwa watershed and collecting data on a routine basis to feed into a national-level database.

The LDCF investment will ensure complementarity by adding climate considerations in the landscape approach and infrastructure development. The baseline corresponds to activity taking place in the Ntahangwa watershed and the co-financing captured in this PIF represents the estimated contribution of those investments to the project. In the case of national interventions or interventions beyond the Ntahangwa area, efforts have been made to evaluate the part contributing to the LDCF project area. Baseline investments under Outcome 3 corresponds mostly to investments in value chain development and food processing. Additional incremental co-financing for green entrepreneurship is expected to be identified during the project preparation (e.g. seed funding for project incubation and acceleration).

6/ Global adaptation benefits

The project will benefit an estimated 116,082 people divided into 19,709 households in 8 *collines* and 5 *quartiers* [63]. Therefore, the project will build on the previous LDCF intervention in the Ntahangwa watershed to increase the resilience of this population from the two Bujumbura Provinces, Bujumbura Mairie and Bujumbura Rural, or about 8% of the total estimated population (1,533,444) in these two provinces (in 2022, based on the 2020 projections from the Institute for Statistics and Economic Studies of Burundi (ISTEEBU)[64]). Those two provinces also have the highest population density in the country and projections from ISTEEBU points to a worsening of this trend in the 2030 horizon. Although the Ministry of Environment, Agriculture and Livestock has received requests from communes in the Ntahangwa watershed to participate in landscape restoration, the exact list of communes to be supported

will be determined by the climate-resilient watershed management plan and related watershed rehabilitation plan. On top of those beneficiaries, the project will restore 3,000 ha of degraded areas through tree planting and agroforestry, an additional 1,000 km of anti-erosion ditches and terraces and 2.5 km of flood control infrastructures along the Ntahangwa river in Bujumbura itself. In total, the project will target 8,980 ha of the watershed under climate-resilient management, corresponding to 70% of the total watershed area. The results of this project will build on the achievements of the previous LDCF intervention on community-based climate change related disaster risk management.

In addition, considering the urban focus of the new project scope, complementary measures are proposed to increase urban/peri-urban resilience through EbA solutions and green entrepreneurship with a specific focus on innovation and supporting women and the youth through youth organizations and women?s association. Thus, to complement the restoration efforts, livelihood activities are needed to reduce the vulnerability of populations by promoting green entrepreneurship and providing better access to markets connecting urban communities to peri-urban communities in the watershed. The agro-business sector will benefit from increasing the value of agricultural products and creating new investment opportunities. The urban focus of this project opens new doors to tap into the nascent startup ecosystems of Bujumbura while providing support for youth entrepreneurship and employment opportunities. The youth and women are some of the most vulnerable populations in Burundi, a situation also made difficult given the high level of unemployment and poverty of the urban youth (15?24-year-old) compared to other age tranches of the active population. University educated youth often are unable to find employment in their area of expertise and are forced to seek low-skill jobs in the traditional market. In total, the project aims to identify and implement 5 to 8 Ecosystem-based Adaptation solutions providing resilient livelihoods options that are also compatible with watershed resilience - (including, but not limited to, family orchard in urban and peri-urban areas; food processing and preservation, charcoal (in particular development of biochar production will be explored), use of NTFP (beekeeping, medicinal plants, fungiculture ?) and will support 3 to 5 innovative business and start-up ideas contributing to urban/peri-urban climate resilience.

Support to entrepreneurship is difficult to access for poor and vulnerable households, and women and young are even more strongly left apart in this autonomisation process. The activities promoting entrepreneurship will support these populations in engaging in entrepreneurship and improve their livelihoods through an improved access to micro-grants and micro-insurance. This is expected to provide large benefits to these groups who are otherwise not able to access finance or insurance. Additionally, promoting green entrepreneurship is considered as a very efficient tool to address the needs for climate change adaptation financing the UNEP Adaptation Gap Finance report produced in 2016[65][58], identified private sector as one of the main actors to fill the adaptation finance gap.

7/ Innovativeness, Sustainability and Potential for Scaling Up

Innovation

The innovation nature of this project lies on the complementary measures for EbA solutions providing resilient livelihood opportunities and green entrepreneurship to tap into Burundi?s burgeoning startup

ecosystem and develop solutions for urban/urban resilience anchored in the specific context of Bujumbura. The project will focus on landscape restoration, flood management measures and resilient livelihoods support activities allowing improvement of soil condition, enhancement of biodiversity, with local and endemic species, increased productivity of ecosystems (increased biomass production, NTFPs.) improved water management and storage, regulation of climate factors. Under component 2 and component 3, the project promotes EbA solutions for landscape restoration and urban-based flood protection measures combined with incentives (capacity building, investments) for community and private sector to get involved in nature-based value chains development. In addition, the location of peri-urban and urban zones of the project, near Bujumbura, the most populated city in Burundi facilitates the access to markets,

Finally, in order to connect with the private sector, , UNDP will partner with Impact Hub Bujumbura to host the first Climathon in Bujumbura (Climathon x Bujumbura). The aim is to connect with a group of stakeholders from the youth and startup community not traditionally involved in LDCF projects in Burundi. The involvement of skilled youth and startup will also aim to attract additional seed funding for incubation and acceleration of startup developing solutions for urban/peri-urban adaptation.

Sustainability

Linking landscape restoration investments with agroforestry, agronomic and NTFPs value chain development ensures economic co-benefits which in turn ensure their sustainability.

The project is well aligned with national, provincial and district development and adaptation priorities which promotes sustainability by ensuring country and beneficiary ownership. This ownership and buy-in will further be promoted throughout project development and implementation, through ongoing participatory consultations and stakeholder engagement. The project also builds upon previous and ongoing projects in the area/sector, working with stakeholders and partners to address gaps, avoid redundancy and promote complementarity. Furthermore, project sustainability will be enhanced through the activities in Component 1, which will build institutional and technical capacity; facilitate development and land-use planning, as well as the creation of flood management strategies; update current hydrological networks and early-warning systems to improve resilience after project completion. The sustainability of investments into EbA and protective infrastructure in Component 2 lies on the engagement of communities through the LIPW scheme, which also includes long-term commitment to maintenance efforts after the project ends and does not require additional public funds. As part of Component 3, communities are provided incentives and support for livelihood options contributing to the watershed?s resilience and building on the synergies between the urban/peri-urban areas of the watershed with rural ones, thus promoting self-reliance and long-term resilience.

As most LDCs, Burundi?s meteorological services lacks the necessary public funding to adequately invest and maintain their investments in the national climate information system. To overcome this recurrent issue, the World Meteorological Organization launched the Systematic Observations Financing Facility (SOFF) to provide funding for investment in meteorological equipments necessary for climate information systems and provide performance-based payments for the transmission of climate information in a timely and standardized manner. This facility is an important emerging option to provide adequate funding and incentives for LDCs to maintain their meteorological network and share

information. The project will support the government in accessing this funding as an option to ensure the long-term financing and maintenance of the climate information network, including after this LDCF intervation has ended.

Potential for scaling -up

The project promotes communication and knowledge management tools and technologies under component 4. The knowledge management and M&E interventions aim to capture and institute the lessons and results of the project for scaling up in the future. As such, the model of integrated watershed management and landscape approach through mobilisation of all stakeholders into restoration and enterprise development around EbA can be used in other provinces and communes to achieve the targets and results laid out in the government?s climate-related plans and strategies. In this perspective, the project will develop and implement, in close collaboration with stakeholders, a communication strategy to disseminate project results and good practices beyond the project target regions.

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1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

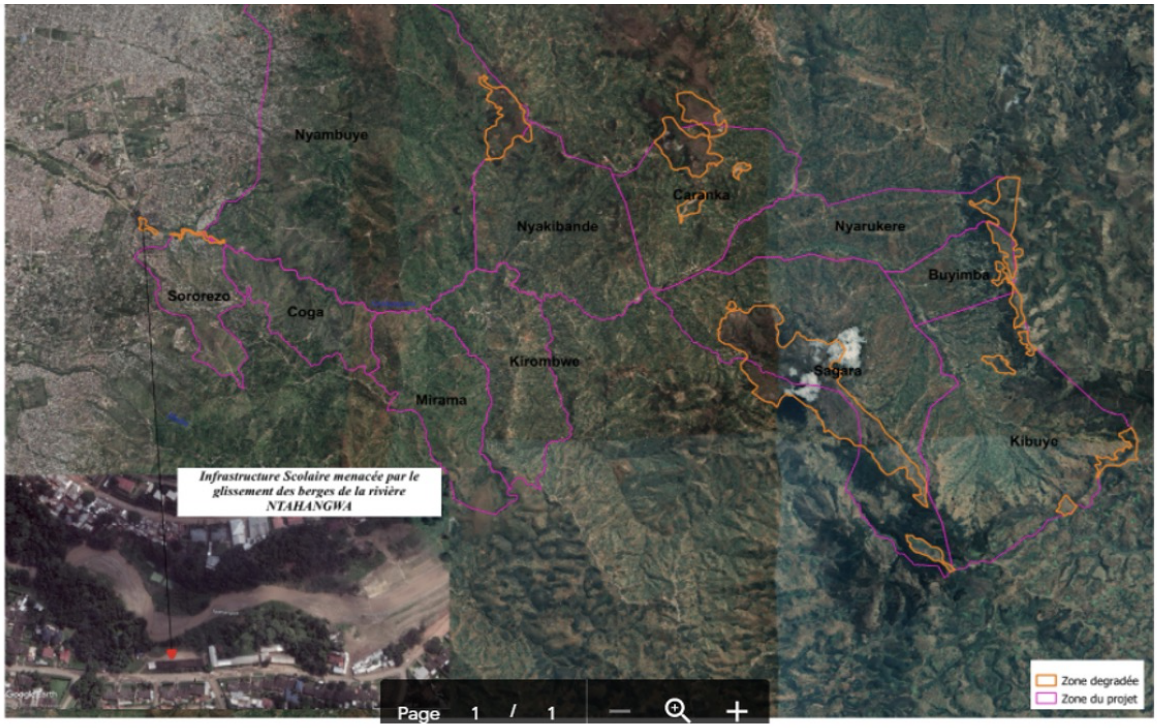

FIGURE 1: DETAILED MAP OF THE PROJECT AREA FOR DEVELOPMENT

FIGURE 2: SITES TO BE STABILIZED BY CIVIL ENGINEERING WORKS

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Engagement plan of key stakeholders

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
The United Nations Programme (UNDP)	GCF international accredited entity for the implementation of this LDCF project		UNDP is the implementing agency for the project. In collaboration with the Government, it ensures that the expected results of the project are achieved.	(all)
Ministry of Environment, Agriculture and Livestock (MINEAGRIE)	The ministry oversees design, planning, coordination and implementation of national policy on environment, agriculture and livestock Key government stakeholder in the implementation as a strategic and operational coordination centre of United Nations Environmental Conventions such as: UNCCD, UNCSD, UNFCCC and International Waterways and the	The LDCF Project is in line with Ministry ?policies goals in the sound management of the environment of natural resources throu gh restoration of degraded land, reforestation, and naturel risk management	Implementing partner of the project. In the Bonn Challenge. the Ministry has committed to restore 2,000,000 ha of landscapes and 120, 000 ha of reforestation in 2030 under NDC. The project will therefore contribute to these two objectives	(all)

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
	Bonn Challenge and NDC (2020-2025).			
Ministry of National Solidarity, Social Affairs, Human Rights and Gender (MDHASG)	Its main mission[1] is to promote the well-being of the population based on social or community solidarity	The LDCF project is in line with the Ministry ?s goal in ensuring the well-being of the population through the enhancement of livelihoods options. In addition, the Ministry will ensure that project is in line with the Gender Policy e.g., women?s empowerment and gender equality	A key government stakeholder in implementation that will give a broad focus to gender issues (gender empowerment and gender equality).	output 1. (Activity 1.1.3); output 1.2; output1.3 (Activity 1.3.2, Activity 1.3.3, Activity 1.3.4); output 1.4 (Activity 1.4.2)); Output 2.2. (Activity 2.2.1; Activity 2.2.2); Output 3.2 (Activity 3.2.1).
Ministry of Infrastructure, Equipment and Social Housing (MIELS)	The ministry oversees design, planning, coordination and implementation of national policy on transport, public works, equipment, habitat, social housing and land management urban planning and habitat policy	The LDCF project is in line with the Ministry ?s goal in the sound implementation of urban planning	Main government partner in the quality control of work stabilization of banks and infrastructure of degraded sites. This ministry will be particularly involved as a leader in the quality assurance of the establishment of the Ntahangwa bank stabilization works, their securing and sustainability after the project.	Output 2.3 (Activities 2.3.1; 2.3.2; 2.3.3)
The Burundian Office for the Protection of the Environment (OBPE)	is responsible for the implementation of environmental and climate change policies and strategies and national focal point for the Climate change convention	The LDCF Project is in line with Ministry ?policies goals in the sound management of the environment of natural resources throu gh restoration of degraded land, reforestation, and naturel risk management	Key government implementation partner, specializing in natural resource management (NRM): soil, forestry, biodiversity and climate change	Output 2.1; Output 2.2; output 2.3; output 3.1 (Activities 3.1.3; 3.1.4; 3.1.5)

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
General Directorate for Land Use Planning, Irrigation and Land Heritage Protection	Ensures the regulation and control of the rational and sustainable use of soils, elaboration and monitoring of strategies and plans for the sustainable management of agricultural lands and marshes as well as the National Program of Erosion Control.	The LDCF Project is in line with Ministry ?policies goals in sustainable land management		
Provincial office of Environment, Agriculture and Livestock of the Bujumbura Province (BPAE)	MINEAGRIE representation at the provincial level	The LDCF Project is in line with Ministry ?policies goals in the sound management of the environment of natural resources throu gh restoration of degraded land, reforestation, and naturel risk management at local level	Key stakeholder in the support to local communities. In addition to the involvement of the services of the BPEAE Directorate, the municipal agronomists and agricultural technicians of the target area will also be involved in the implementation of the project. They can play an important role in raising awareness, mitigation/prevention, risk management, conveying information from top to bottom and in managing feedback	Outcomes 1 and 2 ?.in particular Output 1.1 (Activities 1.1.3, 1.1.4, 1.1.6); output 1.2, output 1.3, output 1.4 (activity 1.4.3); Output
Ministry of the Interior, community development and public security	This Ministry is responsible of the management of natural resources via decentralized committees? Local development Committees (LDCs) at both the commune and the colline levels, respectively called *Comit?s Communaux de D?veloppement Communautair*es (CCDC) and *Comit?s de D?veloppement Collinaires* (CDC). Through **its Directorate of Civil protection**, this ministry aims to		Main stakeholder for the implementation of the LDCF the project through its National Platform for Risk prevention and disaster Management. In addition, decentralized committees Local development Committees (LDCs) at both the *commune and the colline levels* are responsible to manage in a transparent and participative way actions including those related to natural resources and risk management.	(all)

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
	organize and coordinate the prevention and relief actions carried out by the partners involved in disaster management; develop and implement claims management plans; and coordinate and monitor the implementation of the National Disaster Risk reduction Policy. *The National Platform for Risk Prevention and Disaster Management* (PNPRGC) falls under its responsibility.			
Ministry of finance, planning and economic development	Ensures the mobilization of Public financial resources internally and externally, as well as the planning of all public expenditures		This Ministry will contribute to co-finance this project through the annual budget of the MINEAGRIE	(all)
Sector Group on Agriculture and Rural Development (GSADR)	In place since 2008, the group ensures the effective implementation of priority actions of the national agriculture policy and the National Agriculture Investment Plan. This multi-stakeholder platform is currently funded by IFAD and has been hosted by MINEAGRIE. It mobilizes representatives from different public sector organizations, donor representatives, non-governmental organizations (NGOs), and the private sector around 13 working groups related to environment and agriculture. It is active		This multi-stakeholder and multidisciplinary platform will enable the project to ensure and harmonize integrated landscape management.	(all)

