



## **Certification of Climate Change Adaptation Portfolios of Inclusive Financial Service Providers for Scaling up Adaptation Finance for Smallholder Farmers (?CCA Certificates 4 IFSPs?)**

### **Part I: Project Information**

#### **GEF ID**

11002

#### **Project Type**

MSP

#### **Type of Trust Fund**

MTF

#### **CBIT/NGI**

CBIT **No**

NGI **No**

#### **Project Title**

Certification of Climate Change Adaptation Portfolios of Inclusive Financial Service Providers for Scaling up Adaptation Finance for Smallholder Farmers (?CCA Certificates 4 IFSPs?)

#### **Countries**

Global, Morocco, Senegal

#### **Agency(ies)**

IFAD

#### **Other Executing Partner(s)**

BNP Paribas

#### **Executing Partner Type**

Private Sector

#### **GEF Focal Area**

Climate Change

#### **Taxonomy**

Focal Areas, Climate Change, Climate Change Adaptation, Climate finance, Influencing models, Demonstrate innovative approaches, 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**

Enabling Activity

**Rio Markers**

**Climate Change Mitigation**

Climate Change Mitigation 0

**Climate Change Adaptation**

Climate Change Adaptation 2

**Duration**

24 In Months

**Agency Fee(\$)**

78,082.00

**Submission Date**

5/25/2022

**A. Indicative Focal/Non-Focal Area Elements**

<b>Programming Directions</b>	<b>Trust Fund</b>	<b>GEF Amount(\$)</b>	<b>Co-Fin Amount(\$)</b>
CCA-2	LDCF	328,767.00	1,892,000.00
CCA-2	SCCF-A	493,151.00	2,838,000.00
<b>Total Project Cost (\$)</b>		<b>821,918.00</b>	<b>4,730,000.00</b>

**B. Indicative Project description summary**

**Project Objective**

Increasing smallholder farmers' access to climate adaptation finance .

<b>Project Component</b>	<b>Financing Type</b>	<b>Project Outcomes</b>	<b>Project Outputs</b>	<b>Trust Fund</b>	<b>GEF Amount(\$ )</b>	<b>Co-Fin Amount(\$)</b>
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Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1. Establishment of Climate Change Adaptation portfolio Certification Scheme for Inclusive Finance Service Providers	Technical Assistance	<p><b>1. Increased investments in Climate Change Adaptation</b></p> <p>Up to 15 IFSPs in 3 countries committed to increase adaptation finance to smallholder producers and rural communities</p>	<p>LDCF 40%</p> <p><b>Output 1.1:</b></p> <p>Climate Change Adaptation portfolio certification scheme established</p> <p>(1 Manual with certification process and tools description;</p> <p>1 White paper on <i>Climate Change Adaptation Taxonomy/standards for Inclusive Finance</i> established;</p> <p>1 Climate Change Adaptation Guideline;</p> <p>1 Training module for use of certification for IFSPs)</p> <p><b>Output 1.2:</b></p> <p>Climate Change Adaptation portfolio certification scheme piloted, in 3 countries involving 3 IFSPs.</p> <p>(Report on Portfolio analysis for 3 IFSPs; Verification of portfolio content for 3 IFSPs; Certifications of climate change adaptation content for the portfolio of</p>	LDC F	207,166.00	1,192,206.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1. Establishment of Climate Change Adaptation portfolio Certification Scheme for Inclusive Finance Service Providers	Technical Assistance	<p><b>1. Increased investments in Climate Change Adaptation</b></p> <p>Up to 15 IFSPs in 3 countries committed to increase adaptation finance to smallholder producers and rural communities</p>	<p>SCCF - A : 60%</p> <p><b>Output 1.1:</b></p> <p>Climate Change Adaptation portfolio certification scheme established</p> <p>(1 Manual with certification process and tools description;</p> <p>1 White paper on <i>Climate Change Adaptation Taxonomy/standards for Inclusive Finance</i> established;</p> <p>1 Climate Change Adaptation Guideline;</p> <p>1 Training module for use of certification for IFSPs)</p> <p><b>Output 1.2:</b></p> <p>Climate Change Adaptation portfolio certification scheme piloted, in 3 countries involving 3 IFSPs.</p> <p>(Report on Portfolio analysis for 3 IFSPs; Verification of portfolio content for 3 IFSPs; Certifications of climate change adaptation content for the portfolio of</p>	SCCF-A	310,749.00	1,788,309.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2. Knowledge management, monitoring and evaluation	Technical Assistance	<p><b>2. Enhanced knowledge and capacity supported by monitoring and evaluation</b></p> <p>Private and public investors enabled to use the certification of climate change adaptation portfolio to drive their investments in climate change adaptation for smallholder farmers</p>	<p>LDCF : 40%</p> <p><b>Output 2.1:</b> Climate Change Adaptation portfolio certification scheme assessed and knowledge shared</p> <p>(1 White paper on <i>Climate Change Adaptation</i> certification scheme for investors (public / private);</p> <p>1 updated manual with certification process and tools description including lessons learnt from first pilot;</p> <p>1 updated Climate Change Adaptation Guideline including sector stakeholders feedback;</p> <p>1 set of communication and certification material for IFSPs; 1 virtual workshop with sector stakeholders;</p> <p><b>Output 2.2:</b> Capacity building for inclusion of Climate Change portfolio certification delivered to private and public investors</p> <p>(1 Module of training for Investors on climate change adaptation portfolio</p>	LDC F	91,713.00	527,794.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 2. Knowledge management, monitoring and evaluation	Technical Assistance	<p><b>2. Enhanced knowledge and capacity supported by monitoring and evaluation</b></p> <p>Private and public investors enabled to use the certification of climate change adaptation portfolio to drive their investments in climate change adaptation for smallholder farmers</p>	<p>SCCF-A: 40%</p> <p><b>Output 2.1:</b> Climate Change Adaptation portfolio certification scheme assessed and knowledge shared</p> <p>(1 White paper on <i>Climate Change Adaptation</i> certification scheme for investors (public / private);</p> <p>1 updated manual with certification process and tools description including lessons learnt from first pilot;</p> <p>1 updated Climate Change Adaptation Guideline including sector stakeholders feedback;</p> <p>1 set of communication and certification material for IFSPs; 1 virtual workshop with sector stakeholders;</p> <p><b>Output 2.2:</b> Capacity building for inclusion of Climate Change portfolio certification delivered to private and public investors</p> <p>(1 Module of training for Investors on climate change adaptation portfolio</p>	SCCF-A	137,570.00	791,691.00

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
				<b>Sub Total (\$)</b>	<b>747,198.00</b>	<b>4,300,000.00</b>
<b>Project Management Cost (PMC)</b>						
	LDCF		29,888.00		172,000.00	
	SCCF-A		44,832.00		258,000.00	
	<b>Sub Total(\$)</b>		<b>74,720.00</b>		<b>430,000.00</b>	
	<b>Total Project Cost(\$)</b>		<b>821,918.00</b>		<b>4,730,000.00</b>	

Please provide justification

**C. Indicative sources of Co-financing for the Project by name and by type**

<b>Sources of Co-financing</b>	<b>Name of Co-financier</b>	<b>Type of Co-financing</b>	<b>Investment Mobilized</b>	<b>Amount(\$)</b>
GEF Agency	IFAD	In-kind	Recurrent expenditures	2,250,000.00
GEF Agency	IFAD	Loans	Investment mobilized	2,250,000.00
Private Sector	BNP Paribas	In-kind	Recurrent expenditures	80,000.00
Private Sector	BNP Paribas	Grant	Investment mobilized	150,000.00
<b>Total Project Cost(\$)</b>				<b>4,730,000.00</b>

**Describe how any "Investment Mobilized" was identified**

Identification of Investment Mobilized: IFAD: discussion with Countries Directors and identification of synergies with existing and forthcoming projects of IFAD in the same countries, and estimation of % of IFAD projects that can be mobilized to support the implementation of the present project. BNPP: discussion with BNPP and definition of contribution of BNPP for additional capacity building for IFSPs

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

<b>Agency</b>	<b>Trust Fund</b>	<b>Country</b>	<b>Focal Area</b>	<b>Programming of Funds</b>	<b>Amount(\$)</b>	<b>Fee(\$)</b>	<b>Total(\$)</b>
IFAD	LDC F	Global	Climate Change	NA	328,767	31,233	360,000.00
IFAD	SCCF -A	Global	Climate Change	NA	493,151	46,849	540,000.00
<b>Total GEF Resources(\$)</b>					<b>821,918.00</b>	<b>78,082.00</b>	<b>900,000.00</b>

**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(\$)
<b>Total Project Costs(\$)</b>					<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Meta Information - LDCF

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LDCF true

SCCF-B (Window B) on technology transfer false

SCCF-A (Window-A) on climate Change adaptation false

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Is this project LDCF SCCF challenge program?

true

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

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

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

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

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This Project has an urban focus. false

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

Agriculture	<b>100.00%</b>
Natural resources management	<b>0.00%</b>
Climate information Services	<b>0.00%</b>
Costal zone management	<b>0.00%</b>
Water resources Management	<b>0.00%</b>
Disaster risk Management	<b>0.00%</b>
Other infrastructure	<b>0.00%</b>
Health	<b>0.00%</b>
Other (Please specify:)	<b>0.00%</b>
Total	<b>100%</b>

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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 false

Land degradation true

Costal and/or Coral reef degradation false

GroundWater quality/quantity false

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## Core Indicators - LDCF

<b>CORE INDICATOR 1</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>% for Women</b>
Total number of direct beneficiaries	30,000	15,000	15,000	50.00%

<b>CORE INDICATOR 2</b>	
Area of land managed for climate resilience (ha)	1,200.00

**CORE INDICATOR 3**

Total no. of policies/plans  
that will mainstream climate resilience 3

**CORE INDICATOR 4**

		<b>Male</b>	<b>Female</b>	<b>% for Women</b>
Total number of people trained	38	19	19	50.00%

**Meta Information - SCCF**

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LDCF false

SCCF-B (Window B) on technology transfer false

SCCF-A (Window-A) on climate Change adaptation true

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Is this project LDCF SCCF challenge program?

true

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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	<b>100.00%</b>
Natural resources management	<b>0.00%</b>
Climate information Services	<b>0.00%</b>
Costal zone management	<b>0.00%</b>
Water resources Management	<b>0.00%</b>
Disaster risk Management	<b>0.00%</b>
Other infrastructure	<b>0.00%</b>
Health	<b>0.00%</b>
Other (Please specify:)	<b>0.00%</b>
Total	<b>100%</b>

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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 false

Land degradation true

Costal and/or Coral reef degradation false

GroundWater quality/quantity false

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## Core Indicators - SCCF

<b>CORE INDICATOR 1</b>	<b>Total</b>	<b>Male</b>	<b>Female</b>	<b>% for Women</b>
Total number of direct beneficiaries	45,000	22,500	22,500	50.00%

<b>CORE INDICATOR 2</b>	
Area of land managed for climate resilience (ha)	1,800.00

<b>CORE INDICATOR 3</b>	
Total no. of policies/plans that will mainstream climate resilience	5

**CORE INDICATOR 4**

Total number of people trained

57

**Male**

28

**Female**

29

**% for Women**

50.88%

## Part II. Project Justification

### 1a. Project Description

#### 0. Introduction

Smallholder farmers[1]<sup>1</sup> in Latin America and Africa produce up to 60-80% of their countries' food and play a crucial role for their countries' food security and income generation. Despite their key importance, smallholder farmers are often linked to underdeveloped value chains, they are among the poorest in their community, and they are amongst the most vulnerable to degrading ecosystems and adverse climate change effects. Climate change increases the frequency and intensity of droughts, floods, frosts and storms, as well as enhances the unpredictability of weather patterns, and it modifies temperature and rain conditions affecting productivity of crops and animal breeding. This leads to enhanced risks of harvest, animal and other assets losses, higher exposure to price fluctuations, and higher uncertainties in the planning of the productive cycles, and hence income reduction for smallholder farmers. Even though most smallholder farmers intuitively or traditionally apply climate change adaptation practices such as Nature-based Solutions (NbS)[2]<sup>2</sup>, Ecosystems based Adaptation (EbA)[3]<sup>3</sup>, or Community based Adpation (CbA)[4]<sup>4</sup>, among others, the access to finance these, as well as capacity building to implement them, is limited. When finance is available, it is often expensive, not tailored to adaptation needs, and loan conditions do not take into consideration the reduction of risk profiles of smallholder farmers due to the implementation of climate change adaptation practices and technologies.

***The lack of dedicated finance solutions to finance climate change adaptation practices and technologies is one of the main barriers to smallholder farmers to enhance their climate resilience and improve their livelihoods.***

Smallholder farmers access to finance through different channels, among which off-takers and value chains, cooperatives, microfinance institutions, local banks, new fintechs, among others, i.e. Inclusive Financial Service Providers (IFSPs). IFSPs often finance some climate change adaptation practices and technologies such as NbS with their own standard credit products, but this remains anecdotal, verification and the quality of implementation of such practices and technologies is not verified neither monitored, and their capacity to generate climate change resilience cannot be proven and reported. IFSPs hence face numerous constraints to scale up dedicated financial services for climate adaptation. Rural clients are oftentimes logistically difficult to reach and smallholder farmers are often perceived as high risk. Nevertheless the financing of climate change adaptation for smallholders is becoming more and more important in the agenda of both public and private investors that are providing loans, equity or technical assistance to IFSPs. Private and public investors are starting to recognize investing in climate change adaptation generates higher impacts and decreases the risks of their investment. Investors are hence becoming willing to support IFSPs with financial incentives as well as non-financial interventions. Nevertheless, investors are unable to assess the content of IFSPs portfolio in

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terms of climate finance, and hence they cannot align their incentives and intervention towards climate change adaptation. The result is a game with many disadvantages: IFSPs cannot expand their outreach towards rural areas and agriculture production, investors cannot achieve their climate impacts, but the most negatively impacted are clearly smallholder farmers exposed to higher climate vulnerability and higher risks of poverty traps.

## 0.1 Barriers for financing climate change adaptation for smallholder farmers

Hence, increasing smallholder farmers' access to climate adaptation finance is a key barrier [5] to enhance smallholder farmers' ability to adapt to climate change. Therefore, it is necessary to address the barriers to why IFSPs, as a key actors, don't tap into climate adaptation finance for smallholder farmers.

This barrier is due to structural market barriers of financial institutions. The project focuses on IFSPs with various levels of potential and opportunity to tap into these markets and it analyzes in the following section which barriers they face to further enhance finance for climate adaptation.

*Public and private financial investments to incentivize IFSPs to finance climate change adaptation is low and the mechanisms that exist don't cover the amounts needed to finance adaptation for smallholder farmers.*

This key problem has its origin on a set of barriers (at investors level) that need to be overcome to solve it, among which :

? **A lack of shared metrics for climate adaptation finance:** IFSPs and investors lack shared standards, indicators and recognized taxonomies of climate change adaptation practices and technologies to make wise financial investment decisions and allocate funds towards more resilient, revenue generating, and socio-environmentally sustainable activities.

? **Lack of knowledge** over the potential impact of current and anticipated risks of climate change and its integration into investments decisions. This includes lack of IFSPs' and smallholder farmers' data gathered over the climate change adaptation which prevents from taking relevant decision on ways to mitigate climate change risks by clients and investments

? **Lack of prioritization** of climate change adaptation problems and solutions in the assessment of profitability of customers and investments

? **Lack of transparency** over the practices and technologies implemented by smallholder farmers and actually financed by IFSPs with portfolio re-financed by investors

The project will address the key barriers and will hence contribute to solve the key problem.

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Such barriers are relevant at regional level, but vary in their extent in the countries foreseen for the implementation of the present project. This will be further highlighted in the baseline descriptions.

## *2) the baseline scenario and any associated baseline projects*

### **1. Regional view[6]<sup>6</sup>**

After island countries, the African continent is at the forefront of our global climate emergency. Nevertheless Africa is paying high interest to manage climate related issues to which it has contributed the least. One of the reasons for this is the lack of investments that can generate climate resilience.

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, GCA, 2021)[7]<sup>7</sup>. In Africa, agricultural productivity growth has been reduced by 34% since 1961 due to climate change, more than any other region[8]<sup>8</sup>. In Western Sub-Saharan Africa alone more than 60% of the population depends directly or indirectly on smallholder farmer units for food security and income generation.[9]<sup>9</sup> 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[10]<sup>10</sup>. Changes in seasonal patterns are already reducing yields in major food crops and the rise in extreme weather events due to climate change will further heighten food insecurity for millions of Africans[11]<sup>11</sup>.

In Western Sub-Saharan Africa indeed mean temperatures are projected to increase of 2°C and 4°C on average, while precipitations are projected to be 3.5% and 3.8% by the end of the century under 2°C and 4°C climate scenario[12]<sup>12</sup>.

In Northern Africa mean temperatures are projected to increase of 2.6°C and 4.9°C on average, while precipitations are projected to decrease by -6.4 % (with pick of -9.8% in the coastal region) and -10.9 % (with pick of -17.4% in the coastal region) by the end of the century under 2°C and 4°C

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scenario[13]<sup>13</sup>. The farming and ecological context of Northern Africa is different from Sub Saharan Africa. For example Morocco has made progress in recent years to expand irrigation for commercial agriculture. Significant efforts have been made to increase water productivity in agriculture, leading to the integration of localized, on-farm irrigation (drip and sprinkler), and an increase of 3.5 times agricultural areas using modern on-farm irrigation techniques in the period 2008-18. Nevertheless also in Northern Africa water resources are projected to decline due to increased arid periods and drought conditions. For example Morocco is also likely to experience an increase of drought and flooding in some areas as well as other climate related hazards. Specific impacts have been indeed already observed on agriculture. Africa presently the recipient of many climate change adaptation endeavors, such as the great green wall (GGW) initiative[14]<sup>14</sup> that is aiming to plant a wall of trees stretching across the entire Sahel for 8000 Km, and promoting water harvesting techniques, greenery protection and improving indigenous land use techniques, aimed at creating a mosaic of green and productive landscapes across North Africa. Among interesting adaptation solutions, we find Nature-based Solutions.

