



Indicators and Framework for Climate Change Adaptation and Biodiversity conservation finance for Smallholders and Rural communities: leveraging private and public finance

Part I: Project Information

GEF ID

11001

Project Type

MSP

Type of Trust Fund

LDCF

CBIT/NGI

CBIT **No**

NGI **No**

Project Title

Indicators and Framework for Climate Change Adaptation and Biodiversity conservation finance for Smallholders and Rural communities: leveraging private and public finance

Countries

Regional, Benin, Senegal, Zambia

Agency(ies)

IFAD

Other Executing Partner(s)

Grameen Credit Agricole Foundation

Executing Partner Type

Private Sector

GEF Focal Area

Climate Change

Taxonomy

Focal Areas, Climate Change, Climate Change Adaptation, Climate finance, Influencing models, Demonstrate innovative approach, Stakeholders, Private Sector, Financial intermediaries and market facilitators, Gender Equality, Gender results areas, Access and control over natural resources, Capacity, Knowledge and Research, Enabling Activities

Sector

AFOLU

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 2

Duration

24 In Months

Agency Fee(\$)

38,173.00

Submission Date

6/6/2022

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCA-2	LDCF	401,827.00	4,454,800.00
Total Project Cost (\$)		401,827.00	4,454,800.00

B. Indicative Project description summary

Project Objective

Enhanced resilience and improved livelihoods of smallholders and rural communities through increased access to climate finance .

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1: Establishment of a dedicated financial products for Climate Change Adaptation conservation finance for smallholders and rural communities	Technical Assistance	<p>Outcome 1: Public and private investors are enabled to provide improved financing conditions to the Financial Service Providers (FSPs) that improve their capacity to finance climate change adaptation for smallholders and rural communities.</p> <p>(Capacities of 4 FSPs in each of 3 countries strengthened to increase climate finance to smallholder producers and rural communities)</p>	<p>Output 1.1: Investment Product for Climate Change Adaptation Smallholder Finance (Product 1) established. This is a dedicated financial product for Climate Change adaptation finance for smallholders and rural communities to be used by each individual investor.</p> <p>(1 white paper for investment in climate change adaptation; 1 project manual; 1 manual on indicators; 1 software platform to verify adaptation investment ready to be used)</p> <p>Output 1.2: Investment Product for Climate Change Adaptation Smallholder Finance (Product 1) piloted with 4 FSPs in 3 selected countries.</p> <p>(Assessment of present performance of climate finance</p>	LDC F	294,270.00	3,567,116.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2: Knowledge management, monitoring and evaluation	Technical Assistance	Outcome 2: Enhanced knowledge and stakeholder engagement	Output 2.1: Pilot results assessed through a consultative process with stakeholders and results and lessons learned disseminated (1 Report on project assessment; 1 workshop) Output 2.2: Project implementations supported by an M&E strategy (Six-monthly monitoring reports)	LDCF	71,028.00	469,975.00
Sub Total (\$)					365,298.00	4,037,091.00
Project Management Cost (PMC)						
			LDCF	36,529.00	417,709.00	
			Sub Total(\$)	36,529.00	417,709.00	
			Total Project Cost(\$)	401,827.00	4,454,800.00	

Please provide justification

C. Indicative 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(\$)
GEF Agency	IFAD	In-kind	Recurrent expenditures	1,500,000.00
GEF Agency	IFAD	Loans	Investment mobilized	1,500,000.00
Private Sector	Foundation Grameen Credit Agricole	In-kind	Recurrent expenditures	54,800.00
Private Sector	Foundation Grameen Credit Agricole	Loans	Investment mobilized	1,400,000.00
Total Project Cost(\$)				4,454,800.00

Describe how any "Investment Mobilized" was identified

Identification of Investment Mobilized is based on preliminary discussions with IFAD Country Directors and Foundation Grameen Credit Agricole. With respect to IFAD, during initial consultations synergies with existing and forthcoming IFAD projects of IFAD in the same countries have been identified, and estimation of % of IFAD projects that can be mobilized to support the implementation of the present project have been made. The preliminary estimate of investment mobilized by Foundation Grameen Credit Agricole relates to loan amounts that may be provided to FSPs participating to the project, to foster their investment in climate change adaptation for their smallholder farmers.

D. Indicative 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(\$)
IFAD	LDC F	Regional	Climate Change	NA	401,827	38,173	440,000.00
Total GEF Resources(\$)					401,827.00	38,173.00	440,000.00

E. Project Preparation Grant (PPG)

PPG Required **false**

PPG Amount (\$)

PPG Agency Fee (\$)

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
Total Project Costs(\$)					0.00	0.00	0.00

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?

true

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). true

This Project has an urban focus. false

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

Agriculture	100.00%
Natural resources management	0.00%
Climate information Services	0.00%
Costal zone management	0.00%
Water resources Management	0.00%
Disaster risk Management	0.00%
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

Costal and/or Coral reef degradation false

GroundWater quality/quantity false

Core Indicators - LDCF

CORE INDICATOR 1	Total	Male	Female	% for Women
Total number of direct beneficiaries	17,500	7,000	10,500	60.00%

CORE INDICATOR 2	
Area of land managed for climate resilience (ha)	1,750.00

CORE INDICATOR 3

Total no. of policies/plans
that will mainstream
climate resilience 6

CORE INDICATOR 4

Total number of people
trained 80

Male	Female	% for Women
40	40	50.00%

Part II. Project Justification

1a. Project Description

1) *The global environmental and/or adaptation problems, root causes and barriers that need to be addressed (systems description)*

In Africa, there are an estimated 33 million smallholder farms, and the farmers that live on them contribute up to 70% of the food supply[1]¹. In Western Africa alone, more than 60% of the population depend directly or indirectly on smallholder farmer units for food security and income generation[2]². Thus, smallholder farmers in Africa play a crucial role for their countries' food security and income generation. Despite their important contributions, they are amongst the most vulnerable to degrading ecosystems and adverse climate change effects.

Smallholder farmers have to face numerous challenges, as climate change affects agriculture because of increased frequency of dry spells and drought, rising temperatures, changes in precipitation patterns, increasing intensity of extreme weather events and temperature variability. Africa is 'highly dependent on rainfed agriculture, hundreds of millions of smallholder farmers are affected by changes in the monsoons they rely on.' (Dr. Patrick Verkooijen, Global Center on Adaptation, 2021)[3]³. The productivity of crops, livestock and fishery is highly affected by these negative impacts. Productivity declines due to the negative effects on climate change and it will create severe implications for food security. 'Millions of low income people who are already highly food insecure, are likely to be affected[4]⁴'. By 2050, 70% of the total crop value of production in Sub Saharan Africa will come from areas under 'Severe' or 'Extreme' aridity stress, implying an inability to complete agricultural work and/or significant health risk in doing so.

The African continent is therefore at the forefront of our global climate emergency while contributing the least to it. Africa is still paying high interest to manage climate related issues but difficulties and barriers persist.

First, one barrier is the inability for investors to reward investments that can generate climate resiliency and positive impacts on ecosystems. The Indicators and Framework to be developed in the present project, will aim at enabling investors with sound tools and processes to provide loans with better conditions if they are used by the Financial Service Providers (FSPs) to generate resiliency for their clients and to improve their capacity to manage climate change risks.

Secondly, smallholder farmers encounter many barriers to access financial services. Accessing affordable financial services is crucial for smallholder farmers to invest in their farm and remain resilient against shocks, particularly shocks related to climate change. However, 1.7 billion people remain excluded from formal financial systems^[5]. In Africa, smallholders face challenges when it comes to finance, technology and innovation.

On the FSPs side, one main reason for not addressing these needs is that financial institutions lack the required technical skills for designing financial services for smallholder farmers as well as the customer journey. Evaluating smallholder farmers' financial needs and designing appropriate products require specific agricultural expertise that many FSPs lack or have difficulty acquiring. Moreover, lack of agri-insurance products for smallholders also contributes to FSPs' fear with lending. Another significant barrier to standard lending practices is the absence of land titles (for collateralization) and credit bureaus (for customer assessment).

On the smallholder farmers' side, there are plenty reasons that prevent them to access financial services:

- Lack of producer organizations and structured value chains for smallholders;
- Low financial literacy and financial management skills among farmers;
- Low productivity, margins, and cash flow for servicing loans;
- Lack of formal title to the farms (only 2% of smallholders in Zambia have a formal title^[6]), which makes access to long-term credit very difficult;
- When credit is available, the interest rates are high due to the perceived risk associated with smallholder farmers and rainfed agriculture.

The negative impacts of farmers having limited access to these services are very important. The fact that the entire agricultural sector receives limited investment and a lack of financial services is not just an issue for smallholder farmers.

Financing for climate adaptation falls short of the urgent need to channel finance towards the ones who most need it. The International Fund for Agricultural Development and the Climate Policy Initiative estimate that between 2017 and 2018, only around 1.7% (USD 10 billion) of total climate financing flowed to smallholder farmers in developing countries.

Climate change impacts on ecosystem health, soil fertility, water availability, erratic rainfall and increasing dry periods intensify the vulnerability of smallholders who particularly depend on these

resources for their livelihoods. Improving ecosystem health is an important contribution to climate change resilience. Nevertheless, the global investment gap for biodiversity conservation alone is projected to be between USD 598 billion and USD 824 billion per year for the next 10 years[7]⁷.

In this context, it is of key importance to support smallholder farmers to adapt to and become more resilient to the risks of impacts from current and anticipated climate hazards. Smallholder farmers encounter many barriers in the path of adopting practices that can make their activities and production more resilient, such as labor availability, tenure security, groups/social capital, risks and shocks, information and trainings, credit access and resource endowments, access to the right technologies.

Promotion and financing of practices and technologies for climate change adaptation that can effectively support the generation of resiliency to experienced and forthcoming climate hazards and impacts are key. Smallholder farmers need support to access the right technologies and implementing them. By 2050, less people could be at risk of hunger if improved agricultural technologies are set up.

The main climate adaptation barriers for finance that are directed towards smallholder farmers is a clear signal towards capital markets in the form of shared metrics. Investors lack standards, metrics and financial products to investment into climate resiliency, and hence redirect their funds, and the assets of their investees toward sustainable and inclusive activities and technologies.

To address the funding shortfall, many have called for improved methodologies that include climate risk and resilience in financial decision-making.

? Description of observed impacts and climate change scenarios until 2050/2060

See more on climate vulnerability profile per country in annex D.

Senegal

Senegal remains vulnerable to environmental shocks that threaten its stability, including recurring natural disasters (particularly floods and droughts) that will increase in magnitude and extent due to increased climate variability. Between 1970 and 2000, the country suffered prolonged droughts that contributed to a rural exodus. Extreme events, rising sea levels place much of the coastal population, infrastructure and ecosystems at risk of flooding and erosion.

Climate change will impact climate-sensitive sectors such as agriculture (70% of production is rainfed), livestock and fisheries, which account for 20% of GDP and employ a majority of the workforce. Food security is already stressed due to low yields and high population growth[8]⁸.

Projected climate changes by the 2060s include:

- Rising average annual temperatures by 1.1-3.1 °C, projected rates of warming are faster in the north and interior, and during the dry season.
- Substantial increases in the frequency of hot days and nights, with more rapid increases in the south and east.
- Unpredictability of seasonal rains as well as an increase in the intensity of rainfall events.
- Rising sea level of up to 1 meter (by 2100).

Some of the key climate impacts of climate change that are predicted include:

- In agriculture: reduced crop quality and yields; decreased livestock productivity; increased incidence of locust invasions.
- In water: reduced availability and degraded quality of freshwater resources, reduced hydropower production.
- Coastal Zones : flooding of urbanized areas, damage to coastal infrastructure, salinization of aquifers and arable land.

Senegal ranked 57 in the 2018 Global Climate risk Index, which indicates it is quite affected by extreme weather-related events.

Benin

Manifestations of climate change in Benin are the decline of rains, rising temperatures, especially in the northern part of the country, drought, floods, and late and violent rains. These major climatic hazards affect livelihoods and patterns in the agriculture, water resources, coastal and forestry sectors. This has led to numerous impacts over the last three decades including the drop in agricultural yields, the disruption of agricultural calendars, the drop in water levels, the prolongation of the low-water period, the submersion of banks, etc. In addition, Benin is a coastal country. Up to one third of the coastline could disappear under the effect of the rise in sea level[9]⁹.

Climate models project an increase in the normal annual maximum temperature for the whole country, ranging from slight (1-1.5°C) to substantial (2.5-3.0°C)[10]¹⁰. Sea level is projected to rise of 0.81m

by 2100. With the current rate of wetlands destruction (due to human intervention), the coastal wetland is projected to reduce by 40% by 2080.

The negative consequences of intense and successive periods of drought and floods will be felt within the agriculture and water resources sector as variability in the seasonal climatic regime and lack of early warning systems will exacerbate sector vulnerabilities, threaten food security and livelihood. Increase in temperature and floods will also have an impact on the spread of infectious diseases.

Climate change is now recognized to have a significant impact on disaster management efforts and poses a significant threat to the effort to meet the growing needs of the most vulnerable populations.

Benin ranked 152/180 on the 2021 Global Climate Risk Index for 2000-2019[11]¹¹.

Zambia

Droughts and floods have increased in frequency and intensity over the last two decades and have adversely impacted food and water security, energy generation and livelihoods[12]¹². Agriculture (9 % GDP), predominantly consists of rainfed, subsistence farming and is thus highly sensitive to changes in climate, as demonstrated by the failure of millet, maize and sorghum crops during the 2004-2005 droughts.

Extreme climate events also pose a risk to other sectors such as health and infrastructure and to biodiversity conservation. For example, recent floods displaced thousands of families, destroyed houses, washed away roads and contaminated water supplies[13]¹³.

Projected climate changes include:

- Mean annual temperatures increasing 1.2-3.4°C by 2060, with warming occurring more rapidly in the south and west;
 - Substantial increase in frequency of hot days and nights;
 - Decrease in cold days and nights;
-

- More extreme weather, with intense precipitation, floods and droughts. Proportion of rain falling in heavy events expected to increase annually[14]¹⁴;
- Rainfall variable but total annual averages decreasing.

Climate change is predicted to be a material risk and have hard impacts on agriculture, and in particular:

- Increased crop losses/failure;
- More pests, weeds, pathogens;
- Less predictable growing seasons;
- Increased soil erosion;
- Limited field operations due to waterlogging;
- Decreased productivity of key crops, including maize, cassava and millet;
- Reduced water and feed resources for livestock.

Zambia ranked 137 out of 181 countries on the 2018 Global Climate Risk Index.

Among key solutions to cope with present and forthcoming climate hazards as well as generated impacts in agriculture, climate smart agriculture is reported as central[15]¹⁵. Financing is also critical for incentivizing farmers and communities, public institutions and private sectors to invest in the development and promotion of climate smart agriculture in Zambia. The private sector also presents an opportunity for increasing investment in climate smart agriculture, particularly through private-public partnership for investments in knowledge, technology development, dissemination, and access to financial services for smallholders.

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? **The state of Microfinance for smallholder farmers**

While financial institutions themselves are increasingly affected by adverse climate change effects, there are several causal roots that restrain them to tap into climate adaptation and biodiversity finance. A qualitative study from the GCAF with FSPs in Sub Saharan Africa shows that their ?partner

institutions share many examples of disruptions that affect their clients' businesses. Droughts have an impact on yield and reduce access to clean water, and floods destroy crops, infrastructures and interrupt supply chains. While some institutions already implement concrete actions to increase their clients' climate resilience, they face many obstacles: 78% of the interviewed institutions claim to lack financial resources and 52% to lack expertise to set up their projects. In terms of financial support, examples of effective tools requested by GCAF's partners are long term financing of more than 3 years, as well as loans at advantageous rates indexed to environmental performance objectives. In addition, GCAF finds that technical assistance is an effective mechanism for supporting companies in designing new products, raising awareness, training their customers, and adapting their business to be more resilient and environmentally friendly. According to their partners' interviews, receiving technical assistance plays a key role in their development, and the FSPs' needs for technical assistance are significant.

Further international and peer reviewed flagship reports summarize the following barriers as main restraints to why FSPs do not cater financial services for climate adaptation towards smallholder farmers. These are:

- Lack of shared climate adaptation finance metrics;
- Lack of access to concessional finance;
- Low internal capacities and expertise;
- Limited knowledge about the economic benefits of climate change adaptation.

It results in the following picture:

- Smallholder farmers are among the most vulnerable to climate change while, at the same time, they lack the necessary financial and non-financial inputs to implement climate-smart practices;
- Private and public finance for climate change adaptation is too underdeveloped, and the initiatives that exist are not able to reach those who need it the most: small-scale producers and rural communities;
- Very little progress has been made in establishing a public ? private blended finance scheme able to provide finance, technical assistance, and technology support to FSPs that are presently supporting or would like to support climate change adaptation and ecosystem health for small scale producers and rural communities;
- Private sector is missing key information to be able to channel financial resources to support climate change adaptation, as well as to engage with the public sector to leverage public finance for adaptation;
- There is no sector-recognized metric to assess the status and opportunity of FSPs to finance climate change adaptation.