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
	both at the national and at the provincial level			
National Platform on Risk Prevention and Disaster Management (PNPRGC)	A multi-stakeholder and multidisciplinary group involved in the coordination, implementation and support of programmes and actions on risk and disaster prevention. This organization is present at the national, provincial and municipal levels.		The platform will contribute to the implementation of the project	Output 1.4 (Activity 1.4.1); Output 2.1 (Activity 2.1.1), Output 2.3
Geographical institute of Burundi (IGEBU)	Part of the regional and international climate prediction networks. It has access to reliable seasonal and multi-year data.		Main government stakeholder in the implementation of the LDCF project: hydrological and climatological monitoring at the level of the Ntahangwa watershed, production of hydrometeorological bulletins, warning messages for extreme events, operationalization of SAP to reduce the vulnerability of communities; regular monitoring of the quantitative and qualitative availability of water resources and, finally, proposing the best options for the sustainable management of water resources	Output 1.1
Institute of Agronomic Sciences of Burundi (ISABU)	Conduct research activities and has strong knowledge of climate change adaptations options		Main government stakeholder in the implementation of the LDCF project: source/supplier of improved seeds as well as innovative technologies on increasing agricultural production and integrated soil fertility. It could also contribute to the project on awareness campaigns on prioritization of local species and multi-species	Output 1.2, 1.3; 1.4 Outcome 2

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
			planting and avoid the use of non-native and invasive species	
University of Burundi	High learning institution with programme in agroforestry, soil management water ressources management	Provision of technical expertise in the field in terms of ecosystem services valuation	Potential partnership in the following area: on cost benefits analysis and ecosystems services valuation	Output 2.1, Output 2.2
Provincial and communal Authorities	Local authority within administrative zone of the project. This authority will be a potential supporter in both project and post project era.	Project compliments responsibilities to the beneficiaries	Key decentralized government authorities, who will play a role in facilitating project implementation. The Municipal Technical Advisors of the affected municipalities will also be involved in the monitoring of interventions on the ground during and after project implementation	Outcomes 2 & 3
Local communities	Communities to receive Project support in implementing EbA options and training	Project enhances livelihood of beneficiaries through implementations of EbA options and set up of Natural based business	? Full participation in the development and implementation of the local plans ? beneficiaries of the capacity building activities	Outcomes 2 & 3
Community groups / associations	Existing agricultural groups will be organized under into producer associations and cooperatives	Project enhances livelihoods through value chains	they will be organized into producer associations and cooperatives around value chains with the aim of improving food security and incomes and benefit from capacity building activities and project implementation activities	Outcomes 2 &3
Watershed local committees	Creation of these local committees at the Ntahangwa River watershed level to promote land use planning and the expansion of good practices for sustainable land management and	Enhancement of the integrated Ntahangwa watershed management	? Full participation in the development and implementation of the local plans	Outcomes 2&3

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
	reducing climate risks at the landscape level in order to improve ecosystem services			
Women		The LDCF project needs to ensure a gender-responsive and participatory approach to adaptive capacity and resilience-building to enhance women?s benefit to the project	Mainly through capacity development trainings and participation in field execution of project activities	Training, restoration and resilience plans, committees and entrepreneurships: output 1. (Activity 1.1.3); output 1.2; output1.3 (Activity 1.3.2, Activity 1.3.3, Activity 1.3.4); output 1.4 (Activity 1.4.3)); Output 2.2. (Activity 2.2.1; Activity 2.2.2); Output 3.2 (Activity 3.2.1).
Batwas		The LDCF project should ensure adequate representation in all governance related mechanisms related to the project, particularly at the community level and that opportunities are provided for them to engage in the project activities	Mainly through capacity development trainings and participation in field execution of project activities	restoration and resilience solutions (1.3.1; 3.1.2; 3.1.3), the local plans (1.3.2; 2.1.3; 2.2.1) and committees (1.3.2)
Youth		The LDCF project should ensure adequate representation in all governance related mechanisms related to the project, particularly at the community level and that	Mainly through capacity development trainings and participation in field execution of project activities	Training, restoration and resilience plans, committees and entrepreneurships: output 1. (Activity 1.1.3); output 1.2; output1.3 (Activity 1.3.2, Activity 1.3.3, Activity 1.3.4);

Institution	Mandate	Interest in the project	Possible role in the project	Participation to the project activities
		opportunities are provided for them to engage in the project activities		output 1.4 (Activity 1.4.3)); Output 2.2. (Activity 2.2.1; Activity 2.2.2); Output 3.2 (Activity 3.2.1).
Non-governmental organizations (NGOs), civil society organizations (CSO) and the private sector	Existing organizations working with beneficiary communities in agriculture, natural resource management and resilience to CC within the project zones	Synergies where possible with these organisations in terme od services providers, training providers, etc..	Mainly through capacity development trainings and participation in field execution of project activities	Output 2.1; Output 2.2; Output 3.1, output 3.2, Output 3.3
Credit Unions / banks		capacity building and programming into green entrepreneurship training	Mainly through capacity development trainings and participation in field execution of project activities	Outputs 3.1; 3.2; 3.3
International organizations/ bilateral donors	Agencies managing major partner projects, including the World Bank, IOM, WFP, Red Cross? and EU, ENABEL in the food and agriculture/natural resource management sectors, at the national and local levels	Collaboration and synergy creation to enhance all projects results	Mainly through capacity development trainings and participation in field execution of project activities	(all)

[1] https://healtheducationresources.unesco.org/library/documents/politique-nationale-en-faveur-des-orphelins-et-des-autres-enfants-vulnerables-0;

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

Stakeholder engagement (see Annex 9, uploaded to this section of GEF portal for more detail)

Extensive stakeholder consultations were undertaken during the PPG process, with representatives of government, non-governmental organizations and bilateral development agencies at national, regional

and local levels. These stakeholders included representatives from relevant ministries, departments, Community-Based Organizations (CBOs) and NGOs, and private sector. The Stakeholders consultations were conducted into three main phases as follows:

Phase 1: An inception workshop with all the representatives of different stakeholders? groups was organized in Bujumbura in January 2022 followed by two specific workshops with CSOs and the private sector to gather their recommendations on the project.

Phase 2: *Individual and group Meetings* with key stakeholder representatives and experts? consultations were conducted in Bujumbura in the follow up of the workshops. In addition, the consultant team was able to organize working group meetings with local representative in the project zone.

Phase 3: The preparation of baseline study and ESMP and GAP was developed through extensive stakeholder consultations such as :
? *Community based consultations***;** Key informant interviews with local communities such as the elected members of the Hill, the councilors of the elected members of the Hill, the representatives of women, youth, craftsmen, men and the Batwa; focus groups; ? *Expert consultations* with government officials at national, provincial and communal, and colline levels and key stakeholders in the country across key sectors and, as well as donor community ?s representatives.

The stakeholder engagement plan is presented in ANNEX 9 of the project document and details the way the project will engage with the different stakeholders identified during the PPG process. A list of the main stakeholders and their proposed engagement are included in Table 2 of the Stakeholder Engagement Plan (Annex 9).

The followings are key actors at the national level:

? The main governmental counterparts include the Ministry of Environment and Agriculture and Livestock (MINEAGRIE), which will ensure the execution of the project with its directorates and specialized entities such as

o The Burundian Office for the Protection of the Environment (OBPE) will be involved in the restoration of degraded land, reforestation, and risks management activities.

o The Geographical institute of Burundi (IGEBU) will be in charge of the hydrological and climatological activities (e.g., data collection, analysis and dissemination, SAP operationalization, risks management?) related to the project.

o Institute of Agronomic Sciences of Burundi (ISABU) will provide its expertise in innovative technologies under sustainable agricultural production activity.

? The National Platform for Risk Prevention and Disaster Management (PNPRGC) under the responsibility of the **National Directorate of Civil protection** within the Ministry of the Interior, community development and Public security will be a key partner on risk and disaster prevention and related capacity building activities

? Ministry of Infrastructure, Equipment and Social Housing (MIELS) will be particularly involved as a leader in the quality assurance of the establishment of the Ntahangwa bank stabilization works, their securing and sustainability after the project

? Ministry of National Solidarity, Social Affairs, Human Rights and Gender (MDHASG) will ensure that the project is gender responsive

? UNDP: as the GEF Implementing Agency, will share the responsibility with GEF for the use of project resources as written in the project Document (or any amendments agreed to it). The Implementing Agency will provide daily project execution and implementation oversight, and operational completion.

At decentralized and local level, the main stakeholders of the project are:

- The project team will have to mobilize will private sector enterprises and credit unions around project interventions under component 3, in particular

- Women, indigenous (Batwas) and youth are the most vulnerable populations, in terms of access to natural resources and economic activities, therefore, they are one the key target group for the project;

- Provincial and communal authorities will be involved in the implementation and monitoring of the project activities on sites

- Entrepreneurs will play a strategic role in creating sustainable jobs and incomes that increase community resilience

The engagement of the stakeholders will be mainly translated into the following actions

? Ensure strong focus on gender mainstreaming and social inclusion:
? The project team should strengthen partnerships with key development partners and actors
? Attention should be paid to ensure active involvement of Batwas people
? Consider further expanded partnerships to ensure entrepreneurship and skills training, and access to credit.
? Sharing of experiences and best practices within Burundi and with neighboring countries (if possible due to COVID) should be highly encouraged.
? Raising awareness campaigns
? Increase awareness and build capacities of staff of the Executing Agency and project partners

A Grievance Redress Mechanism will be set in place to collect grievances or objections from potentially affected stakeholders as specified in the stakeholder plan (Annex 9). This GRM will be established by the national government agencies (or, as appropriate, by regional or municipal agencies) to receive and address concerns about the impact of the project on external stakeholders, and any conflicts related to project implementation. The GRM will be accessible, collaborative, expeditious, and effective in resolving concerns through dialogue, joint fact-finding, negotiation, and problem solving. It will be

developed by the Implementing Agency and will be evaluated and validated by UNDP CO in the first six months of project implementation.

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

The GEF-funded project on Adaptation governance and community resilience in Burundi is classified as GEN2 (i.e., gender equality is a significant objective) and the project has developed a Gender Analysis and gender Action Plan (ANNEX 11)

The Gender Action Plan (GAP) aims to (i) facilitate equality in accessing project benefits by both men and women; (ii) ensure that women are actively consulted and engaged in project design, decision-making, implementation, and monitoring processes; and (iii) collect gender disaggregated data/information to inform M&E and adaptive management responses.

The main activities under the gender actions are as follows:

Identify and reinforce women led CSOs to to reach out to women in communities, develop and share communication material, mobilize women for activities and trainings (activity 1.1.5)

Foster capacity-building of Hydro meteo women staff, women focal points of the early alert system (SAP) and women in communities in all trainings planned by the project (activity 1.1.3; 1.1.6; 1.1.7; 1.2.1; 1.2.2; 1.3.3; 1.3.4; 1.4.2)

Enable women to actively participate in decision-making processes affecting their lands, resources, activities, families, and livelihoods, and to overcome access constraints to natural resources

(Activity 2.1.1; 2.1.3; 2.2.2;

Ensuring women participation in knowledge sharing activities at global, regional, national, country and community levels (activity 4.3.2; 4.3.3)

Target women?s value chains and production, including indigenous women?s, within the market analysis (3.1.1)

a. Support women-led solutions, including indigenous women?s, (e.g., family orchard, food processing and preservation, use of non-timber forest products, composting and seed management, market gardening, horticulture?) (activity 3.1.2; 3.1.3)

b. Target women entrepreneurs in all activities linked to the project?s capacity-building and support to local entrepreneurs and SMEs in order to develop green entrepreneurship **(**outcome 3)

c. Foster leadership among women in order to build their capacities to launch and manage their own business through dedicated workshops (outcome 3)

d. Create mixed man/women discussions during the climate forums (including *climathon)* to discuss gender mainstreaming, women entrepreneurship and women participation in SMEs (outcome 3)

In line with national policies as well as UNDP and GEF guidelines, the project will adopt the following principles in its day-to-day management:

? Demonstrate gender responsiveness in all interactions with project stakeholders.

? No use of language or behaviour denoting bias and disrespect for any individual based on gender.

? Avoid gender stereotyping in project documents, and communication outputs.

? Support zero tolerance for sexual harassment, gender-based violence and/or sexual exploitation and abuse of men, women, girls, and boys that may occur in connection with any of its supported activities.

PMU staff will be required to take the UNDP gender course[1] as well as the UN course on gender and environment[2], and will be expected to demonstrate clear understanding of gender mainstreaming issues and opportunities. Gender disaggregated indicators will be integrated in the project logical framework and measured during regular M&E processes. Experts will be engaged to assist in ensuring compliance with gender mainstreaming requirements.

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[1] UNDP Gender Journey: Thinking Outside the Box

[2] https://www.uncclearn.org/open-online-course-gender-and-environment

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

Private sector will be involved in component 2 for the civil engineering work under activity 2.3.3.

Private sector is also a direct beneficiary of the project interventions. Indeed, component 3 of the LDCF project is dedicated to private sector development, through engagement of local entrepreneurs (focus on women and youth) into sustainable value-chains, organisational support and capacity building. Those private sector stakeholders constitute the main target group of component 3, with the aim of building capacities to sustainably use natural resources and add value to those resources through storage, processing and marketing of products, enhancing resilience to climate change. More generally, the project plans to engage private sector early in the process to raise awareness and ensure the sustainability of the interventions, in particulare which have a strong impact on degradation.

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

A list of identified risks is included in a separate file and as Annex 7 of the Project Document. In addition to the risks already identified in the PIF, the list includes some additional risks related to organizational, political, strategical, financial, environmental, social and economic aspects of the project. The different categories of risks are part of the challenges faced by the project context. Indeed, these risk are related to lack of cooperation among the different stakeholders, as well as the difficulty to ensure the ownership and full involvement of the local communities as well as private sector due among others to lack of information and financial resources. Therefore, the following risks are identified but not exhaustive:

- Low commitment from local and national authorities
- Political instability
- Overlap and lack of coordination with other flood mitigation activities

- Women and youth not fully involved in the project?s activities
- Unexpected disasters or health crisis (e.g; Covid -19)
- Low capacity of communities to maintain the infrastructure set up by the project

Environmental and social safeguard risks related to project activities are subject to an in-depth analysis under the Social and Environmental Screening Procedure (SESP) (cf ANNEX 6, separate document) and GAP (cf. Annex 11 separate document). The project is classified Moderate Risk according to the SESP. The following principles and standards are triggered:

Overarching Principle: Leave No One Behind

X Human Rights

X Gender Equality and Women?s Empowerment

X Accountability

Standards

X 1.Biodiversity Conservation and Sustainable Natural Resource Management

X 2.Climate Change and Disaster Risks

X 3.Community Health, Safety and Security

X 4.Cultural Heritage

? 5.Displacement and Resettlement

X 6.Indigenous Peoples

X 7.Labour and Working Conditions

X 8.Pollution Prevention and Resource Efficiency

A list of 14 risks, ranking from Low to Moderate, are detailed in the SESP (Annex 6). Specific measures were included in the project?s 4 components in order to avoid, and where avoidance is not possible, reduce, mitigate, and/or offset adverse risks and impacts. An Indigenous Peoples Planning Framework has been designed during PPG to answer the specific moderate risks linked to standard 6. The table below provides an overview of the required social and environmental safeguards elements to be designed and their timeframe.