From data collected from 110+ field officers of IFSPs in Sub- Saharan Africa (2019-21)[15]<sup>15</sup>, it results that their smallholder farmers' clients are often exposed to climate change hazards. 94% of loan officers report that their smallholder farmers have been affected by at least one hazard in the last years, with the most relevant hazards reported being change in rainfall patterns, heat extremes, abrupt temperature change.

Entity	Statistic	Temperature-related Hazards					Precipitation-related Hazards				Strong Winds
		At Least One Hazard	At Least One Hazard	Frost	Heat Extremes	Abrupt Temp. Chg.	At Least One Hazard	Hail	Heavy Rain	Change of Rainfall Patterns	Strong Winds
SSA	Observations	114	111	103	110	110	114	107	110	113	110
	% Reporting	94%	80%	22%	55%	49%	91%	27%	44%	85%	37%

Such hazards often have a hard impact on the productive systems of smallholder farmers. Indeed field officers or IFSPs report that 94% of their clients have been impacted by climate change with most relevant impacts being productivity losses, crop losses, crop damage, reduced water availability.

Entity	Statistic	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 Pests	Phenological Changes	Reduced Water Availability
		SSA	Observations	114	111	111	112	111	107	104	111	109	110	109	109	107
	% Reporting	94%	64%	67%	53%	82%	50%	18%	31%	27%	21%	39%	15%	35%	19%	56%

For smallholder farmers clients of IFSPs such climate impacts often translate into a financial and economic impact (i.e. for more than 91% of the cases), such as increased cash flow variability and loss of income sources.

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

Latin America and Caribbean (LAC), as well, is projected to be strongly affected by climate change. According to IPCC[16]<sup>16</sup> mean temperatures have *very likely* increased in all sub-regions and will continue to increase at rates greater than the global average (*high confidence*). Mean precipitation is projected to change in heterogeneous ways affecting subregions in different ways. In Northeastern South America for example mean temperatures are projected to increase of 2.1°C and 4.3°C on average, while precipitations are projected to increase by 3.8% and 5.2% by the end of the century under 2°C and 4°C scenario[17]<sup>17</sup>.

In LAC, as well, agriculture is an important source of employment, with 14% of the region's labor force engaged in agricultural activities, and 54.6% of the rural labor force (IICA). The 16.6 million smallholder farms throughout Latin America[18]<sup>18</sup> accounts for 81.3% of all farms in the region and between 27% and 67% of total crop production (depending on the country). 60% of all smallholder farmers in Latin America are classified as subsistence farmers, among which women are worse off particularly due to the difficulty to access employment, land and agriculture assets. During 2020, in Latin America and the Caribbean, 267 million people experienced moderate or severe food insecurity. In 2020, 59.7 million people in LAC suffered from hunger which is 13.8 million people more than in 2019[19]<sup>19</sup>. According to the International Water Management Institute (IWMI), 87% of farmed land in Latin America depends on rainfed sources . The region is particularly susceptible to climate events like El Niño and La Niña, as well as extreme weather conditions, such as drought and flooding. The FAO[20]<sup>20</sup> estimates that severe climate cost the LAC agriculture sector over \$13 billion in crop and livestock losses between 2005 and 2015[21]<sup>21</sup>.

From data collected from 1300+ field officers of IFSPs in Latin America and Caribbean (2019-21)[22]<sup>22</sup>, it results that their smallholder farmers' clients are often exposed to climate change hazards. 96% of loan officers report that their smallholder farmers have been affected by at least one hazard in the last years, with the most relevant hazards reported being change in rainfall patterns , heavy rains, heat extremes.

Entity	Statistic	Temperature-related Hazards					Precipitation-related Hazards				Strong Winds
		At Least One Hazard	At Least One Hazard	Frost	Heat Extremes	Abrupt Temp. Chg.	At Least One Hazard	Hail	Heavy Rain	Change of Rainfall Patterns	Strong Winds
LAC	Observations	1379	1334	1248	1314	1291	1373	1247	1293	1357	1279
	% Reporting	96%	88%	34%	73%	69%	90%	24%	75%	82%	57%

Such hazards often have a hard impact on the productive systems of smallholder farmers. Indeed field officers or IFSPs report that 94% of their clients have been impacted by climate change with most relevant impacts being productivity losses, crop losses, drought, and the need for more inputs.

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Entity	Statistic	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
LAC	Observations	1376	1285	1319	1276	1318	1115	1211	1328	1240	1246	1268	1260	1288	1245	1275
	% Reporting	94%	70%	71%	66%	75%	46%	16%	68%	33%	26%	40%	26%	59%	31%	59%

For smallholder farmers clients of IFSPs such climate impacts often translate into a financial and economic impact (i.e. for more than 94% of the cases), such as increased cost of crop production and decrease income per unit of production.

Entity	Statistic	At Least One Consequence	Decreased Income per Unit	Increased Cash Flow Variability	Increased Cost of Crop Production	Loss of Income Sources
LAC	Observations	1350	1288	1301	1302	1290
	% Reporting	94%	76%	70%	79%	74%

Climate change adaptation is hence a pressing emergency in Africa and LAC, in particular for smallholder farmers and rural communities. From data collected from 1400+ field officers of IFSPs in Latin America and Caribbean and Sub-saharan Africa it is possible to observe many smallholder farmers already implement NbS or EbA (99% in SSA and 95% in LAC).

Entity	Statistic	At Least One NbS	Organic Agriculture	Conservation Agriculture	Ecological agriculture	Organic inputs	Apiculture	Seed Bank	Windbreaks	Biodigesters	Fog Collectors	Solar dehydrators	Crop diversification	Agricultural Drainage	Efficient Stoves	Firebreak strips	Improved pasture	Direct drilling
SSA	Observations	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
	% Reporting	99%	49%	24%	8%	47%	10%	30%	7%	10%	0%	3%	63%	47%	10%	13%	0%	22%
	Observations	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
	% Reporting	2%	29%	8%	5%	16%	3%	1%	33%	11%	20%	58%	15%	6%	5%	7%	0%	10%
	Observations	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
	% Reporting	16%	0%	0%	3%	6%	19%	39%	30%	3%	21%	0%	35%	6%	12%	18%	8%	1%

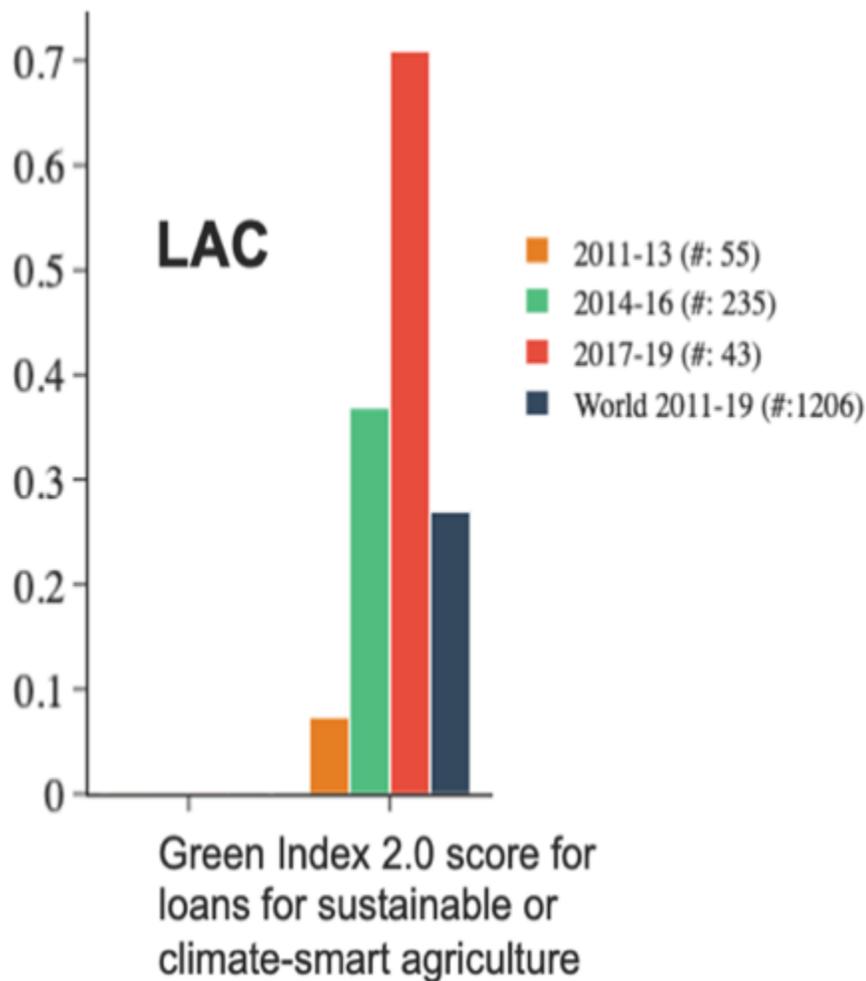
Entity	Statistic	At Least One NbS	Organic Agriculture	Conservation Agriculture	Ecological agriculture	Organic inputs	Apiculture	Seed Bank	Windbreaks	Biodigesters	Fog Collectors	Solar dehydrators	Crop diversification	Agricultural Drainage	Efficient Stoves	Firebreak strips	Direct drilling
LAC	Observations	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311
	% Reporting	95%	59%	21%	22%	51%	31%	25%	16%	10%	2%	3%	37%	21%	5%	4%	6%
	Observations	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311
	% Reporting	2%	41%	49%	13%	25%	10%	11%	27%	38%	45%	8%	8%	6%	24%	2%	
	Observations	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311	1311
	% Reporting	11%	11%	1%	1%	3%	6%	10%	4%	4%	29%	5%	10%	26%	20%	8%	6%

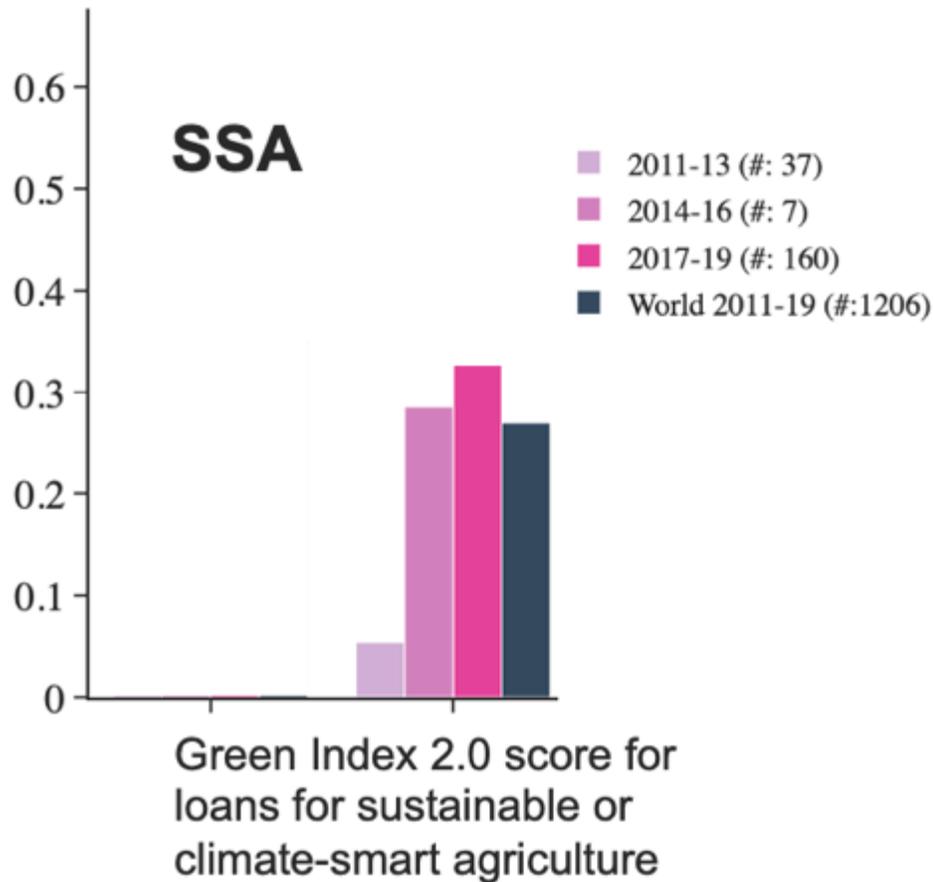
But very often the smallholder farmers have not received any training or capacity building, neither the IFSPs has a dedicated loan product to finance NbS or EbA.

Indeed, 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 estimates that between 2017-2018, only around 1,7% (10 billion USD) of total climate financing flowed to smallholder farmers in developing countries[23]<sup>23</sup>.

The needs and demand for practices and technologies to support the generation of climate resiliencies for smallholder farmers, and in particular NbS, EbA or CbA, has been understood since a while. IFSPs have indeed started to proactively look to develop capacity to finance climate change adaptation and in particular NbS or EbA in the last 10 years. It can indeed be observed that the number of IFSPs that engage in developing and disbursing loans for climate change adaptation for smallholder farmers and rural communities, and in particular NbS or EbA, has increased and is constantly increasing since 2011 in Latin America and Caribbean, as well as in Africa[24]<sup>24</sup>.





In particular the development of Ecosystem-based Adaptation, using biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change, has been highlighted a particularly promising in term of synergies between smallholder farmers livelihood generation and climate change adaptation. Indeed The benefits of EbA are ecosystem-based, it restores and maintains and strengthens terrestrial ecosystems and promotes the sustainable management and use of natural resources . The inclusion of Community-based Adaptation (CbA), consisting of community-led processes that build on local priorities, needs, knowledge and capacities, which seek to empower communities to cope with the short- and long-term impacts of climate change, is of material importance to engage local community and leverage local knowledge ensuring sustainable, adapted and accepted adaptation. Indeed social benefits identifies the needs of communities, promotes mixed and diversified economic alternatives, encourages community participation and decision making, and provides spaces for articulation between local, regional and national policies.

8 years of implementation of the project Microfinance for Ecosystems based Adaptation (MEbA)[27]<sup>25</sup> has shown that the part of the portfolio of IFSPs that finances NbS or EbA has lower risks, and hence supported the thesis that NbS and EbA can reduce smallholder farmers' vulnerability to climate change. This should influence the credit pricing for credits dedicated to NbS that, being less risky, should also be less expensive for the clients. This would allow smallholder farmers to develop climate resilience and have better margins from their production.

Investing in Nature based Solutions, in particular for smallholder farmers, and rural communities, would support the restoration of healthy ecosystems that indeed increase climate resilience, and hence ensure (healthy) food production, poverty reduction and socio-economic development. Nevertheless, a landscape assessment of public international funding, estimated that NbS adaptation projects accounted for only US\$3.8 billion to \$8.7 billion (0.6-1.4%) out of the \$579 billion total climate finance flows in 2018 (Swann et al. 2021). For the reason explained in previous sections NbS projects are not securing significant funding and thus are not achieving their full potential[28]<sup>26</sup>. Nevertheless, according to the World Resources Institute[29]<sup>27</sup> the overall rate of return on investments in improved resilience is very high, with benefit-cost ratios ranging from 2:1 to 10:1.

According to best practices, for the purposes of financing practices and technologies for adaptation to climate change and assess their profitability, they must have a diagnosis of vulnerability and risk for planning in agricultural adaptation that usually requires soil and climate assessment of the land, agronomic conditions of crops, economic importance, and related credits and incentive schemes. Moreover it is important to know in detail in the agricultural areas the production and the yields by cultivated areas. These are indeed the key variables for the demand of the agricultural credits, besides evaluating the agro-ecological conditions of the crops[30]<sup>28</sup>. It is important to take into account the implementation of knowledge, dissemination and risk assessment actions, threats to economically important crops and food security in order to generate adaptation and territorial resilience mechanisms to reduce socio-economic and environmental vulnerability. This is also relevant to strengthen the response capacity in the event of disasters and strengthen traditional production systems and implement participatory early warning systems to reduce vulnerability to extreme droughts and heavy rains. To promote markets and consolidate existing ones in order to generate greater added value, it is important to generate incentives for organic production with the promotion of certification with a seal of good environmental practices that allows producers to access to new markets and fair trade scenarios.

The development of a comprehensive strategy is key to link and strengthen the different links in the production chain for small and medium producers in the construction of business plans that define strategies to link partners and business allies to provide sustainability to small and medium producers[31]<sup>29</sup>. Moreover it is important to consider the formulation of community organisations' processes for the promotion of a solidarity-based economy in the framework of strengthening family and peasant agriculture.

Beyond NbS other solutions or specific technologies exist that support the generation and promotion of climate resilience for smallholder farmers, such as Climate Smart Agriculture (CSA) practices and technologies, promoted for example by the FAO[32]<sup>30</sup>, as well as specifically Ecosystems based Adaptation or Community based Adaptation, among others. Different technologies and practices should be promoted and financed to ensure that smallholder farmers, according to their present and forthcoming vulnerability to climate change and specific climate hazards, can adapt and ensure their livelihoods and the livelihoods of rural communities, as well as their economic and social inclusion.