We can hence conclude that the main gaps to support climate change adaptation for smallholders are the following:

- No recognized metric to assess progresses of FSPs in increasing finance access and impacts for climate change resilience and biodiversity conservation for smallholder farmers and rural communities;
- No established process to assess the present status, progress and define rewards for FSPs that are presently or willing to support climate change adaptation for their clients and/or are willing to invest in measures and technologies to improve ecosystem health (provision of ecosystem services that contribute to smallholder farmers' resilience to climate hazards and their impacts);
- Very limited engagement of private investors that still have difficulties to see the economic rationality to invest in climate resilience.

2) *The baseline scenario and any associated baseline projects*

? Region view

The year 2021 was among the three warmest years on record for the African continent. This trend is expected to continue as African temperatures in recent decades have been warming faster than global mean surface temperature.

The latest predictions (2020-2024) show continued warming and decreasing rainfall, especially over North and Southern Africa, and increased rainfall over the Sahel. Much of Africa has already warmed by more than 1°C since 1901, with an increase in heatwaves and hot days.

Tropical Cyclone Idai was one of the most destructive tropical cyclones ever recorded in the southern hemisphere, resulting in hundreds of casualties and hundreds of thousands of displaced.

Southern Africa suffered extensive drought in 2019. In contrast, the Greater Horn of Africa shifted from very dry conditions in 2018 and most of 2019 to floods and landslides associated with heavy rainfall in late 2019. Flooding also affected the Sahel and surrounding areas from May to October 2019.

Africa is the most vulnerable continent to climate change impacts under all climate scenarios above 1.5 C. UNEP-commissioned research estimates that the cost of adapting to climate change across Africa could reach USD 50 billion a year by 2050, if the global temperature increase is kept within 2°C above preindustrial levels. With a +2°C scenario, water resources will be highly impacted. Soil degradation quality will also increase which will contribute to developing more disease and the biomass loss will generate a production loss for food security.

From data collected from 114 field officers of FSPs in Benin Madagascar and Senegal (2019-21)[16]¹⁶, it results that clients of FSPs in Sub-Saharan Africa (SSA) are often impacted by climate change (specific frequency of impact per each climate impact is reported in the table below under the voice "% Reporting?").

	<u>Statistic</u>	At Least One Impact	Crop Damage	Crop Losses	Need for More Inputs	Productivity Losses	Reduced Food Safety	Avenues	Drought	Erosion	Fires	Floods	Landslides	Increase in Pets	Phenological Changes	Reduced Water Availability
SSA	Observations	114	111	111	112	111	107	104	111	109	110	109	109	107	102	109
	% Reporting	94%	64%	67%	53%	82%	50%	18%	31%	27%	21%	39%	15%	35%	19%	56%

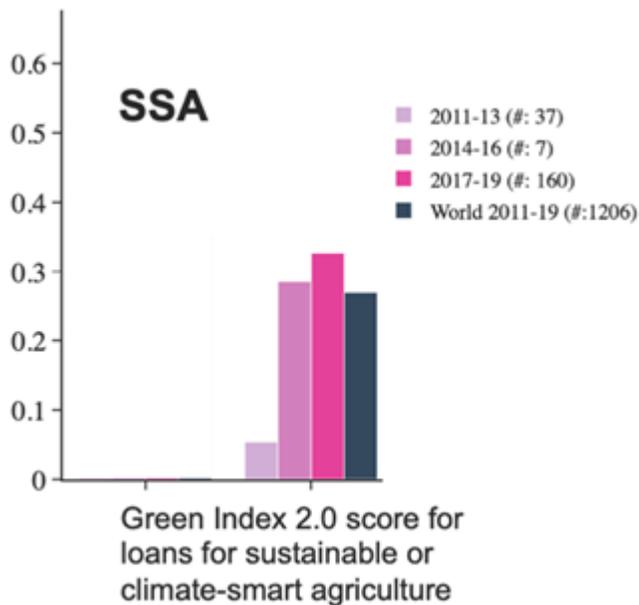
The most relevant impacts are productivity losses, crop damage, crop losses, and reduced water availability. These are often due to climate hazards such as change of rainfall patterns, heat extreme, abrupt temperature changes that are relevant for more than 90% of the field officers responses. These impacts affect the FSP's clients by generating economic consequences such as increased cash flow variability and loss of income sources.

	<u>Statistic</u>	At Least One Consequence	Decreased Income per Unit	Increased Cash Flow Variability	Increased Cost of Crop Production	Loss of Income Sources
All SSA	Observations	114	113	99	112	87
	% Reporting	91%	48%	67%	56%	67%

It is observed that clients of FSPs naturally implement practices and technologies that support the generation of climate resilience, among which the more frequent are organic inputs, crop diversification, crop rotation, agriculture drainage, pisciculture, solar home systems, and fodder plant.

	<u>Statistic</u>	At Least One Consequence	Organic Agriculture	Organic inputs	Crop diversification	Agricultural Drainage	Family Gardens	Pisciculture	Crop rotation	Solar home system	Fodder plant
All SSA	Observations	105	105	105	105	105	105	105	105	105	105
	% Reporting	99%	49%	47%	63%	33%	29%	33%	58%	39%	26%

Since historically renewable energy have been the main climate investments in SSA, it can be observed that the number of FSPs that engage in developing and disbursing loans for sustainable or climate smart agriculture has increased and is constantly increasing since 2011 in Sub Saharan Africa[17]¹⁷.



FSPs usually provide loans to smallholder farmers for working capital and the financing of the season. In rare cases, FSPs also finance investments through longer terms loans beyond one year. This limited panel of financial products is due to the fact that FSPs do not have the technology to assess the climate change adaptive capacities of smallholder farmers, nor the capacity to manage climate risks and develop products and services to reduce the risks. FSPs also lack dedicated finance to expand their offer for climate change adaptation. The present project will use the developed indicators and framework to target FSPs that can contribute to climate change adaptation of their smallholder farmers and improve their climate change adaptation engagement through dedicated capacity building, technology and finance.

? Country selection[18]¹⁸

The present project will be implemented in a set of selected countries in Africa, that have been selected to ensure:

- Relevance of smallholder farmers agriculture portfolio of FSPs, and climate change adaptation needs and opportunities for targeted clients of the FSPs.
- Diversity of countries to ensure sound piloting, replicability and adaptation at regional level, both in West and East Africa.
- Presence and engagement of both Grameen Credit Agricole Foundation and IFAD in terms of existing and forthcoming available financing for loans, technical assistance and projects / programs, to ensure scale up, institutionalization, private-public engagement, and alignment of implementation between parties.

In order to ensure that the indicators and framework of the present project can actually leverage private and public finance with dedicated conditions to support climate change adaptation of smallholder farmers, the countries have also been selected based on the actual portfolio of investment of Grameen Credit Agricole

Foundation and its strategy to expand climate change adaptation finance for its investees.

See more on climate vulnerability profile per country in section 1.a. above (?Description of observed impacts and climate change scenarios until 2050/2060? paragraph) and Annex D. Also refer to Annex D for a more comprehensive description of each section per country.

? Senegal

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General information

Although Senegal it one of the region?s most stable countries, it remains a low-income, food-deficit nation with a high poverty level that is decreasing slowly. Senegal continues to rely on remittances to fuel domestic demand: it is the fourth-largest recipient of remittance inflows in Sub-Saharan Africa. A key factor for poverty is the vulnerability of the rural population to external shocks, especially droughts, leading to increased migrations towards cities, in particular Dakar.

Microfinance sector

The penetration rate of the microfinance sector (21% as of September 2021) reflects the weight and increasingly important contribution of FSPs in financing the economy by taking into account the needs of rural populations, the informal sector and micro and SMEs. It is observed that clients of FSPs naturally implement practices and technologies that support climate change adaptation; the most frequent being organic inputs, crop diversification, crop rotation, seed banks, solar water pumps, drip irrigation, family gardens, among others. In the country, it has been observed that at least four FSPs offer specific loan products dedicated to promoting sustainable or climate-smart agriculture.

Baseline Projects (more projects in Annex D)

Project titles	Objectives

MEbA, UN Environment - BMU (<https://unepmeba.org>)

The main objective was to increase the climate resilience of small-scale farmers through innovative financial mechanisms. The project encouraged investments in ecosystem-based adaptation alternatives, which provided benefits for both families and ecosystems, reduced potential productive losses due to weather events and promoted practices that use ecosystems in a more sustainable way.

The Microfinance for Ecosystem-based Adaptation (MEbA) project sought to provide vulnerable rural and peri-urban populations with access to microfinance products and services that allowed them to invest in activities that improved their income, increased

MEbA Biodiversity Platform UN Environment - BMU - BNP Paribas
(<https://unepmeba.org/biodiversity-platform/>)

The MEbA-project is offering Financial Service Providers the opportunity to access enhanced digital credit analysis, including dedicated biodiversity and climate risk indicators for free. By measuring biodiversity and climate risks in their credit decisions, Financial Service Providers lay the basis to qualify for new funding sources, like green credit lines.

Stars Icco (<https://www.icco-cooperation.org/en/project/stars/>)

Strengthening African Rural Smallholders, in short STARS, is a five-year (2017 ? 2021) project in partnership with Mastercard Foundation and ICCO Terrafina. Through a market system development approach, the project focuses on improving access to finance and markets for more than 200,000 smallholder farmers in Ethiopia, Rwanda, Senegal and Burkina Faso. The project plans to have an overall impact on the lives of more than 1 million people.

PAMIGA (<http://www.pamiga.org/pdf/pdf-para367-pamiga-1417444779.pdf>)

The Water and Microfinance initiative was set up thanks to the support of the Swiss Cooperation. Launched in 2012, it was a pilot program covering 5 countries in West Africa (Benin, Burkina Faso, Mali, Senegal and Togo). It aimed at promoting access to productive water (irrigation) for small producers, clients of rural microfinance institutions, in order to enable them to secure their productions, improve their productivity, increase the areas cultivated and the profitability of their operations and thus sustainably increase their income.

Strengthening Climate Resilience through People- Centered Approaches, GEF - FAO
(https://www.thegef.org/sites/default/files/publications/GEF_GoodPracticesBriefs_Senegal_r2%20%281%29%20%281%29.pdf)

Enhance the resilience of people to climate change by building the capacity of communities and women through two innovative, people centered approaches?Farmer Field Schools (FFS) and Dimitra Clubs, and by strengthening agro-climate information communications and setting up a climate resilience fund for scaling up project achievements . The project operates in 17 communes located in seven administrative regions across three Eco geographical zones of Senegal and supports climate change mainstreaming and integration of FFS approach in national policies and programs.

The Africa Integrated Climate Risk Management Programme: Building the resilience of smallholder farmers to climate change impacts in 7 Sahelian Countries of the Great Green Wall (GGW) , GCF (<https://www.greenclimate.fund/project/fp162>)

The program will build, strengthen and scale up the resilience and adaptive capacities of smallholder farmers and rural communities of seven least developed countries (LDCs) in the Sahel region, including Senegal. It will provide capacity building and institutional development on integrated climate risks management. This includes reducing obstacles to access agricultural insurance for governments and smallholder farmers to enhance resilience building, and strengthening climate weather information services.

Building the climate resilience of food insecure smallholder farmers through integrated management of climate risk (R4), GCF (<https://www.greenclimate.fund/project/fp049>)

Increasing the resilience of vulnerable households in Senegal to climate-related risks through better risk management, water and soil conservation.

Risk-reduction activities such as water and soil conservation measures, increased water availability, livelihood diversification and training on climate-resilient practices will be undertaken. These activities will be complemented by risk transfer through a weather index insurance programme that will transfer risk to the international market and provide farmers with compensation in case of climate shocks.

Focus on IFAD projects[19]¹⁹

IFAD has implemented 20 projects (including ongoing, closed and planned) in Senegal, for a total project cost of USD 843.31 million, a total IFAD financing of USD 336.66 million, generating impacts for 667,643 households.

In Senegal, IFAD loans help sustainably increase food security and smallholder incomes and create permanent employment for rural people, particularly women and young people. IFAD-funded projects help smallholders and their organizations gain better access to farm inputs and services, appropriate technologies and markets. Activities focus on the development of sustainable value chains and the integration of women and youth into economic activities. IFAD also helps rural people learn how to set up and run businesses.

From recent experience and forthcoming projects of IFAD it results that financial institutions in Senegal are looking for climate finance, they do not know what to do, and how the performance would be measured. There is also uncertainty concerning the materiality of a market for the climate finance. IFAD is looking for new instruments to financial services providers. IFAD has recently started a new methodology of intervention consisting of providing financing to smallholder farmers through financial institutes. This is a new area for IFAD, and perfectly aligned with the project described in this proposal. The challenges of market development and identifying financial institutions with the capacity to deliver climate finance should be overcome.

? Benin

General information

The free market economy of Benin remains underdeveloped and dependent on subsistence agriculture, cotton production, and regional trade. In spite of the GDP growth and several poverty reduction strategies implemented at the government level, the poverty rate in Benin has been rising in the past few years. With agriculture accounting for more than 25% of GDP, growth will be supported by rising agricultural output as the major economies surpass their 2019 pre-pandemic levels of growth that year, driving up external demand for Benin's exports.

Microfinance sector

The Benin microfinance sector is one of the most dynamic in Sub-Saharan Africa, although it is highly concentrated (as of December 2017, the country had 18 large FSPs representing 90% of the sector). It is observed that clients of FSPs naturally implement practices and technologies that contribute to climate change adaptation, the most frequent being organic inputs, crop diversification, crop rotation, conservation agriculture, apiculture, direct drilling and intelligent storage. In the country, it has been observed that at least 3 FSPs offer specific loan products dedicated to promoting sustainable or climate-smart agriculture.

Baseline Projects (more projects in Annex D)

Project title	Project Objective
MEbA, UN Environment - BMU (https://unepmeba.org)	<p>The main objective was to increase the climate resilience of small-scale farmers through innovative financial mechanisms. The project encouraged investments in ecosystem-based adaptation alternatives, which provided benefits for both families and ecosystems, reduced potential productive losses due to weather events and promoted practices that use ecosystems in a more sustainable way.</p> <p>The Microfinance for Ecosystem-based Adaptation (MEbA) project sought to provide vulnerable rural and peri-urban populations with access to microfinance products and services that allowed them to invest in activities that improved their income, increased their climate resilience and allowed them to sustainably use ecosystems and their services.</p> <p>This project is funded by Germany's Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and is implemented by the United Nations Environment Programme (UNEP) in six Latin American countries and two African countries, including Senegal.</p>

<p>MEbA Biodiversity Platform UN Environment - BMU - BNP Paribas (https://unepmeba.org/biodiversity-platform/)</p>	<p>The MEbA-project is offering Financial Service Providers the opportunity to access enhanced digital credit analysis, including dedicated biodiversity and climate risk indicators for free. By measuring biodiversity and climate risks in their credit decisions, Financial Service Providers lay the basis to qualify for new funding sources, like green credit lines.</p>
<p>Strengthening human and natural systems resilience to climate change through mangrove ecosystems conservation and sustainable use in southern Benin, GEF- FAO (https://www.thegef.org/projects-operations/projects/10166)</p>	<p>The project aims at increasing the adaptive capacity of human and natural systems to climate change through mangrove ecosystem restoration and sustainable use in southern Benin. The project focuses on the agricultural, forestry and fishery communities located in and around two 2001 assigned Ramsar sites.</p> <p>Expected outcome: national institutional and policy frameworks strengthened to sustainably manage mangrove ecosystems in a context of climate change and knowledge on climate-resilient mangrove ecosystems management is improved, captured and disseminated.</p>
<p>Enhanced climate resilience of rural communities in central and north Benin through the implementation of ecosystem-based adaptation (EbA) in forest and agricultural landscapes (https://www.greenclimate.fund/project/sap005)</p>	<p>The project objective is to halt the negative cycle of climate change, agricultural yield depletion and natural resource degradation in central and northern Benin to build resilience of local communities, using an Ecosystem-based Adaptation (EbA) approach. The EbA will integrate climate-resilient agriculture techniques with the tailored restoration of degraded forest ecosystems. Thus, the project will address current and future climate change impacts through three components focusing on restoration of degraded forest ecosystems, enhancing agricultural productivity and improving technical and institutional capacity of governments and communities.</p>
<p>Strengthening the Resilience of Livelihoods and Sub-national Government System to Climate Risks and Variability in Benin (https://www.thegef.org/projects-operations/projects/5904)</p>	<p>The objective of the project is to support resilient agriculture and livelihoods and to mainstream climate risk considerations into national and sub-national planning processes so that local communities are less vulnerable to climate change.</p>

<p>IFAD ? Agricultural Development and Market Access Support Project (PADAM)</p>	<p>PADAAM?s general objective is to reduce rural poverty in the project intervention area by including stakeholders, both women and men, in diversified and profitable value chains. The project?s development objective is to sustainably increase the food and nutrition security, as well as the income, of smallholder farmers, particularly women and young adults.</p>
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Focus on IFAD projects[20]²⁰

IFAD has supported 14 projects in Benin (including closed, ongoing, and planned projects) for a total project cost of USD 495.43 million, total IFAD financing of USD 231.75 million, and 485,900 households impacted. IFAD loans support the Government in reducing poverty and improving the livelihoods of poor rural people. IFAD approach is based on the use of local service providers to support communities.