Environmental and social elements	Description
Social and Environmental Screening Procedure	The SESP was conducted during PPG and available as annex to the ProDoc. It details the 15 safeguard risks associated with the implementation of the project, as well as the measures that are embedded in the project design, and other measures to avoid, and where avoidance is not possible, reduce, mitigate, and/or offset adverse risks and impacts.
Stakeholder Engagement Plan	The project has developed a Stakeholder Engagement Plan (cf. Annex 9, a separate document) which clearly identifies the Twas as one the key community groups who have interest in the project and who will benefit from the project activities. The Stakeholder Engagement Plans details measures and channels to ensure that this project will engage will all stakeholders in a meaningful way. It will guide all actions pertaining to SES implementation. It will be completed by a specific Indigenous Peoples Plan and an FPIC protocol, to be developed together with the local communities in order to enable them to get extensive information about the project and associated possible positive and negative consequences.
Gender Action Plan	The project has developed a Gender Action Plan (cf. Annex 11, a separate document) which clearly identifies the most vulnerable women groups who have interest in the project and who will benefit from the project activities. This document (1) details the situation of all women and of women rights in the project area (2) defines appropriate measures to ensure the project benefits to women; (3) propose ad hoc measures to avoid, attenuate, mitigate or compensate any adverse impact on women. The GAP will guide all actions pertaining to SES implementation and gender-mainstreaming. It offers specific activities, from capacity-building to specific consultation activities, allowing all women to fully engage with the project and decision-making processes from the outset.
Indigenous Peoples Planning Framework	The Indigenous Peoples Planning Framework (IPPF) has been designed during PPG and includes an FPIC protocol. It should be submitted to indigenous peoples representatives and validated after GEF submission but before project inception. It (1) sets an FPIC protocol (2) details risks associated with indigenous peoples (3) proposes ad hoc measures to avoid, attenuate, mitigate or compensate any adverse impact on indigenous peoples, including on their cultural heritage and lands (4) proposes dedicated channels to engage with indigenous groups throughout project implementation
Feasibility study	The project has planned to conduct a feasibility study (2.3.2) on the construction site. The feasibility, to be conducted before any construction work starts in the ravines of Mutanga Sud (ecofo) and Mugoboka (I, II) will integrate considerations on (1) workers health and safety ; (2) climate and natural hazards, with projections over the next 30 years ; (3) waste management ; and (4) soil movements, erosions and variations in water. The ToRs for the feasibility study will explicitly refer to the safeguards. The feasibility study will conclude on clear recommendations, to be annexed to the contract with the company in charge of implementing the construction work.
Waste Management Plan	A Waste Management Plan, produced as a result of the feasibility study, will be annexed to the contract signed with the company in charge of implementing activity 2.3.2. It is expected, and will be stated in the contract, that the company is responsible for waste management and cleaning the sites properly.

Biodiversity Action Plan	A Biodiversity Action Plan will be designed after project validation but before component 3 activities start, in order to frame component 3 activities. The BAP will include a list of criteria for businesses and SMEs to be supported and of types of activities which should not be supported by the project. The ProDoc already indicates that the project involves planning for sustainable development of existing, or to be created, nature-based value-chains that provide adaptive benefits, and that the support to SMEs is planned for promoters of enterprises based on the sustainable use of natural resources
Grievance Redress Mechanism	The project will set up a Grievance Redress Mechanism. This GRM will be established by the national government agencies (or, as appropriate, by regional or municipal agencies) to receive and address concerns about the impact of the project on external stakeholders, and any conflicts related to project implementation. The GRM will be accessible, collaborative, expeditious, and effective in resolving concerns through dialogue, joint fact-finding, negotiation, and problem solving. It will be developed by the Implementing Agency, and will be evaluated and validated by UNDP CO in the first six months of project implementation. Interested stakeholders may raise a grievance at any time with the Project Management Office, the government party, UNDP, or the GEF.
Introduction and spread of the COVID-19 virus due to project activities .	Clear procedures and safeguards should be put in place to protect people (not only UNDP personnel) and prevent the spread of COVID-19. Project staff will take additional precautions to ensure that stakeholders and beneficiaries are not exposed to and that project activities do not in any way, allow spreading of the virus in project sites. This can include the use of remote methods when possible, protective equipment, maintaining social distancing, and other measures recommended by WHO and national authorities. Awareness among project staff and stakeholders, including communities will be embedded in all interactions. Such safeguards need to be conveyed to all partners, third parties, contractors. If adequate safeguards are not or cannot be put in place then such activities should be suspended until a time when appropriate safeguards can be implemented

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

The graph below on the project organization structure outlines Project?s governance and management structures, including the different roles and responsibilities of the parties involved in governing and managing the project. The project governance structure will ensure UNDP?s accountability for programming activities, results, monitoring and management of risks, and the use of resources, while at the same time fostering national ownership and alignment with national processes. The different roles and responsibilities within the Project?s governance structure and project staffing summarised in the graph on Management arrangements are described in detail in the UNDP Project Document (Section 8).

The GEF Implementing Agency (IA) is UNDP. The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP?s Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A

representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

In this case, UNDP is only performing an implementation oversight role in the project vis-?-vis our role in the project board and in the project assurance function and therefore a full separation of project implementation oversight and execution duties has been assured.

Direct payment will be carried out by UNDP for specific actions in order to ensure timely delivery related to payment of purchased meteorologic equipment and the construction company in charge of the stabilization of the Ntahangwa river banks. While direct payment are not an execution support function per the UNDP POPP, they are considered as such by the GEF Secretariat and require prior approval to be used by the IP. A specific request related to direct payment has been sent to the GEF Secretariat for consideration and approval.

The Implementing Partner (GEF local executing agency) for this project is the Ministry of Environment, Agriculture and Livestock (MINEAGRIE). UNDP is accountable to the GEF for the implementation of this project. This includes oversight of project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with agreed UNDP and GEF policies and procedures**.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attend Project Board meetings as a non-voting member.

The geographical Institute of Burundi (IGEBU) will act as a Responsible Party providing technical support to the PMU. It will gain operational support through the reception and use of Early Warning System equipment. It will oversee running the EWS and will provide information to stakeholders related to climate and meteorology. The staff from IGEBU will benefit from the technical training on weather forecasting. IGEBU will be responsible for the maintenance of meteorological stations and other related equipment tht the project will set up.

The Ministry in charge of Public Infrastructure will oversee the execution of civil engineering activities for the stabilization of the Banks on river Ntahangwa; from the tender process to the execution and maintain the infrastructure beyond the project life.

At the **Communes level**, Provincials extension services agents of the Provincial Bureau of Environment, Agriculture and livestock and, the Environment protection office of Burundi (OBPE), Directorate of Rural Engineering and Irrigation as well as other representatives of relevant institutions will support project implementation. MoU will be signed with stakeholders to define roles and responsibilities as well as modalities for implementation.

At the **local level**, Community Consultation Committees (CCC) will be set-up from already existing entities. If not, they will be created in targeted municipalities where appropriate structures don?t already exist. The CCCs will bring beneficiaries together including representatives from the municipalities, NGOs and farmer organizations. CCCs will be in charge of monitoring and implementing pilot adaption initiatives as well as linking the rural population to the project. In addition, they will examine and give advice on financial aspects for activities implemented at the local level. They will participate in planning and approval of activity expenses at the local level. The CCCs will meet at least once every three months.

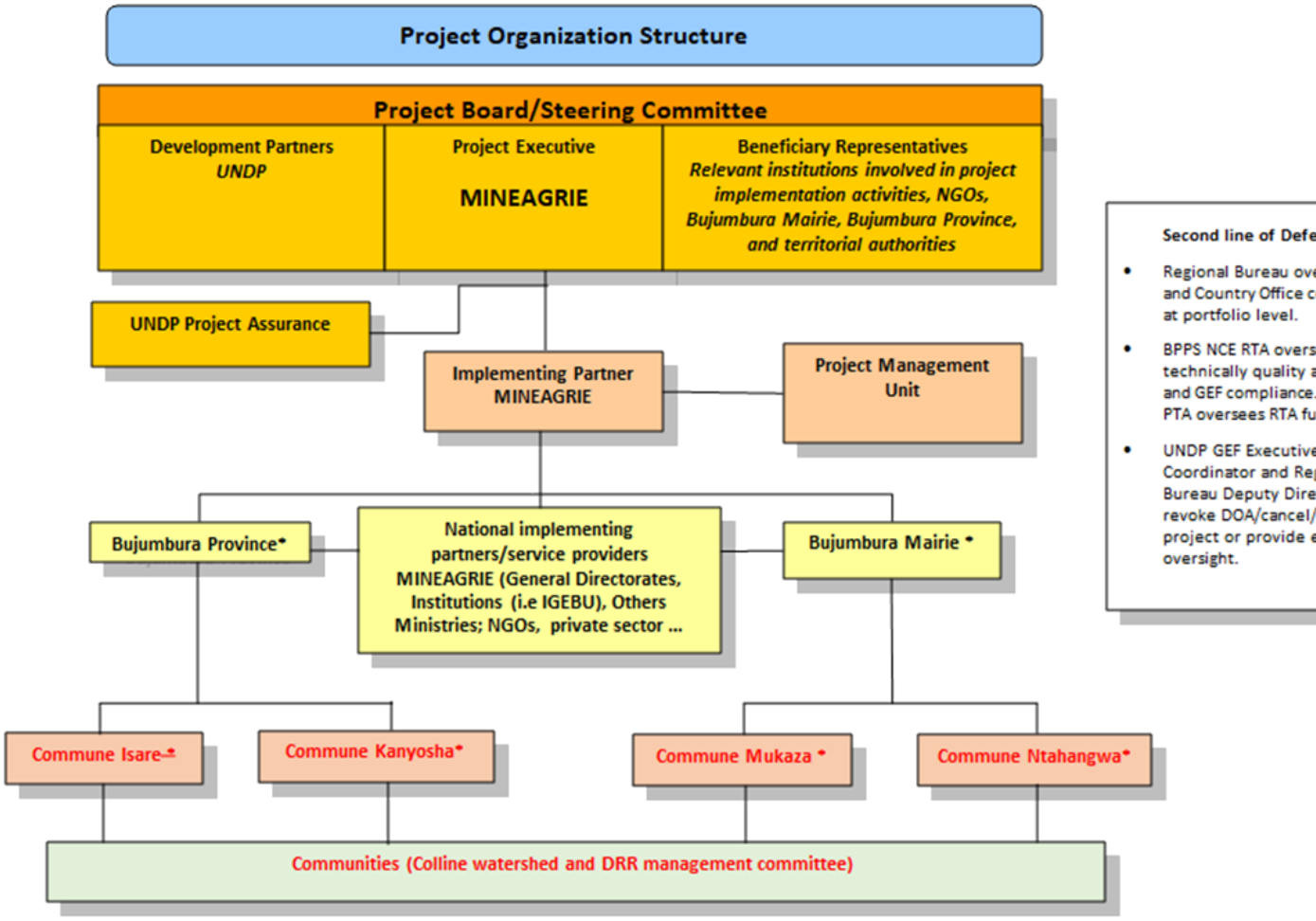
Project stakeholders and target groups:

The project will rely on institutional structures (State services, local authorities) and civil society organizations at the central and local levels.

MINEAGRIE, in conjunction with the PMU, will ensure institutional capacity building, coordination and monitoring and evaluation and will work in close collaboration with its technical departments and others partners. Thus, MINEAGRIE will sign partnership agreements with its technical departments and other partners in the implementation of activities. At local level, a community structure will be put in place (from the province to the hill) to implement and monitor project activities at the target sites on a daily basis. Other sectoral structures will be involved in the implementation of the project through specific activities on the basis of memoranda of understanding (MoU), notably the communities, Chamber of commerce ?s, private sector entities, or NGOs.

Through the CCCs, target groups including local communities, women?s groups and indigenous groups (e.g. Batwas) will be regularly consulted on activities to be implemented and actively involved in decisions which affect them.

Project organisation structure:



*Administratives and technical services

Roles and Responsibilities of the Project Organization Structure:

a) Project Steering Committee (PSC)**:** All UNDP projects must be governed by a multi-stakeholder committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project. The roles, responsibilities and requirements of the PSC are detailed in the UNDP Project Document.

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 (or chairs) the Project Board. The Executive is normally the senior national counterpart for nationally implemented projects. (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of

another category, it typically does so with a development partner representative. The Project Executive is: *MINEAGRIE*

b. Beneficiary Representative(s): Individuals or groups representing the interests of those groups of stakeholders 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), industry associations, or other government entities benefiting from the project can fulfil this role. The Beneficiary representative (s) is/are: Relevant institutions involved in the project implementation (including MINEAGRIE technical entities), NGOs, Bujumbura Marie, Bujumbura Province and territorial authorities.

c. Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is/are: *UNDP Resident Representative*

d. Project Assurance: Project assurance is the responsibility of each project board member; however UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP?s project assurance role across the project may encompass activities happening at several levels (e.g. global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is/are: *Program Analyst or Monitoring and Evaluation Analyst.*

Project Management ? Execution of the Project: The Project Manager (PM) (also called project coordinator) is the most senior representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the PSC for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers. A designated representative of the PMU is expected to attend all PSC meetings and support PSC processes as a non-voting representative. The primary PMU representative attending board meetings is: *the National Project Coordinator.*

Coordination with other relevant GEF-financed projects and other initiatives

The Project will seek partnership with various stakeholders (see section below on stakeholder engagement). Some stakeholders will be directly involved in the implementations of activities and the provision of training under the three components of the proposed project. Under component 3, The project

will build partnership with private sector as well as financing institutions in order address to mobilize private sector investment in EbA interventions and green entrepreneurship and raise awareness of these stakeholders? towers green investment.

Following stakeholders and government of Burundi recommendations during the PPG phase, the project will strengthen its partnerships and avoid duplication with the following projects /partners.

? The **Burundi - Landscape Restoration and Resilience Project (2018-2024)**. The project will support the development of policies and capacities at the national and local levels to plan and implement land preservation and restoration. The project will use a community-led landscape approach to sustainably manage land and water resources in order to enhance people?s livelihoods and improve resilience to climate variability and change. The project ?s activities are planned in Bujumbura Rural and Muyinga Provinces. During the PPG process, the proposed LDC project has built synergy in the identification of the project sites in Bujumbura rural, in order to avoid duplication. In addition, during the implementation phase, synergy will be seek in the approach in order to strengthen the resilience in the Ntahangwa watershed, particularly in components 1 and 2 of the LDCF proposed project.

? **The FAO-LDCF project *?Natural landscapes rehabilitation and Climate Change Adaptation in the provinces of Bujumbura and Bujumbura Mayor through a Farmer Field School approach***? (2019--2024): the project aims to address climate-related vulnerabilities of smallholder farmers and the agricultural sector through (i) the application of climate smart agriculture for farmers and agro-sylvo-pastoralists, (ii) decision making support and extension services through a Farmer Field School approach, (iii) support for detailed assessments on natural resources use and climate risks; and (iv) piloting an ecosystem-based adaptation solution for resilient livelihoods by restoring and collectively managing forests and strengthening agrobiodiversity. Both projects are/will be executed by the Ministry of Environment, Agriculture and Livestock. Like the proposed LDCF intervention, the FAO project focuses on the provinces of Bujumbura and Bujumbura Mairie, but the sites are situated mostly outside of the Ntahangwa watershed, as decided by the government to avoid duplication of efforts. Opportunities for cooperation between both projects will be numerous as the proposed LDCF can use the results and approaches in the FAO project to (a) inform the development of the integrated watershed management plan for the Ntahangwa watershed (Output 1.3), (b) help identify opportunities to improve agricultural value chains as part of the market analysis (Output 3.1) and (c) adapt some of the EbA solutions to be used in the Ntahangwa watershed.