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To address the funding shortfall and the urgency to attract climate adaptation finance: as GEF CEO Carlos Manuel Rogríguez Executive outlined at the January 2021 Climate Adaptation Summit “Empowering local action is critical to achieving the transformational impacts in terms of climate adaptation and maximizing value for adaptation finance”<sup>[33]</sup><sup>31</sup>.

IFSPs are important local agents of change to address this adaptation challenge for smallholder farmers, and they will hence be the focus of intervention of the present project.

### **1.1 Financing for smallholder farmers**

Smallholder farmers receive finance through different channels, among which:

- ? Microfinance Institutions (MFIs)
- ? Local Banks
- ? Non-Governmental Organizations (NGOs)
- ? Non-bank financial institutions
- ? Regional agricultural banks
- ? Food and Agriculture Organization
- ? Fintech
- ? Off-takers and value chain entities

We call these together Inclusive Financial Services Providers (IFSPs). IFSPs channel funds for working capital and investment for smallholders and rural communities and could efficiently support the allocation of finance towards more resilient and productive practices and technologies, such as NbS. By understanding the economic benefits of adaptation solutions, IFSPs catering vulnerable rural communities will be able to develop and promote commercial incentives to realize and finance Nature-based Solutions practices and technologies for Climate Change Adaptation to smallholders in a financially sustainable way

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Among actors within the financial sector that are most relevant to finance climate adaptation for smallholder farmers are MFIs. The reasons are manifold :

? Financial inclusion is the cornerstone of the Microfinance sector by offering financial and non-financial products to **vulnerable populations** excluded from the traditional financial system (*because of a lack of guarantee notably or other reasons*). It targets especially **women** and the rural poor to promote self-sufficiency.

? Microfinance is predominant in emerging countries and above all in some rural areas where there is **no access** to traditional finance yet.

? Key difference between the microfinance sector and other Financial Providers is the **proximity** and commitment towards their clients (i.e. their social mission). Thus, MFIs are able to reach a **granular selection of rural communities** including *smallholder farmers*, sometime including cooperatives, and SME actors.

? Training and product innovation are key components of financial inclusion and have been traditionally used by the microfinance sector. **Capacity building/Training** are part of services offered to beneficiaries by some MFIs, depending on the activity of the client.

IFSPs and in particular MFIs can provide **very small amounts of** loans to their clients, which is not the case of traditional banks and other larger economic agents which are not able to manage small credits.

IFSPs have developed extensively in urban and rural areas and had the tendency to gradually away from agriculture production, not only for difficulty of access reasons but also because of perception of an increased risks also due to weather and climate risks.

In the project the first focus will be on MFIs (of different legal status), nevertheless, we will keep a pragmatic approach and we will allow to include in projects other IFSPs such as local bank (specialized in, or with relevant part of their portfolio in agriculture and including smallholder farmers among their targets) and fintech (providing services to smallholder farmers) .

Indeed, the agriculture sector in developing countries requires more than \$83Bn each year to fulfill the needs of a growing population by 2050. These needs should be fulfilled by a diversified set of financial institutions, taking in consideration climate change and their impact on farmers. To finance the agricultural sector, certain local banks decided to extend their public targets, and have developed innovative strategies to reach smallholder farmers. For example, the Cr?dit Agricole du Maroc (CAM) is a full-service bank with a strong agricultural and rural emphasis. It has developed a 3-stage economic model with a commercial bank for farms with real guarantees, a meso-finance scheme for small and medium-sized farms without guarantees and a microfinance system for revenue-generating agricultural and rural activities.

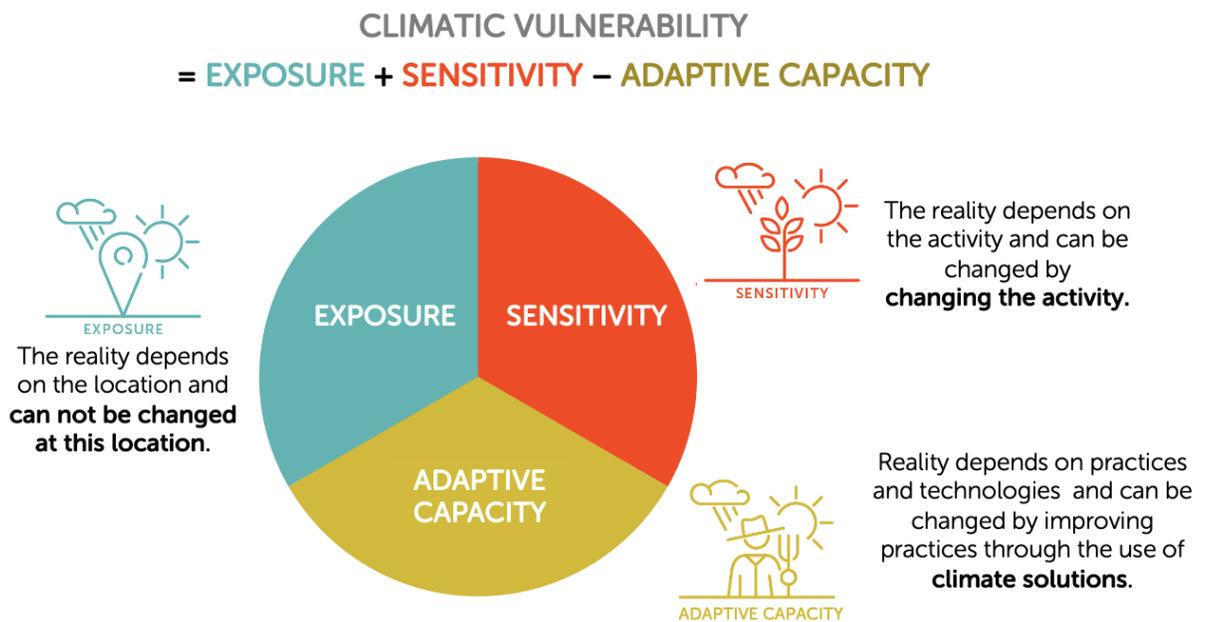
The industry has also undergone significant and much needed financial innovation in recent years. Fintech, such as mobile actors already present in the agricultural sector, can be involved as well in the project as their portfolio can become the object of the certification developed in the project.

The experience has shown the interest to engage multistakeholders to support the development of a comprehensive strategy that links and strengthens the different steps in the production chain for small and medium producers. It has been shown that this is important in the construction of business plans that define strategies to link partners and business allies to provide sustainability to small and medium producers<sup>[34]</sup><sup>32</sup>. The formulation of community organisations' processes is beneficial for the promotion of a solidarity-based economy within the framework of strengthening family and peasant agriculture.

## **2. Climate Change Adaptation Practices and Technologies for smallholder farmers**

Even though there are guiding principles, such as IUCN definition of NbS, to draw from in varying contexts, or framework such as EU Green Taxonomy<sup>[35]</sup><sup>33</sup>, as well as innovative projects, such as Microfinance for Ecosystem-based Adaptation (MEbA<sup>[36]</sup><sup>34</sup>), provide an ?on the field? operationalization of climate change adaptation through NbS finance and standards, there are not recognized standards for the analysis and certification of climate change adaptation practices and technologies financed in inclusive finance (i.e. in the portfolio of IFSP). A taxonomy and a methodology for certification of climate change adaptation practices and products adapted to inclusive finance processes and targeting specifically smallholder farmers and rural communities targeted by IFSPs, is lacking. The project will determine which taxonomy to promote, and its relation and effectiveness to mitigate climate vulnerability according to the specific climate hazards and impacts per country and target population. At this stage we can use the framework provided by UN Environment project Microfinance for Ecosystems based Adaptation (MEbA), specific for EbA, to understand the relations between climate hazards and smallholder farmers vulnerability, as well as the benefit of NbS to generate resilience for smallholder farmers and hence support them to adapt to climate change.

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Smallholder farmers are exposed to climate threats. According to the level of sensitivity of the crops cultivated or animal bred, as well as the type of practices and technologies used, smallholders farmers have different levels of vulnerability. The implementation of NbS, or other climate change adaptation practices and technologies, can decrease the climate vulnerability of smallholder farmers by

strengthening their capacity to adapt to climate change ( i.e. ?adaptive capacity?). Example of such practices and technologies for climate change adaptation run from simple and short term benefits ones, such as: crop diversification and live fences, to more technology oriented ones, such as drip irrigation or solar water pumps, until more complex and longer term benefits ones, such as agroecology or silvopastoral systems. A more extensive list of practices and technologies for climate change adaptation can be found in the table here below, they include[37]<sup>35</sup>: Nature Based Solutions (NbS), Ecosystem Based Adaptation (EbA) Solutions, Climate Smart Agriculture (CSA).

**Examples of practices and technologies for climate change adaptation**

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? organic fertilizers	? sustainable forest management	? improved pasture (GMO free)
? soil conditioning	? infiltration pits	? forage plants
? conservation agriculture	? integrated nutrient management	? filter for dirty water from agricultural production
? agroecology	? agro-sylvo-pastoral systems	? resilient seeds (GMO-free)
? crop diversification	? integrated pest control	? direct drilling
? drainage systems	? agroforestry systems	? intelligent storage of agricultural production
? ecotourism	? natural retaining walls	? precision fertilization
? firewall	? permaculture	? protection of coastal wetlands (with associated fishing)
? organic farming	? sylvo-pastoral systems	? restoration of coastal wetlands (with associated fishing)
? beekeeping	? natural shade	? Solar dehydrators
? seed banks	? aquaculture	? Solar hydroponics
? windbreak	? agricultural terraces	? Solar cookstoves
? live fences	? soil restoration	? Solar water pumps
? family orchards	? mixed nurseries	? Biodigesters
? filter dams	? crop rotation	? Efficient biomass stoves / Improved cooking stove
? rainwater tanks	? no-till systems	? Biomass (agriculture residue, such as rice husk) gasifier stove
? drip irrigation	? association of cultures	
? contour trenches	? managed grazing	
? greenhouses		
? vermicompost		
? fog trap		

Each practice and technology can support smallholder farmers to reduce her/his vulnerability against one or more climate impacts, and it contributes to build her/his overall climate resilience .



The capacity to generate climate resilience against a give climate impacts and hazard depend on the climate change adaptation practices and technology, that can indeed be organized as in the picture here below[38]<sup>36</sup>.

CLIMATE RESILIENCE	HIGH	SOIL RESTAURATION NATURAL RETAINING WALL GREENHOUSES FIRE STRIPS INTEGRATED PEST MANAGEMENT WATER CONSERVATION	SUSTAINABLE FOREST MANAGEMENT CONSERVATION AGRICULTURE NATURAL SHADOW WARU-WARU RAINWATER TANK	DRIP IRRIGATION ORGANIC AGRICULTURE ECOLOGICAL AGRICULTURE PERMACULTURE CROP DIVERSIFICATION BEEKEEPING	MIXED NURSERY SOLAR HYDROPONICS SMART STORAGE
	AVERAGE	AGRICULTURAL DRAINAGE WINDBREAK BARRIERS FOG SENSORS INTEGRATED NUTRIENT MANAGEMENT SOIL CONDITIONING BIOMASS GASIFIER	SEED BANK SILVOAGRICULTURAL SYSTEM SILVOPASTORAL SYSTEM SOLAR DRYERS VERMICOMPOSTER	RESILIENT SEEDS AGROFORESTRY SYSTEM FOOD PLANTS IMPROVED PASTURE	LIQUID SOWING
	LOW	CROP ROTATION LIVE FENCES EFFICIENT STOVES BIODIGESTERS SOLAR HOME SYSTEMS	DIRECT DRILLING SOLAR WATER PUMPS MINI-GRID / HYBRID		ECOTOURISM
		LOW	AVERAGE	HIGH	
		POTENTIAL REVENUE GENERATION			

Different practices and technologies have moreover different costs, time for return on investment and to generate the expected benefits. Smallholder farmers often lack the capacity and the required finance (size, term, and conditions ) to choose the practice and technology that better fits to her/his needs in terms of climate change adaptation.

### **3. Country selection[39]<sup>37</sup>**

The present project will be implemented in a set of countries and regions, that have been selected according to the following:

- ? Relevance of smallholder farmers agriculture portfolio of IFSP, and climate change adaptation needs and opportunities for targeted clients of IFSP
- ? Diversity of countries to ensure sound piloting and replicability and adaptation at regional level.
- ? Enabling environment with the presence and engagement of both BNPP and IFAD in terms of existing and forthcoming available financing for loans, technical assistance, and projects / programs. To ensure scaling up, institutionalization, private-public engagement, and alignment of implementation between parties.

To ensure that the certification scheme developed in this project can be used to mobilize both private and public investment, the countries have selected also in function of the local presence of BNP Paribas in each country[40]<sup>38</sup>. The selection of a country per region, West and Central Africa (WCA), Middle East and North Africa (MNA), Latin America and Caribbean (LAC) should ensure the piloting of the certification scheme in each region and hence the scaling up of the certification scheme in each region, after the pilot implementation.

In the project: 2 non-LDC (Morocco and one country in LAC, TBD during full project design) countries and 1 LDC (Senegal) country have been selected. Nevertheless, the project will ensure the allocation of the project budget as follows : 40% for LDC country: Senegal, and 60% for non-LDC countries: Morocco and one country in LAC (30% of budget allocation per each country).

This budget allocation is due to the fact that, according to past experiences, such as the implementation of 8 years of the project MEbA, a LDC country will need more support in terms of awareness raising, capacity building, data collection, standard setting, local expertise development and institutional engagement for IFSPs.

#### **3.1 One country in LAC, TBD during full project design**

To complete during full project design according to country selected.

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- Country description
- Country climate risk profile
- Inclusive finance environment in the country
- Baseline projects in the country

### **3.2 Senegal**

- ? Senegal total population: 16,3M (2019)
- ? Rural population: 52% (2020)
- ? 60% of the population works in the agricultural sector which represents 17% of the GDP
- ? Number of microfinance beneficiaries: 3,413 260 clients in March 2021 (21%)
- ? Total loan outstanding: 477Md FCFA (727M \$), which represents 3,5% of National GDP[41]<sup>39</sup>
- ? 44%[42]<sup>40</sup> of clients are women

Senegal is the second largest economy of the West African and Monetary Union (WAEMU). Agriculture and fishing remain the largest employers by far.

#### **Climate change risk profile[43]<sup>41</sup>**

Senegal remains vulnerable to environmental shocks that threaten its stability, including recurring natural disasters, including droughts, floods, sea-level rise, and coastal erosion that will increase in magnitude and extent due to increased climate variability. Between 1977 and 2002, six major drought events affected the country. Peanut revenues declined from about 68.4 to 17.4 billion FCFA, and revenue from millet/sorghum fell from 30 to 12 billion FCFA during the 2000 droughts.

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Extreme events, rising sea levels place much of the coastal population, infrastructure and ecosystems at risk from flooding and erosion. From 1980 to 2008, floods have affected an estimated 400,000 to 600,000 people a year and caused estimated damages of over US\$42 million.

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[44]<sup>42</sup>. Since the 1960s average temperatures increased by 0.9°C and rainfall declined by 15 percent below the long-term average

Projected climate change impacts by the 2060 include: rising average annual temperatures by 1.1-3.1°C; unpredictability of seasonal rains as well as intensity of rainfall events are projected to increase; rising sea level of up to 1 meter (by 2100). Yields of major cereal crops for central Senegal under several growing conditions are projected to decrease, e.g. Maize -14% Sorghum -2%.[45]<sup>43</sup> Key climate impacts of climate change are predicted, such as: reduced crop quality and yields, decreased livestock productivity, and increased incidence of locust invasions.

Priority adaptation measures in the agriculture sector are closely linked to the access and availability of technology, such as [46]<sup>44</sup>: dissemination of agroforestry techniques, crop diversification, use of varieties tolerant to salinity, collection and water storage, among others.

Example of climate scenario Senegal[47]<sup>45</sup>

Scenarios	Maximum of Daily Max Temperatures		Number of Consecutive Dry Days	
	2020-2039	2080-2099	2020-2039	2080-2099
SSP1-1.9	39,78	39,86	290,62	293,37
SSP3-7.0	39,75	42,56	298,09	306,84

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## **Inclusive finance sector in Senegal**

Enhanced by a stable economic and social environment, the Microfinance sector in Senegal was launched in 1995 (95/03 law). This sector has fully benefited from State intervention with the creation of a conducive environment to its development through the implementation of the Microfinance Department attached to the Ministry of Social Economy. This dynamism is evidenced by the establishment of new institutions each year and the good results of the existing DFS (Decentralized Financial System, or MFI).

The financial sector in Senegal is characterized by a duality between the banking system on the one hand, the informal financial system and the experiences of decentralized financing on the other. Among actors of the microfinance sector, SFD (Decentralized Financial Services) have a penetration rate of 28,5%.

From data collected from 50+ field officers of IFSPs in Senegal (2019-21)[48]<sup>46</sup>, it results that their smallholder farmers clients are often impacted by climate change. The most relevant impacts are crop damage, crop losses, need for more inputs, productivity losses, and reduced water availability. These are often due to climate hazards such as change of rainfall patterns, abrupt temperature changes, heat extremes, heavy rain, change of rainfall that and heat extremes and they affect their clients by generating economic consequences such as decreased income per unit and loss of income sources. It is observed that smallholder farmers, clients of IFSPs naturally implement Nature Based Solutions to cope with climate change, the most frequent are organic inputs, crop diversification, crop rotation, seed banks, solar water pumps, drip irrigation, family gardens, among others. 94% of the 49 field officers that provided responses tells us that they are already financing (some of) such NbS or EbA. Nevertheless, such financing is in general not reported, neither verified, and quality of NbS or EbA financed is unknown, i.e. this NbS or EbA portfolio is not visible and hence not investable and not financed. In the country it has been observed that at least 4 FSPs offered specific loan products dedicated to promoting sustainable or climate-smart agriculture.