Key activities include:

- Improving access by small- and medium-sized rural operations to adapted financial services;
- Improving income for smallholder farmers and vegetable growers and enhancing resilience to climate change through their integration into sustainable value chains for production, distribution and sale of flowers, rice, soya, pineapple, cassava, and maize;
- Helping farmer organizations and local associations take part in steering and managing economic development within their communes.

? Zambia

General information

Zambia?s economy relies mostly on services (60.2% of GDP in 2018) and industry (33.5%), including copper of which Zambia is Africa?s second largest producer, and to a lesser extent on agriculture. Agriculture employs 85% of the workforce. The landlocked country is endowed with a wealth of natural resources, including an assortment of mineral deposits and more than a third of the Southern African region?s water supply, with resultant opportunities for tourism, agricultural development, and hydroelectricity.



Microfinance sector

The microfinance sector in Zambia is relatively young and underdeveloped. The microfinance institutions represent a small proportion of financial sector assets and are mainly focused on payroll lending. The high cost of providing financial services, especially in rural areas and to poorer populations, can explain the overall low level of financial inclusion. Low levels of consumer trust and confidence in formal financial service providers have also been identified as one of the causes of financial exclusion in Zambia.

Baseline Projects (more projects in Annex D)

Project title	Objective
Strengthening climate resilience of agricultural livelihoods in Agro-Ecological Regions I and II in Zambia, GCF (https://www.greenclimate.fund/project/fp072)	This initiative focuses on smallholder farmers in two agro-ecological regions covering the five provinces of Eastern, Lusaka, Muchinga, Southern and Western. It will take a value-chain approach and help to provide a number of benefits, including increased access to climate information services, support for climate-resilient agricultural inputs and practices, sustainable water management, and alternative livelihoods
Building the Resilience of Local Communities in Zambia through the Introduction of Ecosystem-based Adaptation (EbA) into Priority Ecosystems, including Wetlands and Forests, GEF-UN Environment (https://www.thegef.org/projects-operations/projects/8034)	The objective of this project is to improve resilience of local people living around the wetlands and forests by strengthening the capacity of local communities ? as well as local and national governments ? to implement Ecosystem-based Adaptation (EbA) interventions. This will be achieved by demonstrating on-the-ground EbA interventions in pilot sites in wetlands and forests in the Bangweulu Wetlands ecosystem and by providing training to local and national governments to implement EbA as a tool to adapt to climate change.

<p>Improving the livelihoods of poor rural households through enhanced access to financial services and sustainable economic growth in Zambia with the Rural Finance Expansion Programme (RUFEP), IFAD (https://www.ifad.org/en/web/operations/-/project/1100001650)</p>	<p>The primary target group encompasses economically active small and micro-entrepreneurs and smallholder farmers, with an emphasis on women and young people.</p> <p>The objectives of the program will be achieved through strategic partnerships, innovation and outreach. The strategic partnerships component aims to enhance the capacity of financial service providers to deliver demand-driven services in rural areas. The innovation and outreach component seeks to improve the efficiency and sustainability of rural financial services.</p>
<p>IFAD's Private Sector Financing Program through a regional CCA finance mechanism, also under design and not yet approved by financier</p>	<p>The primary objective of the project is to increase the climate resilience of rural populations through access to finance for investments in adaptation solutions and best practices, enhanced by institutional and financial innovation mechanisms (products, systems). Empowering people in communities with relevant knowledge to change towards investment in climate change adaptation are integral to the primary objective.</p>
<p>Accelerate Water and Agricultural Resources Efficiency (AWARE) programme 2019 ? 2022</p> <p>Financed by BMZ-GIZ and EU</p>	<p>To improve climate-sensitive water management, including efficient use by small-scale farmers, in the lower Kafue Basin. The programme promotes effective, integrated water resources management as well as efficient practices in water extraction and irrigation. The effort also includes the development of a financing approach that will ensure access to funding. This will help the farmers apply technological options such as harvesting rainwater from roofs and storing it, drip irrigation systems and the use of communal dams and boreholes.</p>

<p>Promotion of Agricultural Finance for Agri-based Enterprises in Rural Areas (AgFIn)</p> <p>2016 ? 2025</p> <p>Financed by BMZ-GIZ</p> <p>Regional project (Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Malawi, Mali, Nigeria, Togo, Zambia)</p>	<p>To improve the provision of financial services to agricultural and agri-based enterprises in rural areas that are tailored to their business models.</p> <p>The project is part of the One World ? No Hunger Initiative. It advises and supports the expansion of financial institutions into the agricultural sector and assists them with developing adapted financial services.</p>
<p>Climate resilience through risk prevention and innovative climate risk insurance</p> <p>2020 ? 2022</p> <p>Financed by BMZ-GIZ</p>	<p>To ensure agricultural actors have better access to private-sector climate risk insurance and information on climate risk. The project takes a private sector approach to support the market for climate risk insurance and the dissemination of climate risk information. The project offers training to employees of insurance companies, brokers and governmental institutions in the area of climate risk insurance and to selected actors involved in providing climate risk information.</p>

Focus on IFAD projects[21]²¹

IFAD has supported 15 projects in Zambia (including closed, ongoing, and planned projects), of which 3 are ongoing, for a total Project Cost of USD 354.07 million, with USD 225.81 million of total IFAD financing, generating positive impacts on 1,014,818 households.

In Zambia, IFAD loans support the commercialization of smallholder agriculture, in particular by enhancing crop and livestock productivity (including by reduction of livestock disease). It also creates links between small-scale farmers and suppliers and market intermediaries, and help to increase access to rural financial services by small-scale farmers.

The IFAD country strategic opportunities program is designed to help poor smallholders in remote areas make the best use of natural resources to improve food production and food security.

Activities target the poorest rural people, including households headed by women and/or affected by HIV/AIDS. Because women are largely responsible for household food production and income generation, they play a key role in IFAD's programs and projects, which aim to reduce poverty by generating income.

IFAD also promotes policy dialogue on issues related to rural financial services, and to the development of policy, regulatory and institutional arrangements for the control of livestock diseases.

? **Identified gaps**

Despite the recent progresses in green inclusive finance worldwide and in particular the renewed focus towards climate change adaptation finance for smallholders and rural communities, major gaps still exist, that present projects were not able to fill, and in particular:

- **Information gap:** investors are not aware of the actual climate change adaptation potential of each FSP to foster resilience of their clients. No agreed metric exists to assess the progresses of FSPs in financing climate resilience;
- **Capacity gap:** smallholders and rural communities, as well as FSPs, do not know how to integrate climate change into their risk management and investment strategy;
- **Lack of appropriate incentives:** investors are not able to correctly price their products against climate change risk and the creation of resilience . There is a need for appropriate products (financial and non-financial) that reward institutions that aim to improve their clients' adaptation capacity and can show progress in this direction.

Country	Gaps
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Benin and Senegal

Expertise gaps:

- On the supply side (FSPs), adaptation to climate change is a new topic. It is therefore fundamental, when introducing the concept of green finance / climate within an FSP, to train the employees. It is also important to support FSPs in the development of green strategies, with strategic documents guiding the implementation of adaptation solutions fitting the client? needs. In this context, technical assistance is an important tool to train and accompany MFIs in the development of adapted solutions.

-On the demand side (end clients), clients lack access to training on the implementation of climate change adaptation solutions.

-At the level of technical assistance providers, the topic is very new too, and it can be challenging to find specialized providers.

Funding gaps:

-On the demand side, end clients lack access to appropriate funding sources to implement adaptation solutions.

-On the supply side, there is a lack of appropriate incentives for FSPs to implement adaptation solutions.

Zambia	<p>The <u>expertise gap</u> is the main challenge identified by GCAMF partners:</p> <ul style="list-style-type: none"> -On the demand side in particular (end clients), clients lack access to training on the implementation of climate change adaptation solutions, but also for awareness raising on climate issues. -On the offer side, FSPs need capacity building on climate change adaptation solutions. -At the level of technical assistance providers, the topic is very new too, and it can be challenging to find specialized providers. <p><u>Funding gaps:</u></p> <ul style="list-style-type: none"> -On the demand side, end clients lack access to appropriate funding sources to implement adaptation solutions. -On the supply side, FSPs lack access to appropriate and competitive funding, which in turn is due to a lack of appropriate incentives for investors.
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Three main challenges that are broadly diffuse in all three countries, and that hamper the support for climate change adaptation, are:

- ***On the supply side:*** climate finance is new. Financial institutions do not have staffing capacity (major gap). There is a need to introduce climate change and build capacity.
- ***On the demand side:*** many of IFAD clients, smallholders are doing business and climate adaptation and mitigation activities but cover their activities only with loans. They still do not know how to deliver a business proposal for climate change adaptation practices and technologies, and hence they are not able to claim for appropriate finance for the climate change adaptation practice and technologies that they are already implementing or that they would like to implement.
- ***On technical support:*** who provides the capacity and technical assistance is still weakly defined and the required capacity of technical assistance providers should be identified to ensure quality of services and hence impact.

There is an important need for capacity development on both the supply and demand sides. This is specific to climate adaptation, and smallholder farmers and rural value chain actors should become knowledgeable about that screening process they will have to comply with if they want to have access to climate finance.

? Climate Change Adaptation Practices and Technologies for smallholder farmers

The project will focus its intervention on FSPs that are financing the implementation or maintenance of technologies and practices by small-scale producers, or rural communities / value chain stakeholders, that support climate change adaptation. They include, among others[22]²²: Nature Based Solutions (NbS), Ecosystem Based Adaptation (EbA) Solutions, Climate Smart Agriculture (CSA). In the document, we call these practices and technologies ? Climate Inclusive Rural Solutions? (CIRS). They are promoted for their key benefits to reduce small scale producers' vulnerability to climate change and build climate resilience. CIRS also generates additional benefits in terms of productivity improvement for small scale producers, improvement of quality of production, protection and promotion of healthy ecosystems and biodiversity, reduction of greenhouse gas emissions, among others. A specific taxonomy of CIRS will be adopted during the project, nevertheless a preliminary view of the possible CIRS to be considered in the project is as follows[23]²³:

Examples of practices and technologies for climate change adaptation, ?CIRS?

<ul style="list-style-type: none"> - organic fertilizers - soil conditioning - conservation agriculture - agroecology - crop diversification - drainage systems - ecotourism - firewall - organic farming - beekeeping - seed banks - windbreak - live fences - family orchards - filter dams - rainwater tanks - drip irrigation - contour trenches - greenhouses - vermicompost - fog trap 	<ul style="list-style-type: none"> - sustainable forest management - infiltration pits - integrated nutrient management - agro-sylvo-pastoral systems - integrated pest control - agroforestry systems - natural retaining walls - permaculture - sylvo-pastoral systems - natural shade - aquaculture - agricultural terraces - soil restoration - mixed nurseries - crop rotation - no-till systems - association of cultures - managed grazing 	<ul style="list-style-type: none"> - improved pasture (GMO free) - forage plants - filter for dirty water from agricultural production - resilient seeds (GMO-free) - direct drilling - intelligent storage of agricultural production - precision fertilization - protection of coastal wetlands (with associated fishing) - restoration of coastal wetlands (with associated fishing) - solar dehydrators - solar hydroponics - solar cookstoves - solar water pumps - biodigesters - efficient biomass stoves / Improved cooking stove - biomass (agriculture residue, such as rice husk) gasifier stove
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? Background work done on indicators and framework

The financial product that will be developed in the framework of the present project, and that will be dedicated to support climate change adaptation for smallholder farmers, is the operationalization of some of the common work performed by an engaged set of private investors.

Indeed, in April 2021 private investors members of the European Microfinance Green Inclusive and Climate Smart Finance Action Group (GICSF-AG: <https://www.e-mfp.eu/gicsf-ag>) have joined forces and launched the initiative "Climate & Biodiversity Positive Initiative for Smallholder Finance". This initiative aimed to meet the increasing visibly needs to consider climate change effects and biodiversity preservation in investment decisions. The initiative was composed of private actors, lenders and supporters of inclusive finance service providers who share a common objective. Members of the initiative are: the Grameen Credit Agricole Foundation, the BNP Paribas (<https://group.bnpparibas/en/>), the SIDI (<https://www.sidi.fr/?lang=en>), Oikocredit (<https://www.oikocredit.coop/en/>), the BBVA Microfinance Foundation (<https://www.fundacionmicrofinanzasbbva.org/en/>), YAPU Solutions.

The Climate & Biodiversity Positive Initiative for Smallholder Finance was born out of the previous initiatives in green inclusive finance, and more in details in climate change adaptation and biodiversity conservation of each members, and common initiatives, such as:

- The GICSF-AG (<https://www.e-mfp.eu/gicsf-ag>), unique multi-stakeholders think tank that supports the development of common standards for green inclusive finance, as well as dissemination of lessons learnt, and stimulate collaborative activities in green inclusive finance (IFAD is a member of the GICSF-AG).
- MEbA Biodiversity Platform, a UN Environment based project that has piloted climate change adaptation and biodiversity conservation indicators in clients and portfolio assessment, as well as the development and disbursement of loans dedicated to EbA, with 30+ MFIs and 10+ countries in LAC and SSA. MEbA and MEbA Biodiversity Platform projects have been implemented in the period 2018-2020 in SSA and in particular in Benin with 4 FSPs and in Senegal with 3 FSPs.

The members of the Climate & Biodiversity Positive Initiative for Smallholder Finance, observed that one of the obstacles they all faced was the lack of appropriate indicators, tailored to inclusive finance, to assess and monitor FSPs that would like to receive funds for climate change adaptation. They hence decided to join forces and develop such indicators for climate change adaptation and biodiversity conservation to be used to support the provision of funds with better conditions for FSPs that commit to improve their capacity to finance climate change adaptation and biodiversity conservation for small scale producers and rural communities.

Such indicators have been developed based on best international standards for green, and in particular climate change adaptation, in inclusive finance, namely:

- ***The Green Index 3.0***^[24]: a unique assessment tool to assess the green inclusive finance performance of FSPs, developed by the GICSF-AG with the participation of 2000+ stakeholders since 2014, among which investors, networks of FSPs, FSPs, consultants, academics etc. The Green Index was published for the first time in 2014, and it has been implemented in the field with FSPs since 2014, by various institutions and individuals, ensuring constant learning, and collecting 1000+ environmental assessments of FSPs worldwide;
- ***The indicators of the UN Environment project MEbA***: a set of indicators to be used by field officers to assess the risks and the investments done by the client in terms of climate change and ecosystems. The indicators include climate sensitivity of various crops, the climate adaptive capacity of clients, the biodiversity risks, and verification if the investment done by the clients can be claimed to be an EbA solution. Such indicators have been implemented in 11 countries in LAC and SSA, since 2012, and with more than 30 FSPs.

These standards for inclusive finance have been developed in alignment with existing standards, regulations, and frameworks, such as the European Taxonomy[25]²⁵, the TCFD[26]²⁶, ASAP[27]²⁷, CCRI[28]²⁸, among others [29]²⁹.

The result is a set of 11 qualitative indicators, and 5 quantitative indicators, organized along 4 standards and 6 essential practices. In the table below, we provide a view of the standards and essential practices considered (each one contains an actual set of detailed indicators, with multiple choice answers, as well as quantitative information, that are not reported in the table here below. In the table, ?Institution? refers to FSP):

Standard CB.0	The institution defines its climate and biodiversity strategy and has systems in place to implement it
<i>Essential Practice CB.0.1</i>	The institution defines its climate and biodiversity strategy
<i>Essential Practice CB.0.2</i>	The institution has systems in place to implement its climate and biodiversity strategy
Standard CB.1	The institution identifies climate and biodiversity risks and opportunities
<i>Essential Practice CB.1.1</i>	The institution identifies client- or portfolio-level climate and biodiversity risks and opportunities
Standard CB.2	The institution manages climate and biodiversity risks and opportunities
<i>Essential Practice CB.2.1</i>	The institution manages client- or portfolio-level climate and biodiversity risks and opportunities
Standard CB.4	The institution offers green financial and non-financial products and services for climate change adaptation and biodiversity conservation
<i>Essential Practice CB.4.1</i>	The institution offers financial products and services for climate change adaptation and biodiversity conservation

<i>Essential Practice</i> <i>CB.4.2</i>	The institution offers non-financial products and services for climate change adaptation and biodiversity conservation
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The present proposal aims to capitalize on these previous experiences and key sector stakeholders' engagement, to support the establishment of a specific financial, technical assistance and technology support product for FSPs that will qualify as potential recipients of more favorable conditions according to indicators and frameworks. The indicators from the Climate and Biodiversity Positive Initiative for Smallholder Finance will be used as a basis to define such investment instruments for climate change adaptation.

The indicators have been developed for an integrated approach on climate change adaptation and biodiversity conservation. In the present project, the focus will be on climate change adaptation and the biodiversity part of the indicators will be used to assess the level of ecosystem health to ensure the generation and enhancement of climate resilience for smallholder farmers.