In addition, the proposed LDCF project will seek synergies with projects under development if any in the coming years. Finally, the proposed LDCF project will use and build on lessons learned from the following projects /partners.

? The Value-Chain Development Programme (PRODEFI II, 2015-2022) implemented by IFAD is contributing to the operationalization of CSLP II. The objective of the programme is to reduce poverty and improve food security in rural areas by strengthening the physical and technical capacities of poor smallholder farmers to enable them to protect their environment, increase the productivity of their production (mainly rice and milk), and hence sustainably increase their revenues. The programme is national, but some of its activities are implemented in the Ntahangwa watershed.

? The AfDB-LDCF project ?*Enhancing Climate Risk Management and Adaptation in Burundi*?: The project ended in 2019 and built the basis of the climate information system used by the IGEBU to collect hydrogeological and climate data and information in Burundi. The proposed LDCF project will use and build on this climate information system and use lessons learned and knowledge generated by the AfDB project to augment the modeling capacity of staff at the IGEBU.

? National Platform for Risk Prevention and Disaster Management: Strengthening Resilience to Natural Disaster Risks Project in Burundi (2020 ? 2022): Undertake risk mapping at the national level, strengthen the capacity of the Burundian government to coordinate initiatives and the conduct of disaster risk reduction interventions at the community level.

? Agricultural Production Intensification and Vulnerability Reduction Project PIPARVB IFAD: Development of watersheds overlooking managed marshes, permanent housing, agroforestry and capacity building of producers on the efficient use of water for agro-forestry and zootechnics. (plain of Bujumbura: therefore see with them complementarity value chains)

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

The Government of Burundi has developed strategies and plans to address issues related to climate change, natural disasters, and land degradation, but the realization of the ambitions set in those documents rely heavily on externally funded investments. Some of the relevant strategies and plans supporting this LDCF project include:

? The **Burundi ?Vision 2025?:** the vision clearly stated its engagement to make the protection and rational management of the environment a priority so that Burundians live in a secure and well managed environment. Through the implementation of the vision, the environment is expected to be reflected in all socio-economic policies as an essential component of sustainable development. In addition, an environmentally aggressive policy will be put in place to ensure a sustainable management of natural resources. It will aim to develop and implement effective mechanisms for preventing and managing natural disasters. To achieve these objectives, other cross-sectoral issues such as the implementation of gender equality policies, youth education and the protection and rational management of the environment are set as priority. In addition, a plan for adaptation to climate change will be developed.

? **The National Development plan (NDP) 2018- 2027**: Climate change and risk management are among the priorities of the NDP, which aims at ?promoting development resilient to the adverse effects of climate change? through (i) integrated climate risk management and modelling over time, (ii) protection of aquatic and terrestrial ecosystems and (iii) vulnerability research. The plan also presents gender mainstreaming opportunities in the fight against climate change.

? The **National Determined Contribution (NDC)** (revision of the Intended Nationally Determined Contribution INDC) for 2025-2030 which include the following adaptation priorities in alignment with the LDCF project : (i) Develop and evaluate new varieties of food crops with high yield and nutrition potential and climate change resilience; (ii) Produce and disseminate quality seeds adapted to climate hazards; (iii) Agro-Forestry Integration and Sustainable Management of Natural Resources; (iv) Development of hill impoundments for the collection of rainwater and streams for agricultural purposes; (v) Protection and management of flood-prone areas; (vi) Improve water management for agricultural and other domestic uses and the resilience of water, sanitation and hygiene systems to climate change risks; (vii) Monitoring Burundi?s environment in real time for sustainable development

? **National Communications on Climate Change** under the UNFCCC in 2001, 2010 and 2020 including the inventory and projections of greenhouse gas **(GHG)** emissions, mitigation measures, as well as vulnerabilities and adaptation measures to climate change.

? **National Strategy and Action Plan on Climate** Change (SNPACC) (2012). A national climate change strategy and its action plan were developed in 2012 to operationalize the national climate change policy. This strategy highlights activities to reduce climate resilience of highly vulnerable economic sectors in Burundi such as agriculture, forestry, energy, health, water resources, natural landscapes, and ecosystems. Thus, the objective of this climate change strategy is to strengthen Burundi?s capacity and resilience to face the challenges of climate change. To achieve this objective, the actions that the Government intends to undertake are based on seven strategic axes of the National Climate Change Policy: (i) adaptation and management of climate risks, (ii) reducing greenhouse gas emissions and promoting low-carbon development, (iii) promoting research and development and embracing clean technologies, (iv) capacity building, (v) knowledge management and communication, (vi) the involvement of gender, youth and vulnerable groups and (viii) funding mechanisms.

? **National Policy on Climate Change (PNCC) (2012)**: The project aligns with the Government?s vision of a ?state that promotes development resilient to the adverse effects of climate change.? To achieve this vision, specific objectives in relation to the project include: (i) strengthening the legal and institutional framework for effective coordination and implementation of adaptation and mitigation actions; (ii) the promotion and adoption of technologies and approaches that improve resilience to climate change, poverty eradication and sustainable livelihoods; and (iii) Training and support for incentives and other economic instruments for investment in low-carbon development.

? **National Strategy of Disaster Risk reduction (DRR) and Action Plan 2022-2025** which aims to strengthen institutional and community resilience through a legal, policy and programmatic framework for DRR, the promotion of a risk culture and mechanisms for coordinating emergency preparedness and response actions at all levels. The strategy has three components : (1) understand disaster risks; (2) strengthen the governance of disaster risks to manage them; (3) investing in disaster risk reduction to strengthen resilience; (4) strengthen disaster preparedness to respond effectively and "better" during the recovery, rehabilitation and reconstruction phase.

? **National Contingency Plan 2020-2021:** The Contingency Plan is a management tool for the preparation and response to disasters related to: epidemics (Covid-19, cholera, malaria, and Ebola virus disease), floods, land movements (ravines and landslides), the influx of refugee populations in Burundi, drought and its impact

on food and nutrition insecurity, technological accidents (fire, traffic accidents, nuclear, radiological, biological, and chemical agents, and terrorism). Developed in March 2020, it was updated in March 2021.

? **National Strategy and Action Plan on Biodiversity 2013-2020** whose Target 16 is ?By 2017, the contribution of national biodiversity to carbon stocks is assessed and measures are taken for its improvement, inter alia, by strengthening the resilience of ecosystems and restoring degraded ecosystems?.

? **Gender Strategy of the Burundian Office for Protection of Environment (2020)** which promotes women?s active participation in environmental protection and resilience strategies in the face of climate change as a required condition for any prospect of sustainable development. Its objective 4 is to make gender and equality between women and men a tool for poverty reduction and climate change mitigation.

In addition to the above national policies and strategies, this project is aligned with the following sectoral policies.

Table 2. Sectorial policies

Water	**National water policy (2009):** The overall objective of this policy is to "guarantee sustainable coverage of the water needs of all users through harmonious development of national water resources". It is included the following 5 components : (i) Enabling environment for good governance of the water sector; (ii) Integrated Water Resources Management (IWRM); (iii) Drinking water and basic sanitation; (iv) Water for Socio-Economic Development and Environment and Water Disaster Management; (v) Transboundary dimension of water resources management in Burundi **National Water Resources Management Policy and Action Plan (2012)** The National Water Strategy, SNEau, aims to achieve the overall objective of the PNEau, which is "to guarantee sustainable coverage of the water needs of all users through the harmonious development of national water resources". Its specific objectives are to: (i) to enable the Government to pursue an orderly development of the water and basic sanitation sector, geared towards achieving the country's development objectives; (ii) to enable citizens to understand the approach chosen to meet the sector's current and future challenges; (iii) to assist the Government in its task of mobilizing and programming the resources needed to carry out sectoral programs and projects; (iv) to serve the administration as a reference framework for establishing, implementing and monitoring their sub-sectoral action plans; (v) to enable technical and financial partners (TFPs) to become involved in a systematic and coherent manner in the implementation of the National Water Policy

Forests	**National Forestry Policy of Burundi (2012-2025**): This policy aims to ensure the sustainability of existing forest resources and the development of new resources to meet the socio-economic and ecological needs of present and future populations. The policy ?s objectives are as follows: (i) to plan the development of the forestry sector in order to meet the needs of the population and the country while sustaining the resource, (ii) to develop and manage forestry resources rationally: to increase the forestry coverage rate to 20% in 2025, (iii) to enhance the value of forestry resources, and (iv) to strengthen human and institutional capacities **National Strategy and Action Plan REDD+ Burundi, 2019:** The proposed strategy's vision is: "By 2027, Burundi wants to be a country with a forest carbon stock that will increase the national economy and improve the living conditions of the population. This vision is based on the current state of deforestation and forest degradation as well as on strategic measures to address it, including (i) the integration of REDD+ into the political, legal and institutional framework, (ii) the strengthening of forest governance and land tenure security, and (iii) capacity building of forestry personnel. This vision also takes into account national, regional and international policies and other strategies.
Agriculture and Livestock	**National Agricultural Strategy 2018-2027**: The Strategy aims to increase agricultural productivity and production; improve resilience to climate shocks; and add value to agricultural, animal, fisheries and forestry production. The development of resilience to climate change is one of the sub-component of the component on the sustainable increase of agricultural, animal and fishery production. **Environmental, Agricultural and Livestock Policy Guidance Document (2020)** Adaptation to CC is one of the priority of this document which includes among others, the following activities: restoration of degraded landscapes through watershed management of marshes and contouring; combating bush fires; protection of buffer zones; and promotion of permanent livestock housing. A system for monitoring climate change indicators for better programming of interventions is also proposed. **National Action Program to Combat Land Degradation (2011)**: this strategy devotes its second strategic priority to restoring and preserving the productivity of soils and other ecosystem goods and services Those 3 policies are setting the following priorities: ? Increase in agricultural production and productivity and development of sustainable production systems than can re-establish food self-sufficiency in the short and medium terms ? Management and sustainability capacity-building in the agricultural sector to transform subsistence farming into profitable market agriculture managed by professionals ? Introduction of smart agriculture

Watershed	**Strategic Direction Document for the Development of Watersheds and Erosion Control, 2022 (DOSABV).** The project is aligned with the DOSABV, especially under its section 3.1 focused on land restoration through land rehabilitation and reconstitution of vegetation cover with particular attention to: (i) the promotion of a better use of natural vegetation to safeguard available resources; (ii) the evaluation of available forest resources for rational management; (iii) the promotion of research and technology transfer on forest species (iv) as well as the capitalization of indigenous knowledge for a better management of forest resources

Besides, the national legislation includes some paragraphs related to the protection and restoration of ecosystems and ecosystems services as well as sustainable management of natural resources. The table 3 below summaries key codes aligned with the LDCF project.

Table 3 : National Codes

Environment Code (2021)	The Environment Code encourages everyone?s participation in the preservation of the environment; the polluter-pays principle is also used to prevent, manage, and repair damage to the environment. Therefore, Article 10 states that ?the protection of the environment, the maintenance or restoration of natural resources, the prevention and limitation of activities and phenomena liable to degrade the environment and to cause damage to human health and ecological balance, the repair or compensation of environmental degradation is in the general interest?.
Forest Code (2016)	? The project is in accordance with Principle 18 of the Forest Code which states that ?landscape management for social, economic and environmental benefits in inter-planted forests Integrated planning and management approaches that have an impact on local uses and livelihoods and the environment must be adapted in a landscape or watershed to ensure that upstream and downstream impacts are planned, managed and monitored within acceptable social, economic and environmental standards.?
Water Code (2012)	This Code establishes the fundamental rules and the institutional framework intended to ensure the rational and sustainable management of water resources, of hydraulic installations and works of public interest, in such a way as to allow: ? the conservation and protection of this resource against all forms of degradation and nuisance, without prejudice to the provisions laid down by environmental legislation ? its use and its rational exploitation according to the different needs and priorities of the State, the local communities, the physical or moral persons carrying out activities on the territory of Burundi as well as any other person residing there.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

Component 4 of the project is dedicated to Knowledge management and monitoring and evaluation, seeking to secure the long-term adoption of resilient integrated watershed management, flood management, land restoration and erosion control, green entrepreneurship approaches within the project zones, and to inform the upscaling of theses interventions in other watersheds in Burundi. It will promote communication and knowledge management, and explore mechanisms to share experience and lessons learned and promote sustainability and scalability of the project?s livelihood options for EbA and green entrepreneurship initiatives developed under components 2 and 3. This will be achieved through use of the M&E data, lessons learned and best practices from the first three components to develop a strategy for scaling-up. This knowledge will be particularly relevant to inform planning and budgeting at the local, communal, provincial and national levels and for the continuous capacity building of stakeholders to support scaling-up beyond the life of the project. While this component is preparing the exit strategy of the project by capitalizing the knowledge acquired in the three first components, the activities will be carried-out all along the project implementation.

Three outputs are targeted :

Output 4.1. Project monitoring system providing systematic information on progress in meeting project outcomes and output targets : This output will ensure that project results are properly monitored during the implementation through a performance framework, regular monitoring activities and evaluations. This monitoring exercise will include the ESMF as well as GAP indicators monitoring. The project team, in close relation with MINEAGRIE, UNDP and technical partners, will establish and implement data collection tools and processing protocols based on the M&E framework of the project. The tools developed under this output will also aim to categorize, document, report and promote lessons learned at national and international levels.

Output 4.2. A communication strategy aimed at the relevant local and national stakeholders is developed and implemented : A communication and visibility strategy will be developed to systematically analyze, compile and disseminate the lessons learned and best practices on adoption of resilient integrated watershed management, flood management, land restoration and erosion control, green entrepreneurship (including from outside the project areas and Burundi) as well as practical results of project activities to relevant national, provincial, communal and local stakeholders. The strategy is expected to build an institutional memory on the opportunities for these approaches to enhance the climate change resilience of biodiversity and the livelihoods of local communities in the Ntahangwa watershed. It will also include awareness raising campaigns on the opportunities provided by the management of natural resources that provide multiple benefits and also reduce the risk associated to invest in these areas. Activities will include the development of the strategy itself, which will frame all communication activities under the different components of the project, the organization of local dissemination event in the project sites, as well as at the national level, production and dissemination of videos focusing on the impacts of climate change in the Ntahangwa watershed (included in component 2), as well as demonstration and dissemination of successful ecosystem regeneration experiences reducing the vulnerability of local populations, among others.

? *Output 4.3: Guidance materials on (i) landscape restoration, and (ii) flood management and protective infrastructures , (III) resilient livelihood options and (iv) green entrepreneurship and startup creation leveraging urban, peri-urban and rural win-win opportunities for climate resilience are prepared and disseminated within Burundi and via South-South exchanges.* This output will ensure that knowledge produced under this outcome is shared and disseminated to inform future initiatives within Burundi and in other watersheds. Lessons learned and best practices will be collected from the M&E activities conducted under output 4.1. as well as monitoring visits and experience gained by the project implementation unit in the target zones during implementation. At the end of the project, a national forum, gathering all technical and financial partners as well as the main stakeholders involved, will be organized to exchange on project successes, challenges, lessons learned and best practices. Building on the results of this forum and information collected during the project, a guidebook/manual will be produced to disseminate the achievements, difficulties, lessons learned and good practices for the implementation of watershed integrated management in the project areas, with the objective to facilitate the replication of the results. The project will update and disseminate existing guidelines on sustainable land management and risk and disaster reduction. (e.g. Strategic orientation document on watershed management and erosion control in French *le document d?orientation strat?gique sur l?am?nagement des bassins versant et de lutte anti-?rosif (DOSABV)*. Awareness and environmental education campaigns will be organized to maximize the capitalization of the technological innovations initiated by the project. To promote exchange, good practices and approaches in sustainable land management, technologies and approaches introduced in the project area will be diagnosed, documented, and published in the Global Platform for the Conservation of Sustainable Land Management Approaches and Technologies. Once they are introduced into the Platform, they will be accessible worldwide. A guidebook/manual will be produced to disseminate the achievements, difficulties, lessons learned and good practices for the implementation of resilient livelihood options and win-win opportunities for green entrepreneurship and start up creation in urban, peri-urban and rural areas of the project, with the objective to facilitate the replication of the results. As part of knowledge transfer and know-how in natural resource management and disaster risk reduction, visits within the country and in the sub-region (ex. Rwanda and Uganda) will be organized to gain and share experiences. These missions will primarily concern the leaders of the communities, the representatives of the administration and the technical services involved. At least 200 representatives will participate in this activity both inside and outside the country.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

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. Baseline data for some of the results indicators is not yet available and will be collected during the first year of project implementation through a baseline survey. The Monitoring Plan included in Annex details the roles, responsibilities, and frequency of monitoring project results.