### ***Baseline Projects in Senegal***

Various projects have been implemented and are in implementation in Senegal with key focus climate change adaptation, including, EbA for resilient natural resources and agro-pastoral communities (UNDP), Agreefni (AFD), Building the climate resilience of food insecure smallholder farmers through integrated management of climate risk (GCF), the forthcoming The Enhanced Adaptation for Smallholder Agriculture Programme (ASAP+, IFAD), ADAER II (IFAD), PARFA (GEF ? IFAD/UNIDO), MEBA (UN Environment), Support for Women in Agriculture and Sustainable Development (UN Women). Some of the projects focused on IFSP (banks, MFIs and cooperatives) and

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supporting them to develop dedicated loans for smallholder farmers to support them to adapt to climate change. BNP Paribas has already worked on three related projects in the country. IFAD has implemented 20 projects (including ongoing, closed and planned) in Senegal, for a total Project Cost of US\$ 843.31 million, Total IFAD financing of US\$ 336.66 million, generating impacts for 667,643 households.

From recent experience, it results that financial institutions in Senegal are looking for climate finance, but they do not know what to do to get access to related funds. The challenges of level of market development and identifying IFSPs with the capacity to deliver climate finance is relevant. Certification will bring higher transparency in the market supporting the resolution of this challenge. There exists various potential synergies between the present project and the projects that exist already in the country. Among which we can identify the following:

? **Collaboration and knowledge transfer between** private actors and decentralized financial providers (MFIs, cooperatives..) can support the implementation of practices and technologies for climate change adaptation and hence the interest for certification of portfolio.

? **Targets:** vulnerable smallholders farmers exposed to climate change are at the center of various intervention as well as the portfolio certification project. The aim is to conciliate vulnerable population income and sustainable agriculture practices to strengthen food security

? **Private-Public sector collaboration** is needed to support impact and scale and it is at the center of the present project

? **Develop regional and local framework** for climate resilience through EbA supports the establishment of a common understanding and hence increase the opportunities for financing EbA as well as for its certification

? **Monitoring and evaluation** is done in various projects and it provides the basis for a virtual circle of constant improvement of practices and hence a graduation model that can be strengthened by certification.

? **Existing certifications :** certain projects work with certified seed producers and agricultural research services to ensure that seeds are adapted to local conditions. The existence of certification for practices and technologies implemented strengthen the soundness of the certification of the IFSPs portfolio dedicated to climate change adaptation.

? **Multi Stakeholder engagement:** including NGOs, MFIs, banks that will also have the interest to have their portfolio certified

The originality of the present project is to make all climate change finance for smallholder farmers transparent so that it can grow thanks to additional private and public finance, as well as it can improve conditions for smallholder farmers, thanks to the proven impacts it generates on their livelihoods.

### **3.3 Morocco**

- ? Morocco is a leader in the microfinance sector in the MENA Region (second after Egypt)[49]<sup>47</sup>
- ? Moroccan total population: 37M (2020)
- ? Rural population: 36% (2020)
- ? Agriculture represents 14% of the GDP
- ? Microfinance loan outstanding in the country: 6,7Md MAD at the end of 2020 (760M \$)
- ? Number of microfinance beneficiaries: 910 000 clients [50]<sup>48</sup> (2,5% of total population)
- ? 50% of MFIs clients are women
- ? 18% of loans are dedicated to agriculture

With GDP of USD 119 bn in 2019, Morocco is a medium-sized economy with strong growth potential. The country has been hit hard in 2020 with the Covid-19 pandemic. Agriculture remains highly significant to the economy, resulting in considerable volatility in economic growth.

#### **Climate Risk Profile[51]<sup>49</sup>**

Morocco has experienced considerable warming trends since the 1960s, with mean annual temperature increasing 0.9°C since the 1960s, with observed average increases of 0.2°C.

Precipitation trends have a high degree of variability in Morocco. However, through the past several decades, observed trends have shown more erratic rainfall and an overall decline in precipitation.

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An increase in the frequency and intensity of extreme events such as heavy rainfall resulting in flooding in some areas as well as droughts and heat waves in other areas have also been experienced[52]<sup>50</sup>. The increasing frequency, significance and duration of drought continues to be a major concern for the country[53]<sup>51</sup>.

Morocco has a high degree of risk to natural hazards and disasters. Impacts from natural hazards are estimated to cost the country \$800 million annually. Extreme rainfall has resulted in soil erosion, land degradation, loss of ecosystems and ecosystem services, alien species invasion, salinization of groundwater and flood trails containing pesticides and fertilizer.

Morocco is expected to become hotter and drier in the future, flooding and drought combine for the most significant impacts. For example, the 2016 winter grain harvest saw harvested yields 70% lower than in 2015 due to widespread drought.

Increased temperatures are expected across the Northern Africa region. Mean annual temperature is projected to increase by 1.5°C to 3.5°C by mid-century and possibly by more than 5°C by end of the century.

Temperature rise are projected to increase across all emission scenarios throughout the end of the century. Increased heat and extreme heat conditions will result in significant implications for human and animal health, agriculture, ecosystems as well as energy generation. Precipitation trends in Morocco are highly variable, however the projections indicate significant reduction. In average annual rainfall across the country from 10%?20% to as much as 30% decrease for the Saharan region[54]<sup>52</sup>.

Morocco is also likely to experience an increase of drought and flooding in some areas as well as other climate related hazards. With more frequent and severe droughts, the region will likely experience negative impacts on water supply, biodiversity, and agriculture and the potentially simultaneous increase in flooding.

Disaster risk from increased temperatures is expected to exacerbate existing tensions between agricultural and livestock needs as well as human population needs for water, especially during the dry season.

Specific impacts have been observed and predicted on agriculture. Agriculture remains dependent on the climate and thus remains highly vulnerable. Faced with increasing climate variability, Moroccan agriculture has adapted through diversification and rising yields. Although cereal production remains dominant, there is an increasing trend towards horticulture and livestock production[55]<sup>53</sup>. 87% of the country's crop total production remains primarily rainfed and thus highly vulnerable to increased rainfall variability. Hotter, drier conditions are expected to increase crops' water requirements by up to 12%, increasing demand for irrigation and further stressing limited water resources. Rising temperatures are expected to reduced yields by 50%?75% of rainfed crops during dry years

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Example of climate scenario Morocco[56]<sup>54</sup>

Scenarios	Maximum of Daily Max Temperatures		Number of Consecutive Dry Days	
	2020-2039	2080-2099	2020-2039	2080-2099
SSP1-1.9	30,72	30,75	284,37	288,12
SSP3-7.0	30,68	33,93	299,4	318,21

### **Inclusive Finance in Morocco**

Initiated in the early 90s in Morocco, microcredit emerged from a conference on desertification that took place at the National School of Agriculture of Meknes in 1992. The initiative came from many development associations and rapidly received the Government support. In 1999, legislation adapted to the sector maintained the social mission of microcredit by entrusting it exclusively to associations. It enlists associations in a national professional association, the FNAM (National Federation of Microcredit Associations).

The Moroccan microfinance sector is a relatively diversified industry with 13 Microcredit Associations (AMC), a number that has remained stable for several years. The sector is concentrated with four leader IFSPs which represent more than 80% of the sector in volume and number of loans.

### **Baseline projects in Morocco**

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Many GCF projects are implemented in the country, including the "Resilient Recovery Rapid Readiness Support in the Kingdom of Morocco" that can be linked back with MFIs financing as targeted by the certification project. Other projects are either topoclimatic regions or culture specific: "Irrigation development and adaptation of irrigated agriculture to climate change in semi-arid Morocco" or "Development of agriculture orchards in degraded environment (DARED)" or Improving the climate resilience of agriculture systems in the Sa'ss Plan. Some programs have much wider scopes but with strong climate resilience pillars such as the "Transforming Financial Systems for Climate". The Italian Cooperation Agency has supported an assessment of 5 MFIs opportunities to enhance resilience of rural populations, including provision of agriculture risk. AFD supported the implementation of Agreenfi that provided a green credit line in agriculture with pillars including irrigations, as well as organic farming. GEF projects as well supported the development of climate change adaptation, including projects such as: "Agro-ecology, Ensuring Food Security and Sustainable Livelihoods while Mitigating Climate Change and Restoring Land in Dryland Regions", with FAO, and "Enhancing Regional Climate Change Adaptation in the Mediterranean Marine and Coastal Areas", with UN Environment. IFAD has 15 projects (including closed, ongoing, and planned) in Morocco, for a Total Project Cost of US\$ 1,695.84 million, Total IFAD financing of US\$ 297.56 million, and households impacted: 727,045. IFAD's present portfolio in Morocco consists of three ongoing projects including the Taza Mountain Integrated Rural Development Project for the pre-Rif Region, the Atlas Mountains Rural Development Project (Ouarzazate, Tinghir and Beni Mellal) and the Rural Development Programme in the Mountain Zones (this project is closing in 2022). A forth project is currently under identification for the period of 2023 - 2030. The total investment envelope of the ongoing portfolio amounts to USD 204 million (including other co-financiers). IFAD's investments in Morocco target the most vulnerable regions and ecosystems of the country. Since 2008, the Fund has shifted its focus on the mountain areas of the country where vulnerability and poverty rates are above the average poverty line in Morocco. The Atlas Mountains are vital agro-ecosystems, yet they are ecologically fragile and exposed to significant environmental and climate threats. IFAD's portfolio promotes integrated approaches to agricultural value chain development in the mountain areas focusing on improving productivity through diversification and optimisation of the of agricultural productions systems (improved cropping techniques, integration of trees cropping, promoting bee keeping and sustainable livestock production techniques, soil and water conservation and promotion of efficient water use techniques through small scale irrigation etc.). In the downstream value chain segment, the fund invests in transformation, processing, packaging and marketing of agricultural products. IFAD's investments have generated a wealth of experience in promoting good agriculture practices that increase environmental sustainability, resilience and productivity (shifting systems to trees cropping, promoting agro-forestry, heavily investing in soil and water conservation techniques reducing erosion and protecting agricultural lands, water use efficiency through investment in Seguias and transformation of agricultural waste such as recovering olive oil waste and converting it into fuel-briquette etc.).

The additionally of this GEF financing to the baseline investment in Morocco is evidenced by the following elements:

- ? Demonstrating the potential of rural finance in general and to green-tagged finance products in particular, which has been a demonstrated gap and bottleneck in supporting smallholder producers in the project areas;

- ? Supporting the scaling up of the resilient agricultural practices generated by the baseline. This will require additional investments to create an enabling environment to access potential financial resources and to promote adaptation to climate change at the grass-root level. The GEF financing will be vital in both supporting the baseline investment promoting the viability of green finance and in turn helping to establish linkages with the financial intermediaries and potentially unlocking greater flows of inclusive agricultural climate finance towards the project beneficiaries.

? Sustainability of the investments in nature-based solutions will require additional financial flows producers would need to mobilise once projects are completed. Baseline investments are lacking such instruments at the moment. The GEF financing will demonstrate the potential of inclusive green finance and strengthen the sustainability of the investments by supporting the IFAD project beneficiaries in securing self-financing mechanisms

There exists various potential synergies between the present project and the projects that exist already in the country. Among which we can identify the following:

? **Targets:** vulnerable smallholders farmers exposed to climate change are at the center of various intervention as well as the portfolio certification project. Certification will support attracting funds coming from the public/private sector willing to offer loans with adapted conditions for concerned actors.

? **Promotion of green sustainable agriculture supports the development of practices and technologies for climate change adaptation** and hence the request for finance and their certification. Certification of the climate change adaptation portfolio of IFSPs will contribute to provide funds where needed to strengthen smallholders' practices, resilience and their livelihoods.

The originality of the present project is to make all climate change finance for smallholder farmers transparent so that it can grow thanks to additional private and public finance, as well as it can improve conditions for smallholders farmers, thanks to the proven impacts it generates on their livelihoods.

### **3.4 Barriers and opportunities per country to integrate climate change adaptation in IFPS**

Building on the information provided per each country in the three sections above, in the table here below we summarize the main barriers and opportunities observed to integrate climate change adaptation into processes, operations and products of IFSPs. We do this per each country.

Country	Barriers	Opportunities
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<p>One country in LAC, TBD during full project design</p>	<p>? To complete during full project design according to country selected.</p>	<p>? To complete during full project design according to country selected</p>
<p>Senegal</p>	<p>? Funding gap: smallholder farmers lack access to appropriate funding sources to implement adaptation solutions; while IFSPs lack appropriate incentives to implement adaptation solutions.</p> <p>? Capacity gaps: adaptation to climate change is a new topic for many IFSPs. IFSP staff need to be trained and management needs to be supported to develop climate change adaptation strategy.</p> <p>? Transparency gap: lack of information to guide reallocation of funds towards adaptation practices (lack of data and tools to gather, consolidate and report)</p>	<p>? Development of NAP and strong political position to address adaptation</p> <p>? Significant knowledge of climate change and climate change adaptation issues within ministries in the country</p>
<p>Morocco</p>	<p>? Lack of coordination between public policies and private actors, need further governance strengthening to promote the implementation of the Territorial Plans to fight against Climate Change (PTRC). Lack of coordination between the existing institutional framework and implementation of the MCCP (Moroccan Climate Change Policy).</p> <p>? Lack of managing and consolidating data tools relating to climate risks and vulnerabilities: need to strengthen systems to predict, observe and monitor climate change impacts to improve risk-informed decision-making. Difficulties to gather and consolidate data related to climate risks and vulnerabilities.</p>	<p>? Collaboration with the private sector to finance adaptation projects</p> <p>? Collaboration with climate-active NGOs and civil society to discuss the implementation of NAP</p> <p>? Collaboration with existing initiatives, such as: INDH (National Initiative for Human Development), or Intilaka, a program to finance initiatives able to create employment.</p>

#### 4. Identified gaps

Increasing smallholder farmers' access to climate adaptation finance has indeed a key problem[57]<sup>55</sup>:

*Public and private financial investments to incentivize IFSPs to finance climate change adaptation is low and the mechanisms that exist do not cover the amounts needed to finance adaptation for smallholder farmers.*

This key problem has its origin on a set of barriers (at investors level) that need to be overcome to solve it, among which :

? **A lack of shared metrics for climate adaptation finance:** IFSPs and investors lack shared standards, indicators and recognized taxonomies of climate change adaptation practices and technologies to make wise financial investment decisions and allocate funds towards more resilient, revenue generating, and socio-environmentally sustainable activities.

? **Lack of knowledge** over the potential impact of current and anticipated risks of climate change and its integration into investments decisions. This includes lack of IFSPs' and smallholder farmers' data gathered over the climate change adaptation which prevents from taking relevant decision on ways to mitigate climate change risks by clients and investments

? **Lack of prioritization** of climate change adaptation problems and solutions in the assessment of profitability of customers and investments

? **Lack of transparency** over the practices and technologies implemented by smallholder farmers and actually financed by IFSPs with portfolio re-financed by investors.

As reviewed in the previous sections, there have been recent relevant progresses in green inclusive finance worldwide and in particular in the three selected countries where the present project will be implemented: Senegal, Morocco, and one country in LAC. Internationally and at country level there has been a renewed focus towards climate change adaptation finance for smallholders and rural communities, and IFSPs has started to be engaged as agents of change able to channel funds and support capacity building for climate change adaptation for smallholder farmers. Nevertheless the key challenge highlighted in the introduction: *?Public and private financial investments to incentivize IFSPs to finance climate change adaptation is low and the mechanisms that exist don't cover the*

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*amounts needed to finance adaptation for smallholder farmers.*?, remains and, as result, smallholder farmers do not have access to adapted finance to foster their climate change adaptation. This main challenge materializes indeed at various levels in the finance and value chain:

1. **Supply side:** IFSPs do not deliver enough finance for climate change adaptation to their smallholder farmers.
2. **Demand side:** smallholder farmers are not able to absorb the potentially available finance for climate adaptation due to their low capacity to invest in improved practices and technologies
3. **Environment side:** providers of climate change adaptation technologies or technical assistance for the implementation of climate change adaptation practices are few and with reduced capacity.

These challenges exist due to the key barriers (at finance and value chain level) that need to overcome:

? **Information barrier:** lack of monitoring and reporting internally (within the IFSPs) or to external stakeholders (such as private or public investors) of:

- i.) the implementation of climate change adaptation practices and technologies by smallholders and rural communities,
- ii.) the results in terms of vulnerability reduction;
- iii.) returns on investment of implemented practices and technologies;
- iv.) the quality of implementation of practices and technologies by clients or potential clients; and,
- v.) the proportion of the portfolio of IFSPs allocated to finance climate change adaptation practices and technologies and in particular NbS, EbA or CbA (directly or indirectly).

IFSPs are indeed not systematically measuring and monitoring the resulting increased resilience and adaptation to the current and anticipated impacts of climate hazards due to their loans. Hence the progresses and challenges to adapt to climate change cannot be assessed, lessons learnt are limited or anecdotal, and it is very difficult to channel money for climate change adaptation to smallholder farmers.

? **Capacity barrier** (climate adaptation finance is a new concept):

- o On supply side: IFSPs as well as investors lack capacity to assess and verify how much of their finance is actually or could be allocated to climate change adaptation and in particular NbS, EbA or CbA, and what are and could be the resulting benefits. IFSPs and investors are hence unable to learn, improve their products and services, and eventually link their pricing to the actual risks and return of the investment done.