3) The proposed alternative scenario with a brief description of expected outcomes and components of the project

The present project aims to support smallholder farmers and rural communities to adapt and become more resilient to the risks of impacts from current and anticipated climate hazards. To reach this objective the project will contribute to reducing the gaps identified above, and in particular: information gap, capacity gap, and financing gap, by establishing specific financial products dedicated to support climate change adaptation for smallholder farmers.

Such financial products will consist of:

? Product 1: Establishment of a dedicated financial product for Climate Change Adaptation finance for Smallholders and Rural communities, to be used by each individual investor

The product will be composed of:

- Specific financing conditions linked to progresses in climate change adaptation of the FSP;
- As well as a technical assistance component to generate capacity within the FSPs to manage climate change risks and develop adaptive capacities;

- As well as a technological packages component that aims at enabling the FSP to assess, manage and monitor the climate risks and climate resilience of its smallholder farmers clients and the institution itself.

The product will define its rewarding policy based on specific indicators and targets established for these indicators, as well as a clear framework to follow. It will provide a scheme for all investors in inclusive finance, able to reward FSPs that can show progress in climate change adaptation for their smallholder farmers clients. The product developed will be piloted during the project by the Grameen Credit Agricole Foundation with selected FSPs. Lessons learnt will be established and shared with the aim to further engage other private and public investors to adapt similar products, along the framework developed in this project, but adapted to their needs, processes and target investees.

? ***Product 2: a framework for a blended finance scheme for climate change adaptation.***

Building on the experience developed in the project with the dedicated financial product for climate change adaptation (product 1), a framework for blended finance for climate change adaptation will be proposed. The aim will be to attract dedicated private-public finance, and blend them, to provide a better offer and higher supply of finance to smallholder farmers and FSPs to foster the promotion of climate change adaptation practices and technologies. It will support coordination among actors and the scale up of available finance for adaptation. It proposes a concrete offer to the FSPs that is shared and supported by private and public investors of the sector and not only by the individual institutions.

The proposed project is a cost effective and innovative way to help beneficiaries to adapt and become more resilient. Indeed, by providing more favorable conditions and additional technical and technology support to FSPs that demonstrate progress in financing climate resilience for smallholder farmers, the project aims at providing sound incentives to FSPs to support their clients to adapt to climate change, as well as the institution itself to develop or improve its processes and products offer dedicated to climate change adaptation.

With this intervention the project aims to create systems change in the inclusive finance sector so that second tier investors are more aware of the gains (social / environmental impact as well as economic return) and as well as lower risks and higher resilience, and therefore more incentivized to finance FSPs lines of credit for climate adaptation and resilience-oriented lending projects. The promotion of the two products above will allow investors to engage alone (product 1) or as a sector (product 2), and hence to FSPs and smallholder farmers to have different options adapted to their needs.

This objective will be achieved by completing three key milestones:

- ***Conditions, process and indicators:*** As a first step, the process, the conditions and indicators will be defined, for the provision of more favorable loan conditions for FSPs that are financing climate change adaptation to smallholders and rural communities. The more favorable conditions will include: access to training and capacity, access to technology digital solutions, cheaper funds. Process, conditions and indicators developed and used will be in line with the Paris Agreement, and other international standards, with the goal to avoid overloading countries and FSPs with different reporting formats and indicators. Indicators will indeed be based on the ones developed by the Climate and

Biodiversity Positive Initiative for Smallholder Finance (see previous section) - *Establishment of product 1.*

- ***Proof of concept:*** Piloting the approach with four FSPs to demonstrate its feasibility to the sector - *Piloting of product 1.*
- ***Engaging the sector:*** Engage other private investors to develop a similar approach - *lessons learnt and extension of product 1-*, as well as to join forces with public investors in a blended finance scheme - *public - private engagement product 2.*

The specific financial products for climate change adaptation that will be developed in the project will aim to finance the implementation or the maintenance of practices and technologies that ensure the creation and enhancement of climate resilience for small scale producers and rural communities, i.e. Climate Inclusive Rural Solutions (CIRS)[30]³⁰. CIRS include, among others: Nature Based Solutions (NbS), Ecosystem Based Adaptation (EbA) Solutions, Climate Smart Agriculture (CSA). The specific Climate Inclusive Rural Solutions considered should:

- Be dedicated, as first priority, to agriculture, livestock, fishery production;
- Target first the generation of material positive impacts for smallholder farmers in terms of climate resilience and healthy ecosystems;
- Support benefits for rural communities and related value chains;
- Be sustainable, i.e. reducing costs or generating further income.

The sustainability of CIRS will ensure that the CIRS can be naturally implemented by smallholder farmers including beyond the project's scope and duration, as well as be naturally financed by the FSPs, and spread through rural communities.

The specific financial products for climate change adaptation developed in the project will not only reward the financing of CIRS to smallholder clients, but also the development or strengthening of other dedicated actions within FSPs, such as sound processes, risks and products management, strategy and responsibility. These actions will support the actual transition of the FSPs towards a permanent focus on supporting climate change adaptation and their scale up in their operations and products for the benefits of smallholder farmers livelihood and resilience.

The alternative scenario proposed will follow the approach explained here below:

? ***Expected result: Increased climate resilience, and improved livelihoods & land use management for smallholder farmers***

The project's key expected impact is to build climate change adaptation capacities for smallholders, and therefore enhance the climate resilience of smallholders and rural communities', and to support their adaptation to climate change by decreasing their vulnerabilities.

? ***Project Objective: Increasing smallholder farmers' access to climate adaptation finance***

The project aims at generating the expected result by fulfilling its key objective to increase smallholder farmers' access to climate adaptation finance. This is expected to be achieved by scaling up and improving the focus of FSPs towards disbursing finance to smallholder farmers targeted to CIRS and the generation of climate resilience.

? ***The key project intervention and approach***

Because the supply side of the challenge described in the previous session has been identified as the main gap that is not properly addressed yet, including by existing projects and interventions, this will be the focus of the present project. The project Outcome (see here below): 'Public and private investors are enabled to provide improved financing conditions to the FSPs that improve their capacity to finance climate change adaptation for smallholders and rural communities' will allow to overcome the information and capacity barriers at supply side (both FSP and Investors) and hence the financing barrier (i.e. dedicated finance for climate resilience targeting smallholder farmers). The Theory of Change is: **IF** an Sustainable Linked Loans Scheme to finance Climate Inclusive Rural Solutions exists, rural livelihoods and environmental health will improve **BECAUSE** the ability of smallholder farmers to access and implement Climate Inclusive Rural Solutions will be enhanced.

Hence solving the supply gap is seen as the means to achieve the actual result to improve smallholder farmers and rural communities livelihood in a sustainable way.

? ***Articulation of Demand, Supply, Environment side interventions***

By solving the supply gap, the project will generate capacities for FSPs to develop better processes and products offer to smallholder farmers, specifically targeting the development of their climate resilience. This will have positive effects also on demand and environment gap, i.e:

- At demand side, the intervention will contribute at generating awareness and capacities for smallholders first, and for rural communities, on how to implement CIRS, how to maintain, how to scale them, and commercialize their products, as well as propose an investment plan to financial intermediaries.

- At environment side, the intervention will contribute to develop capacity of technology and technical providers, local, but also international, that can support both smallholder farmers and rural community in the transition towards more resilient and sustainable economy and society.

The project logframe is defined as follows:

Outcome	Output	Activity		Deliverable
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<p>Outcome 1: Public and private investors are enabled to provide improved financing conditions to the FSPs that improve their capacity to finance climate change adaptation for smallholders and rural communities</p>	<p>Output 1.1: Investment Product for Climate Change Adaptation Smallholder Finance (Product 1) established. This is a dedicated financial product for Climate Change adaptation finance for smallholders and rural communities to be used by each individual investor.</p>	<p><i>Activity 1.1.1</i> Define conditions and processes</p> <p><i>Activity 1.1.2</i> Establish institution reporting scheme</p> <p><i>Activity 1.1.3</i> Operationalize indicators and framework via software packages</p>	<p>AB 1.1.1 The definition of a structured and transparent process will ensure FSPs have access to the needed support to successfully finance climate change adaptation for their clients.</p> <p>AB 1.1.2 Indicators and reporting framework align with those developed by Climate & Biodiversity Positive Initiative for Smallholder Finance, facilitating a fast, confident reporting alignment between actors</p> <p>AB 1.1.3 Indicators and reporting available in centralized platform that integrates use cases for all actors, from FSP credit officers and managers to</p>	<p>D1.1.1. Short white paper for investment in climate change adaptation (for the sector); project manual</p> <p>D 1.1.2 Manual on indicators; Document on Green Taxonomy of the project.</p> <p>D 1.1.3 (adapted version) MEbA Biodiversity Platform ready to be used for the project scope</p>
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Output 1.2:

Investment Product for Climate Change Adaptation Smallholder Finance (Product 1) piloted with 4 FSPs in 3 selected countries.

Activity 1.2.1

Identify and select 4 suitable Financial Service Providers

AB 1.2.1 Pilot phase constitutes FSPs capable and motivated to test the finance vehicle and tools, provide feedback and demonstrate efficacy of fund

D 1.2.1

Term of reference of loan contracts with the 4 FSPs; 4 Assessments of present performance of Climate finance for the 4 FSPs

Activity 1.2.2

Provide dedicated training to FSPs on climate risks and financing of adaptation solutions

AB 1.2.2 FSPs are trained conceptually and technically regarding indicator information intake and interpretation of results.

D 1.2.2

Training material (recording of trainings and presentations)

Activity 1.2.3:

Pilot phase with FSPs utilizing digital tool to disburse and monitor credit line funds

D 1.2.3 Access provided to all users of the platform; pilot protocols; helpdesks channels; Kick off material; Pilot report; Protocol for institutionalization

Activity 1.2.4

Verification of accomplishment of conditions

AB 1.2.3 FSPs apply fund concepts via digital tool in the field with actual clients, generating learnings for fund concepts, criteria and tools.

D 1.2.4

Verification report Reward/price discount (if applicable)

Activity 1.3.1 Establish first version of framework for Blended Finance scheme

Activity 1.3.2

Update framework f

<p>Outcome 2: Enhanced knowledge and stakeholder engagement</p>	<p>Output 2.1: Pilot results assessed through a consultative process with stakeholders and results and lessons learned disseminated</p>	<p>Activity 2.1.1 Assess project results</p> <p>Activity 2.1.2 Draft paper and present project results</p> <p>Activity 2.1.3 Present results and organize roundtable with participants</p>	<p>AB 2.1.1 Pilot benefits, challenges and learnings are collected from all stakeholders via assessment of pilot outcomes versus objectives, analysis to ?baseline? scenario and interviews with stakeholders; audit of end-clients</p> <p>AB 2.1.2 Pilot assessment results are consolidated and formulated into both a paper and visual presentation with proposals for future development</p> <p>AB 2.1.3 Presentation of results and dialogue with fund stakeholders to improve facility criteria, conditions and processes</p>	<p>D 2.1.1 Report on project assessment</p> <p>D 2.1.2 Project results paper</p> <p>D 2.1.3 Presentation material; Updated framework in Activity 1.1.1: a) positioning paper for investment in climate change adaptation b) project manual</p>
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	<p>Output 2.2: Project implementations supported by an M&E strategy (six-monthly monitoring reports)</p>	<p>Activity 2.2.1: <i>monitoring and reporting of project progresses</i></p>	<p>AB 2.2.1 monitoring and reporting will enhance transparency and capacity to act according to the project progress</p>	<p>D2.2.1: 6-monthly project reports</p>
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The various activities will be achieved in the following order (from left to right), that provides plan for project implementation.

Activity 1.1.1	Activities 1.3.1	Activities 1.1.2-3	Activities 1.2.1-1.2.4	Activity 1.3.2	Activities 2.1.1-2.1.3	Activities 1.3.3
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The project will hence articulate its implementation according to the following framework:

Expected results <- Outcomes <- Outputs <- Activities:

- **Expected results:** increased climate resilience, and improved livelihoods & land use management for smallholder farmers
- **Outcome Demand side:** Increased implementation of Climate Inclusive Rural Solutions
- **Outcomes Supply side :** 1 ?Public and private investors are enabled to provide improved financing conditions to the FSPs that improve their capacity to finance climate change adaptation for smallholders and rural communities?; 2 ?Awareness raised about possible financing conditions for smallholder farmers on climate adaptation ?

The Outcomes Supply side are the ones described in the Project logframe, here above.

The Outcome Demand side ?Increased implementation of Climate Inclusive Rural Solutions? will be ensured by articulating the supply side intervention of the project, supported by GEF resources, with the existing projects and activities by IFAD, focused to fill the demand gap by building capacity for smallholder farmers and rural communities.

The results: ?Increased climate resilience, and improved livelihoods & land use management for smallholder farmers? will be achieved by:

- Articulating the supply side intervention with the demand side intervention, and aligning practices, Climate Inclusive Rural Solutions promoted indicators, as well as TA and finance support.

- Filling the environment side intervention gap, by establishing a project steering committee with the newly established non for profit entity Climate and Biodiversity Inclusive Finance Institute (CBIFI) that will take care of:
 - ? Ensuring activities alignment and synergies;
 - ? Engaging further resources (investment and technical assistance) by private and public sector, dedicated to climate change adaptation for smallholder farmers;
 - ? Blending private and public resources;
 - ? Providing training to technology and technical providers on the scheme and framework developed in the project to ensure sector capacity.

The project aims to support the sector transition towards mainstreaming climate change adaptation finance for smallholder farmers by:

- *Developing, piloting and demonstrating:* the establishment and piloting of a specific Climate change adaptation investment product (Sustainable Linked Loan concept) by GCAF, able to reward with discount on interest rate the FSPs that can show progress in their actual capacity to finance climate change adaptation for their smallholders clients. This product will also provide technical and technological capacity to FSPs to support the development of their capacity in climate change adaptation finance. The developed Sustainable Linked Loan product in climate change adaptation in inclusive finance will be utilized and adapted by the full sector and in particular other members of the "Climate and Biodiversity Positive Initiative for Smallholder Finance".
- *Provide the framework to act:* The proposal of a framework for blended finance scheme for private-public climate change adaptation that can be used by private and public investors to enhance and improve their climate change adaptation finance. The aim is to lay the foundation of a sectoral transformation and stimulate private as well as public sector engagement, in terms of both individual products, and blended finance schemes.

A first proposal for the process to follow for the provision of better loan conditions for FSPs that demonstrate their improvement in climate change adaptation, per each FSP, is provided in the summary table here below.

Key items	Suggested Process	Key owner of the process step
Selection of FSP	Due diligence, selection of FSP, and discussion of KPI and STP	Investor

Indicators and Sustainable Performance Targets (SPT)	Validation by third party of the KPIs and STP to be used to assess its progress as well as the targets to achieve to validate loan price discount	Standards/Indicators setting entity
Baseline Climate change adaptation capacity of FSP	FSP is assessed with the selected KPI (adapted) of the Climate and Biodiv Positive Initiative for Smallholder Finance.	Standards/Indicators setting entity
Climate change adaptation contract conditions	Agreement on actual climate change adaptation objectives to achieve (SPT) for the specific funds provided, and associated repayment schedule and discounts, and contract signature	Investor
Pilot protocol	Selection of branches and staff engaged into the climate change adaptation finance risks and credit provision	FSP
Training provision	Capacity on: i) climate change as well as biodiversity risks management, ii) as well as on CIRS and green/climate change adaptation products, iii) indicators, reporting; provided to FSPs	Standards/Indicators setting entity
IT solutions provision	IT platform provided to FSPs, software training provided, helpdesk channels set up, pilot kick off	Technical Provider
Funds disbursement	FSPs receive (first tranche of) funds	Investor
Ongoing monitoring and reporting	The IT solutions provide ongoing support to assess clients and portfolio, as well as monitoring and reporting	Technical Provider
Pilot finalization	The objectives concerning the use of new concepts and indicators, as well as related technology are reviewed and achieved. The extension of the use of such indicators, concepts and technology beyond the pilot branches is prepared.	Technical Provider
Verification of achievement of SPT	Verification of objective fulfillment, comparison baseline-progresses against objectives	Standards/Indicators setting entity
Decision	Assessment of Verification and decision on fulfillment of objectives.	Investor
Funds discount	Validation or not of funds discount	Investor
Ongoing monitoring and reporting	Ongoing use of IT platform to monitor and report on: financing of CIRS, climate change and biodiversity risks, FSPs processes for climate change adaptation	Technical Provider

It is forecasted that in the process here above four main actors will participate and contribute:

- **Investor:** responsible of the selection of FSP (including due diligence), discussion with FSP on the loan conditions, KPIs, and STP; definition and agreement with FSP on the climate change adaptation contract conditions; disbursement of funds; validation of progresses of FSP in climate change adaptation; provision of funds discount, if conditions apply.
- **Standards / Indicators setting entity:** responsible of the set up of the standards, i.e. climate change adaptation indicators & framework for the project, definition of the process for the climate change adaptation investment product for the sector; validation of KPI and SPT selected by investor and FSP; provision of the assessment of initial performance of the FSP in climate change adaptation; development and provision of trainings and capacity building to FSP; Verification of objective fulfillment, comparison baseline- progresses against objective.
- **FSP:** responsible of the selection of branches and staff for piloting climate change adaptation finance risks and credit provision.
- **Technical provider:** responsible of the provision of access to the IT platform to the FSP, of adapted indicators, process and framework of the project, of the provision of training to FSP on the use of the IT platform, of the provision of support to the FSP with helpdesk channels; guidance and monitoring of the pilot kick off; ongoing monitoring and reporting of FSP performance; validation of the achievement of pilot and preparation of the FSP to scale up the approach within the institution.