Additional GEF monitoring and reporting requirements:

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 Steering Committee meetings and finalize the first-year annual work plan.

h. Formally launch the Project.

GEF Project Implementation Report (PIR):

The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. UNDP will undertake quality assurance of the PIR before submission to the GEF. The PIR submitted to the GEF will be shared with the Project Board. UNDP will conduct a quality review of the PIR, and this quality review and feedback will be used to inform the preparation of the subsequent annual PIR.

LDCF Core Indicators:

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.

Independent Mid-term Review (MTR): to be completed by 11 March 2026

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

The evaluation will be ?independent, impartial and rigorous?. The evaluators that UNDP will hire 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 evaluators 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 BPPS/NCE-VF Directorate.

The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC by *11 March 2026*. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report?s completion.

Terminal Evaluation (TE): *to be completed by 11 June 2028*

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 for GEF-financed projects available on the UNDP Evaluation Resource Center. TE should be completed 3 months before the estimated operational closure date, set from the signature of the ProDoc and according to the duration of the project. Provisions should be taken to complete the TE in due time to avoid delay in project closure. Therefore, TE must start no later than 6 months to the expected date of completion of the TE (or 9 months prior to the estimated operational closure date).

The evaluation will be ?independent, impartial and rigorous?. The evaluators that UNDP will hire 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 evaluators 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 BPPS/NCE-VF Directorate.

The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by 11 June 2028. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report?s completion.

Final Report:

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.

GEF M&E requirements	**Indicative costs (US$)**	**Time frame**
Inception Workshop	*10,000*	Within 60 days of CEO endorsement of this project.
Inception Report	None	Within 90 days of CEO endorsement of this project.
M&E of GEF core indicators and project results framework	*Per year : 5, 000*	Annually and at mid-point and closure.
GEF Project Implementation Report (PIR)	*Per year : 5, 000*	Annually typically between June-August
Monitoring of *Safeguards management framework and gender action plan indicators*	*Per year : 9,000*	On-going.
Supervision missions	None	Annually
Independent Mid-term Review (MTR)	*70,000*	*11 March 2026*
Independent Terminal Evaluation (TE)	*80,000*	*11 June 2028*
TOTAL indicative COST	*255,000 (2,86% of the total GEF grant)*	

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The project is expected to deliver direct socio-economic benefits at national and local level. The project will (i) support households and local communities in transforming their direct environment into more productive and sustainable ecosystems, delivering long-term socio-economic benefits to community members (components 2 and 3). Under component 3, with activities related to private sector and value chain development, the project will also directly support community groups (though MSEs, start -up creation facilitation, community associations and women?s groups) in developing their businesses and, in turn, getting economic benefits from them.

Therefore the project will provide the following support to the beneficiaries (i) support for transforming the landscapes for increased productivity and restoration of ecosystem services which will deliver long-term socio-economic benefits including increased food security; (ii) support in the development of climate

resilient value chains, improving community livelihoods and socio-?conomic safety, with direct impacts on community resilience to climate change; Beneficiaries will then gain access to new employment opportunities which will also increase household incomes, and the project approach will focus specifically on the needs and ambitions of women and youth.

Social benefits such as women empowerment, job creation and improved (and organized) concertation between different ecosystems users will also result from the project interventions. The project includes an important gender perspective in its activities and targets. Women must represent 60% of direct beneficiaries of the project, in particular under component 2 and 3. This will undoubtly directly also deliver socio-economical benefits at the local level, spreading good practices and lessons learned to other neighbouring communities. The socioeconomic benefits will in turn reduce pressures on natural resources in densely populated zones, and help ecosystems deliver valuable adaptation services, and increase community resilience to shocks, including those associated with climate.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial	Medium/Moderate		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any measures undertaken as well as planned management measures to address these risks during implementation.

Please refer to the ESS documents uploaded to this section for full information.

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Complete SESP Attachment 1 before responding to Question 2.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5below before proceeding to Question 5*			**QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High**
Risk Description (broken down by event, cause, impact)	***Impact and Likelihood (1-5)***	***Significance (Low, Moderate Substantial, High)***	***Comments (optional)***	***Description of assessment and management measures for risks rated as Moderate, Substantial or High***

Risk 1 **The project?s support to civil engineering work (2.3.2) could generate both organic and solid waste, which, if not appropriately managed, would pollute the area** *Standard 8: Pollution Prevention and Resource Efficiency* *8.1, 8.2, 8.4, 8.5* *Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management* *1.1, 1.7, 1.3*	I = 3 L = 3	Moderate	Waste management in the area is an issue raised by many different stakeholders during the initial consultations, as there is no system in place. Construction wastes generated by the civil engineering work will consist of debris that come from the stabilization of targeted ravines and banks. The major construction wastes are expected to be wood and steel, surplus mortar, surplus concrete, broken bricks, green wastes (grass, bushes) and excavated soil. With the increase in urbanization, this waste could generate environmental degradation, and pollute the river as well. However, we are talking about rather small-scale work (2.5km of the river banks), over a limited period of time (6 months maximum).	? The project has planned to conduct a **scoped Environmental and Social Management Plan (ESMP)** and a feasibility study (2.3.2) on the construction site. This **feasibility study** will include an analysis of the waste which is expected to be generated and a list of clear recommendations as per how to manage the waste. As per standard 8, the project will reduce the generation of waste?including plastics?and recover and reuse waste in a manner that is safe for human health and the environment. Where waste cannot be recovered or reused, it will be treated, destroyed, or disposed of in an environmentally sound manner that includes the appropriate control of emissions and residue. ? A **Waste Management Plan,** produced as a result of the feasibility study, will be annexed to the contract signed with the company in charge of implementing activity 2.3.2. It is expected, and will be stated in the contract, that the company is responsible for waste management and cleaning the sites properly.

Risk 2 **The project?s rehabilitation and installation of new stations (1.1.1) and support to adaptation solutions (3.1.3) could generate both organic and solid waste, which, if not appropriately managed, would pollute the area** *Standard 8: Pollution Prevention and Resource Efficiency* *8.1, 8.2, 8.4, 8.5* *Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management* *1.1, 1.7*	I = 1 L = 2	Low	The waste generated through outcome 1 and 2 will (1) not be hazardous (organic waste and solid waste from the station?s equipment) and (2) be in very limited quantity (we are talking about few measure instruments, 6 pluviometers, as well as support to 5 to 6 small-scales solutions linked to agriculture, cattle and non-timber-forest-products, and about material which will be directly used by the stations while being rehabilitated.	

Risk 3 **There is a risk that because of existing marginalization dynamics locally, the project excludes indigenous peoples, also called Batwas, from its various activities and benefits, such as the proposed analysis of restoration and resilience solutions (1.3.1; 3.1.2; 3.1.3), the local plans (1.3.2; 2.1.3; 2.2.1) and committees (1.3.2)** *Human Rights* *P1, P3, P5* *Standard 6: Indigenous Peoples* *6.1, 6.2, 6.3, 6.5* *Accountability* *P13, P14* *Cultural Heritage* *4.3*	I = 3 L = 4	Moderate	The Twas constitute a small group of indigenous peoples, are descended from the original forest-dwelling inhabitants of Burundi. They are self-identifying as indigenous peoples and live together with the two other main groups, Hutus (85% population) and Tutsis (14%). The national Statistical Institute does not provide ethnically disaggregated data, but according to a survey undertaken in 2008 by UNIPROBA, an organization representing the Batwa, the Twa population numbered 78,071 individuals (less than 1% of the population). Burundi does recognize the distinct ethnicity of the Batwa. The 2005 Constitution set aside three seats in the National Assembly and three seats in the Senate for Twa. That notwithstanding, Twa organizations state that selection processes have frequently been manipulated to enable the appointment of non-Twa to these positions. Twa traditionally were hunters and worked as potters or as musicians and entertainers. Burundi has become a densely populated country, and most land is used for crops and pasture. Since the 1970s it has been illegal to hunt in Burundi, which deprived the Twa of what was traditionally one of their main	? The project has developed a **Stakeholder Engagement Plan** which clearly identifies the Twas as one the key community groups who have interest in the project and who will benefit from the project activities ? During PPG, **extensive consultations** were carried and the PPG team engaged with indigenous peoples, both men and women. Consultations were documented according to clear **FPIC guidelines** and documentation is available upon request to the CO. Batwa communities favorably welcomed the project ? The project will specifically address batwa?s livelihood in **activity 3.1.3,** and FPIC consultations have started during PPG with indigenous peoples on the two collines inhabited by Batwas. ? **Activities of sensitization, knowledge management and training (3.2.3, 3.2.5, 3.3.2, 4.2.2, 4.2.3)** will integrate at least 30% of Batwa participants, both men and women, on the areas inhabited by the batwa (Nyambuye and Muyira) ? The choices of places to be restored (1.3.1) will rely on a thorough **FPIC process which has started through ground consultations during PPG**. Further consultations will be held with the twa and other local communities ? **The Indigenous Peoples Planning Framework** (IPPF) has been designed during PPG and includes an FPIC protocol. It should be submitted to indigenous peoples? representatives and validated after GEF submission but

			sources of sustenance. Land redistribution at Burundi?s independence did not benefit the Twa, and most are now landless. Twa face marginalization. In 2012, the situation of Batwa people was one of the focus areas of the Universal Periodic Review (UPR) of Burundi?s compliance with human rights standards. During the review a number of UN agencies expressed concern about marginalization of Batwa with regard to access to land, education and employment. Further still, more issues were raised by several NGOs on the fact that poverty remained more prevalent among Batwa than among other groups**.** Furthermore, widespread illiteracy and a lack of access to education exclude Twa communities from participating in regional and local politics. Batwa are still mostly landless face many difficulties relating to land-rights, either through lack of title, discriminatory practises relating to allocation on the part of the authorities, or failure to recognise historic rights to land. Land laws in Burundi blatantly discriminate against Batwa, as they base customary land rights on ?actual and visible	before project inception. It (1) sets an **FPIC protocol** (2) details risks associated with indigenous peoples (3) proposes ad hoc measures to avoid, attenuate, mitigate or compensate any adverse impact on indigenous peoples, including on their cultural heritage and lands (4) proposes dedicated channels to engage with indigenous groups throughout project implementation ? **An IPP (Indigenous Peoples Plan)** will be developed to address activities 1.3.1 and 3.1.3 on the basis of further FPIC consultations

			occupation of the land?, while the traditional hunter-gatherer lifestyle tends to not visibly impact on territory. Many Twas, having been dispossessed of their land by more powerful neighbours or communities, have little recourse to justice through the authorities. It should be noted however that Twas are only present in a very small portion of the project area, on rural collines (Nyambuye and Muyira), which is not the area where construction work, which could affect land rights and create more risks, will occur. For this reason, the risk remains moderate.	

Risk 4 **There is a risk that because of existing marginalization dynamics locally, the project excludes women, especially widows, rural and indigenous women, from its various activities and benefits, such as the proposed analysis of restoration and resilience solutions (1.3.1; 3.1.2; 3.1.3), the local plans (1.3.2; 2.1.3; 2.2.1) and committees (1.3.2)** *Human Rights* *P1, P3, P5* *Gender Equality and Women?s Empowerment* *P8, P9, P10* *Accountability* *P13, P14*	I = 3 L = 4	Moderate	With respect to sociocultural norms in the public sphere, the man is meant to represent the entire family in all domains, both in- and outside of the home. Women traditionally are not called upon or expected to speak in public, though norms in this domain are changing in urban areas. A Burundian saying goes, ?*Nta nkokokazi ibika isake iriho?* _ (the hen does not sing when the cock is present). Cultural norms and values, as well as the distribution of traditional roles and responsibilities, often limit women?s opportunities for participation in household decision-making, as well as their potential social or political roles in community or public life. Again, the social expectation is that Burundian women should undertake most tasks related to the household and/or (underreported or underpaid) agricultural production. At the community level, men traditionally occupy roles related to governance, including those related to conflict resolution such as the *bashingantahe*. The *bashingantahe* are customary mechanisms and are, as such, not overseen or regulated via legislative reform. When affecting land uses through discussions of the local	? The project has developed a **Gender Action Plan** which clearly identifies the most vulnerable women groups who have interest in the project and who will benefit from the project activities. This document (1) details the situation of all women and of women rights in the project area (2) defines appropriate measures to ensure the project benefits to women; (3) propose ad hoc measures to avoid, attenuate, mitigate or compensate any adverse impact on women ? During PPG, extensive consultations were carried, and the PPG team engaged with women?s groups and associations ? The GAP has been designed to be sensitive to the potential risks of marginalization of some subgroups of women (i.e., batwa women), ? Links between the **IPPF** and the GAP were established as the IPPF addresses clearly the situation of batwa women ? A GRM will be designed

			committees to be set up and the elaboration of local plans, women, their interests and their activities could be disregarded by the men. That could affect in turn their livelihoods, ability to conduct their activities, and render their ability to benefit from the project	

Risk 5 **The project could inadvertently reinforce existing marginalization of women within administrative and institutional services if only the male staff benefits from the capacity-building activities planned by the project (1.1.3, 1.1.7, 1.2.1, 1.2.2, 1.3.3)** *Gender Equality and Women?s Empowerment* *P9, P10* *Standard 7: Labour and Working Conditions* *7.5*	I = 2 L = 5	Moderate	The 30 percent quota for women?s participation is respected in the National Assembly (where 34.7 percent of the members are women), the Senate (42 percent), and at the communal level (32.7 percent women administrators). In 2016, as in 2005, however, the GoB had to use the co-optation clause to meet these quotas for the National Assembly. In Burundi, a co-optation system supplements elections (following a decision from the Arusha Accords) that allows for ex-post adjustments to fulfil gender and ethnic quotas stipulated in the electoral code. Where there is no quota, only 20.6 percent of *colline* *councillors* and 6.3 percent of colline chiefs are women. At the community level, men traditionally occupy roles related to governance, including those related to conflict resolution such as the bashingantahe.34 The bashingantahe are customary mechanisms and are, as such, not overseen or regulated via legislative reform. The low presence of women in these lower-level governing bodies, which are authoritative at the local level, results not only from the absence of legal provisions guaranteeing their representation but also from their low literacy rates and	? The project?s **Gender Action Plan** which details measures to support in particular the women staff in these institutions

			sociocultural norms. Gradual change in this area, however, is occurring due to several factors. First, evidence suggests that sociocultural perceptions are evolving. A 2015 Afro barometer study in Burundi revealed that 81 percent of the respondents are in favor (with 17% against) of men and women having the same rights and opportunities to be elected.35 Slowly, women are being integrated into the institution of the *bashingantahe*, although they are not allowed to use the stick that men use to chant their words during their sessions. Women, particularly members of women?s organizations supported by international partners such as UN Women, are increasingly and successfully involved in managing conflicts of all kinds (for example, GBV, land disputes, and conflicts between parents and children). It will be key for the project to make sure that women are supported and actively taking part in the administrative and institutional services which will be-targeted by the capacity-building activities.	