- o On the demand side: many smallholders have been doing climate adaptation activities without access to climate funds, but now that there is access to finance, they will have to present a green business plan, and they are not able to. The challenge here is to teach them how to develop a green portfolio, a green business line.
- o On environment side: Gap of providers for technical assistance concerning the needed expertise to deliver technical support to IFSPs on climate change adaptation finance for smallholder farmers

? **Financing barrier:** smallholders and rural communities that naturally implement practices that support their adaptation to climate change (including NbS or EbA or CbA), or that would be interested in improving their capacity to do so, do not receive the adequate finance and technical support. IFSPs that would like to develop their portfolio in climate change adaptation (and in particular NbS or EbA or CbA) are not able to attract funds and technical support to do so, and demonstrate their ?investment case?. Investors that have a mandate to increase their portfolio towards climate change adaptation are not able to allocate their funds in an investment that is trusted to generate the expected impacts.

The present project aims to contribute to solving the challenge *?Public and private financial investments to incentivize IFSPs to finance climate change adaptation is low and the mechanisms that exist don't cover the amounts needed to finance adaptation for smallholder farmers.? by addressing it from the supply side of its manifestation: ?IFSPs do not deliver adapted and enough finance for climate change adaptation to their smallholder farmers?. To do so the present project will work to address the 4 barriers at investor level described here above: i.e., ? lack of shared metrics for climate adaptation finance?, ?lack of knowledge?, ?lack of prioritization?, and ?lack of transparency?. This will support to address (at supply side level) the three barriers described above: i.e. ?financing barrier?, ?capacity barrier?, ?information barrier?.*

Critical items, such as the high interest rate of certain microloans can be mitigated as well with this project. By ensuring transparency for climate change adaptation finance, the actual lower risks profile of smallholders implementing NbS or EbA will be manifest, as well as the positive impacts generated at social and ecosystems level. This can favor private and public credit lines with reduced interest rate both at investors and IFSP level.

IFAD is providing support, with its ongoing and forthcoming projects, to fill the demand side level, and it is starting to work on the other 2 levels, in particular supply side.

The project aims to pilot a potentially transformative intervention with strong scalability potential focused on the supply side level, but with catalytic, sustainable and scalable impacts on demand sided level as well as environmental side level.

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

As observed in the previous sections Latin America & Caribbean and Africa, and in particular, all the three countries in which we will aim to implement the project, climate change is already generating major threats that will grow in the near and medium term future and induce adverse impacts on smallholder farmers and rural communities. The countries have started to respond to such threats in particular in their NDCs and NAPs. Nevertheless, much innovation and resources are needed, in particular to support adaptation for the most vulnerable population of each country.

The present project will help smallholder farmers and rural communities to adapt and become more resilient to the risks of impacts from current and anticipated climate hazards.

To ensure that smallholder farmers can implement appropriate and effective climate change adaptation practices and technologies, this project aims to support the establishment of a certification scheme for the portfolio of Inclusive Finance Service Providers (IFSP) dedicated to finance practices and technologies supporting climate change adaptation and resilience impacts for smallholder farmers and rural communities. Such intervention will be able to contribute to overcome the identified barriers, and support to overcome the identified challenges. It will indeed generate trust by investors and hence enable relocation of existing financial flow, as well as attracting new financial flow, towards climate change adaptation for smallholder farmers and rural communities.

The expected virtuous circle is the following: The certification of the part of portfolio of IFSP that is actually financing practices and technologies supporting change adaptation (including NbS or EbA), will be able to:

- ? attract finance (with adapted conditions) towards IFSPs that were verified to have a sound portfolio financing for climate change adaptation, hence it will support its growth and impact.
- ? attract technical support towards IFSPs that have implemented the certification of their portfolio, but quality or size of portfolio dedicated to climate change adaptation were not satisfactory enough to attract investment. This will generate a market signal for IFSP interest and engagement, as well as support the generation of its internal capacity, attracting funds for technical assistance to support the IFSP to develop an investable portfolio for climate change adaptation.
- ? stimulate the development and implementation of monitoring and reporting systems for IFSPs (and investors) that can track the actual financial flow toward practices and technologies supporting change adaptation (including NbS or EbA or CbA). The logic would be that once the part of portfolio dedicated to climate change adaptation is monitored, it can then: a) be certified & attract funds; b) generate learning and improve clients and investments segmentation and risks monitoring, and hence stimulate the growth of the actual portfolio, dedicated to climate change adaptation.

The certification scheme for the part of portfolio of IFSP dedicated to finance climate change adaptation practices and technologies, will be derived from the IUCN guiding principles for Global Standard for NbS[58]<sup>56</sup>, ASAP taxonomy for climate adaptation oriented SMEs[59]<sup>57</sup>, and aligned with the EU Sustainable Finance Taxonomy[60]<sup>58</sup>. Furthermore, it will draw on the already existing and

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proven MEbA[61]<sup>59</sup> project methodologies. Stakeholders consultation, inclusive private and public investors, will ensure the usability and effectiveness of the certification scheme.

The objective is to be able to identify the portfolios of IFSPs that are actually financing climate change resilience for smallholder farmers. This objective will be achieved by completing **three key milestones**:

? **Set the standard/taxonomy** for climate change adaptation practices and technologies in *inclusive finance*: i.e. climate change adaptation inclusive finance taxonomy. The certification will be designed in alignment with inclusive finance practices, products, processes, and target market.

? **Set certification scheme** for climate change adaptation practices and technologies *portfolio*: a certification scheme will be established (definitions & processes), in alignment with the standards predefined. The certification process and methodology will be designed along best international standards but as well as adapted to the specificities of IFSPs.

? **Pilot the climate change adaptation portfolio certification scheme**: the certification scheme will be piloted with a selected set of IFSPs. It will be adapted according to findings, and the methodology will be spread in the sector and engage other stakeholders.

The practices and technologies considered in the portfolio certification will include, among others: Nature Based Solutions (NbS), Ecosystem Based Adaption (EbA) Solutions, Climate Smart Agriculture (CSA), as well as Community based Adaption (CbA), where this is financed by IFSPs. The objective is to certify the actual size and quality of climate adaptation portfolio of IFSPs. For the scope of the project, such practices and technologies are indeed promoted in the project for their key benefits to reduce smallholder farmers' vulnerability to climate change and build climate resilience[62]<sup>60</sup>. Hence, when more cost effective, we will include also grey solutions that contribute to climate change adaptation and generation of climate resilience. The climate change adaptation practices and technologies considered in the project should:

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

Sustainability will ensure that the climate change adaptation practices and technologies considered can be naturally implemented by smallholder farmers also beyond the project scope and time, as well as be naturally financed by the IFSPs, and spread through rural communities.

It is relevant to highlight the importance to involve circular economy concepts in the use of local resources, such as the use of crop waste for the preparation of organic inputs for crops, as well as the

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efficient use and saving of water and wastewater decontamination systems for agricultural use. It is relevant that incentives are generated for the development of agroecological and organic production and the promotion of productive reconversion strategies to reduce deforestation and ensure the sustainable management of forests through agroforestry systems that generate microclimates that mitigate the effects of extreme heat and intense rainfall, as well as droughts on crops[63]<sup>61</sup>. It is relevant to consider to take into account the importance to increase productivity in a diversified system whose environmental impact is usually less than that of conventional techniques, but with greater resilience. To support the promotion of the sustainable use of agricultural and forestry products and to improve the adaptability of biodiversity and ecosystem services in agroecosystems, it is necessary to improve landscape connectivity through biological corridors[64]<sup>62</sup>. It is relevant to consider where sustainable production models and landscape management tools are recommended, which contribute to the fulfilment of conservation objectives and facilitate connectivity between forests.

The certification aims to make transparent and verifiable the impacts generated by the part of the IFSPs portfolio dedicated to climate change adaptation. This will have three positive results for the sustainability of the certification scheme and the project itself after the end of the project:

? Private and public investors will use the certification developed in the project to channel funds with dedicated conditions for IFSPs that can show to have a sound climate change portfolio. Both private and public investors will be able to provide dedicated conditions thanks to the proven impact as well as the proven lower risks of the portfolio financed.

? Donors will use the certification to support IFSPs with Technical Assistance to develop capacity of IFSPs that cannot yet show a sound portfolio dedicated to climate change adaptation, to then become eligible for funds with dedicated conditions.

? Private and public investors, donors, and IFSPs will have the incentive to pay for the certification (beyond the project scope) to have access to, or provide tailored TA or funds, detailed here above.

The alternative scenario proposed will follow the approach explained here below

***Expected result: increase climate resilience of smallholder farmers***

The project's key expected impact is to build climate change adaptation capacities for smallholder farmers, and hence enhance smallholders and rural communities' climate resilience, and support their adaptation to climate change by decreasing their vulnerabilities. This is expected to be achieved by

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scaling up and improving the quality of implementation of climate change adaptation practices and technologies by smallholder farmers.

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

The project aims to generate the expected result by fulfilling its key objective to increase smallholder farmers' access to climate adaptation finance.

***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, or at the needed extension, by existing projects and interventions, this will be the focus of the present project. The project Outcome (see here below):  
?Climate Change Adaptation Scheme enables public and private investors to place investments for Climate Change Adaptation? will indeed allow to overcome the information and capacity barriers at supply side (both IFSP and Investors) and hence the financing barrier (i.e. dedicated finance for climate resilience targeting smallholder farmers). The rationale is: **IF** a certification scheme for climate change adaptation practices and technologies exists, climate resilience, rural livelihoods and environmental health will improve **BECAUSE** the ability of smallholder farmers to access finance and implement climate change adaptation practices and technologies will be adopted, applied and 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***

We indeed believe that by solving the supply gap the project will generate capacities for IFSP to understand, identify, manage and finance climate change adaptation practices and technologies within their portfolio, and being able to claim for impacts (in terms of climate resilience of smallholder farmers and rural communities) and refinance by local or international investors. This will have positive effect also on demand and environment gap, i.e.:

? At a demand side it will contribute to generating awareness and capacities for smallholder farmers first, and for rural communities, on how to implement, maintain, scale climate change adaptation practices and technologies, and commercialize their products, as well as propose investment plans to financial intermediaries. The rationality is that such capacities will be needed to attract funds that will hence reward such upfront investment.

? On the environment side it will contribute to developing the capacity of technology and technical providers, local, but also international, that can support both small scale producers and rural communities in the transition towards a more resilient and sustainable economy and society. The rationality is that a market will be developed to respond to the opportunity to receive dedicated finance and TA.

The project logframe is hence defined as follow:

Outcomes	Outputs	Activities	Adaptation Benefits	Deliverables
<p><b>Outcome1: Increased investments in Climate Change Adaptation</b></p>	<p><b>Output 1.1:</b> Climate Change Adaptation portfolio Certification Scheme established</p>	<p><i>Activity 1.1.1: Process and tools definition</i></p> <p><i>Activity 1.1.2: Definition of metric and scores</i></p> <p><i>Activity 1.1.3: Suggestions of framework for use of the certification</i></p>	<p><b>AB1.1.1</b> Transparent processes and tools used will generate trust in the certification scheme and foster Climate Change adaptation finance.</p> <p><b>AB1.1.2</b> Clear metric and score will quantify the actual potential adaptation of each IFSPs / their portfolio</p> <p><b>AB1.1.3</b> Guidance on how to use the certification will support the various stakeholders? actions on how to optimize their intervention to generate climate resilience</p>	<p><b>D1.1.1:</b> Manual with certification process and tools description</p> <p><b>D1.1.2:</b> White paper on <i>Climate Change Adaptation Taxonomy/standards for Inclusive Finance</i></p> <p><b>D1.1.3:</b> Climate Change Adaptation Guideline, Training material.</p>

<p><b>Output 1.2:</b></p> <p>Climate Change Adaptation portfolio Certification Scheme piloted</p>	<p><b>Activity 1.2.1</b></p> <p><i>Select 3 IFSPs</i></p>	<p><b>AB 1.2.1</b> A careful selection of 3 IFSPs will allow the best test of the certification scheme and hence easier scale up to many more IFSPs and hence faster Climate change adaptation finance allocation.</p>	<p><b>D1.2.1:</b> Communication, presentation material, activities timeline</p>
	<p><b>Activity 1.2.2</b></p> <p><i>Analyze Climate Change Adaptation portfolios</i></p>	<p><b>AB 1.2.2</b> In depth analysis of the portfolio will test the methodology and adapt it to improve its capacity to assess climate change adaptation potential of IFSP portfolio.</p>	<p><b>D1.2.2:</b> 3 Portfolio analysis reports</p>
	<p><b>Activity 1.2.3</b></p> <p><i>Verify Climate Change Adaptation portfolios</i></p>	<p><b>AB 1.2.3</b> Verification by third independent parties will guarantee soundness and transparency of the analysis.</p>	<p><b>D1.2.3:</b> 3 Verification reports</p>
	<p><b>Activity 1.2.4</b></p> <p><i>Draft Climate Change Adaptation certification</i></p>	<p><b>AB 1.2.4</b> A clear certification will facilitate sector understanding and hence scaling of adaptation finance</p>	<p><b>D1.2.4:</b> 3 Portfolio <i>Climate Change Adaptation</i> Certifications (Draft)</p>
	<p><b>Activity 1.2.5</b></p> <p><i>Adjust and adapt Climate Change Adaptation certification scheme</i></p>	<p><b>AB 1.2.5</b> Learning from the first pilots will allow to bring to the market a tested methodology and include the lessons learnt. This will highly improve the capacity to foster adaptation finance.</p>	<p><b>D1.2.5:</b> Notes on suggested adaptation of the certificates</p>
		<p><b>AB 2.1.6</b> Improved certification scheme will increase acceptance from all stakeholders and hence easier mainstreaming of adaptation finance</p>	<p><b>D1.2.6:</b> 3 Portfolio <i>Climate Change Adaptation</i> Certifications (Final)</p>

	<p><b>Output 1.3:</b> Certifications of Climate change adaptation portfolio certification expanded to more institutions</p>	<p><i>Activity 1.3.1</i>  <i>Preparation portfolio certification of up to 12 IFSPs</i></p> <p><i>Activity 1.3.2</i>  <i>Portfolio certification of up to 12 IFSPs</i></p>	<p><b>AB 1.3.1</b> A careful definition of expansion strategy, stakeholders engagement, as well as careful selection of FSPs accordingly will ensure a sound implementation of the NbS portfolio certification, as well as the foundation for further expansion beyond the project</p> <p><b>AB 1.3.2</b> Portfolio certifications will generate the actual material opportunity for private and public finance to refinance and scale their portfolio for Climate change adaptation.</p>	<p><b>D1.3.1:</b> Documented expansion strategy</p> <p><b>D1.3.2:</b> <i>Climate Change Adaptation</i> portfolio Certifications for up to 12 IFSPs.</p>
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Outcomes	Outputs	Activities	Adaptation Benefits	Deliverables
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<p><b>Outcome 2: Knowledge management, monitoring and evaluation</b></p>	<p><b>Output 2.1:</b> Climate Change Adaptation certification scheme assessed, and knowledge shared</p>	<p><i>Activity 2.1.1</i> <i>Assess pilot</i></p>	<p><b>AB 2.1.1</b> The assessment of the overall pilot will enhance potentiality for climate change adaptation finance during the scaling up phase.</p>	<p><b>D2.1.1:</b> Updated certification scheme</p>
		<p><i>Activity 2.1.2</i> <i>Assess public and private stakeholders? motivation to use the Climate Change Adaptation portfolio certification scheme for their investment decisions</i></p>	<p><b>AB 2.1.2</b> Shaping the final certification scheme along with the actual motivation of stakeholders willing to use the certification will enhance their engagement and hence the actual inflow of finance for climate change adaptation.</p>	<p><b>D2.1.2:</b> Updated <i>Climate Change Adaptation S Portfolio Certification Guideline.</i></p>
		<p><i>Activity 2.1.3</i> <i>Draft investor-facing white paper</i></p>	<p><b>AB. 2.1.3</b> Reporting all the experience and the actual certification scheme on paper will allow further parties willing to finance climate change adaptation.</p>	<p><b>D2.1.3:</b> White paper on <i>Climate Change Adaptation certification scheme for investors (public / private).</i></p>
		<p><i>Activity 2.1.4</i> <i>Develop communication and certification material for certified Inclusive Financial Service Providers</i></p>	<p><b>AB 2.1.4</b> Stakeholder-facing communication material allows certified IFSPs to show visibility on their certification for climate change adaptation finance.</p> <p><b>AB2.1.5</b> The event will allow to share the experience and lessons learnt with the sector and to engage further actors and actual climate change adaptation finance for the scale up phase.</p>	<p><b>D2.1.4:</b> Communication material</p>
		<p><i>Activity 2.1.5</i> <i>Organize virtual event</i></p>	<p><b>AB2.2.6</b> Engaging interested stakeholders will leverage public and private finance for climate change adaptation</p>	

	<p><b>Output 2.2:</b> Capacity building for inclusion of Climate Change portfolio certification delivered to private and public investors</p>	<p><b>Activity 2.2.1</b></p> <p><i>Develop material for private and public investor training</i></p> <p><b>Activity 2.2.2</b></p> <p><i>Private and public investors will be trained on Climate Change Adaptation portfolio certification</i></p> <p><b>Activity 2.2.3</b></p> <p><i>Institutionalize Climate Change Adaptation portfolio certification within the product and services of a third party</i></p>	<p><b>AB 2.2.1</b> Training will enhance the sector capacity to finance climate change adaptation.</p> <p><b>AB 2.2.2</b> Ongoing training will generate capacity for the sector as well as awareness. This will foster climate change adaptation finance.</p> <p><b>AB 2.2.3</b> Inclusion of the NbS portfolio certification within an overall package of intervention for Climate change adaptation will support the actual positive outcomes of the certification scheme for Climate change adaptation</p>	<p><b>D2.2.1:</b> Training material for investors</p> <p><b>D2.2.2:</b> Communication material for investors</p> <p><b>D2.2.3:</b> Concept paper on inclusion of <i>Climate Change Adaptation</i> portfolio certification schemes into package of intervention for Climate change adaptation</p>
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	<b>Output 2.3:</b> Project implementation is supported by an M&E strategy (annual monitoring reports and project final evaluation)	<b>Activity 2.3.1:</b> <i>monitoring and reporting of project progresses</i>	<b>AB 2.3.1</b> monitoring and reporting will enhance transparency and capacity to act according to the project progress	<b>D2.3.1:</b> 6-monthly project reports
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The various output will be achieved in the following order (from left to right), that provide plan for project implementation.