In the present project, the specific key owners of the process steps will in particular be:

- **For the Investor:** the Grameen Credit Agricole Foundation (GCAF), who will also support in adapting the indicators, framework, process, and training to its partner FSPs.
- **For the Standards / Indicators setting entity:** the Climate and Biodiversity Inclusive Finance Institute (CBIFI);
- **For the FSP:** the FSPs selected in the project.
- **For the Technical Provider:** YAPU Solutions.

Here below we provide a short description of the activities in the logframe:

? Outcome 1: Public and private investors are enabled to provide improved financing conditions to the FSPs that improve their capacity to finance climate change adaptation for smallholders and rural communities

The implementation of such frameworks and indicators, as well as dedicated products will allow the public and private sector to coordinate their methodology and activities and propose a concrete offer to the FSPs that is shared and supported by stakeholders of the sector and not only individual institutions.

Outcome 1 will be achieved through the delivery of the following outputs:

- **Output 1.1:** An investment product for climate change adaptation is established.

Activity 1.1.1: Define conditions and processes

The definition of a structured and transparent process will ensure FSPs have access to the needed support to successfully finance climate change adaptation for their clients.

In this activity the conditions of funding line, as well as, the process to follow to establish, monitor, verify and validate the Key Performance Indicators (KPI) as well as the Sustainable Performance Targets (SPT) of the specific loan product for climate change adaptation will be conceptualized and validated.

Milestones: definitions, conditions, and process that private and public investors can apply to provide more favorable conditions for access to funds to FSPs that engage in financing climate change adaptation, are established and reported in a positioning paper supported by (part of) the investors members of the Climate and Biodiversity Positive Initiative for Smallholder Finance, and other interested investors (if it applies). Definitions, conditions, and processes that GCAF will implement and follow during the project implementation are established and reported in a project manual to be shared with the sector. A short white paper (ext: 10 pages) will be produced as well with the aim to spread the proposed framework within the sector and position it among other interested stakeholders and investors, as well as attracting further interested investors.

This activity is targeting what an individual (private or public) investor can do to support better conditions for funds to FSP that aim to support climate change adaptation.

Activity 1.1.2: Establish institution reporting scheme

Indicators and reporting framework will be defined in alignment with those developed by Climate & Biodiversity Positive Initiative for Smallholder Finance, facilitating a fast, sound reporting and alignment among sector stakeholders and in particular between the Investor and the FSPs. The reporting scheme defined in this activity will be followed by FSPs to report internally as well as externally on advancement of disbursement of loans for climate change adaptation, as well as their capacity to manage climate.

Milestones: the set of indicators to be used by the FSP to monitor, report and validate its progress are finalized and agreed upon. The set of indicators to be used by the FSP to monitor its actual loan disbursement at client level (based on the MEbA Biodiversity Platform) is finalized and agreed upon. The mapping between institution level indicators (used to assess and monitor FSP performance in climate change adaptation) and clients level indicators (used to collect information on climate change adaptation practices with clients during the loan process) is established. The CIRSs eligible for the project (i.e. project green taxonomy) are defined. A framework for using and interpreting selected indicators is defined and agreed upon. Manual with details on indicators, as well as framework for use and interpretation is prepared. A document on the green taxonomy of the project is produced.

Activity 1.1.3: Operationalization of indicators and framework via software

In this activity, the indicators, reporting and verification of CIRSs defined in previous activities are operationalized into software solutions, enabling the reporting requirements specified in Activity 1.1.3 as well as the implementation of the process defined in Activity 1.1.1. To achieve this we will use as the basis the MEbA Biodiversity Platform, for clients level indicators, and digital version of indicators (adapted) of the Climate and Biodiversity Initiative for Smallholder Finance.

Indicators and reporting will be available in a centralized platform that integrates use cases for all actors, from FSP credit officers and managers to investor reporting for funding vehicles.

Milestones: The clients indicators defined in Activity 1.1.3 are encoded into the (adapted version of) MEbA Biodiversity Platform; report forms to the various users and to the (adapted version of / selected set of) the institution level indicators of the Climate and Biodiversity Positive Initiative for Smallholder Finance are ready; various platform users are ready; Platform and project are presented to FSPs in virtual demo event.

- **Output 1.2:** Climate change adaptation investment product piloted.

Activity 1.2.1: Identify and select 4 suitable Financial Service Providers

4 FSPs will be identified and selected. The pilot phase constitutes FSPs capable and motivated to test the finance vehicle and tools, provide feedback and demonstrate efficacy of funds. The KPIs and SPTs are agreed upon, validated and established for each FSP. The baseline for the present performance of climate adaptation finance is defined for each FSP. Baseline, KPIs and SPT are included in the loan contracts.

Milestones: 4 FSPs are identified to participate in the project, have been approved by GCAF investment committee and have signed the loan contract.

Observation: The reward for the FSPs that achieved the SPT(Sustainable Performance Targets) established will be a discount in interest rate of the loan for the FSP. During the discussion of loan

contract details with each FSP, awareness of the FSPs will be raised on the rationality of passing on the lower interest rates to clients and how this could be a good practice in terms of promoting climate resilient investments will be highlighted. Discussions with the FSPs on potential incentive schemes for lower interest rates for clients will be considered during project design as well as during implementation when the contracts with each FSP are being elaborated. The actual decision on rewarding the clients will depend on each FSP, and this will be known only at the name contracts are being negotiated with each FSP during the project implementation.

Activity 1.2.2: Provide dedicated training to FSP on climate risks and financing of adaptation solutions

FSPs are trained conceptually on climate risks and CIRSSs, as well as technically regarding related indicators for climate risks management and verification of CIRSSs. The training will include information that should be collected and how to collect it, as well as how to interpret the results of the assessment.

In this activity the CBIFI will prepare the training modules for selected FSPs, as well as deliver the training to the institutions and provide ongoing support. Training will be done virtually and will include the following sessions: concepts (climate change and biodiversity finance); indicators for climate change adaptation and biodiversity conservation, and CIRSSs; the operationalization of indicators and reporting into credit process with software technology;

Milestones: Trainings are delivered, training material (record of trainings and presentations) are provided to each FSP.

Activity 1.2.3: Pilot phase with FSPs utilizing digital tool to disburse and monitor credit line funds

In this activity, the FSPs apply fund concepts via digital tools in the field with actual clients, generating learnings for fund concepts, criteria and tools.

The digital tools provided will work at two levels:

- At clients' level: a software platform, adapted by the MEbA Biodiversity Platform, will be used by loan officers and staff of the FSP to assess the climate risk, biodiversity risk and verify the climate change adaptation investments done by the clients in term of the technologies and practices they use for their agriculture production.
- At institution level: the software platform will be able to extract the data collected at clients' level as aggregated data structured along (some of) the (adapted version of) indicators of the indicators of the Climate & Biodiversity Positive Initiative for Smallholder Finance.

The software solution will hence provide the key benefits of enabling the FSPs to include climatic risks into their loan assessment and portfolio management, categorizing loans in function of their climate risks, as well as their positive impacts on ecosystems and climate resilience.

Funds will be provided to FSPs, monitoring on disbursement of funds will be ensured via the platform, development of capacity to understand and manage climate and biodiversity risks and finance selected CIRS will be ensured. Ongoing training to support the FSP to understand how to use and interpret the new concepts and indicators into their lending and reporting process will be provided (during pilot).

Milestones: selection of pilot branches, pilot kick off, users of platform open to all field officers and management of the 4 FSPs participating in the project, pilot finalized, preparation of scale up done. Logins are provided to all users of the platform, 4 pilot protocols (one per FSP) are established, helpdesks channels are opened for each FSP, Kick off material (presentation and video) is provided, Pilot report are defined and agreed with each FSP, Pilots are finalized with each FSP (6 months) and pilots objectives validated, Protocol for institutionalization of the use of indicators and reporting beyond the pilot branches. Ongoing trainings are delivered, ongoing training material (record of trainings and presentations) are provided to each FSP.

Activity 1.2.4: Verification of accomplishment of conditions

Climate change adaptation impact is verified and certified (along the indicators used: KPI and SPT) by the Climate and Biodiversity Inclusive Finance Institute (CBIFI), to ensure the possibility for FSPs to have access to preferable loan conditions to support the creation of resilience for small scale producers and FSP.

The verification of accomplishment of conditions to trigger more favorable funding terms, is key to ensure trust, transparency, impacts for climate resilience, and allocation of private and public funds.

In this activity, after one year of funds disbursement, the conditions defined in Activity 1.2.1 are verified with each FSP.

The overall project pilot phase will last 1 year : 6 months to test/get used to the digital solutions (client face and reporting to investors) and the new methodology (climate and biodiversity risks assessment and verification of CIRSs financed), .i.e. Activity 1.2.3, plus 6 months after which the assessment of the achievement of the SPT related to the selected KPIs will be verified, i.e. Activity 1.2.4.

The verification will be ensured by triangulation of information done by a third party (i.e. the CBIFI): the FSP will be supported to fill directly the indicators (adapted version of) of the Climate and Biodiversity Positive Initiative for Smallholder Finance, the result will be compared with the automatic report on data collected by the (adapted version of) MEbA Biodiversity Platform. The result will be compared with the agreed SPT at the beginning of the pilot. A report will be generated describing the level of fulfillment of KPIs and SPT established. Gap and over performing will be highlighted. The report will be provided to GCAF for its review and decision on the application of interest discount.

Milestones: For 4 FSPs the comparison between expected results and actual results produced is done; the decision for reward / price discount is taken.

Output 1.3: Framework for blended finance scheme

Activity 1.1.3: Establish first version of framework for Blended Finance scheme

Conditions and terms of adaptation of funding lines that attract cross-sectoral participation and public-private involvement are defined. The aim is to prepare the ground to leverage public ? private funds to scale up the approach of Activity 1.1.1 thanks to a blended finance scheme.

Milestones: the first version of a possible blended finance scheme for climate change adaptation for smallholders and rural communities is defined, and key private and public investors engaged. The concept, framework and details are reported in a preliminary operations manual shared with potentially interested investors.

The operation manual will be refined, on an ongoing basis, during the project implementation to ensure the inclusion of lessons learnt during the project. Interested private and public investors will be engaged all along the project implementation.

This activity is targeting what private and public investors can do together to support better conditions for funds to FSP to invest in climate change adaptation and biodiversity conservation. I.e. how to blend private and public funds for efficient finance for climate change adaptation of smallholders and rural communities.

Activity 1.3.2: Update framework for blended finance scheme

Conditions and terms of adaptation funding lines that attract cross-sectoral participation and public-private involvement will be updated according to findings in pilots implemented in Activity 1.2.3-4, to ensure optimization of resources and impact for climate change adaptation.

Milestones: Operations manual for blended finance is updated.

Activity 1.3.3: Finalize blended finance scheme operations manual

In this activity the operations manual for blended finance scheme will be finalized. Private and public investors that had followed the project will be sensitized to understand the benefits and opportunity to join forces to support climate change adaptation finance. The aim of the activity is to stimulate the development of coordinated engagement of public and private investors and funds to support the generation of climate resiliencies thanks to the appropriate allocation of private and public resources according to different parties? risks appetite and available financial and non-financial instruments per each party.

In this activity, the operations manual for the funding line for blended finance scheme first defined in Activity 1.3.1., and then updated in Activity 1.2.5, will be finalized.

Milestones: Operations manual for blended finance is finalized. The proposal is shared with relevant private and public investors.

? Outcome 2: Enhanced knowledge and stakeholder engagement

The lessons learnt from the implementation of the first pilots of climate change adaptation investment product are shared with the sector stakeholders and in particular private and public investors. Updated version of the blended finance scheme is presented to investors. Insights are collected by other investors that are engaged in using, adapting and expanding the products of the project within their operations.

- Output 2.1.: Pilot result assessed through a consultative process with stakeholders and results and lessons learned disseminated

Activity 2.1.1: Assess project results

Pilot benefits, challenges and learnings are collected from all stakeholders via assessment of pilot outcomes versus objectives, analysis to ?baseline? scenario and interviews with stakeholders; audit of end-clients.

Milestones: the results of the project are understood, a project assessment is produced.

Activity 2.1.2: Draft paper and present project results

Pilot assessment results are consolidated and formulated into both a paper and visual presentation, with proposals for future development.

Milestones: paper on project results and presentation material are produced

Activity 2.1.3: Present results and organize roundtable with participants

This activity consists in presenting the results of the project with all fund stakeholders. The aim is to share experience and collect feedback to improve criteria, conditions and processes of the climate change adaptation investment product, as well as the blended finance scheme developed in the project. Dialogue is established with public and private investors and sector stakeholders to replicate, adapt, and expand the project approach within their own activities and funds.

Milestones: the project closing event is done. The positioning paper for investment in climate change adaptation, as well as the project manual produced in Activity 1.1 are updated according to project results.

Output 2.2: Project implementations supported by an M&E strategy (six-monthly monitoring reports)

Activity 2.2.1 *Monitoring and reporting of project progresses*

Project progress will be monitored and reported through six-monthly project progress report.

Milestones: six-monthly project progress report ready.

? **Implementation methodology**

Early engagement of FSPs: to ensure high engagement and commitment of FSPs, as well as early implementation, awareness raising and engagement will be initiated with the FSPs in target countries at the very beginning of the project. Opportunities for public ? private intervention will be explored already during the project, with existing resources from ongoing projects and portfolio. The inclusion of key impacts for smallholders will be ensured.

Targeted FSPs: The FSPs participating in the project will be selected in collaboration between the Grameen Credit Agricole Foundation and IFAD to ensure:

- Scalability and access to finance and TA during the project and beyond;
- Sustainability after project;
- Possibility to at once become the target of private and public intervention.

Overlap between Grameen Credit Agricole Foundation's portfolio of credits, and IFAD portfolio of existing and forthcoming projects will be prioritized.

Articulating with existing and forthcoming indicator frameworks: various indicators frameworks for climate change adaptation exist and will be further developed. These includes for example Task Force on Climate-Related Financial Disclosures (TCFD:<https://www.fsb-tcfd.org>), Coalition for Climate Resilient Investment (CCRI:<https://resilientinvestment.org>), the Adaptation Sme Accelerator Project (ASAP:<https://lightsmithgp.com/asap/>), Science Based Targets (SBTi:<https://sciencebasedtargets.org>), Principles for Responsible Banking (PRB:<https://www.unepfi.org/banking/bankingprinciples/>), Microfinance for Ecosystems based Adaptation (MEbA).

The present project will ensure that the indicators and framework used through this project will build on, align with, and influence existing and emerging indicator frameworks being developed by other different, but complementary indicator frameworks. The ongoing alignment, as well as cross fertilizing among different initiatives on climate change (adaptation) finance, will be ensured by the CBIFI, which has indeed, as part of its core mission, to coordinate and ensure alignment with other sector initiatives and support innovation. The key added value of the indicators framework used in the present project is that it is tailored to local inclusive financial intermediary institutions and hence designed explicitly to unlock finance towards smallholder farmers for climate change adaptation. Moreover, the framework and indicators used in the project are based on the work already done by the Climate and Biodiversity Initiative for Smallholder Finance, as well as the project Microfinance for Ecosystem based Adaptation, that were themselves originally developed in alignment with other sector indicators and framework.

4) Alignment with GEF focal area and/or Impact Program strategies

The project supports the priorities and actions identified in the NDCs and National Action Plans (NAPs) of the participating countries. The project aims to provide more favorable conditions for financial service providers by supporting the establishment of a specific financial, technical and technology support product that rewards financial service providers that demonstrate progress in their processes, strategy and products towards the financing of climate change adaptation for smallholder farmers. In particular the financial product will reward FSP that expand their financing of technologies and practices aimed at supporting smallholder farmers and rural communities to build their resilience to climate change impacts. Through building innovative partnerships, the project will pilot a dedicated financing product for climate change adaptation, that will be piloted during the project, and that can be replicated and expanded with other private or public investors. The project also aims at attracting private and public finance and defining a blended finance scheme that can be used by private and public investors to scale-up, both in terms of increased climate finance and smallholder farmers' and rural communities' access to climate finance.

Through its innovative partnership with the private sector, the project is well aligned with CCA-2 Mainstream climate change adaptation and resilience for systemic impact and will contribute to Outcome 2.2 Increased ability of the country to access climate finance or other relevant, large-scale programmatic investments. By developing an incentive package to encourage financial service providers to support investments to smallholder farmers to meet their adaptation needs, the project will help deliver scaled up climate finance to vulnerable countries.