Risk 6 **The project could inadvertently lead to the introduction of invasive alien species, in an area which has already known issues with introduction of uncontrolled invasive species in restoration projects (2.1.2 ? 2.3.3)** *Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management* *1.1, 1.6, 1.8*	I = 3 L = 3	Moderate	Multiple species of invasive plants and animals are already present in the river basin, and there is concern for dispersal as well as for introduction of other potentially invasive species, especially as the river flows into Lake Tanganyika. The lake is a hotspot of aquatic biodiversity, harboring hundreds of species of fish found nowhere else in the world, as well as endemic species of snails, crabs, shrimps, sponges, etc. The catchment basin encompasses several forest reserves and national parks, including Gombe Stream and Mahale Mountains in Tanzania, which serve as refuge for some of the few remaining populations of chimpanzees in the region. The basin also contains extensive wetland areas, including the deltas of the Rusizi and Malagarasi Rivers, which are recognized according to the Ramsar Convention on Wetlands of International Importance and provide key habitats for a wide diversity of water birds and other native species. Invasive species could be inadvertently spread and/or introduced as the result of the planned planting of bamboo, vetiver and banana grass to stabilize the shores, and the reforestation and	? The project has included, in its design, clear guidelines to avoid the introduction or spread of invasive alien species: (1) the project will plant mostly indigenous plants, apart from bamboo and vetiver which offer very good erosion control possibilities ; (2) slashing, harvesting and burning activities of existing IAS; (2) prohibition of the use of Chemicals such as paraquat and glyphosate as their effects on non-target species makes it incompatible with Standard 4 - especially as the project area is a river basin where the poisons may affect water quality, fish, irrigation and peoples? domestic use ; (3) trainings to local committees on valorization and management of existing bamboos to mitigate existing invasion and avoid

			afforestation of the collines. Concerns were raised by local actors regarding bamboos as former projects planted bamboos which have now spread and are uncontrollable, as the projects and local communities stopped monitoring and controlling them.	further spread, and ensure long-term sustainable management of the previously existing plantations. These measures are specified directly in the ProDoc under activities 2.2.1, 2.2.3, 2.2.4, 2.2.5, 2.2.7. They will also be specified in depth in the Biodiversity Action Plan. ? Bamboo is essential to stabilize the banks of the Ntahangwa River which are regularly destabilized by erosion from upstream. The stabilization of the Ntahangwa River banks is part of the Government's national policy through the "Ewe Burundi Urambaye" program, which aims at stabilizing all the river banks in Burundi with bamboo. Moreover, the downstream part rehabilitated by the former project is stabilized by bamboo. It would therefore be illogical

				not to do so in the downstream part. Regarding its invasive character, this is easy to circumvent through the control of silvicultural conduct. Taking into account its positive impacts in the fixation of the soil, we cannot do without bamboo. In addition, the Environmental Code recommends the respect of at least 5 m from the edge of the river. It is in this zone that the bamboo will be installed.

Risk 7 **By proposing new technologies and innovant anti-erosion approaches (2.2.2), as well as good agronomic practices (2.2.7) and adding value to existing NTFP production (3.1.4), the project may inadvertently further the existing process of loss of traditional knowledge, including indigenous knowledge.** *Standard 4: Cultural Heritage* *4.3* *Standard 6: Indigenous Peoples* *6.1, 6.2, 6.3, 6.5*	I = 2 L = 2	Low	The fast *erosion* happening in the project area poses a serious threat to which there is no solution based on traditional knowledge. The consultations held during PPG showed that traditional knowledge in the urban and suburban areas of the Ntahangwa river basin. FAO has already started training farmers in Burundi to combat soil erosion through agroforestry and contour planting. Traditional knowledge is more relevant when it comes to harvesting and commercializing traditional knowledge. While there is a risk that by working on value chains, this knowledge may be altered and/or transmitted in a way which is not culturally acceptable, the risk is low for two reasons: (1) the project won?t industrialize any of these value-chain ; (2) it will provide local, targeted support to few products that are already commercialized locally (honey, essential oils, traditional pharmacopeia, food?)	

Risk 8 **The construction work (2.3.2) could inadvertently lead, during the construction, to more soil movement, even landslides, and consequent sediment lead in the river, leading to an increase in pollution** *Standard 8: Pollution Prevention and Resource Efficiency* *8.1, 8.2, 8.4, 8.5* *Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management* *1.1, 1.7, 1.11*	I = 3 L = 3	Moderate	Studies have shown great sediment load in the river due to the erosion, which has direct effects on organic pollution of the Ntahangwa river. During the civil engineering works for the stabilization of targeted ravines and banks (activity 2.3.3), a temporary increase of sediment discharge in the river could be observed, leading to a temporary increase of pollution. This is another type of pollution which comes in addition to risk 1 (construction waste). It is also on a limited scale (2.5 km) and time (6 months).	? The **feasibility study, framed by the Environmental and Social Management Plan** (activity 2.3.1) to be conducted before any construction work starts in the ravines of Mutanga Sud (ecofo) and Mugoboka (I, II) will integrate considerations on soil movements, erosions and variations in water. The ToRs for the feasibility study will explicitly refer to the need for compliance with the UNDP SES (they are to be developed by the PMU, in line with the current SESP, highlighting areas of concerns) and will be developed together with the ESMP. The feasibility study will conclude on clear recommendations, to be annexed to the contract with the company in charge of implementing the construction work. ? **Appropriate anti-erosion measures (2.2.5, 2.3.3)** will reduce massive sediment discharge into the lake. They will be integrated in the feasibility study. ? **A scoped ESMP (2.3.1) will be developed to cover activity 2**. **3.2**. It will be completed by the Waste Management Plan and include Labour Management Procedures.

Risk 9 **Workers, in particular if safety measures are not adopted and followed, could be victims of accidents during construction (2.3.2)** *Standard 7: Labour and Working Conditions* *7.6*	I = 5 L = 1	Moderate	The work will be conducted on the short-term and involve few local workers. However, it is likely that accidents may arise during construction. These works will be conducted in an area where erosion and soil movements are already important, leading to more risks.	? The scoped **ESMP** (activity 2.3.1) to be conducted before any construction work starts in the ravines of Mutanga Sud (ecofo) and Mugoboka (I, II) will integrate considerations on workers? health and safety. The ToRs for the ESMP will explicitly refer to the safeguards. ? The scoped ESMP will integrate Labour Management Procedures

Risk 10 **The project could reproduce existing forms of gender-based violence, generate some additional violence due to the limited influx of workers linked to the construction work (2.3.2), while the support to women-led SMEs and businesses (3.1.3, 3.1.4, 3.2.1, 3.2.2, 3.3.1) may exacerbate GBV if they create power struggles at the household level** *Gender Equality and Women?s Empowerment* *P9, P12* *Standard 3: Community Health, Safety and Security* *3.7*	I = 3 L = 3	Moderate	Burundi has one of the highest rates of domestic violence in the world. According to a 2017 government report, 48.5 percent of Burundian women have experienced physical or sexual abuse at the hands of their partner. There are no open-source nationwide statistics on gender-based violence, but different NGOs collect their own data in the areas where they operate. Centre Seruka, for example, covering three out of the 18 provinces, recorded 597 cases of rape in the first half of 2020. The organisation records about 101 cases of gender-based violence a month. According to local activists, these figures don?t show the real picture. In 2016 the government adopted a law enforcing punishment against abusers. The law aims to prevent gender-based violence and punish perpetrators. According to the new legislation, gender-based crimes must be examined in a special court with specialized judges and lawyers. Burundi is one of the first countries to have adopted such a law in the Great Lakes region. However, experts warn that women's economic vulnerability, ignorance of the law and the lack of effective victim and	? In line with national policies as well as UNDP and GEF guidelines, the project will adopt the following principles in its day-to-day management: (1) Demonstrate gender responsiveness in all interactions with project stakeholders; (2) No use of language or behavior denoting bias and disrespect for any individual based on gender or ethnicity; (3) Avoid gender stereotyping in project documents, and communication outputs; (4) Support zero tolerance for sexual harassment, gender-based violence and/or sexual exploitation and abuse of men, women, girls and boys that may occur in connection with any of its supported activities. ? The project will organise a training for the PMU on gender-integrated planning and project implementation and on risks related to gender inequalities including Gender-based Violence. There are a few courses available: NAP-Ag course focuses on adaptation planning, and UNDP also produced with GEF a free online course on Gender and Environment, and versions recently launched in French. ? The CO will be encouraged to establish a process in the Stakeholder Response Mechanism to record GBV cases and related complaints and decide how to respond in collaboration with local CSOs and existing

			witness protection make the law hard to enforce. When supporting women?s businesses and women-led SMEs, the project could inadvertently generate tensions at the household level, which could in turn be translated into an increase of GBV. GBVs could also be reproduced within the SMEs to be supported by the project, by the workers coming to work on the construction site, or within the project team.	institutional mechanisms in place (if any)

Risk 11 **The construction (2.3.2), if not resilient enough will be vulnerable to climate change and potential hazards. This is also a risk during implementation, i.e., in case of a climate event during construction is happening. This could in turn lead to incidents for the community members and workers.** *Standard 3: Community Health, Safety and Security* *3.1, 3.2, 3.3, 3.6* *Standard 2: Climate Change and Disaster Risks* *2.1, 2.2, 2.3*	I = 4 L = 2	Moderate	The Ntahangwa River has been heavily altered as a result of this extraction activity. Today, the river flows uncontrolled in all directions. When it rains, the river breaks its bank, flowing into residential areas, destroying everything it encounters on the way. Torrential rains have caused massive flooding throughout the 20th century for Burundi, especially in the 1960's when the level of Lake Tanganyika increased by 4 meters causing districts in Bujumbura and Gatumba to flood. And in 2002, floods caused by heavy rain forced many people from their homes. ? Storms have affected thousands of people in the first decade of the 21st century with 15,500 people being affected in 2004 alone. While the rainy season seems to be decreasing in the northeastern regions of Burundi, they have experienced torrential rains, lightning, and thunder during the rainy season, increasing their vulnerability to loss of livestock, food insufficiency, decreased agricultural output, bush fires, and loss of human life Potentially damaging and life-threatening river floods are expected to occur at least once in the next 10 years. **Project planning**	? The **feasibility study** will include climate and natural hazards, with projections over the next 30 years ? All project activities are designed to mitigate the impacts of climate change and build community resilience in accordance with the SES ? Activities are designed to mitigate climate risks by introducing climate sensitive engineering practices in erosion control ? Erosion, flooding and other hazards management systems will be part of the capacity-building and community engagement activities planned in the different components, and will be an entire part of the **south-south knowledge sharing activity (4.2.2)** ? **Labour Management Procedures,** as part of the ESMF, will include measures to protect workers from potential climate related hazards.

			decisions, project design, and construction methods must take into account the level of river flood hazard. The construction work concerns an area of 2.5km along the river.	

Risk 12 **The support to private sector activities (component 3), green entrepreneurship and value chain improvement could inadvertently lead to a heavier collection of Non-Timber Forest Products, more agricultural production and associated potential use of pesticides and overall environmental damage** *Standard 8: Pollution Prevention and Resource Efficiency* *8.1, 8.4, 8.5* *Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management* *1.1, 1.6, 1.7, 1.8, 1.10*	I = 3 L = 2	**Moderate**	The support to value chains and green entrepreneurship is expected to cover a number of segments of value chains (especially non-timber forestry products). They have the potential to have negative environmental impacts if not properly designed and managed.	? A **Biodiversity Action Plan** will be designed after project validation but before component 3 activities start, in order to frame component 3 activities. The BAP will include a list of criteria for businesses and SMEs to be supported and of types of activities which should not be supported by the project. There is no other possible risk from these activities. The ProDoc already indicates that the project involves planning for sustainable development of existing, or to be created, nature-based value-chains that provide adaptive benefits, and that the support to SMEs is planned for promoters of enterprises based on the sustainable use of natural resources ? In addition, whenever applicable to project financed activities, awareness-raising procedures with regards to environmental standards as well guidance on storage and waste disposal. Associated trainings will include sensitization on the risks linked with the use of chemicals for agriculture and soil degradation. ? The project will work to strengthen institutional capacities to ensure effective and efficient management of activities in regard to biodiversity, including the mitigation of potential adverse impacts to habitats. ?

Risk 13 **The planned support for the private sector (component 3) related to agriculture could inadvertently support child labor and other violations of international labor standards.** *Labour and Working Conditions* *7.1, 7.3, 7.6*	I=2 L=2	**Low**	In Burundi, there exists an established national legal framework for the protection of child rights, and Burundi has ratified key international treaties including the Child Rights Convention, and both of its Optional Protocols. Burundi?s 2014 anti-trafficking law criminalises forced labour and trafficking. In 2020, the government passed a new labor code that made important progress in bringing Burundi's legal framework in line with international standards, such as raising the minimum age for work to age 16 and the minimum age for light work to age 15. Law enforcement authorities also implemented stringent measures to monitor the travel of unaccompanied children and identify cases of child trafficking. Meanwhile, the government launched two new programs to improve counter-trafficking capacity in Burundi and provide work alternatives to youth vulnerable to exploitation. However, children in Burundi are subjected to the worst forms of child labor, including human trafficking. Reports indicate that an increasing number of children from the Batwa ethnic group are being transported from rural areas into Bujumbura with promises of work	

			and subsequently are exploited. Burundi lacks a compulsory education age that is equal to the minimum age for work and the government failed to provide comprehensive criminal law enforcement data related to the worst forms of child labor. The minimum age for child labour (16 years old) does not apply to children who are informally employed. Other challenges remain, including a lack of resources to conduct labor inspections and criminal investigations; a lack of well-trained educators and infrastructure in the education sector; and insufficient social programs to address child labor. The project will however not engage with any form of worst labor (i.e., herding and extracting) associated with agriculture and industry, and will only select a small number of businesses to work with.	