<b>Output 1.1</b>	<b>Output 1.2</b>	<b>Output 2.1</b>	<b>Output 1.3</b>	<b>Output 2.2</b>
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The project will hence articular its implementation according to the following framework:

Expected results < Outcomes < Outputs < Activities:

? **Expected results:** Increase climate resilience of smallholder famers

? **Outcome Demand side:** Increased application of climate change adaptation practices and technologies

? **Outcomes Supply side :** 1 ?Increased investments in Climate Change Adaptation?; 2. ?Knowledge management, monitoring and evaluation?

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

The Outcome Demand side ?Increased application of climate change adaptation practices and technologies? 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 : ?Improved small scale producers and communities livelihoods & land use management? will be achieved by:

a) Articulating the supply side intervention with the demand side intervention, and aligning practices, climate change adaptation practices and technologies promoted, indicators, as well as TA and finance support.

b) 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:

- i. Ensure activities alignment and synergies,
- ii. Engage further resources (investment and TA) by private and public sector, dedicated to climate change adaptation for smallholder farmers
- iii. Blending private and public resources

iv. Training further technology and technical providers on the scheme and framework developed in the project to ensure sector capacity.

It is worth observing that only the Outcomes Supply are within the scope and description of the present project.

### ***Short description of certification scheme***

The project will target two main types of IFSP:

1. The IFSPs that have already developed the capacity to map and monitor their portfolio against climate change adaptation practices and technologies standards,
2. The IFSPs that lack the capacity to map and monitor their portfolio, but that would like to engage in climate change adaptation practices and technologies finance.

Two main processes for certification, will hence be provided:

? ***Certification of claimed climate change adaptation practices and technologies portfolio:*** this will apply to the case 1) IFSPs will provide their claim concerning the actual content (which climate change adaptation practices and technologies - and where/to whom are financed) and size of its climate change adaptation portfolio (volume / number of outstanding credits), according to climate change adaptation taxonomy used by the IFSP. The claimed climate change adaptation portfolio is hence certified against climate change adaptation standards for inclusive finance (defined in the project), as well as the standards used by the IFSP. An estimation is provided concerning the reliability of the claim, as well as the quality of the climate change adaptation portfolio per tranches (xx% good, yy% medium, zz% bad, tt% no climate change adaptation practices or technologies).

? ***Certification of undefined climate change adaptation practices and technologies portfolio:*** this will apply to the case 2) IFSPs are not able to provide a claim or an estimation of their actual climate change adaptation portfolio. IFSPs are hence supported by the Technical Provider (see details below) to assess the actual content (which climate change adaptation and where/to whom are financed) and size of their climate change adaptation portfolio (volume / number of outstanding credits), according to the standard for climate change adaptation portfolio developed in the project. This climate change adaptation portfolio is certified against climate change adaptation standards for inclusive finance, and an estimation of the reliability of the claim is provided, as well as the quality of the climate change adaptation portfolio per tranches (xx% good, yy% medium, zz% bad, tt% no climate change adaptation practices or technologies).

The implementation of both type of certifications in the same project will ensure that:

? the IFSPs in case 1) will have their climate change adaptation portfolio certified and hence they will be able to attract climate change adaptation funds and grow their impact in term of climate change resilience;

? the IFSPs in case 2) will know for the first time the actual content of their portfolio in climate change adaptation, they will learn how to map it, and they will have the part of the portfolio actually dedicated to climate change adaptation certified. They will hence be in the position to attract support (funds as well as capacity) to develop their climate change adaptation portfolio further.

The implementation of both types of certifications will be combined in the same market and it will provide trust and transparency.

A first proposal for the process of certification per IFSPs is provided in the summary table here below.

Key items	Suggested Process		Key owner of the process step
	Process for claimed Climate Change Adaptation portfolio	Process for unclaimed Climate Change Adaptation portfolio	
<i>set the standard</i> (preliminary requirement not part of the process itself)	Predefined	taxonomy for Climate Change adaptation for Inclusive finance	Certifying entity
<i>set the process</i> (preliminary requirement not part of the process itself)	Predefined process for certification		Certifying entity
<i>Review / implement standards</i>	Review taxonomy applied by the IFSP, mapping between IFSP used taxonomy for climate change adaptation practices and technologies and the predefined project taxonomy for inclusive finance	Implementation of Predefined taxonomy for climate change adaptation practices and technologies for Inclusive finance	Technical Provider
<i>Portfolio analysis</i>	Review of portfolio administrative records on verified technical criteria for	Assessment of portfolio content through IFSPs internal records, institutional knowledge, surveys to field officers	Technical Provider

	<p>climate change adaptation practices and technologies</p> <p>Portfolio is structured along predefined taxonomy for climate change adaptation practices and technologies for Inclusive finance as well as the taxonomy used by the IFSP , clients that have received finance for climate change adaptation practices and technologies are identified and clear address of GPS location is defined</p>	<p>Verification of portfolio with call campaign with all positions</p> <p>Portfolio is structured along predefined taxonomy for climate change adaptation practices and technologies for Inclusive finance, clients that have received finance for climate change adaptation practices and technologies are identified and clear address of GPS location is defined</p>	<p>Technical Provider</p> <p>Technical Provider</p>
<p><i>Verification</i></p>	<p>Random selection of climate change adaptation practices and technologies and clients to verify - Algorithm-driven</p> <p>Physical visit on selected clients / calls to selected clients / survey with IT interface (smartphone) with selected clients. Observation 1: Hidden source data to certifier team (they do not know what they are verifying ); forms (content of items to be checked as well as survey to be filled) are provided, as well as the IT support (smartphone or web access). Observation 2: Mix of methodologies (Presential, calls, survey self responded) guarantee triangulation of information, in depth analysis, scale and resources optimization.</p> <p>Comparative analysis : what is found by the certification team against claimed or reconstructed portfolio content. - Standardized IT models -</p> <p>Verification of comparative analysis - human / critical analysis</p>	<p>Certifying entity</p> <p>Local or international enumerators</p> <p>Certifying entity</p> <p>Certifying entity</p>	
<p><i>Certification</i></p>	<p>Provision of certification: amount and quality (organized in tranches e.g. "high / medium / low") of portfolio dedicated to climate change adaptation practices and technologies (type of climate change adaptation practices and technologies and geographical mapping)</p>	<p>Certifying entity</p>	

<b><i>Trends/Opportunity</i></b>	Estimation of potential climate change practices and technologies portfolio	adaptation growth	Certifying entity
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It is forecasted that in the certification process three main actors will participate and contribute:

? ***The certifying entity***: responsible to set the standards, i.e. climate change adaptation Inclusive finance taxonomy, for the project, and define the process of certification; select the sample of portfolio to be verified, provide the tools to verify the portfolio, engage enumerators, to verify the portfolio, compare the portfolio declared by the IFSP and the one verified by the enumerators, delivering the certification.

? ***Technical provider***: responsible to review the climate change adaptation Taxonomy used by each IFSP and producer a mapping between the IFSP taxonomy of the FSP and the one developed in the project, analyze the IFSP portfolio and provide to the certifying entity the portfolio analysis

? ***Enumerators***: to verify the content of the portfolio prepared by the technical provider against the climate change adaptation taxonomy used and the climate change adaptation taxonomy of the project, by implementing the process of certification defined by the certifying entity.

The interplay of these three independent actors, each one dedicated to a specific part of the process, the fact that enumerators do not have disclosed the content of the portfolio analysis, and hence do a blind test, and the fact that all the process will be run digitally, ensure the quality, scalability and transparency, and replicability of the certification.

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

? for the Certifying Entity: the Climate and Biodiversity Inclusive Finance Institute (CBIFI),

? for the Technical Provider: YAPU Solutions.

? for the enumerators: different options could be tested: independent consultants (local or international), staff of local partners entities, field officers of IFSPs.

For the actual verification three methodologies are forecasted to be implemented: physical visit on selected clients; calls to selected clients; survey with IT interface (smartphone) with selected clients. During the project one or more of these methodologies will be implemented according to local possibilities and cost. Ideally different methodologies will be tested to assess the most efficient one.

The certification provided has a period of validity, the actual period of validity will be defined during the project.

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

### **Outcome 1: Increased investments in Climate Change Adaptation**

Private and public investors use the Climate change adaptation certification scheme to define their pricing strategy for investment in climate change adaptation. the Climate change adaptation certification is included into the investment process for private and public investors.

#### **Output 1.1: Climate Change Adaptation portfolio Certification Scheme established**

##### ***Activity 1.1.1: Definition of conditions and processes***

Transparent processes and tools used will generate trust in the certification scheme and foster Climate Change adaptation finance.

The CBIFI will provide guidance and a digital platform to collect information in structured way. Each climate change adaptation technologies or practices will have a verification. The verification is build on best international standards, example from the the MEbA Project with UN Environment.

*Milestone:* Certification process, including key steps and responsibilities, as well as tools to be used are ready. Manual with certification process and tools description is ready. IT solutions to operationalize the process are identified.

##### ***Activity 1.1.2: Definition of metric and scores***

Clear metric and score will quantify the actual potential adaptation of each IFSPs, and in particular their portfolio.

*Milestone:* Climate change adaption Standards/Taxonomy for Inclusive Finance are defined and ready to be used, a white paper is produced. Scoring to be used in the certification process are defined and ready to be used. The technical details of NbS, EbA, CSA, CbA (where applicable) or other climate change adaptation practice and technologies, as well as scoring are included into the IT solutions selected.

##### ***Activity 1.1.3: Suggestions of framework for use of the certification***

Guidance on how to use the certification will support the various stakeholders? actions on how to optimize their intervention to generate climate resilience.

*Milestones:* Guideline for use and interpretation of the climate change adaptation portfolio certification is ready. Training material for IFSP and enumerators (for verification) is ready to be used.

**Output 1.2:** Climate Change Adaptation portfolio Certification Scheme piloted

*Activity 1.2.1: Select 3 Inclusive Financial Service Providers*

A careful selection of 3 IFSPs will allow the best test of the certification scheme and hence easier scale up to many more IFSPs and hence faster Climate change adaptation finance allocation.

*Milestones:* 3 IFSPs are selected and timeline and activities are agreed with the 3 IFSPs. Communication and presentation material is ready and distributed.

*Activity 1.2.2: Analyze Climate Change Adaptation portfolios*

In depth analysis of the portfolio will allow to define the content of the IFSPs portfolio in terms of climate change adaptation practices and technologies financed and its capacity to support the generation of climate resiliencies for smallholder farmers.

*Milestones:* the portfolio of 3 IFSPs are analyzed. Each portfolio is characterized with its content of climate change practice and technologies according to selected climate change adaptation taxonomy and the localization of clients. A Portfolio analysis report is generated per IFSP .

*Activity 1.2.3: Verify Climate Change Adaptation portfolios*

Verification by third independent parties will guarantee soundness and transparency of the analysis.

*Milestones:* the climate change adaptation portfolio content of 3 IFSPs is verified according to the climate change adaptation portfolio certification scheme developed in Output 1, and according to the selected climate change adaptation taxonomy. A verification report is produced per IFSP . A report on the comparison between the Portfolio analysis report in Activity 1.2.2 and the verification report is generated per IFSP .

*Activity 1.2.4: Draft Climate Change Adaptation certification*

A clear certification will facilitate sector understanding and hence scaling of adaptation finance.

*Milestones:* the preliminary portfolio certification for 3 IFSPs is provided

***Activity 1.2.5: Adjust and adapt Climate Change Adaptation certification scheme***

Learning from the first pilots will allow to bring to the market a tested methodology and include the lessons learnt. This will highly improve the capacity to foster adaptation finance.

*Milestones:* IFSPs understand the certification they received. Relevant feedback are collected to improve the understanding of the climate change adaptation portfolio certification.

***Activity 1.2.6: Finalize certification***

Improved certification schemes will increase acceptance from all stakeholders and hence easier mainstreaming of adaptation finance. *Milestones:* The climate change adaptation portfolio certification delivered in Activity 1.2.4, is enhanced with the lessons learnt during the implementation of the process as well as the further insights and feedback received by IFSPs.

**Output 1.3:** Certifications of Climate change adaptation portfolio certification expanded to more institutions

***Activity 1.3.1 Preparation of Portfolio certification of up to 12 IFSPs***

A careful definition of expansion strategy, stakeholders engagement, as well as careful selection of IFSPs accordingly will ensure a sound implementation of the Climate Change Adaptation portfolio certification, as well as the foundation for further expansion beyond the project.

*Milestones:* Strategy to expand Climate Change adaptation portfolio certification in countries is achieved, IFSPs for second round of Climate Change Adaptation portfolio certification are selected. A documented expansion strategy is ready.

***Activity 1.3.2. Certify up to 12 IFSPs***

Portfolio certifications will generate the actual material opportunity for private and public finance to refinance and scale their portfolio for Climate change adaptation. In a second phase of certification, up to 12 IFSPs will have the climate adaptation content of their portfolio certified using the upgraded portfolio certification scheme, updated according to the lessons learnt from the first round of certification implemented with the first 3 IFSPs.

*Milestones:* up to 12 IFSPs are certified with the improved Climate Change Adaptation portfolio scheme defined in Activity 1.3.1. Climate Change Adaptation portfolio certification is emitted for up to 12 IFSPs.

## **Outcome 2: Knowledge management, monitoring and evaluation**

The lessons learnt from the implementation of the climate change adaptation portfolio certification scheme are shared with sector stakeholders. Private and public investors and donors are trained on the certification scheme developed and suggestions are formulated on how to include the certification scheme into loan and TA for climate change adaptation offered to IFSPs.

### **Output 2.1: Climate Change Adaptation certification scheme assessed, and knowledge shared**

#### *Activity 2.1.1: Assess pilot*

The assessment of the overall pilot will enhance potentiality for climate change adaptation finance during the scaling up phase.

*Milestones:* the pilot with 3 IFSPs is assessed, and lessons learnt from the first pilot are understood. Needed improvement is included in the certification scheme. The certification scheme developed in Output 1.1 is updated.

#### *Activity 2.1.2: Assess public and private stakeholders' motivation to use the Climate Change Adaptation portfolio certification scheme for their investment decisions*

Shaping the final certification scheme along with the actual motivation of stakeholders willing to use the certification will enhance their engagement and hence the actual inflow of finance for climate change adaptation.

*Milestones:* The interest and possible use of the certification scheme by private and public investors is better understood. The Climate Change Adaptation Portfolio Certification Guideline is updated accordingly.

***Activity 2.1.3: Draft investor-facing white paper***

Reporting all the experience and the actual certification scheme on paper will allow further parties willing to finance Climate Change adaptation. A short white paper dedicated to investors (private or public), explaining the methodology and the added value of the certification scheme, will be produced .

*Milestones:* The Climate Change Adaptation portfolio certification scheme is known by investors and the sector. Lessons learnt from first implementation are diffused. Short paper on lessons learnt from the first pilot on climate change adaptation portfolio certification is produced. A white paper on Climate Change Adaptation certification scheme for investors (public / private) is delivered.

***Activity 2.1.4: Develop communication and certification material for certified Inclusive Financial Service Providers***

Communication material for stakeholders allows to attract IFSPs and other stakeholders and engage them to be certified or to suggest the certification to their partners IFSPs. Certification material for certified IFSPs allow IFSPs to show visibility on their certification for climate change adaptation finance, and hence attract financial and non -financial support dedicated to climate change adaptation.

*Milestones:* material is improved, layout and usability are improved. Communication material is ready to be used.

***Activity 2.1.5: Organize virtual event***

The event will allow to share the experience and lessons learnt with the sector and to engage further actors and actual climate change adaptation finance for the scale up phase.

*Milestones:* a virtual event is organized, IFPS participating to the first pilot are engaged to present the event and share their experience. Related presentation material is produced.

***Activity 2.1.6: Engage multi-stakeholders***

Engaging interested stakeholders will leverage public and private finance for climate change adaptation .

*Milestones:* a virtual event is delivered, investors and IFSPs have manifested interest to participate in the second round of climate change adaptation portfolio certification. Manifestations of interest for the second round of pilots is completed.

**Output 2.2:** Capacity building for inclusion of Climate Change portfolio certification delivered to private and public investors

*Activity 2.2.1 Develop material for private and public investor training*

Training material on the climate change adaptation certification scheme for private and public investors will be developed. Training process will be defined.