5) *Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF, SCCF and co-financing*

Baseline	Alternative to be put in place	Additional cost reasoning
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Smallholder farmers are among the most vulnerable to climate change and do not have access to the finance that is necessary to build their resilience to climate change impacts. Private and public finance for climate change adaptation is inadequate and, where it exists, does not reach the small-scale producers and rural communities that need it most. There are higher operational costs to reach the smallholder producers, and agriculture is perceived as a potentially high risk investment. Many private investors are still not aware of the economic benefits to be achieved by investing in actions to enhance climate resilience which can result in reducing their investment risk. MFIs/FSPs do not currently differentiate between higher risk investments and those that are less risky as a result of resources being used to finance climate change adaptation. MFIs/FSPs therefore cannot show investors the positive economic, social and ecosystem impacts and fewer loan defaults associated with financing activities to enhance climate resilience throughout the value chain. There is no sector recognized metric to assess the status and opportunity of financial service providers to finance climate change adaptation. Neither is there a public ? private blended finance scheme able to provide finance, technical assistance, and technology support to FSPs that are presently supporting climate change adaptation and/or would like to enhance their services in this area. Hence, the private sector is missing key information to channel finance to support investments in climate change adaptation, as well as to engage with the public sector to leverage

This proposal aims to develop and pilot a dedicated financial product to finance climate change adaptation, as well as propose a framework for blended finance scheme. It will develop specific financial, technical assistance and technology support products to improve the financing conditions and capacity for FSPs to finance the adaptation needs of smallholders and rural communities. It is envisaged that this framework and support products will encourage public-private partnerships and increase finance for climate change adaptation.

The present project aims to support smallholder farmers and rural communities to adapt and become more resilient to the risks of impacts from current and anticipated climate hazards. Building on IFAD's value chain, capacity-building, and inclusive finance work, the project will address the supply side by enabling and incentivizing public and private investors to provide improved financing conditions to the FSPs, which, in turn, will strengthen their capacity to provide climate finance to smallholder producers and rural communities to strengthen their resilience to climate change. Solving the climate finance supply gap is seen as an important means to achieve on-the-ground impacts and improve rural livelihoods in a sustainable way.

The project is designed to create systems change in the inclusive finance sector so that 2nd tier investors are more aware of the lower risk, economic, social and environmental gains associated with investing, increasing the climate resilience of smallholders and rural communities. The project aims to strengthen weak capacities and fill information and technical gaps of MFIs/FSPs by developing specific financial product for investors in inclusive finance with the objective to support climate change adaptation for smallholder farmers. This specific financial product will be able to reward MFIs that can show progress in providing financial support to smallholder farmers and rural communities to invest in technologies and activities to enhance their resilience. Through building innovative partnerships,

6) Global environmental benefits (GEFTF) and/or adaptation benefits (LDCF/SCCF)

The proposed project responds to priorities and actions identified in the NDCs and NAPs of Benin, Senegal and Zambia which emphasize the need to address pressing adaptation needs in agriculture, food security, land and water management. The proposed project interventions will promote innovative public-private partnerships and create the tools and incentives for MFIs/FSPs to increase climate financing to smallholder producers and rural communities. Increased ability of countries to access climate finance.

The main adaptation benefits will be:

- Increased ability of MFIs/FSPs to provide climate finance;
- Innovative private-public-producer partnerships established;
- Strengthened capacities of MFIs/FSPs to provide, review and monitor financing for climate change adaptation.

The ultimate benefit of this pilot will be to test an innovative climate change adaptation investment product, as well as propose a framework for private-public blended finance for climate change adaptation, that can ultimately be replicated and scaled up, by individual or group of investors, resulting in increased access of smallholders and rural communities to climate finance. With increased climate financing focused on innovation and nature-based solutions, adaptation benefits such as reducing vulnerability and increasing resilience in terms of sustainable land and water management, improved natural resources management, etc. may ultimately be achieved.

7) Innovation, sustainability and potential for scaling up????

The project *innovation* is reflected in various components of the project:

- Private sector engagement to leverage public finance for climate change adaptation at small-scale producers and rural community level.
- FSPs receive the required financial, technical, and technological support to sustain climate adaptation for their clients.
- Common framework and indicators for inclusive finance stakeholders available at the sector level, and proof of concepts, to scale private sector finance for climate change adaptation.

Sustainability and scaling-up will be achieved through the following:

- *A"2.0" approach*: The operationalization of indicators, reports, definitions and processes is IT-backed and hence ensures 100% transparency, optimization of efficiency, as well as scalability and constant learning.
- *Independence*: the proposed framework is applied to a specific set of indicators and green taxonomy during the project, nevertheless it is applicable independently of the underlying specific indicators and taxonomies, ensuring replicability and scalability for the full sector.
- *Setting common standards*: the standards developed in the project can be used by each stakeholder, supporting the development of an agreed and common framework.
- *Rewarding impacts*: the project aims at once to provide non-refundable support (trainings and IT) to FPS willing to finance climate change adaptation, as well as provide financial reward (discount interest rate) for successful FSPs in term of their improvement in financing climate change adaptation (i.e. the ones that will be able to fulfill the objectives established for the specific funds). The access to more favorable conditions should generate incentives for FSP to pay for the part of the TA / technology support (beyond the end of the project), the verification, monitoring and transparent reporting of sounder risks management and socio-ecosystems impacts should generate incentives for investors to pay for part of the TA / technology support (beyond the end of the project).
- *Sector engagement*: during the project implementation private and public investors, beyond the ones engaged in the project will be made aware of the products developed in the project and invited to join effort and expand the outreach and impact.
- *Hosting the methodology*: the Climate and Biodiversity Inclusive Finance Institute (CBIFI), an independent and not for profit institute, will host the indicators, framework, processes, and products developed in the project also beyond the project lifetime and work to ensure that the financial product developed and piloted, as well as the blended finance scheme proposed is known, understood, improved and adapted also beyond the project scope and by other investors.
- *Engagement of private and public investors*; the product 1 and 2 developed in the project will foster further investment of the FGCA in climate change adaptation beyond the project scope with the aim to institutionalize the offer to all its FSPs. Moreover other private and public investors will be invited to use the same framework to foster their offer for climate change adaptation finance. Main channel to foster the scaling up of the approach developed in the project will be:
 - a. Investors engaged during the Knowle management phase
 - b. The work of the CBIFI with the inclusive finance sector
 - c. The members of the Climate and Biodiversity Positive Initiative for Smallholder Finance
 - d. The investors part of the Green Inclusive and Climate Smart Finance Action Group

[1] <https://www.ifad.org/thefieldreport/>

[2] <https://www.ifad.org/thefieldreport/>

- [3] <https://www.unepfi.org/publications/driving-finance-today-for-the-climate-resilient-society-of-tomorrow/>
- [4] <https://www.fao.org/3/i6372e/i6372e.pdf>
- [5] <https://globalfindex.worldbank.org/basic-page-overview>
- [6] APRI. 2016. Rural Agricultural Livelihoods Survey 2015. Lusaka: Indaba Agriculture Policy Research Institute (IAPRI)
- [7] Lovejoy et al. 2020
- [8] FEWS NET. 2012. A Climate Trend Analysis of Senegal Fact Sheet, Informing Climate Change Adaptation Series; GFDRR. 2015. Senegal Country Profile; USDA. 2007. Senegal Agricultural Situation Country Report. GAIN report; WFP. N.d. Climate Risk and Food Security in Sene; World Bank. 2011. Senegal Climate Risk and Adaptation Profile; World Bank. 2016. Senegal Overview.
- [9] ?Benin adopts national legislation on climate change?, United Nations Development Program, June 2018
- [10] Jalloh et al. (2013)
- [11] The Global Climate Risk Index analyses to what extent countries have been affected by the impacts of weather-related loss events (storms, floods, heat waves etc.). It analyses the quantifiable impact of extreme weather events both in terms of fatalities as well as economic losses that occurred. The most affected countries as of Index for 2019 are: Mozambique, Zimbabwe and The Bahamas.
- [12] USAID, Climate Change Risk Profile Zambia (2016)
- [13] Fumpa-Makano, R. 2011. Forests and Climate Change: Integrating Climate Change Issues into National Forest Programmes and Policy Frameworks; United Nations Development Programme. 2012. Zambia: Climate Change Country Profile; USAID. 2012. Climate Change Adaptation in Zambia Factsheet; Wilkins, H. 2016. Low water levels at Victoria Falls highlight southern Africa's worst drought in 30 years.
- [14] World Bank. n.d. Climate Change Knowledge Portal: Zambia
- [15] Climate-Smart Agriculture in Zambia
- [16] Data from YAPU Solutions, collected during project implementation with UN Environment
- [17] Data from the e-MFP Green Inclusive and Climate Smart Finance Action Group (GICSF-AG), from 1206 environmental assessments of MFIs worldwide done in the period 2011-19, by members of the GICSF-AG.
- [18] We report here below only a summary of the countries' baseline. For more details on each country, please refer to the Annex D1. Detailed countries description.

[19] IFAD website

[20] IFAD website

[21] IFAD website

[22] **Nature Based Solutions (NBS):** Solutions inspired and supported by nature that are cost effective, simultaneously deliver environmental, social and economic benefits and help build resilience. (source: EC).

Ecosystem Based Adaptation (EbA): the use of biodiversity and ecosystem services as part of a comprehensive adaptation strategy to help people adapt to the adverse effects of climate change (IPCC, 20143).

Climate-smart agriculture (CSA): three main objectives: sustainably increase agricultural productivity and income; adapt and build resilience to climate change; and the reduction and / or elimination of greenhouse gas emissions, to the extent possible. - (FAO)

[23] See for example: MEbA project (<https://unepmeba.org>), Green Index 3.0 (<https://www.e-mfp.eu/gicsf-ag>). For a description of certain of the CIRS listed here, please refer to MEbA catalogue (EbA solutions):https://unepmeba.org/wp-content/uploads/2020/03/Fichas-franc?s_marzo_2020.pdf; or to the Green Inclusive and Climate Smart Finance Action Group catalogue (renewable energy or energy efficiency solutions):<https://www.e-mfp.eu/actions-groups/microfinance-environment>

[24] <https://www.e-mfp.eu/resources/green-index-20-innovative-tool-assess-environmental-performance-microfinance-sector-brief>

[25] https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en

[26] TCFD, Task force on Climate - related Financial Disclosure: <https://www.fsb-tcf.org>

[27] ASAP, the Adaptation SME Accelerator Project: <https://lightsmithgp.com/asap/>

[28] CCRI, Coalition for Climate Resilient Investment: <https://resilientinvestment.org>

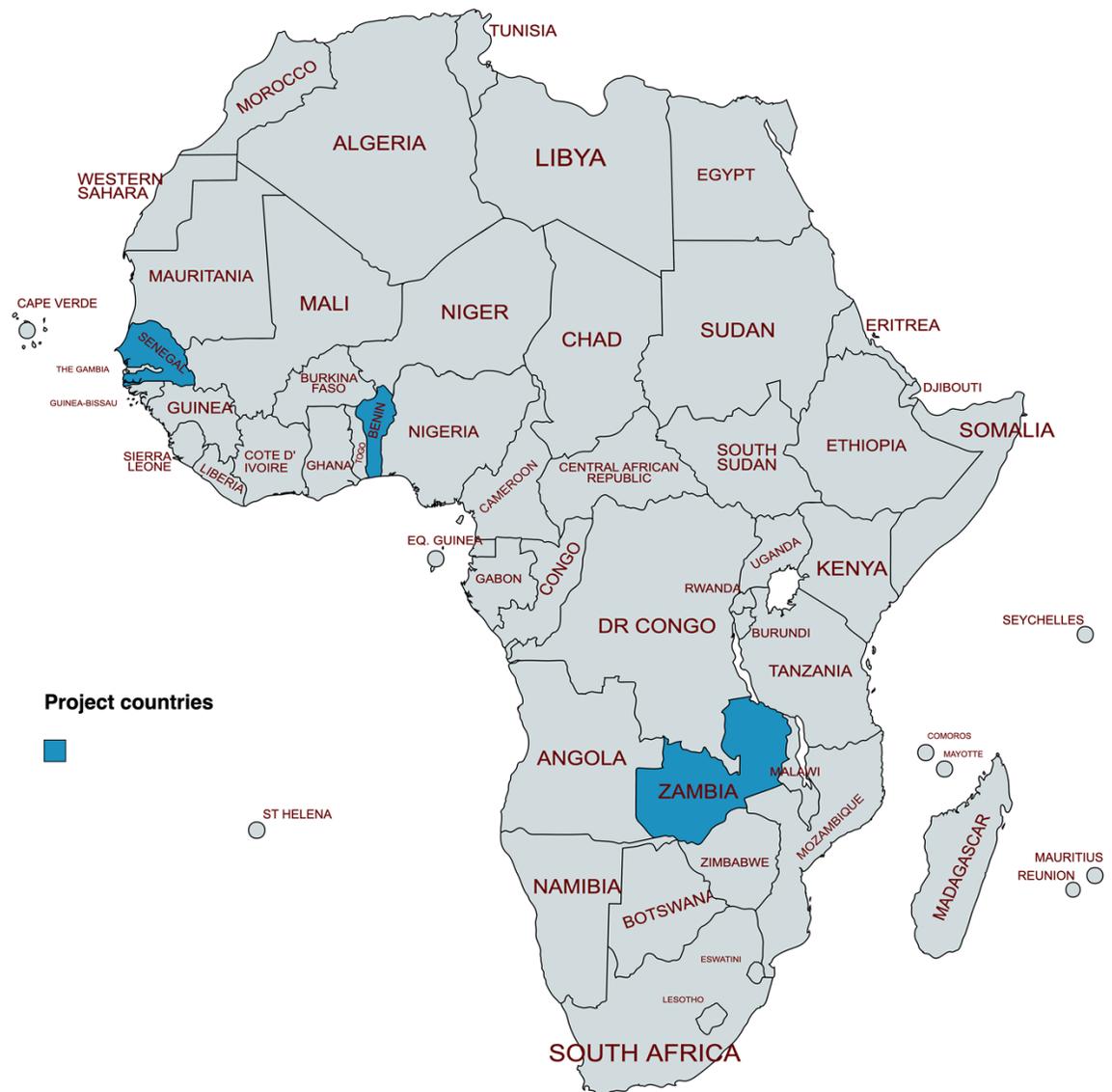
[29] 70+ existing standards, regulations, and frameworks have been reviewed in the development of the Green Index 3.0 and ensured alignment of the Green Index 3.0 with them.

[30] Examples are provided in previous sections.

1b. Project Map and Coordinates

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

The project will be implemented in Africa (Benin, Senegal, Zambia). The actual FSPs that will receive the first financing from the climate change adaptation will be selected at the beginning of the project. Geo-information and maps where the intervention will take place will become available once the FSPs participating in the project will be known.



2. Stakeholders

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

Indigenous Peoples and Local Communities Yes

Civil Society Organizations

Private Sector Entities Yes

If none of the above, please explain why:

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement

The main stakeholders that have participated in consultations during the project identification phase are:

? ***Private sector entities, including:***

- *Investors:* commercial banks, private and public impact investors, development agencies, microfinance investment vehicles. The scope was to understand their challenges, their capacity and interest to finance climate change adaptation, as well as gather their suggestions on how to spur climate change adaptation finance.
- *FSPs:* the scope was to understand their main challenges to finance smallholder farmers and in particular climate change adaptation, as well as gathering their interest to finance climate change adaptation practices and technologies. Moreover, we collected their input on how to better support them to deliver tailored finance (and non-financial services) to smallholder farmers to hence their climate resilience.
- *Local communities:* thanks to the implementation of the project MEbA, information has been collected for three years on the needs and challenges of smallholder farmers and rural communities to adapt to climate change. Such information has been collected directly through field missions during the project implementation in Senegal and Benin, and indirectly through the data collected by FSPs as well as interviews with loan officers and managers of FSPs.

? ***Stakeholders participating to the project implementation***

- *Grameen Credit Agricole Microfinance Foundation (GCAF):*

Created in 2008, at the joint initiative of Crédit Agricole and the Nobel Peace Prize Laureate Professor Muhammad Yunus, the Grameen Credit Agricole Foundation (GCAF) is a cross-business actor committed to promoting financial inclusion and social entrepreneurship. At the end of January 2022, the Foundation has 76 partners (microfinance institutions and social business) in 37 countries and has EUR 81 mln under management. Women and rural populations represent respectively 88% and 78% of beneficiaries of the institutions funded by the Foundation. The Foundation's mission is to finance and accompany microfinance institutions, enterprises and projects that promote inclusive finance and rural economic development, anywhere in the world. Ten years later, this mission has lost none of its relevance, as rural areas are still home to the majority of poor people and are already disproportionately affected by major global challenges such as climate change. Resilient rural economies rely on a diversity of economic activities, mechanisms to cope with shocks, access to essential services and

infrastructures as well as the respect of natural resources and the environment. The Foundation provides financial and technical assistance to microfinance institutions and businesses with social impact in rural areas to help them be drivers of change. The Foundation supports its partners to further explore new ways in which financial services can contribute to development goals and will foster partnerships to test new approaches and business models.