Risk 14 **Project duty-bearers may have insufficient capacity to meet their obligations, in particular for the implementation of safeguard measures and monitoring of project activities and associate safeguard requirements.** Human Rights P.2	I = 4 L = 2	**Moderate**	The project implementation partners, notably the government agencies and NGO in charge of field activities have limited capacities to conduct monitoring and integrate safeguard-related concerns into their monitoring plans. They also may not be aware of the safeguard requirements applicable to the project.	? The project has planned and allocated resources for monitoring institutional strengthening to address capacity limitations for project implementation **(1.1.1, 1.1.3, 1.1.6, 1.1.7, 1.2.2, 1.3.3, 1.4.3)** ? The project has planned and allocated resources for specific safeguards-focused capacity building, especially when working with the private sector **(3.2.3),** with the communities **(3.2.5),** with the banks **(3.3.4)**

Risk 15 **There is a risk that the project generates and/or exacerbates conflicts between the beneficiaries, on the grounds that local plans would affect their land rights, or that the benefits would not be shared in a fair manner** *Human Rights* *P1, P2, P3, P5* *Accountability* *P13, P14* *Indigenous Peoples* *6.1, 6.2, 6.3, 6.5*	I = 3 L = 3	**Moderate**	Burundi is a small but rather densely populated post-conflict landlocked country in Africa?s Great Lakes Region. It has 12 million inhabitants, of which 90% depend on land as their principal source of income. Yet, the country faces a severe shortage of arable land. Moreover, land is not limited to being a key economic factor, but also has socio-cultural, political and environmental significance. In Burundi in particular, land has a high symbolic cultural and identity-giving value. Disputes about land can heighten existing tensions between different groups of society, notably if used as a means by political actors to mobilise solidarity and support. Land conflicts are common throughout Burundi?s history, and have been dealt with through traditional dispute resolution mechanisms such as the Bashingantahe. Due to a higher pressure since the early 2000s on land when waves of refugees return to their homes, land issues amount today to 80% of the cases dealt with at	? The project has established **a Stakeholder Engagement Plan** which has mapped all affected stakeholders and plans for adapted canals to engage with them all and ensure that information is shared, and that communications between the PMU and all stakeholders will be fluid ? The **IPPF** will reinforce the SEP with a FPIC protocol in order to ensure that Batwas have equal possibilities to participate in and benefit from the project ? The project will set up a **Grievance Redress Mechanism**. This GRM will be established by the national government agencies (or, as appropriate, by regional or municipal agencies) to receive and address concerns about the impact of the project on external stakeholders, and any conflicts related to project implementation. The GRM will be accessible, collaborative, expeditious, and effective in resolving concerns through dialogue, joint fact-finding, negotiation, and problem solving. It will be developed by the Implementing Agency and will be evaluated and validated by UNDP CO in the first six months of project implementation. ? At the local level, local consultation committees will be established from existing entities. If this is not the case, they will be created in the targeted municipalities where there are no appropriate structures. The local consultation committees will be made up of the beneficiaries, and representatives of the municipalities, NGOs and farmers' organizations. These committees will be responsible

			the Tribunaux de R?sidence (Residential Courts). The shortage of land as a structural background factor of the Burundi land crisis has its origin in an imbalance between the fast population growth of 3.4% annually, and the availability of land and its means of cultivation. The project activities under component 2, as they are affecting lands (river banks, among which some are used for cultivation), may create minor conflicts on land rights. Those could be (1) Land disputes between neighbours (which happen regularly and are mostly limited to land boundary disputes) ; (2) Conflicts within families linked to disagreements related to inheritance and the division of land between family members; or to polygamy or divorce; (3) conflicts between the project and the land users, where occupants have been granted land titles that the original owners never received ? for instance, when the occupant has cultivated the land for 30 years or more (linked to the 1986 Land Code).	for monitoring and implementing the pilot adaptation initiatives and for involving the rural population in the project. In addition, they will review and advise on financial aspects for activities implemented at the local level. They will participate in the planning and approval of expenditures for activities at the local level. The local advisory committees will meet at least once every three months. The project will **train these local committees on natural resources related conflicts and conflict mediation (1.1.3)** ? To resolve the long-term land question, there is a need to develop and implement land conflict solutions beyond land, diversify the economy and create alternative livelihoods. This is why **component 3** is a direct mitigation measure, offering to support livelihood and local business. ? **The project management unit (PMU) will integrate a part-time safeguard officer** (50%) who will ensure sufficient capacity to coordinate and monitor safeguard measures.

[1] Vandelannoote, A., Robberecht, H., Deelstra, H. *et al.* The impact of the river Ntahangwa, the most polluted Burundian affluent of Lake Tanganyika, on the water quality of the lake. *Hydrobiologia* **328,** 161?171 (1996)

[2] http://www.fao.org/in-action/naps/resources/learning/gender-training-guide/en/

[3] https://thinkhazard.org/en/report/43-burundi/FL

[4] https://catalog.ihsn.org/index.php/citations/83107

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Title	Module	Submitted
Indigenous People's Planning Framework - LDCF Burundi	**CEO Endorsement ESS**	
ANNEX 6-SESP Burundi-18 novembre 22-Clean	**CEO Endorsement ESS**	
PIMS 5879 LDCF_Burundi_PRESESP_23092020 final (1)	**Project PIF ESS**	

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

This project will contribute to the following Sustainable Development Goal (s):

- SDG1: End poverty in all its forms everywhere

- SDG 5: Achieve gender equality and empower all women and girls

- SDG8: Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all

- SDG13: 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 (Target 15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought, and floods, and strive to achieve a land degradation-neutral world)

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

STRATEGIC PRIORITY I : Human being: inclusion, dignity and equality

Outcome 1: By 2023, girls and boys equitably benefit from quality education

Outcome 2: By 2023, men, women, girls and boys, especially the most vulnerable equitably use quality health, HIV and malnutrition services, and water, sanitation

and water, sanitation and hygiene services that contribute to universal health coverage

Outcome 3: By 2023, more women, youth and vulnerable groups are integrated at political and socio-economic levels and have access to social protection services

STRATEGIC PRIORITY II : Planet: communities? resilience

Outcome 4: by 2023, national and decentralized entities adopt and implement measures in crisis and risk disaster management , sustainable management of natural resources, CC adaptation and mitigation and ecosystem protection to ensure resilience of the communities

STRATEGIC PRIORITY III : Prosperity: Transformation and sustainability

Outcome 5: men and women, most vulnerable will access in equitable way to production means in order to increase their revenues through sustainable production and improve food security

	Objective and Outcome Indicators **(no more than a total of 20 indicators)**	**Baseline**	**Mid-term Target**	**End of Project Target**

Project Objective: Increase resilience of watershed communities in and around Bujumbura through a resilient integrated watershed management for landscape restoration and flood management	**Mandatory Indicator 1:** # direct project beneficiaries disaggregated by gender (individual people)	0 beneficiaries	64,250 of which 32,250 women, 32 000 men	128,050 of which 65,230 women and 62, 820 men
	Mandatory *Indicator 2 (GEF-7 Core indicator #3)*: *Area of degraded land restored (hectares*	0 restored land	1000 ha of degraded land restored	At least 3000 ha of degraded land restored
	Mandatory Indicator 4 (GEF-7 Core indicator # 4: Area of landscapes under improved practices) : Area of managed watersheds (hectares)	0 ha managed watershed	4000 ha of watersheds managed	At least 8,980 ha of managed watersheds
Project component 1	Developing technical capacities for climate-induced flood and erosion risks mapping and their use to inform climate-resilient integrated watershed management and other planning processes			
Project Outcome 1 Enhanced capacity for climate risk modelling and integrated planning in the Ntahangwa watershed and Bujumbura town	***Indicator 4:*** Number of hydro-weather stations installed and functioning in the Ntahangwa Basin	? 5 hydrological stations ? 6 weather stations	? 5hydrological stations installed on Lake Tanganyika and Rusizi river ? 5 new-weather stations in place ? 10 Rain stations rehabilitated NB : all stations should be purchased and installed durin g the first two years in order to set up the EWS	? 10 hydrological stations installed and working properly ? 11 weather stations in place ? 10 rain stations installed

	Indicator 5: Number of contingency plans updated and implemented at Community level	0 contingency plan	the contingency plan is partially operational	? The contingency action plan is fully operational
	Indicator 6: *Number of risks mapped, documented and disseminated*	2 documented hazards: Flo oding and rainfall	At least 5 hazards (Rainfall, Flooding, Drought, Heat wave, Climatic diseases) integrated and documented in MyDEWETRA	? At least 5 hazards (Rainfall, Flooding, Drought, Heat wave, Climatic diseases) integrated and documented in MyDEWETRA
Outputs to achieve Outcome 1	*Output 1.1: The community-based climate information system supported and improved to monitor changes in key ecological determinants of ecosystem health and resilience in the Ntahangwa watershed is enhanced* *Output 1.2: local expertise and knowledge on hydrological and climate models to monitor climate-sensitive flooding and erosion risks in the project area is enhanced* *Output 1.3: Integrated planning and implementation of Ntahangwa watershed management is enhanced through a gender-responsive approach* *Output 1.4: flood and erosion risk mapping of the Ntahangwa basin is enhanced*			
Project component 2	Implementing landscape restoration and flood management approaches to restore ecosystem services against flood and erosion in the Ntahangwa watershed in and around Bujumbura			
Outcome 2	***Indicator 7:*** Number of linear km of flood control infrastructures rehabilitated	0 km of anti-erosive devices	At least 600 linear km vegetated anti-erosive ditches in place	At least 1,000 linear km of vegetated anti-erosion ditches implemented

Ecosystems services for flood and erosion protection restored and flood protection measures implemented to improve the resilience of communities in the Ntahangwa watershed and in Bujumbura.	***Indicator 8:*** Number of linear km stabilized river banks	0 km of linear km stabilized riverbanks	2,5 km of linear km of stabilized river banks	At least 2,5 km of linear km of stabilized riverbanks
Outputs to achieve Outcome 2	*Output 2.1: Measures to restore the degraded landscapes of the hilltops of the Ntahangwa watershed are in place (reserved for the state and municipalities)* *Output 2.2: Community-based erosion control measures in the Ntahangwa watershed are in place* *Outcome 2.3: Measures against the destruction of public and private infrastructure by ravines and landslides are implemented.*			
Project component 3	Livelihoods options and green entrepreneurship to increase resilience of the urban, peri-urban, and rural communities in the Ntahangwa watershed.			
Outcome 3 Community livelihood is improved with sustainable adaptation measures contributing to urban, peri-urban, and rural resilience.	***Indicator 9:*** Reported investments from the private sector in promoting the sustainable use of natural resources	0	10	*20*
	Indicator 10: Number of MSEs providing adaptive goods and services contributing to urban, peri-urban, and rural resilience	0	I15	30

Outputs to achieve Outcome 3	*Output 3.1: Private sector mobilized in project areas to engage in value chain activities that promote green entrepreneurship* *Output 3.2: capacity building and support for local entrepreneurs and SMEs to develop green entrepreneurship activities are enhanced* *Output 3.3: Promote innovative financing with a micro-finance institution to support the development of green entrepreneurship activities for women and youth.*			
Project component 4	Monitoring and Knowledge Management			
Outcome 4 Relevant local and national stakeholders incorporate climate resilient EbA approaches into their land management activities, drawing on the experience from the Ntahangwa watershed zone	***Indicator 11:*** Number of EBA solutions replicated in the project area	0	2 adaptation good practices replicated in the project areas	5 to 8 adaptation solutions in the project area and/or neighboring regions
Outputs to achieve Outcome 4	*Output 4.1. Project monitoring system providing systematic information on progress in meeting project outcomes and output targets* *Output 4.2. A communication strategy aimed at the relevant local and national stakeholders is developed and implemented* *Output 4.3.* Guidance materials on (i) landscape restoration, and (ii) flood management and protective infrastructures , (III) *resilient livelihood options and (iv) green entrepreneurship and startup creation leveraging urban, peri-urban and rural win-win opportunities for climate resilience are* prepared and disseminated within Burundi and via South-South exchanges.			

[1] BURUNDI, 2019, United Nations Framework for Burundi's Development Aid, UNDAF 2019 ? 2023; file:///Users/mac/Downloads/d2068cac-89a0-40ca-a86c-798e79c103d9_Burundi_UNDAF_2019-2023_2019.01.pdf

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

Comments	Responses
Germany: Germany strongly recommends reviewing the theory of change at outcome and output level, and formulating also quantitative indicators that allow measuring project results. The proposal provides information on planned project outputs which are however not linked with the theory of change. For example , the proposal mentions that the project will restore 3,000 ha of degraded areas through tree planting , an additional 1,000 km of anti-erosion ditches and terraces and 1.5 km of flood control infrastructures (p.35). These figures are nevertheless not included in the theory of change	A new Theory of change (ToC) was designed considering outcome and output levels. Planned outputs in the proposal are now included in the ToC. Indicators and related baseline and targets values are presented separately in the Project results framework (Annex A) and the LDCF Core Indicators table.
Germany: The description of components 1 and 2 clearly outline the adaptation rationale in the project context. For the planned restoration and anti-erosion measures under Component 2, including tree and hedge planting, Germany however asks to ensure that native, climate ?resilient are favoured. Native, climate- resilient species are favoured under component 2	The Social and Environmental Screening Procedure (SESP) identified the risk of inadvertently introducing invasive alien species at both PIF and PPG stage. The project includes, in its design, clear guidelines to avoid the introduction or spread of invasive alien species. Specific measures are included directly in the UNDP ProDoc (under activities 2.2.1, 2.2.3, 2.2.4, 2.2.5, 2.2.7) with further details to be provided in the Biodiversity Action Plan (prescribed by the SESP and to be prepared during implementation).
Germany: Component 3 focuses on livelihoods options and green entrepreneurship and introduces a wide range of activities reaching from market analysis to development of micro-finance products and facilitation of start-up creation. While Germany generally supports the innovative approach including the engagement of start-ups (Output 3.3), we ask to provide examples of possible products and to explain how exactly these will contribute to adaptation to climate change	During the PPG, partners and participants of the nascent technological ecosystem were met to better understand needs and possibilities for supporting innovation and entrepreneurship contributing to adaptation and urban resilience. While it is difficult to determine who will respond to call for participation, a number of sectors are seen as promising, including in reusing/repurposing waste to reduce pressure on ecosystems and their natural resources, food processing and food preservation of agricultural products.

Germany: While the logic of Component 1 is understandable, the functional efficiency of the community-based climate information system should be closely described. The project description would become clearer if the role of the IGEBU in developing an integrated watershed management plan were described in detail	The community-based climate information system has been further detailed under Component 1 and the project aims to address identified gaps to make it operational and tailored to the needs of beneficiaries. IGEBU is a key partner in ensuring the operationalization of the climate information system and the custodian of data and information it produces. MINEAGRIE will have the overall responsibility for the preparation of the Integrated Watershed Management Plan, while IGEBU will be provide the scientific basis for decision-making, ensuring data collection and analysis required by the watershed planning process.
Germany: The approaches to community-based anti-erosion measures described in Component 2 are pertinent upstream, the proposal would win if further measures already implemented in other regions (e.g mulching, fixing of fascines, planting of contour trenches) were also considered. The excavation of contour trenches is an important erosion control measure; therefore, the proposal should also focus on the sustainable maintenance of these trenches.	The project design has identified further measures already implemented in other regions. \ Mulching, fixing of fascines and planting of ravines will be promoted under Output 2 Moreover, these measures will be promoted and disseminated through guidelines and sensitisation campaigns under Component 4. The maintenance of contours trenches is an important aspect that was considered at PIF and during the PPG. Based on previous interventions, the project will cooperate directly with local authorities and local communities and leverage the the Labor Intensive Public Works (LIPW) to implement anti-erosion measures and maintain them after the project ends. Maintenance and long-term sustainability will be considered when formalizing agreements with local authorities.
Germany: The support by the communes cited in Component 2 is the crucial point for a successful implementation of the anti-erosion measures, therefore it should be precisely examined and described to what extent they can be strengthened so that they can successfully cope with the tasks they are faced with.	Several communes have expressed an interest in implementing anti-erosion measures, especially after seeing successes of pilot investments made in other parts of the watershed. This was confirmed during stakeholder consultations at the PPG stage. Lessons learned from previous interventions show that financial incentives and targeted capacity building are necessary to ensure that communes have the means to participate and coordinate work with their constituents. the promotion and opportunities introduced by livelihood options is also meant to provide additional incentives for economic, social and environmental benefits to the communities, and as a result, communes, supporting efforts of local authorities and the aspirations built into local development plans.

Germany: The MinEAgriE is able to implement the anti-erosion activities of component 2, I.e to accompany their implementation. The measures to be implemented dowstream include construction measures that are technically complex. The role of the MinEAgriE should therefore be clarified in this context	The MINEAGRIE has the overall responsibility for the execution of the project, including the more complex construction work presented in Component 2. Similar construction activities were undertaken by MINEAGRIE in a different section of the river previously, they therefore have expertise for preparing technical specifications and tender documents. MINEAGRIE can also mobilize its directorates and specialized entities to support this work. In addition, the Ministry of Infrastructure, Equipment and Social Housing (MIELS) will be specifically involved in the quality assurance of the construction work proposed by the project. The role of each partner is presented and clarified in relevant section of the CEO ER and the Stakeholder Engagement Plan (SEP) for the construction work.
Germany: The GIZ on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ) is currently implementing the project ?Reducing the impact of climate change on the availability of water and land resources in Burundi (ACCES)?Germany recommends seeking an exchange on its approach and the lesson learnt with project	ACCES is an important project that ended in 2021 and that was considered during the PPG. In particular, the PPG used the results of the studies on integrated climate vulnerability analysis and climate change impacts in Burundi produced by the ACCES project. In addition, the LDCF intervention will build on the communication and early warning strategy started by the ACCES project, targeting rural farmers to raise awareness and prepare them to adapt to climate change impacts.