Training material will enhance the sector understanding of the certification, how to use it, as well as its capacity to finance Climate change adaptation

*Milestones:* Training material for investors is ready, training process and timeline are finalized

*Activity 2.2.2 Private and public investors will be trained on Climate Change Adaptation portfolio certification*

Ongoing training will generate capacity for the sector as well as awareness. This will foster climate change adaptation finance

*Milestones:* communication material for investors is developed. Investors are engaged and trained in the Climate Change Adaptation certification scheme.

*Activity 2.2.3 Institutionalize Climate Change Adaptation portfolio certification within the product and services of a third party*

Inclusion of the Climate Change Adaptation portfolio certification within an overall package of intervention for climate change adaptation will support the actual positive outcomes of the certification scheme for climate change adaptation. The concept and framework on how to include climate change adaptation portfolio certification schemes into investments and technical assistance programmes will be developed. Key stakeholders will be engaged, and their awareness raised.

*Milestones:* the proposal of how to include Climate Change Adaptation certification scheme is delivered to investors and providers of technical assistance facilities. A concept paper about the inclusion of Climate Change portfolio certification schemes into a package of intervention for climate change adaptation is prepared.

**Output 2.3:** Project implementation is supported by an M&E strategy (annual monitoring reports and project final evaluation)

### *Activity 2.3.1 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 IFSPs:*** for the success of the project it will be key to have the early buy-in by the IFSPs. To ensure engagement of IFSPs and early implementation, awareness raising and engagement with the IFSPs in target countries will be initiated at the beginning of the project.

***Targeted IFSPs:*** the certification of the portfolio will be applicable to various types of IFSPs, including, banks, cooperatives, fintech, of various sizes. The requirement to participate to the project will simply be will be that: i) the IFPS wants to have its portfolio certified; ii) the IFSP should finance smallholder farmers; iii) the IFSP has a sufficient level of management of its portfolio; iv) the IFSP has already targeted or it is willing to willing to target climate change adaptation practices and technologies as part of its financing strategy and activities. The IFSPs participating in the project will be selected in collaboration between BNPP 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 BNPP portfolio of credits, and IFAD portfolio of existing and forthcoming projects will be prioritized

***Flexibility:*** the climate change certification scheme will be kept flexible, to allow it to be adapted to fit with IFSPs' internal processes, while at the same time ensuring quality and soundness.

Flexibility of the certification will be ensured by adapting the actual data collection for verification according to the loan process (clients data collection, loan analysis, loan disbursement decision) of various institutions, as well as by adapting the portfolio analysis according to the actual portfolio structure of each institution.

***A transversal standard:*** each intervention and portfolio will be mapped to a standard approach, thanks to the use of a reference taxonomy for climate change adaptation practices and technologies for inclusive finance developed in the project. This will allow for comparability and learning, and it will ensure higher transparency, simpler communication and hence higher chance to attract investors that can now better compare portfolios of different IFSPs in different countries.

***Articulating with existing and forthcoming indicator frameworks:*** various indicators frameworks for climate change adaptation exist and further will be developed. These include 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 developed 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, a part of its core mission, to coordinate and ensure alignment with other sector initiatives and support innovation.

The limitations of the current frameworks and indicators can be twofold:

- a. they are not adapted to the inclusive finance sector, i.e. IFSPs
- b. the framework does not have a certification scheme attached to it that is able to certify the content of the portfolio according to the framework selected.

The key added value of the indicators framework and certification developed 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. The certification indeed will be designed to certify compliance with the defined framework and indicators adapted to the sector and hence be able to gain trust by investors.

#### **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 investors in inclusive finance for adaptation by supporting the establishment of a climate change adaptation certification scheme that rewards financial service providers that demonstrate progress in

financing 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 aims to attract private and public finance and pilot the mentioned scheme that can be scaled-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 encouraging inclusive financial service providers (IFSPs) 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**

<b>Baseline</b>	<b>Alternative to be put in place</b>	<b>Additional cost reasoning</b>
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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 smallholder farmers 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. IFSPs 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. IFSPs therefore cannot show investors the positive economic 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 climate adaptation climate change adaptation portfolio certification scheme that would enhance investments into IFSPs that systematically finance climate adaptation for smallholder farmers. 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 public finance for adaptation.

IFAD has a long history of working in the proposed participating countries on building capacity of smallholder producers and the rural poor, financing activities and interventions throughout the value chain, and building public-private-produce partnerships in agricultural

This proposal aims to develop and pilot a climate adaptation certification scheme for IFSP portfolios. 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 via a certification scheme 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 IFSPs by developing the climate change adaptation certification scheme. Through building innovative partnerships, the project aims to attract private and public finance and pilot the certification scheme that can be scaled-up, both in terms of increased climate finance and smallholder farmers' and rural communities' access to climate finance.



## 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 Senegal, Morocco, as well as of the one country in LAC to be selected during project, 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 IFSPs to increase climate financing to smallholder producers and rural communities. Increased ability of countries to access climate adaptation finance.

The main adaptation benefits will be:

- ? Increased ability of IFSPs to provide climate adaptation finance;
- ? Innovative private-public-producer partnerships established;
- ? Increased transparency via the certification scheme for IFSPs to provide, review and monitor financing for climate change adaptation;

The ultimate benefit of this pilot will be a tested certification scheme that can ultimately be replicated and scaled up resulting in increased access of smallholders and rural communities to climate finance. With increased climate adaptation 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. ?????

### **Innovation**

The main innovation of the project are:

- ? **Develop a common dictionary:** the development of standards for climate change adaptation finance tailored to IFSPs, and related adapted taxonomy for climate change adaptation practices and technologies, will allow all investors (private and public) and IFSPs for the first time to coordinate, communicate, and compare the different investment opportunities.

? **Enhance transparency:** the certification scheme developed in the project will, for the first time, allow investors to align the price of their funds to: a) the actual risks of their investment (i.e. lower risks for portfolio that dedicated to climate change adaptation) and b) the impact of their investment in term of resilience generation to smallholder farmers (e.g. pay for impact). This will allow the development of sound and scalable incentives to support IFSPs to finance climate change adaptation practices and technologies for smallholder farmers. Transparency will be further enhanced by the implementation of the "2.0" approach, i.e. the climate change adaptation portfolio certification is IT-backed and hence ensures 100% transparency and external audit.

? **Diversity of public and private actors:** the project's innovative potential lies as well within the composition and diversity of public and private actors. Key private investor (BNPP) and key public actor (IFAD) merge forces to support a certification scheme that will be used both by private and public sector.

## Sustainability

Some key factors that will ensure the sustainability are the following:

? The aim of BNPP and IFAD is to use the certification developed in the project for their investment and intervention. This should generate incentives by IFSPs to receive and eventually pay for the certification to have access to better conditions for funds and TA.

? The example of BNPP and IFAD will be utilized to engage further private and public investors that will be willing to use the certification developed in the project for their fundings and Technical Assistance intervention. Certification can then be paid by donors, investors, or IFSPs or co-financed by more than one actor (example IFSP + Investor, that see mutual benefits in the certification)

? Smallholder farmers will be able to observe the benefits of implementing climate change adaptation practices and technologies and hence increase the demand for their financing.

? The CBIFI will work to ensure that the certification is known, understood, improved and adapted also beyond the project scope. It will also look to find a short and medium term strategy for the sustainability of the certification, and it will engage IFSPs, investors and donors to ensure the sustainability of the certification.

## Scaling up

From an investor perspective, scaling up the certification solution is key. The 3 countries offer very different development backgrounds and can be considered sufficiently representative for duplication in neighboring countries and other regions. The scaling up will depend on the acceptance of the standards and taxonomy developed in the whole industry and its capacity to be rolled out after the programme ends.

Some key factors that will ensure potential for scaling up are the following:

1. ***A dedicated entity***: the project will be executed by a dedicated independent entity ?the Climate and Biodiversity Inclusive Finance Institute (CBIFI)? also named ?the Institute?, that is set up with the scope to ensure the implementation of certification schemes for climate change adaptation inclusive finance, and to act as market catalyzer for private and public investments in climate change adaptation with focus small scale producers and rural communities. This will ensure the development of market trust, constant learning and improvement, and the continuity, improvement, and scaling up of the climate change adaptation portfolio certification even beyond the project itself.
2. ***Independent and scalable methodology***: the proposed methodology is applicable independently of the underlying taxonomies to be certified, ensuring replicability and scalability.
3. ***Setting common standards***: the standards developed in the project can be used by each stakeholder, supporting the development of agreed and common metrics .
4. ***Reliability of the certification***: the actual claim of climate change adaptation portfolio (administrative records or structuring of the portfolio), as well as its verification are done by independent parties. Data sources are hidden to the party that is verifying the actual climate change adaptation content of the portfolio.
5. **Opportunity for expansion of scope**: the implementation of the climate change adaptation portfolio certification is applied, in the project, to each individual portfolio of each IFSP. Nevertheless, the climate change adaptation portfolio certification scheme developed aims to lay the foundation also of:
  1. the certification of the climate change adaptation portfolio of investors themselves investing in IFSPs, to support their strategy and operation to expand investors (public and private) portfolio in climate change adaptation and hence the actual funds available to scale the implementation of climate change adaptation practices and technologies at rural communities and small scale producers level.
  2. the certification of climate change adaptation portfolio at country level, to support design and implementation of private-public intervention, and technical assistance programmes.
6. ***The promotion of the certification scheme*** developed in the project with public and private investors, as well as with IFSPs, donors, DFIs, and regional and country networks.

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[1] In this context smallholder farms are defined as agricultural units that are smaller than 5 hectares. <https://www.fao.org/news/story/en/item/1395127/icode/>

[2] NbS are defined by IUCN (<https://www.iucn.org>) as ?actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits? <https://www.iucn.org/commissions/commission-ecosystem-management/our-work/nature-based-solutions>. The European Commission defines NbS as Solutions inspired and supported by nature that are cost effective, simultaneously deliver environmental, social and economic benefits and help build resilience. (source: EC).

[3] EbA is the use of biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change. EbA aims to maintain and increase the resilience and reduce the vulnerability of people and the ecosystems they rely upon in the face of the adverse effects of climate change (source: Convention on Biological Diversity, <https://www.cbd.int/article/biodiversityagainstclimatechange-1>)

[4] CbA is ?a form of adaptation that aims to reduce the risks of climate change to the world's poorest people by involving them in the practices and planning of adaptation. It adds to current approaches to

adaptation by emphasizing the social, political, and economic drivers of vulnerability, and by highlighting the needs of vulnerable people? (Source:

[https://www.researchgate.net/publication/264205917\\_Community-based\\_adaptation\\_A\\_review\\_of\\_past\\_and\\_future\\_challenges](https://www.researchgate.net/publication/264205917_Community-based_adaptation_A_review_of_past_and_future_challenges))

[5] UNEP Adaptation Gap Report (<https://www.unep.org/resources/adaptation-gap-report-2021>) or the UNEPFI report on climate resilience finance (<https://www.unepfi.org/publications/driving-finance-today-for-the-climate-resilient-society-of-tomorrow/>)

[6] For more details see Annex D1.

[7] [https://gca.org/wp-content/uploads/2021/10/GCA\\_State-and-Trends-in-Adaptation-2021-Africa\\_full-report\\_low-res.pdf](https://gca.org/wp-content/uploads/2021/10/GCA_State-and-Trends-in-Adaptation-2021-Africa_full-report_low-res.pdf)

[8] IPCC 6th AR

[9] <https://www.mckinsey.com/industries/agriculture/our-insights/winning-in-africas-agricultural-market>

[10] BMGF. Oct 29, 2021. ?Smallholder farming is a proven path out of poverty, but climate change is changing the rules?

[11] GCA. 2021. State and Trends in Adaptation Report 2021

[12] IPCC 6th AR

[13] IPCC 6th AR

[14] <https://www.greatgreenwall.org/about-great-green-wall>

[15] Data from YAPU Solutions, collected during project implementation with UN Environment.

[16] AR6 Working Group I report IPCC.

[17] IPCC 6th AR

[18] FAO (2014), Agricultura Familiar en Am?rica Latina y el Caribe: Recomendaciones de Pol?tica Agricultura Familiar en Am?rica Latina y el Caribe: Recomendaciones de Pol?tica

[19] FAO, PAHO, WFP and UNICEF. 2021. *Latin America and the Caribbean ? Regional Overview of Food Security and Nutrition 2021: Statistics and trends*. Santiago, FAO.

[20] FAO (2018), Disasters causing billions in agricultural losses with drought leading the way. Disasters causing billions in agricultural losses with drought leading the way.

[21] Landscaping the agritech ecosystem for smallholder farmers in Latin America and the Caribbean February 2021 IDB Lab Panos Loukos Leslie Arathoon

[22] Data from YAPU Solutions, collected during project implementation with UN Environment.

[23] The tracked climate finance flows to small-scale agriculture in developing countries amounted to an annual average of US\$10 billion in 2017-2018. In: Chiriac D, Naran B, Falconer A. Climate Policy Initiative. 2020. *Examining the Climate Finance Gap for Small-Scale Agriculture. International Fund for Agricultural Development*

[24] Data from the e-MFP Green Inclusive and Climate Smart Finance Action Group (GICSF-AG), from 1206 environmental assessments of IFSP worldwide done in the period 2011-19, by members of the GICSF-AG.

[27] <https://unepmeba.org>

[28] Marsters, L., G. Morales, S. Ozment, M. Silva, G. Watson, M. Netto, and G.L. Frisari. 2021. *Nature-Based Solutions in Latin America and the Caribbean: Financing Mechanisms for Regional Replication.* Washington, DC: Inter-American Development Bank and World Resources Institute

[29] Global Commission on Adaptation (2019) *Adapt now: a global call for leadership on climate resilience?*

[30] UPRA, 2018 Ordenamiento productivo y social de la propiedad rural.

[31] UPRA-FAO, synthesis of the diagnosis in the PNN, 2018

[32] <https://www.fao.org/climate-smart-agriculture/en/>

[33] <https://www.youtube.com/watch?v=NEQqnPzqmz4>

[34] UPRA-FAO, synthesis of the diagnosis in the PNN, 2018

[35] [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en)

[36] <https://unepmeba.org>

[37] **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)

[38] Microfinance for ecosystem-based adaptation. Options, costs and benefits (MEbA). [https://unepmeba.org/wp-content/uploads/2020/01/Microfinance\\_for-Ecosystem\\_based\\_Adaptation\\_EN.pdf](https://unepmeba.org/wp-content/uploads/2020/01/Microfinance_for-Ecosystem_based_Adaptation_EN.pdf)

[39] We report here below only a summary of countries baseline. For more details on each country, please refer to the Annex D2. Detailed countries description.

[40] BNP Paribas can finance the portfolio of IFPS only in countries where it has physical presence.

[41] Situation Trimestre 1 - Direction de la Réglementation et de la Supervision des Systèmes Financiers Centralisés (drs-sfd.gouv.sn)

[42] Femme et Microfinance - Microfinance.sn

[43] Climate change risk profile, Senegal USAID Factsheet

[44] 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 Senegal; World Bank. 2011. Senegal Climate Risk and Adaptation Profile; World Bank. 2016. Senegal Overview.

[45] Climate Risk and Adaptation Country Profile , world bank

[46] Climate Risk and Adaptation Country Profile , world bank

[47] World Bank Climate Change Portal: <https://climateknowledgeportal.worldbank.org>

[48] Data from YAPU Solutions, collected during project implementation with UN Environment.

[49] [Insight\\_Morocco\\_March\\_2014P.pdf \(mf-rating.com\)](#)

[50] Le Maroc deuxième marché de microcrédit dans le monde arabe | Aujourd'hui le Maroc (aujourd'hui.ma)

[51] Climate Risk Profile: Morocco (2021): The World Bank Group

[52] USAID (2016). Climate Change Risk Profile ? Morocco. URL: [https://www.climatelinks.org/sites/default/files/asset/document/2016\\_](https://www.climatelinks.org/sites/default/files/asset/document/2016_)

[USAID\\_Climate%20Risk%20Profile%20-%20Morocco.pdf](#)

[53] World Bank (2018). Climate Variability, Drought, and Drought Management in Morocco's Agricultural Sector. URL: <http://>

[documents.worldbank.org/curated/en/353801538414553978/pdf/130404-WP-P159851-Morocco-WEB.pdf](https://documents.worldbank.org/curated/en/353801538414553978/pdf/130404-WP-P159851-Morocco-WEB.pdf)

[54] USAID (2016). Climate Change Risk Profile ? Morocco. URL: <https://www.climatelinks.org/sites/default/files/asset/document/>

[2016\\_USAID\\_Climate%20Risk%20Profile%20-%20Morocco.pdf](#)

[55] World Bank (2018). Climate Variability, Drought, and Drought Management in Morocco's Agricultural Sector. URL: [http://](http://documents.worldbank.org/curated/en/353801538414553978/pdf/130404-WP-P159851-Morocco-WEB.pdf)

[documents.worldbank.org/curated/en/353801538414553978/pdf/130404-WP-P159851-Morocco-WEB.pdf](http://documents.worldbank.org/curated/en/353801538414553978/pdf/130404-WP-P159851-Morocco-WEB.pdf)

[56] World Bank Climate Change Portal: <https://climateknowledgeportal.worldbank.org>

[57] UNEP Adaptation Gap Report (<https://www.unep.org/resources/adaptation-gap-report-2021>) or the UNEPFI report on climate resilience finance (<https://www.unepfi.org/publications/driving-finance-today-for-the-climate-resilient-society-of-tomorrow/>)

[58] <https://www.iucn.org/theme/nature-based-solutions/resources/iucn-global-standard-nbs>

[59] [https://lightsmithgp.com/wp-content/uploads/2020/09/asap-adaptation-solutions-taxonomy\\_july-28-2020\\_final.pdf](https://lightsmithgp.com/wp-content/uploads/2020/09/asap-adaptation-solutions-taxonomy_july-28-2020_final.pdf)

[60] [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-taxonomy-sustainable-activities_en)

[61] <https://unepmeba.org>

[62] Of course such practices and technologies generate also additional benefits in term of productivity improvement for smallholder farmers producers, improvement of quality of production, protection and promotion of healthy ecosystems and biodiversity, reduction of greenhouse gas emissions, among others.