Funder, investor, technical assistance coordinator and investment fund advisor: the Foundation is a versatile partner with a range of complementary instruments at hand:

- Funder: The Foundation grants funding to microfinance institutions (MFIs), or social impact enterprises through loans, guarantees or other funding instruments.
- Investor: The Foundation acquires equity stakes and becomes actively involved in social impact enterprises or social businesses essentially in the field of agrifood processing and financial services.
- Technical assistance coordinator: The Foundation sources and coordinates technical assistance for its partners with a focus on strengthening their operations and supporting the diversification of the financial services they offer to clients.
- Investment advisor: As an investment fund advisor, the Foundation helps investors engage in inclusive finance and investments with positive impact in rural areas.

GCAF has developed extensive experience working with MFIs to improve the livelihood, climate resilience, the environmental impacts, of the most vulnerable population with special focus on smallholders and rural communities. The GCAF has supported 11 MFIs in Benin, Senegal and Zambia with technical assistance and in particular thanks to the African Facility TA programme, launched in 2013 with the support of the French Development Agency and a grant allocated by the European Investment Bank in 2019. Topics covered through technical assistance in these countries include governance, digital and IT, social performance management, strategic planning, finance, financial and non-financial products development, risk management, green finance and green products development, HR management, as well as capacity building on various topics. At the end of December 2021, the Foundation had 4 active partners in Benin (RENACA, VITAL, COMUBA, ACFB), 1 in Senegal (CAURIE) and 4 in Zambia (AMZ, FINCA Zambia, MLF Zambia and EFC) for a total outstanding of EUR 7,8 mln of loans.

In the project GCAF will administrate the project implementation; it will provide support to adapt the indicators, frameworks and processes developed for the processes of GCAF and its target MFIs; it will provide and manage the funds to be disbursed to 4 FSPs for supporting their efforts in climate change adaptation; it will pilot and monitor the climate change adaptation financial product; and it will support to engage other private and public investors, knowledge generation and diffusion, as well as define, in collaboration with the sector, the framework for blended finance scheme for climate change adaptation. GCAF will contract the CBIFI (The Climate and Biodiversity Inclusive Finance Institute) for the provision of dedicated technical support on climate change adaptation finance

- *The CBIFI:*

The Climate and Biodiversity Inclusive Finance Institute (CBIFI) is the not for profit, members based, entity that enables the financial sector's transition towards Inclusive, Biodiversity, Climate Change Positive Finance. It works to catalyze market development for all stakeholders, it is focused on actions. Among its services offer the CBIFI has strategic and operational advisory, development and implementation of climate change adaptation investment products, trainings and capacity building for FSPs. GCAF will contract the CBIFI for the provision of dedicated technical support on climate change adaptation finance, including the following activities: designing and managing indicators, standards and framework for climate change adaptation; design and test climate change adaptation finance products; developing and implementing monitoring and reporting systems for climate change adaptation; translating indicators into software solutions; training provision and capacity building to FSPs and investors; assessment, audit and verification of actual climate change adaptation performance of FSPs and progresses; stakeholders engagement; analysis of results and diffusion of lessons learnt through presentations and papers.

- *IFAD:*

IFAD is the only specialized global development organization exclusively focused on and dedicated to transforming agriculture, rural economies and food systems. It targets its support to reach the last mile and remotest areas and to transform rural economies and food systems by making them more inclusive, productive, resilient and sustainable. IFAD is the GEF selected agency for the present project. Beyond ensuring the administration of the project for GEF, IFAD will also take an active role in the implementation of the project and engage (see co-finance) existing projects in the countries to ensure the actual outreach of the present project to smallholder farmers and improve their livelihood. Expertise of IFAD will be mobilized for coordination with public stakeholders and other projects implemented in the countries selected for the present project; to co-develop together the framework for blended finance scheme for climate change adaptation; engage smallholder farmers, and associated value chains and providing them capacities on agriculture production and climate change adaptation; coordinating with local banks. IFAD will participate in the selection of the FSPs part of the project, as well as engage in the overall implementation of the project at supply and demand level.

- *YAPU[II]:*

YAPU Solutions is a Berlin based company that fosters access to finance for smallholder farmers in developing countries all around the world. YAPU enables IFSPs, and in particular microfinance institutions, cooperative and local banks, to act as agents of change for the most vulnerable to climate change. YAPU is specialized in: the development and commercialization of software solutions such as the YAPU platform that integrate and operationalize agricultural, green and climate finance, and the development, implementation and support of services and business models for the promotion of Nature-based Solutions to the most vulnerable for climate change adaptation. YAPU Solution will be contracted by the CBIFI to implement part of the present project with focus on software technology and IT platform, as well as expertise in climate change adaptation financing products.

- *FSPs:*

Finance service providers in the selected countries will be engaged to participate in the present project. To the extent possible, FSPs inputs and feedback will be included in the design of the KPIs and STPs to ensure alignment with their internal processes, market and objectives, as well as their capacity to spur their climate change adaptation finance for smallholder farmers.

- *Smallholder farmers:*

They are the recipient of the finance provided by the FSPs, and its investment into climate change adaptation practices and technologies, as well as supporting the management of climate risk.

[1] For what concerns the choice of Technical Provider, GCAF does not aim to favor YAPU Solutions against other service providers for the technological solution. GCAF has been working with YAPU Solutions on different projects for several years, developing solid collaboration links especially in the area of green microfinance and climate change. GCAF and YAPU Solutions decided to partner for this GEF project given this existing relationship and the relevant experience of YAPU Solutions, which was involved in the definition of the indicators and already developed a similar digital tool in the frame of the MEbA Biodiversity project. This partnership between the two organizations will therefore enable us to cover the scope of the GEF project in the most efficient manner.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

Women do not have equal access to financial service than men. Especially less in agricultural production. Many smallholder women do not have access to land and depend on the family structures to access financial services. While women are known to have lower loan defaults than men they face gender specific barriers, e.g:

- They have higher workloads for their families and agricultural production and less time to take care of accessing financial resources. In the specific case of drought impacts, women are oftentimes in charge of their family and farm water supply. In times of water shortage, they are forced to walk far distances to access water.
- They are oftentimes less digitally and financially literate.

At the same time, they are important drivers for their farms? crop diversity by e.g. establishing seed banks and keeping crucial knowledge about their surrounding ecosystems.

This project will take these gender differences into account and will, especially in all capacity building activities, integrate important tools and knowledge that will enable financial decision makers to strengthen women farmers and increase their access to finance.???

The promotion of women's leadership and women's participation in economic activity is at the heart of GCAF's strategy. GCAF finances and supports microfinance institutions and social enterprises that promote financial inclusion and the empowerment of women through entrepreneurship.

As of September 2021, 90% of the beneficiaries of credit of the FSPs funded by GCAF were women. 42% of the employees in the funded FSPs were women and 30% of the FSPs were headed by women (women on the board or management committee).

Evidence demonstrates that, in economies where gender equality is greater in terms of both opportunities and benefits, there is not only higher economic growth but also a better quality of life. Addressing gender inequalities and empowering women are vital to meeting the challenge of improving food and nutrition security, and enabling poor rural people to overcome poverty. Agricultural growth is enhanced if both women and men are enabled to participate fully as economic actors. Development programmes are more relevant and sustainable if both women and men are able to participate in rural institutions and express their own needs and priorities in decision-making forums.

If women had equal access to productive inputs, the Food and Agriculture Organization of the United Nations (FAO) estimates that yields from women's farms would increase by 20-30 per cent and total agricultural output by 2.5-4.0 per cent in developing countries. In effect, this would reduce the number of hungry people globally by 12-17 per cent, or 100 million to 150 million people.

The project will aim to support closing gender gaps in access to and control over natural resources and generating socio-economic benefits or services for women. This will be done by including in the training and capacity building provided to FSPs elements related to the importance of women empowerment to ensure climate change adaptation for smallholder farmers, as well as the importance of gender centric elements for climate change adaptation practices and technologies to be financed (e.g. in terms of use or needs and related enhanced livelihoods).

A simple Gender Action Plan will be developed at the beginning of the project to ensure that women can influence climate change decisions, and that women and men are represented equally.

The Gender Action Plan will specify:

-Equal access to training and capacity for women and men

-Integration of gender considerations, such as addressing women's specific vulnerability to climate change, the women role in agriculture, and the specific climate change adaptation practices and technologies of higher priorities for women

- Monitoring and reporting that includes the gender disaggregated data, as well as gender-related decisions.

During the full project proposal preparation main expected findings and planned actions concerning gender will be included in project components to the extent possible.

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; and/or

generating socio-economic benefits or services for women. Yes

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

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

Private sector engagement is key in the project, both at the level of investors as well as FSPs.

The Grameen Credit Agricole Foundation can be considered as part of the private sector, as it was created by the Groupe Cr dit Agricole, one of the largest banks in the world. The Groupe Cr dit Agricole will also be able to bring the expertise of its experience by mobilizing if and when necessary its collaborators. The Foundation is managing a specific program called "Solidarity bankers" that gives the opportunity for some of the Credit Agricole staff to conduct specific missions on specific expertise based on the needs of the Foundation's partners. One can foresee that such missions could be also implemented within the projects if such needs arise.

Furthermore, the FSPs with which the Foundation will collaborate within this project are usually from the private sector in their respective countries. They usually are considered as Non Bank Financial Institutions or cooperatives playing an important role in the financial inclusion of the clients they serve.

The Foundation has been actively involved with other actors from the private sector. It has a strong collaboration with BNP Paribas in France in the topics related to the projects, or with other peers (Microfinance Investment Vehicles), like RresponsAbility, Sidi, Alterfin, MCE, etc. All these private sector actors have a common goal to serve financially excluded persons and are increasingly keen to work on environmental and biodiversity issues. For sure, they will be interested in knowing about the projects and learning from the experiences and lessons learned through the project.

Lastly, the Grameen Credit Agricole Foundation will leverage the Climate and Biodiversity Positive Initiative for Smallholder Finance to further engage other private investors, part of the initiative and beyond, in using the framework and indicators developed in the present project to provide better conditions to FSP that are able to show progresses into their management of climate risks and generation of climate resiliency.

5. Risks to Achieving Project Objectives

Indicate risks, including climate change, potential social and environmental risks that might prevent the Project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the Project design (table format acceptable)

Risk description	Risk rating	Mitigation measures
Institutional risk at the FSP level ? weak institutional capacities and lack of implication at the governance level, which may prevent the management team to appropriate the project and engage in its implementation.	High	The capacity of the FSP's Board members and the Management team to be involved in the project will be a prerequisite in the FSP selection process upstream of the pilot phase.

<p>Human resource risk at the FSP level ? lack of 1/ availability and 2/ expertise of the team at the operational level to take the lead on the project, appropriate the objectives and implement it.</p>	<p>High</p>	<p>The involvement of the FSP's management team members and their capacity to allocate adequate resources to the implementation of the project will be a prerequisite in the FSP selection process upstream of the pilot phase. Moreover, tailor-made trainings are planned during the pilot phase to support the FSP's staff acquiring the needed knowledge.</p>
<p>Operational and technical risk ? difficulty to collect data in the field at final beneficiaries? level by FSP's staff, technical issues in reporting through the platform, complicating the provision of reliable data to analyze the results and apply sustainability-linked loan concept.</p>	<p>Medium</p>	<p>The project will include the provision of dedicated trainings and capacity building to FSPs. This will include conceptual training on climate risks and solutions; practical training on how to manage such risk and finance solutions; trainings on indicators as well as how to interpret results of analysis; monitoring and reporting mythology; as well as training on use of software platform solutions. The project will also provide ongoing support to MFI during the pilot: expert support as well as technical helpdesk support. Such ongoing training will contribute to generate capacities of FPSs to use the new tools and concepts and hence to mitigate this risk.</p>
<p>Market risk ? external shocks could increase volatility of the interest rates, which could impede negotiations between the FSPs and GCAF regarding the financing planned under a sustainability-linked loan scheme.</p>	<p>Medium</p>	<p>GCAF is used to deal with volatile currencies and hedging solutions to mitigate this risk.</p>

<p>Health risk ? Covid-19 pandemic revival in the countries of implementation limits operational capacities to develop the project.</p>	<p>Medium</p>	<p>After two years of the COVID-19 pandemic, countries have learned how to cope with a crisis situation, especially at FSPs and final beneficiaries levels. Moreover, resilience to the Covid-19 crisis will be one of the criteria included in the FSP selection process upstream of the pilot phase. The majority of the training will be done virtually, and the use of software technology will allow to ensure monitor and reporting without need of physical travels.</p> <p>This project will contribute to climate resilient recovery from the COVID-19 pandemic by focussing its efforts on: expanding finance for productive use, and, hence for economic and social recovery. Financing the agriculture and climate change adaptation part of the portfolio has been shown to contribute significantly to resilience during the crisis. Strengthening further the agriculture and climate change adaptation portfolio, with dedicated training and technology, as well as by expanding its importance within the FSP thanks to the dedicated finance provided in the project will also contribute to recovery from the pandemic. Hence, the project will contribute to enhance the resiliency of the FSPs against COVID -19 pandemic, and support climate resilience recovery of the clients of the FSPs and the FSPs themselves. It will also support healthy food generation for vulnerable communities, contributing to food security and providing health benefits that will strengthen their to COVID- 19 and potential other pandemics.</p>
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<p>Technological risk related to the software aiming at facilitating reporting work and centralizing data for funding vehicles ? the software is not robust, intuitive and flexible enough.</p>	<p>Low</p>	<p>The CBIFI will contract YAPU Solutions for the platform services and other technological expert services. YAPU Solutions has relevant experience since it was involved in the Climate & Biodiversity Positive Initiative for Smallholder Finance, at the origin of the set of indicators. YAPU has already developed and implemented similar digital solutions in more than 10 countries, for example in the frame of projects implemented for UN Environment (MEbA: https://unepmeba.org), for the Inter-American Development Bank (EcoMicro: https://ecomicroecuador.org.ec/en/), UN Environment and BNPP (MEbA Biodiversity platform: https://unepmeba.org/biodiversity-platform/), among others. Staff of the CBIFI has already conceptualized and developed software solutions for the assessment of environmental and climate performance of MFIs, e.g Digital Solution of Green Index 3.0 (https://www.e-mfp.eu/resources/green-index-20-innovative-tool-assess-environmental-performance-microfinance-sector-brief), among others.</p>
<p>Financial risk ? the implementation of the project does not fit into the allocated budget.</p> <p>Climate risk</p>	<p>Low</p> <p>Moderate</p>	<p>GCAF is a recognized player in the inclusive finance sector for its professionalism, and has already successfully managed several similar projects with constrained resources. Moreover, GCAF will jointly run the project with experienced professionals in the field of green microfinance and climate change, who demonstrated their expertise and ability to meet projects? objectives in the past.</p> <p>The climate screening has resulted in a moderate risk rating. Additional screening will be carried out during preparation to ensure that the risks identified are fully understood and addressed in the project design. The purpose of this project is to support smallholders to adapt to potential climate change impacts and strengthen their resilience.</p>

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

A Project Steering Committee will be organized by GCAF each quarter to report on progresses, resolve potential issues and answer questions of the project's members. This Steering Committee will be composed of:

- A representative from IFAD (per implementation countries, if it applies);
- A representative from GCAF;
- A representative from CBIFI;
- A representative from YAPU Solutions;
- A representative of each FSP involved in the project;
- GEF country focal point per country (if it applies).

One Steering Committee will be organized for the French-speaking FSPs and another for the English-speaking ones.

Stakeholder	Role in the project
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GCAF

GCAF as the main executing partner will be responsible for overall coordination of the project preparation and implementation, ensuring effective coordination with partners and that the project delivers intended results in an efficient manner.

In particular, GCAF will:

- Ensure the proper implementation of the activities and the respect of the schedule;
- Ensure the administrative follow-up of the project and be responsible for the reporting to IFAD;
- Be in charge of the mid-project assessment (recruitment of an external assessment firm/consultant, coordination and follow-up);
- Be involved in the implementation of the activities, in particular:
 - ? Definition of funding lines and processes specific for GCAF;
 - ? Definition of framework for blended finance scheme (in collaboration with CBIFI);
 - ? Identification and selection of 4 FSPs for piloting (in collaboration with IFAD);
 - ? Verification of accomplishment of conditions allowing a discount of interests;
 - ? Assessment of project results;
 - ? Knowledge sharing and stakeholders engagement for scaling (in collaboration with CBIFI).

GCAF will support through this project 4 FSPs that could be cooperative, NGOs or Non-Banking Financial Institutions. They will be selected during the project based on the social and financial eligible criteria of GCAF and in close relationships with IFAD, as such institutions could also be IFAD's partners.

GCAF will contract the CBIFI to implement part of the services for the present GEF project (see below).

CBIFI

The CBIFI will be in charge of the following activities :

? Strategic and operational advisory to GCAF to develop and implement specific financial product to finance climate change adaptation, as well as blended finance scheme (including processes, indicators, monitoring and reporting)

? Definition of financial product to finance climate change adaptation for private and public investors

? Development and delivery of trainings and capacity building to FSPs;

? Support to engage other inclusive finance investors in using the framework and indicators developed in the present project;

? Support in development of publication and other knowledge products and services.

? Assessment, audit and verification of actual climate change adaptation performance of FSPs, as well as progresses of FSPs according to the KPIs and targets agreed.