STAP comments ?responses

Theory of change:

? The TOC has been revised during the PPG based on the STAP TOC primer.

? Complementary indicators to measure the project progress and results are included in the Annex following the S.M.A.R.T approach and capturing associated social and environmental benefits of the project.

Lessons learned from other interventions*:* While none of the other intervention cover the entirety of the Ntahangwa watershed, several past or ongoing investments are being made in parts of the watershed and for which lessons learned will be drawn. The previous LDCF project implemented by UNDP was evaluated in 2021 and lessons learned and recommendations from this project were included in the design of the new intervention. Knowledge products from the previous intervention and consultation with the project team took place during the PIF and PPG phases and are reflected in the CEO Endorsement request.

Other projects providing co-financing or contributing to the baseline were consulted during the project design to ensure that the project reflects their lessons learned and experiences. Notably, the World

Bank-funded project ?Burundi Landscape Restoration and Resilience Project? contributing co-financing for the intervention was consulted during the PPG to complement and add-on to other investments made in the watershed.

In concrete terms, lessons learned influenced the project design led the design team to (1) focus the scope of the project on fewer collines in order to avoid dispersion by concentrating activities (therefore financial resources) for better results; (2) pay attention to identify win-win adaptation solutions benefiting urban, peri -urban and rural communities and building synergies between rural populations, (3) central role of labor intensive Public Work approach to be leveraged.

Adaptation benefits: The project refers to the potential for biochar production as an option which will be explored during project implementation under component 3, with specific activities to identify opportunities and support/promote their adoption (para 72, page 35 of the PRODOC)

Project map and coordinates*:* During the PPG phase in liaison with the World Bank project and in order to avoid duplication and benefit from complementary of the two projects, the PPG team has identified specific sites for the project. Maps under Annex 3 page 91 and 92 of the PRODOC show (1) the project area and (2) sites to be stabilized by civil engineering works.

Stakeholder engagement and gender considerations*:* A stakeholder Engagement plan (Annex 9, separate document), an Indigenous Peoples Planning Framework (Annex 10, a separate document) and a Gender Analysis and Gender Action Plan (Annex 11, a separate document) as well as UNDP Social and Environmental Screening Procedure (SESP) (a separate document) have been developed during the PPG. All these documents have been developed under extensive stakeholder consultations and particular attention has been paid to women, youth and vulnerable peole (e. Batwas).

Monitoring system *:* A monitoring and evaluation framework has been developed to systematically measure and improve the projects?(cf Annex 5: Monitoring Plan) page 98 of the PRODOC.

Knowledge management : A fourth component has been added on Monitoring, Evaluation, and Knowledge management as requested (page 53 of the PRODOC). Under this component, output 3, knowledge management activities will link with existing platforms such as World Overview of Conservation Approaches and Technologies (WOCAT) and other to be identified.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: 200,000 USD

Project Preparation Activities Implemented		*GETF/LDCF/SCCF Amount ($)*		
		Budgeted Amount	*Amount Spent To date*	*Amount Committed*
1	Local consultancy on climate change adaptation and integrated watershed management	30,000.00	23,904.00	6,096.00
2	Innovation and private sector consultancy	9,000.00	9,000.00	0.00
3	International consultancy for UNDP-GEF project development	65,000.00	48,132.00	16,868.00
4	Gender and safeguards consultancy	40,000.00	20,000.00	20,000.00
5	Local consultation workshop on project concept	24,500.00	14,650.00	9,850.00
6	National validation workshop	5,500.00	5,500.00	0.00
7	Local and international travel	20,500.00	13,500.00	7,000.00
8	Supplies and miscellaneous expenses including HACT Assessment and Project document translation	5,500.00	0.00	5,500.00
Total		200,000.00	134,686.00	65,314.00

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

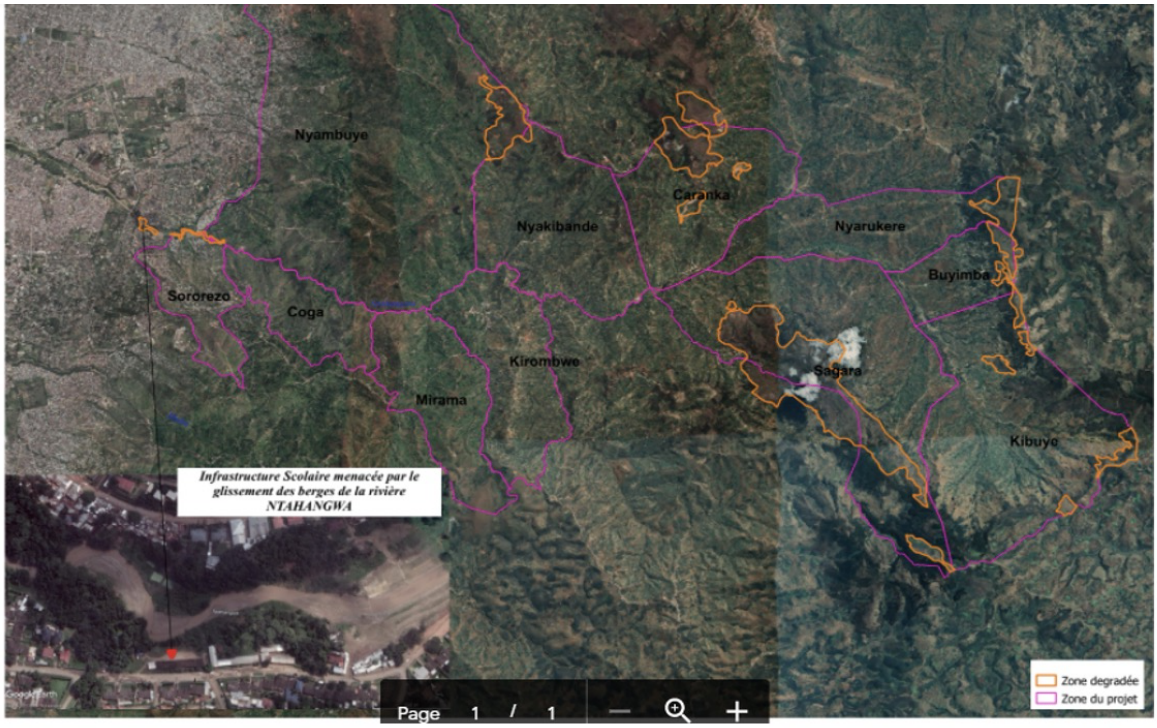

FIGURE 1: DETAILED MAP OF THE PROJECT AREA FOR DEVELOPMENT

FIGURE 2: SITES TO BE STABILIZED BY CIVIL ENGINEERING WORKS

ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Equipment	130,000$=Provision for agricultural tools and inputs to communities (48,000$); Purchase of fixative herbs for the communities ($70,000); Purchase of 500 water tanks for water collection (12000$)		130,000			130,000			130,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Equipment	475,000$=Purchase of hydrometeo. Stations (24@15,000$); sensors for hydrometeo station (300@300$)& Communication tools for EWS (100@250$)	475,000				475,000			475,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Equipment	650,000$= Acquisition of equipment for support livelihoods options for 8 Ecosytem - based adapation solutions (1000 beneficiaries@250$); Acquisition of equipment to MSEs (50 MSEs (50@8000$)			650,000		650,000			650,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Grants	304,000$= grants for Production and plantation of agroforestry plants (99,000$); grant for Installation of 1000 km of anti-erosion ditches (150,000$); grants with specialized sector company for the stabilization of 25 km of the river Ntahangwa banks (25,000$), grants with local NGO provider for production and planting ($30,000)		304,000			304,000			304,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Contractual services - Individual	380,000$= Full time project manager @$30,000 per year; Full time project administration & finance officer @$18,000 per year; Full time project administration Assistant @$10,000 per year; Full time project safeguard/gender specialist @ 18000 per year					-		380,000	380,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Contractual services - Company	106,000$=PMU M&E officer and communication(@$18,000 per year); Translation of MTR and TE reports into English @$3,000 each; Project document development and dissemination @$2,000 per year;				106,000	106,000			106,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Contractual services - Company	25,000$=Annual financial audits (@5000$*5)					-		25,000	25,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Contractual services - Company	5,411,000$=Contract to set up water tanks (4000$); Contract with private sector company for Infrastructure rehabilitation (Ecofo-Mutanga sud, Mugoboka 1et 2)and gikungu - (5,407,000$);		5,411,000			5,411,000			5,411,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Contractual services - Company	52,720$=Provision for technical assistance for selection and production techniques of NTFP (52,720 $)			52,720		52,720			52,720	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
International Consultants	77,0000 $ = Int. hydro meteorologist (30 days@700 $/day: Communication &CC expert (25days @700$/day; Watershed management expert (20 days@700$/day); CC vulnerability &local devpt expert (35 days @ 700 $/day	77,000				77,000			77,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
International Consultants	100,000$=International M&E and climate change expert for MTR (45000$); International M&E and climate change expert for TE (55000$);					-	100,000		100,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
International Consultants	290,500$=International Private sector development and value-chains expert (75 days@700 USD/day; International Private sector development and value-chains exper (80 days@700 USD/day); International agro-processing equipment expert (40 days@700 USD/day); Int. Private sector/SMES finance (100days@700 $/day); Private sector development and value chains expert (120 days@700$/day)			290,500		290,500			290,500	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
International Consultants	98,0000$=International M&E and climate change expert for Baseline study at project start (50 days @$700); ESMF & ES plan consultant (50 days@700 USD/day); International knowledge management and communication expert (40days@700$/day);				98,000	98,000			98,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Local Consultants	103,000$=Private sector development (75 days@200 USD/day; Private sector development and value-chains expert & agro-food market and transformed agricultural products expert (100 days @200$/day); land and water resilience / agronomy and value chains national experts (2@40days@200$/day); National agro-processing equipment expert (40days@200$/day); Private sector development and value chains (100 days @200$/day); Private sector /SMEs finance (120 days@200 $/day)			103,000		103,000			103,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Local Consultants	40,000$=National M&E and climate change expert for MTR (20000$); National M&E and climate change expert for TE (20000$)					-	40,000		40,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Local Consultants	45,000$= M&E and climate change expert for Baseline study at project start (65 days @$200); Socio economist and natural resources experts (2@20days@200$); National consultant develop material on sustainable technologies (40 days@ 200); Knowledge management and communication expert (50 days@200$/day); local expert for biodiversity action Plan (30 days @ 200$)				45,000	45,000			45,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Local Consultants	59,000 $=Local hydro meteorologist (30 days@200$/day); local DDR expert (30 days@200$/day); Communication &CC specialist (25days @200$/day); adaptation and resilience expert (20 days@ 200$/day) Watershed manat. expert (20 days@200$/day); Natural resource & community expert (30 days @ 200 $/days; cartographer &Watershed management experts (2@ 30 days@200$/day); socio-economic& Watershed management expert (2@ 40 days@200$/day).	59,000				59,000			59,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Local Consultants	63,200$=Nat Agricultural engineer (30 days@200$/day); feasibility study and waste management plan expert (41days@ 200$/day) ; community expert (25 days@ 200) ; CC & agriculture expert (20 days@ 200$/day); Forestry & mapping expert (20 days@200$/day), Forestry management expert (100 days @200$/day); Natural resources expert (40 days@200$/day); Expert ESMP (40 days@200$).		63,200			63,200			63,200	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Training, Workshops, Meetings	10,000$=Project Inception workshop (10000$)					-	10,000		10,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Training, Workshops, Meetings	14,000$=Training facilities & logistics (IGEBU, provincial governments, communal services and local communities (3@1000$); Training facilities focal points (3@1000$); training facilities and logistics on hydrometeo. forecasts (1000$@3); Training facilities and logistics on resilience best practices (2@1000$) ; degradation study presentation workshop &Training facilities and logistics on risk management (3 @1000 US))	14,000				14,000			14,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Training, Workshops, Meetings	29,000$=Project Steering Committee Meetings (5@3000 $); Project terminal workshop (5000$). Workshops Provision (2@ 4000$); Training facilities and logistics for best practices documentation into WOCAT (1000$);				29,000	29,000			29,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Training, Workshops, Meetings	59,000$=workshops logistic and facilities (market results) (4000$); Provision for Training facilities and forum logistics ($30000); Forum (platform) workshops logistic and facilities (1000 $@5); Facilities and logistics and meeting @20000)			59,000		59,000			59,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Travel	105,000$=MTR mission travel costs (5000$); TE mission costs (5000$); M&E of GEF core indicators and project results framework (@5000 per year); GEF Project Implementation Report (PIR) (@$5000 per year); Safeguards management framework and gender action plan indicators (@9000 per year);					-	105,000		105,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Travel	14,500$=DSA &travel for Forestry & mapping expert (1000$); Forestry management expert (4000$); Natural resource expert (1000$); community expert (1500 $); CC & agriculture expert (1000$); Nat. Agricultural engineer (2000$); expert feasibility and waste management (2000$); expert Scoped ESMP (2000$)		14,500			14,500			14,500	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Travel	15,000$=Travel cost of the PMU project staff (3000$@5).					-		15,000	15,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Travel	26,000$= DSA & Travel for Int. &Nat. hydro meteorologist experts & Nat. Watershed management expert (5000 $); Int. & Nat. Communication &CC expert (4000 $); Int. & Nat watershed experts (4000$); ; Nat. adaptation &resilience expert (1000$); Int. Watershed management expert & Nat. Natural resource & community expert (4000$); Nat. cartographer &Watershed management. experts (3000$); Int. CC & Nat Socio & watershed management experts (5000$)	26,000				26,000			26,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Travel	62,000$=M&E missions travel costs (@4000 per year); DSA+ travel costs for Baseline study at project start (6000$); DSA and travel National consul(2000$); Provision for Exchanges travel (20000$); DSA+ Transport= Int+Nat Knowledge management & communication experts (2@6000$), DSA and travel expert biodiversity action plan (2000$)				62,000	62,000			62,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Travel	86,000$= DSA + transport for Inter. &Nat. Private sector development and value chains experts (6000$@5); DSA + transport Inter. &Nat. Private sector development and value chains experts (6000$); DSA + Transport for land and water resilience / agronomy and value chains national expert (4000$); DSA + Transport: Inter &Nat. Climate finance experts (6000 $@6); DSA + Transport: Private sector experts (activities 3.3.1 to 3/3/5; 10000$)			86,000		86,000			86,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Office Supplies	14,500$=Supplies for production of forest plants (7000 $); Provision of tree seedlings to enrich degraded zones (7500$)		14,500			14,500			14,500	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Office Supplies	5,353$=Office Supplies (1070,6$*5).					-		5,353	5,353	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
Other Operating Costs	33647$=Preparation and dissemination of a landscape restoration and flood management booklet ($3000@5 year); Dissemination of knowledge and guidance material (18647$)				33,647	33,647			33,647	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USD eq.)	Responsible Entity
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M &E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Other Operating Costs	49,000$=Production and dissemination of weather bulletin and alert messages et setup of the contingency plan (12250$ over4 years)	49,000				49,000			49,000	Ministry of Environment, Agriculture and Livestock (MINEAGRIE)
	Project Total	**700,000**	**5,937,200**	**1,241,220**	**373,647**	**8,252,067**	**255,000**	**425,353**	**8,932,420**	

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

N/A

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

N/A

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

N/A