? Engagement of specialized software providers and ensuring the quality of the implementation of the technology in particular concerning the translation into software solutions and processes of the indicators, framework, monitoring and reporting developed in the project.

? Overall quality control of project concerning climate finance adaptation for smallholder farmers.

? The CBIFI will sub contract YAPU for the part of the project related to the software technology and other technical aspects.

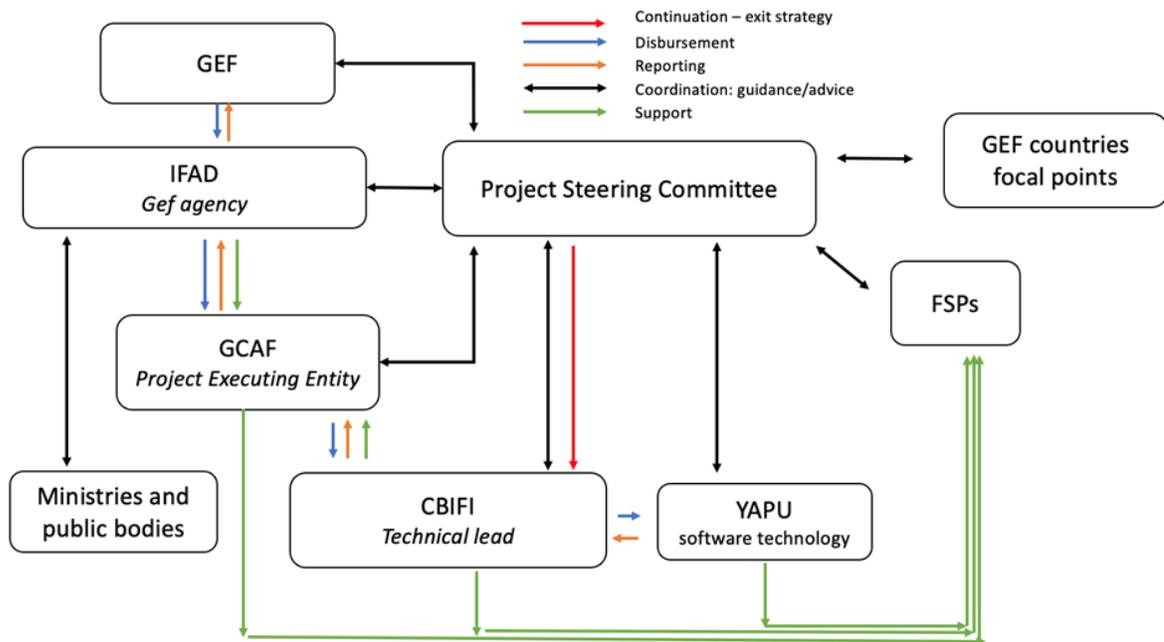
YAPU

YAPU will be in charge of the following activities

- ? Adaptation of the MEbA Biodiversity Platform to the processes, indicators, monitoring and reporting defined in the project
- ? Training on platform software use for FSPs
- ? Kick of of pilot and pilot monitoring, as well as helpdesk support along the pilot
- ? Provision of various users roles, and users access to the software platform
- ? Alignment of platform report to indicators of (adapted version of) the Climate and Biodiversity Positive Initiative for Smallholder Farmers.
- ? Expertise support in climate finance
- ? Ensuring pilot finalization and preparation of scaling up per each FSP.

<p>FSPs</p>	<p>Selected FSPs will be the main direct beneficiaries of the intervention designed in the project, including: trainings and capacity building, access to use of technology platform, as well as funding lines for climate change adaptation. In particular, FSPs will use the trainings and capacity building to include climate risks management as well as financing of CIRS into their risks management and products offer. They will use the funds provided in the project to finance smallholder farmers, in particular to support to build their climate resilience. They will use the software platform in order to i) collect, monitor and analyze climate data on their smallholder farmers clients, ii) better adapt their financing and verify the practices and technologies financed and iii) provide a reporting to their investors.</p> <p>At this stage of the project, while the FSPs that will benefit from the pilots have not been selected yet, FSPs of GCAF's portfolio, as well as indirectly their final beneficiaries part of the local communities, have already been indirectly engaged in the preparation of this project through a study. Conducted among 43 FSP partners (including 4 in Benin, 2 in Senegal and 1 in Zambia) between October and December 2021, this study is intended to serve as a basis for the environmental strategy of GCAF, with the objective of identifying the main environmental risks of the FSPs in GCAF portfolio and the form they take in the field, assessing the progress of the institutions, and designing appropriate support to meet their needs.</p> <p>In the second phase of the project, selected FSPs will be strongly involved in the preparation of the pilots, especially regarding the selection of the indicators and the due diligence work together with GCAF's team. A significant communication and awareness work among the staff and the final clients will be also performed by the selected FSPs to ensure a good understanding of the challenges faced by the local communities and an efficient data collection process.</p>
<p>Smallholder farmers</p>	<p>Smallholder farmers, clients from the selected FSPs, will be the main indirect target of the project.</p> <p>They will benefit from loans dedicated to the implementation of Climate Inclusive Rural Solutions. These loans will allow them to better manage their climate risks, implement sustainable agricultural practices. These practices will also allow them to adapt from climate change, improve their livelihoods and become more resilient when they have to face shocks.</p>

A simplified preliminary version of the coordination scheme can be found here below:



? Coordination with other GEF-financed projects and other initiative

The GEF supports other two Challenge Program projects for which IFAD serves at the GEF Agency. They are, respectively, the project *Certification of Climate Change Adaptation Portfolios of Inclusive Financial Service Providers for Scaling up Adaptation Finance for Smallholder Farmers* led by the BNPP-CBIFI and the project *SMARTFARM - A data and digital technology driven farm and farm management solution for climate resilience* led by Cropin Technology Solutions. There is no overlap of the present project with the these two projects. The present project and the BNPP-CBIFI led project have been designed to complement each other.

The BNPP-CBIFI led project focuses on the certification of the part of portofolio of an FSP that is actually financing climate change adaptation (an activity that is not implemented in the present project). This complements the work being carried out by this project, particularly in Senegal which is the only country in which both projects will be implemented. The present project in Senegal could indeed make use of the certification provided for the portfolio of FSP to strengthen the soundness of assessments carried out in the present project and ensure that the financing provided to the FSP will actually be allocated to expand or re-finance a sound portfolio dedicated to finance practices and technologies for climate change adaptation. To the extent possible, efforts will be made to identify an FSP that could participate in both projects and initialize the certification scheme in the BNPP project to support the loan disbursement for climate change adaptation in the present GEF project and ensure its quality.

On the other side, the funds provided in the present project to finance FSP to support its work on climate change adaption could be an nice reward to institutions in Senegal that have been certified by the project of the BNP Paribas. Both projects will also benefit from lessons learned in the other participating countries of both projects.

The project lead by CROPIN has no overlap with the present project neither in scope nor in location.

IFAD will mobilize its existing and forthcoming projects to support the project in terms of both demand and supply side intervention.

? General Synergies and complementarity between IFAD activities and the Present project

One of the core activities of the present project is to train institutions and raise awareness on climate change risks for their clients, and how to include it in their transactions.

IFAD is constantly and extensively working on the training and capacity building of smallholders, value chain actors, etc. i.e. the demand side, including how to prepare the business plan for receiving a green loan. I.E. the demand side intervention to fill the gap observed at the level of Demand.

The present project is focused on how to generate capacity and provide finance to FSPs, that will hence be able to finance smallholders and rural value chains that want to implement practices and technologies that support the generation of climate resilience. I.e. the Supply side intervention.

The two approaches are hence complementary and have great synergies to ensure at once solutions at both demand and supply side.

The more recent projects of IFAD and forthcoming ones in the countries of implementation of the present project will have a specific focus on supply side as well and in particular work with IFSPs to channel money that need to reach smallholder farmers to support their adaptation.

The climate change adaptation investment product, as well as the blended finance scheme developed in this project can be used in supply side intervention of IFAD to better disburse climate change adaptation finance, as well as to blend IFAD finance with private finance.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assesments under relevant conventions?

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

The project is consistent with the national strategies of the countries where it will be implemented, and in particular with the NDC and NAPs. Indeed in the adaptation of the indicators that will be used for the climate change adaptation investment product, we will ensure to consider and include climate

change adaptation practices and technologies for the agriculture practice and technologies part of the adaptation strategy of each country, as well as consider as target the priorities sectors described in the NDC and NAPs per country.

Senegal - National Determined Contribution and National Adaptation Plans[1]

Total cost of implementation of NDC is estimated at USD 21.07 billion. It is targeting the reduction by 21% in greenhouse gas emission in comparison to BAU, by 2030.

NDC implementation includes the following target activities, relevant for the present project (among others):

- In land use / land use change and forestry, the reduction of rate of deforestation by 25% by 2023 and the improved management of forested land to 60%.
- In agriculture, rice cultivation and agroforestry to reduce emissions.
- NDC also include adaptation strategies and activities to be implementation by 2030 for a cost of USD 14.27 billion. They include (among others):
 - ? In agriculture / climate smart agriculture: the promotion of technologies for sustainable management, improvement of plant and forest production, promotion of agriculture insurance.
 - ? In livestock: the development of pastoral units and pastoral insurance.
 - ? In environment and biodiversity: the implementation of the (i) National Strategy and Action Plan on Biodiversity, and (ii) National Policy on Wetland Management, to strengthen the resilience of ecosystems.

The findings of the NAP in November 2018 highlighted the fact that in Senegal, ?significant efforts are still required to integrate climate change adaptation into all the key climate-sensitive sectors?.

Benin - National Determined Contribution and National Adaptation Plans[3]

Benin?s first NDC was submitted in December 2017, and consisted of both mitigation and adaptation components. Benin enhanced its NDC in 2021. This latter version mentions an objective to reduce Greenhouse Gas (GHG) emissions by 20.15% between 2021 and 2030.

The implementation of the NDC is based on a sectoral approach, with a focus on agriculture, energy, forestry and waste management. Because Benin is part of the Least Developed Countries (LDCs) and due to its development objectives, adaptation remains a priority for the country.

The development of Intended Nationally Determined Contributions (INDCs) for Benin has been supported by France (Technical Support, through Expertise France), and GEF (Financial support, through UNEP). Total cost of implementation of NDC is estimated at USD 30.48 billion (mitigation and adaptation).

NDC implementation includes the following target activities, relevant for the present project:

Agriculture, especially promoting specific biological fertilizer and other organic inputs for sustainable soil fertility management.

Land Use and Forestry, especially through the development of natural forests and strengthening reforestation / planting efforts.

NDC also include adaptation strategies and activities to be implementation by 2030 for a cost of USD 18.35 billion. They include:

Disaster Risks Management;

Biomass energy;

Health and Malnutrition and agriculture, especially in promoting agricultural production systems adequate for climate change adaptation, food security and nutrition;

Climate Smart Agriculture;

Water- Water management.

Several adaptation projects have been implemented in Benin in the past decade, including four NAPA projects funded by the Least Developed Countries Fund of the GEF.

Zambia - National Determined Contribution and National Adaptation Plans[4]

Zambia's first NDC was submitted on December 9, 2016, and consisted of both mitigation and adaptation components based on the country's national circumstances. This NDC was submitted with a conditional pledge of reducing Greenhouse Gas (GHG) emissions by 25% (20,000 Gg CO₂ eq.) by 2030 against a base year of 2010 under the Business As Usual (BAU) scenario with limited international support or by 47% (38,000 Gg CO₂ eq.) with substantial international support.

Zambia enhanced its NDC in 2021 by broadening the scope of sectors under mitigation by adding transport, liquid waste and coal (production, transportation and consumption) and by elaborating the adaptation component of the NDC by developing indicators that will enable the country track progress on building resilience in both the human and physical systems and on adaptation actions.

The development of Intended Nationally Determined Contributions (INDCs) for Zambia has been supported by the US (Technical Support) and France (Technical Support, through Expertise France), GEF (Financial support, through UNEP). The Total cost of implementation of NDC should be USD 55 billion. The target is 47% reduction compared to base year 2010, 38 MtCO₂ eq per year reduction.

NDCs contain relevant climate change adaptation activities for an estimated cost of implementation of USD 20 billion by 2030. They include (among others):

- Agriculture /Climate Smart Agriculture, and in particular:
 - o Development and implementation of policy incentives for farm diversification;
 - o Promotion of climate smart agricultural practices.
- Environment / Ecosystems and Biodiversity.
- Water conservation and reuse.
- Disaster risk management, with the development of an insurance market against climate change induced risks related to agriculture and infrastructure.
- Capacity Building and knowledge transfer to mainstream climate change adaptation into country development plans and strategies.

As a response to climate change, Zambia has been implementing a number of projects[5].

[1] Intended Nationally Determined Contribution ? (I) NDC Climate Policy Team , World Bank Group , 2016;
<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Senegal%20First/CDNSenegal%20approved?e-pdf-.pdf>

[2] National Adaptation Plans in focus: Lessons from the Republic of Senegal (UNDP, UN Env, GEF)

[4] Intended Nationally Determined Contribution ? (I) NDC Climate Policy Team , World Bank Group , 2016;
<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Senegal%20First/CDNSenegal%20approved?e-pdf-.pdf>

[5] National Climate Change Response Strategy (NCCRS) Zambia, Final Draft

8. Knowledge Management

Outline the knowledge management approach for the Project, including, if any, plans for the Project to learn from other relevant Projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

Outline the 'Knowledge Management Approach' for the project and how it will contribute to the project's overall impact, including plans to learn from relevant projects, initiatives and evaluations. [1]

Activities will be implemented in three broad areas: knowledge generation, knowledge use, and building the enabling institutional environment for evidence-based learning and knowledge sharing.

GCAMF will raise awareness about and communicate the results of the project through:

- Following the pilot assessment, elaboration and consolidation of the results in both a paper and a visual presentation with proposals for future development;
- Presentation of the project's results through the organization of roundtables, webinars and exchanges sessions with all project's stakeholders ;
- Articles, press releases and newsletter, in particular the Crédit Agricole newsletter (more than 80,000 recipients);
- A specific part of the Foundation's Annual Report devoted to the project;
- The publication in the "Letter of the Foundation" of articles concerning the project.

Knowledge Management and dissemination is part of the core mission of the CBIFI. The CBIFI will make sure that the lessons learnt and results of the present project will be shared with other private and public investors as well as with the sector at large and with civil society to support the needed green and climate transition. The CBIFI supports knowledge generation through its participation in events, development of publications, inclusion of lessons learnt in its database for the benefit of the sector, and through the outreach of its members and the initiatives it is related to. Ongoing communication on the project achievement will be ensured as well as an ongoing learning process with the sector.

The full output 2.1 of the project 'Pilot results assessed through a consultative process with stakeholders and results and lessons learned disseminated' deals with knowledge management and it aims in particular to:

- Assess project results and generate lessons learnt for the sector;

- Engage into dialogue with stakeholders to improve criteria, conditions and processes of the framework and indicators developed;
- Organize an event to disseminate the results of the project;
- Produce a short white paper on the framework and indicators of the project.

[1] <https://www.ifad.org/en/-/document/knowledge-management-strategy>

9. 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
Low			

Measures to address identified risks and impacts

Provide preliminary information on the types and levels of risk classifications/ratings of any identified environmental and social risks and potential impacts associated with the project (considering the GEF ESS Minimum Standards) and describe measures to address these risks during the project design.

Environmental and social safeguards

A preliminary assessment of environmental and social risk results in a low risk rating. A copy of the IFAD E&S Safeguard Screening and Climate Risk Screening is attached as an Annex This is only a very preliminary assessment. Further assessment will be done during preparation of the full proposal and any risk mitigation measures identified. It is hence possible that the ratings will evolve as well as the mitigation measures identified.

Climate risk Screening

The preliminary result of the analysis done has revealed a climate moderate risk. One of the reasons for this risks rating is that the answers to some of the questions still need to be determined. Additional

screening will be carried out during preparation to ensure that the risks identified are fully understood and addressed in the project design.

Supporting Documents

Upload available ESS supporting documents.

Title	Submitted
IFAD_GEF_PIF_MSP_FGCA_SECAP_ESC_Screening	

Part III: Approval/Endorsement By GEF Operational Focal Point(S) And GEF Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Delphin AIDJI	Council Member for the constituency of Benin, Cote d'Ivoire, Ghana, Guinea, Liberia, Nigeria, Sierra Leone, Togo and Operational Focal Point since 2022-01-24,	Ministere du Cadre de Vie et du Developpement Durable - Benin	4/12/2022
Godwin Fishani Gondwe	Director Environment Management Department - GEF Operational Focal Point -zambia	Ministry of Green Economy and Environment - Zambia	4/14/2022
Baba Drame	Directeur de l'Environnement et des Etablissements classes	Ministere de l'Environnement et du Developpement Durable	5/18/2022

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place

The project will be implemented in Africa (Benin, Senegal, Zambia). The actual FSPs that will receive the first financing from the climate change adaptation will be selected at the beginning of the project. Geo-information and maps where the intervention will take place will become available once the FSPs participating in the project will be known.