[63] UNEP, 2014

[64] PRICCO; CIAT, 2014

## **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 (Morocco and Senegal) and in one Latin America country. The actual IFSPs to receive the first certifications will be selected at the beginning of the project. Geo-information and maps where the intervention will take place will become available once the IFSPs 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**

### *Stakeholders consultations*

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

? Private sector entities, including:

- o Investors: commercial banks, impact investors, 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.
- o IFSPs: microfinance institutions, cooperatives and local banks. 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 in LAC, and indirectly through the data collected by IFSPs as well as interviews with loan officers of IFSPs.

### **Stakeholders participating to the project implementation**

The main stakeholders that will participate to the project are:

? **The CBIFI:** The Climate and Biodiversity Inclusive Finance Institute (CBIFI) or 'the Institute' 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 products offer the CBIFI has certifications schemes to support private and public sector to finance climate change adaptation and biodiversity conservation. Thanks to the present project the CBIFI will develop a new certification scheme dedicated to climate change adaptation portfolio, with the aim to scale up its use for climate change adaptation investments and TA intervention both by private and public investor, as well as TA providers and donors. BNP Paribas will transfer the project funds to the CBIFI, that will execute and manage the present project on behalf of BNP Paribas, as well as ensuring quality. The Institute counts BNP Paribas among its founders that, by sitting on the board of the CBIFI, steer its strategy as well as ensure the alignment of

operations. To ensure the public-private interest of the certification scheme developed in this project as well as its use and scale within the private and public finance sector the CBIFI will develop a technical committee for the project composed of public and private experts. The CBIFI will invite the GEF, as well as IFAD to be part of this technical committee within the CBIFI that will take care to shape the actual technical development of the certification scheme.

? **BNPP:** is one of the largest banks in the world. Its vision is to support the financial sector transition towards being more inclusive and climate and biodiversity positive. The BNP Paribas has already worked on climate change adaptation for IFSPs, for example in the framework of the MEbA project with UN Environment. Moreover the BNPP has worked to develop specific indicators to support the identification and channeling of funds for climate change adaptation for smallholder farmers and IFSPs. The BNPP looks at the certification to be developed in this project as a key tool to spur private sector finance for climate change adaptation. The intention is that BNPP will use the climate change adaptation certification for the loans disbursed in the period 2023-24 with the IFSP that are part of the project and that would qualify for investment by BNPP in term of financial assessment, strategy and objectives. The objective is that Bank's IFSPs direct refinancing portfolio is certified with the climate change adaptation portfolio certification in the medium term. The countries have been selected by considering the local presence of BNP Paribas in each country: Senegal with its subsidiary BICIS, Morocco with its subsidiary BMCI. BNP Paribas also has subsidiaries in LAC, the third country will be identified among the countries where BNP Paribas have subsidiaries and activities in LAC. Furthermore, BNP Paribas offers its expertise on adaptation and biodiversity to implement the methodology that would be used within the project. This expertise would be necessary to frame external reporting tools (by using a certain taxonomy & SFDR ; Sustainable Finance Disclosure Regulation). Once the certification is implemented, BNP Paribas will be able to select specific IFSPs, as part of the certification project, partner IFSPs already advanced on the topic and which a significant part of the portfolio is devoted to agriculture and rural development. Finally, BNP Paribas would be able to set up financing lines with institutions that have benefited from certification as part of this project.

? **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 to co-develop together the taxonomy for climate change adaptation inclusive finance that will be used in the present project, as well as to consider in the certification needs, the demands and details of smallholder farmers, and associated value chains . IFAD will participate in the selection of the IFSP part of the project, as well as engage in the overall implementation of the project at supply and demand level.

? **YAPU:** 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 as well as expert portfolio analysis.

? **IFSPs:** Inclusive finance service providers in the selected countries will be engaged to participate in the present project. Microfinance institutions, cooperatives, local banks as well as fintech will be considered for the climate change adaptation portfolio. To the extent possible IFSPs inputs and feedback will be included in the design of the certification to ensure its usability, added value for their operations, as well as its capacity to spur their climate change adaptation finance for smallholder farmers.

### **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).**

According to the IPCC[1] women, in particular smallholders and in rural area, are among the most affected by climate change effect: "sudden losses of food production and access to food compounded by decreased diet diversity have increased malnutrition in many communities (high confidence), especially for ... and pregnant women particularly impacted (high confidence)."; "Individual livelihoods have been affected through changes in agricultural productivity with adverse effects on gender and social equity (high confidence)"; "Vulnerability at different spatial levels is exacerbated by inequity and marginalization linked to gender...?"; "Social safety nets that support climate change adaptation have strong co-benefits with development goals such as ... gender inclusion and food security. (high confidence)? . Moreover women in agricultural communities are agents of change for climate change adaptation, and they have specific needs in terms of practice and technologies, according to different roles and use during the various cycles of production and commercialization, as well as for households' livelihoods. One of the key bottlenecks to scaling adaptation solutions for women farmers is access to finance[2].

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 by including in the portfolio certification climate change adaptation practices and technologies that are more often implemented or could be more easily implemented by women, as well as segment the portfolio certification per gender. This will ensure to enhance the sector knowledge on which climate change adaptation practices and

technologies better fits women needs as well as contribute most to their climate resilience.

During the project design and preparation the project will assess women's access to finance for climate change adaptation, assess gender specific climate change adaptation practices and technologies. During the project implementation the material produced will include promotion of gender sensitive elements for financial decision makers in IFSPs

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[1] IPCC: Climate Change 2022: Impacts, Adaptation and Vulnerability:  
<https://www.ipcc.ch/report/sixth-assessment-report-working-group-ii/>

[2] <https://www.econstor.eu/bitstream/10419/199216/1/die-study-91.pdf>

**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?**

**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 IFSP. BNPP as main private investors and commercial bank will take a leading role in the project implementation ensuring the certificate developed will be useful for its private investments in IFSPs. Moreover BNPP will ensure to engage other private investors interested in using the certificate developed in this project for their investments. The CBIFI will take care to coordinate the actions among the various private investors as well as coordinating private and public investors. A technical committee will be

established within the CBIFI, including private and public investors, to ensure their alignment during all the project implementation and beyond.

IFSPs will play a crucial role in the project in terms of testing, piloting and validating the certification, and being able to use it to attract further funds for climate change adaptation, as well as enhance their financing of climate resilience for smallholder farmers.

The project's innovative potential lies within the composition and diversity of public and private actors. As an investor BNP Paribas has the necessary perspective to understand the needs and requirements to enhance private sector investments into climate change adaptation to address climate change impacts and enhance resilience. At the same time the overspanning topic of the proposal ? green financial inclusion for smallholder farmers ? makes the involvement of the private sector an imperative.

IFSPs are known to be able to act as agents of change for access to finance for the most vulnerable to climate change[1]. To resolve the above mentioned barriers, various publicly financed measures are required to create the necessary incentives and market conditions to mainstream investments into climate change adaptation.

Improving the conditions for climate change adaptation investments for IFSPs that finance practices and technologies for smallholder farmers is important to incentivize IFSPs to increase their climate change adaptation portfolios.

IFSPs and private investors will be involved through various existing channels, e.g. extensive network of IFSPs related to the MEbA project, as well as the Green Inclusive and Climate Smart Finance Action Group (GICSF-AG: <https://www.e-mfp.eu/gicsf-ag>) or the UNFCCC Scale for Resilience (<https://yapu.solutions/scaleforresilience/> )

The present project aims, indeed, through the CBIFI, to engage further other private (and public) investors, among which commercial banks and inclusive finance investors to use the certification scheme developed by the project into their lending decision and conditions. The scope is to make the certification scheme for climate change adaptation portfolio developed and piloted in the present project as one of the key elements to support the financial sector towards climate, biodiversity and inclusive finance. The CBIFI will be able to support the achievement of this goal thanks to its extensive network of members and initiatives, as well as capitalizing on the work of the Climate Smart and Green Inclusive Finance Action Group of the e MFP, that group 80+ institutions, among which private investors interested in support green transition for small and micro enterprises as well as smallholder farmers and poor households.

In particular BNPP has key engagement in supporting the climatic transition, such as:

? The BNP Paribas engagement towards Climate Change is manifesting across its sectorial politics that the Group activities support. BNPP has thus taken several initiatives to incorporate climate related

risk factors in its risk management framework, and the analysis of ESG risks is already included in BNPP's operational lending processes. Depending on the sector and type of customer, the credit review should contain an ESG section including analysis components with respect to ESG criteria.

? Since the Sector Policies were implanted, questionnaires have been rolled out Group Wide to ensure that corporate customers meet all requirements with respect to the climate, alongside with the consequences of the adaptation and mitigation policies implanted in response. Under the ESG Action Plan, the Group also develops portfolio analysis processes for the purpose of monitoring and supervising its portfolio's exposure to climate related risk factors.

? Aware that its activities, like those of its individual, corporate and institutional clients play a key role in supporting climate transition, climate change adaptation and preserving biodiversity, the Group is diversifying and strengthening its actions as a leading committed economic player, but also in the collective action framework, **through the promotion of nature-based solutions (NbS)**. For several years, BNP Paribas has been committed to preserving biodiversity through its financing policies, constructive dialogue with its clients, the coalitions in which it participates, sponsorship and support for research. There still exists an investment gap, because until recently, nature-based solutions have been financed primarily through pure grant philanthropy or corporate social responsibility. This type of funding is limited and that is why, BNP Paribas wants to scale up and promote more business models for nature-based solutions to attract private capital with a positive financial ROI for private investors that will at the same time, deliver social and environmental returns

? Strengthening partnership in this sector is essential for BNP Paribas, with various players in order to make its action more effective. Among those partnerships, the group developed 'blended finance' structures, in partnership with public, philanthropic and private actors. It allows the group to take part in the creation and development of impact funds such as the Global Fund for Coral Reefs and the Sub-national Climate Fund (SCF) which is a global fund, size of \$650 M aiming to develop sustainable and local infrastructure, resilient to climate change by integrating nature-based solutions, especially in the agricultural sector.

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[1] <https://www.econstor.eu/bitstream/10419/199216/1/die-study-91.pdf>

## 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)**

Various risks could manifest in term of internal and external project risks, we provide here some key potential risks and their mitigation measures:

Risk description	Risk potential	Mitigation measures
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<p><b>Internal risks:</b></p> <p>Coordination of actions among multi stakeholders implementing the project.</p>	<p>Medium</p>	<p>Advisory committee including lead staff per each party to ensure ongoing coordination, alignment and cooperation. The advisory committee will be hosted by the CBIFI.</p>
<p><b>Internal risks</b></p> <p>Institutional risk at the IFSP level: ? weak institutional capacities and lack of implication at the governance level, lack of human resource engagement.</p>	<p>High</p>	<p>Engagement of of management of each IFSP, as well as their capacity to allocate adequate resources to the implementation of the project will be a prerequisite in the selection process. Linkages between certification and possibility to access to dedicated funds as well as supporting projects will be explained. Technical part of the work, concerning portfolio analysis, will be enabled with proven methodology and technology.</p>
<p><b>Internal risks:</b></p> <p>Weak institutional capacity of IFSPs to identify the climate change adaptation content and benefits of their portfolio</p>	<p>High</p>	<p>Capacity building activities, communication materials, and easy to be used tools will be applied to the project, as well as learning from the experience of other IFSPs. Technical provider will support IFSP to assess the content of the their portfolio using proven methodologies.</p>

<p><b>External risks:</b></p> <p>Difficulty to engage IFSPs at the beginning of the project due to low prioritization of climate change in their portfolios</p>	<p>Medium</p>	<p>Engagement of IFSPs will be done in advance. Best channel will be selected to ensure best outreach: e.g. through private investors (BNPP in the project) or public body (IFAD), or other sector stakeholders that can ensure best outreach. The networks of the institutions implementing the project will be leveraged. Clear presentation of the advantages of the certification and its potential role to support IFSPs to access climate funds and technical assistance to improve their practices.</p>
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<p><b>External risks:</b></p> <p>Health risk ? Covid-19 pandemic revival in the countries of implementation that limits operational capacities to develop the project</p>	<p>Medium</p>	<p>Majority of project activities have been designed to be done virtually, the project activities that would require physical presence will have possible virtual opportunities as well.</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 thereby contributing to 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 COVID-19 crisis. The certification scheme will strengthen further the agriculture and climate change adaptation ? related share of IFSPs portfolio, by enhancing transparency, quality of practices and technologies for climate change adaptation financed, as well as by attracting funds to re-finance and expand the agriculture and climate change adaptation portfolio. As a result, smallholder farmers will receive a better and adjusted offer for financing their productive investments and strengthening resilience.</p> <p>Hence, the project will contribute to enhancing the resiliency of the smallholder farmers and IFSPs against COVID -19 pandemic, and support climate resilient recovery of the clients of the IFSPs and the IFSPs themselves. It will also support healthy food production for vulnerable communities, contributing to food security and providing health benefits that will strengthen their ability to recover from the COVID- 19 aftermaths and potential other pandemics.</p>
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<p><b>External risks:</b></p> <p>Extremes climate ? weather events (e.g. fire, severe storm) damaging certified areas to the extent they are not able to continue delivering adaptation benefits.</p>	<p>Low</p>	<p>The certification will verify the practices and technologies financed including their capacity to reduce climate vulnerability of the clients. The certification will have a time of validity, after this time, to ensure that the portfolio of climate change adaptation is providing adaptation benefits, the IFSPs will have renew the certification. In case a major weather event occurs, thanks to the mapping of the portfolio done during the certification, the IFSP should be able to identify which clients have been affected and how much, and hence the actual size of portfolio dedicated to climate change adaptation after the event should be possible to be estimated.</p>
<p><b>External risks:</b></p> <p>Environmental and social risks that the operations promoted by the IFSPs will negatively impact ecosystems and their clients</p>	<p>Low</p>	<p>The certification itself will play a key role in mitigating social and environmental risks, by making transparent which part of the portfolio is generating resiliency for the clients (i.e. reducing social risks) and supporting ecosystem health (i.e. reducing environmental risks).</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.**

IFAD is the GEF Agency and will be responsible for oversight and supervision to ensure that the project is progressing as planned, inputs and outputs are being delivered in a timely manner and resources managed in accordance with the GEF-approved budget. IFAD will be responsible for overall quality assurance and

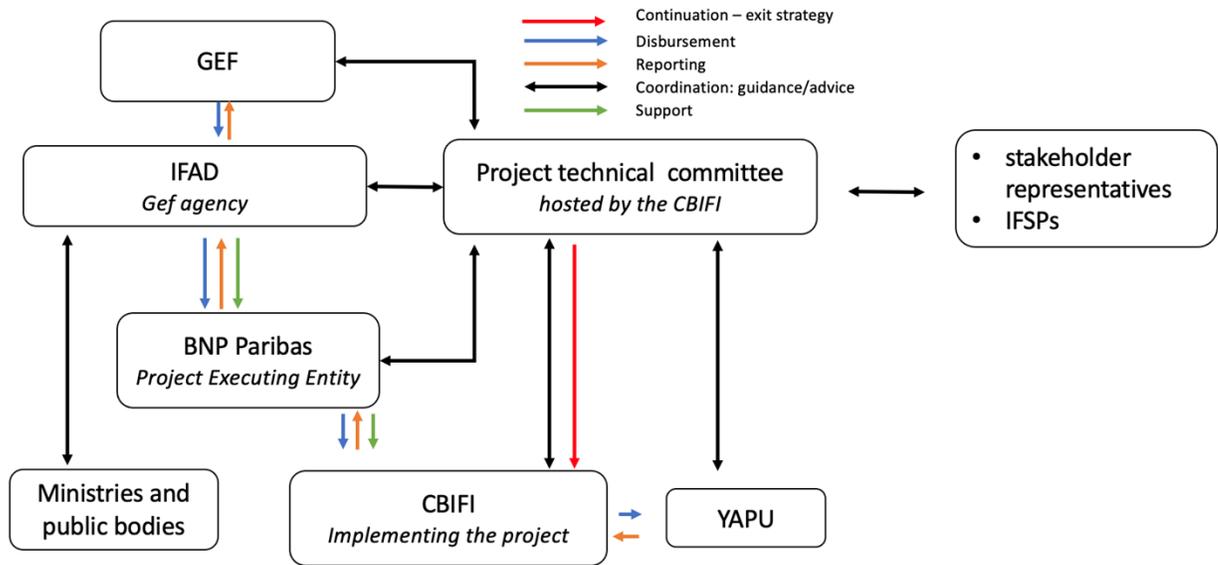
will contract BNPP to serve as the lead executing partner of the project. IFAD will participate in IFSPs selection as well as it will have an active role in the project by mobilizing its resources from existing projects.

BNP Paribas is the Project Executing Entity, it will ensure private sector engagement as well as alignment of the certification with private investor processes and logic, to ensure usability and scale up. BNPP will delegate the project execution and management to the CBIFI while remaining fully engaged in the governance of the Institute. Indeed, BNPP will sit on the Board of Directors of the CBIFI to steer its strategy and ensure alignment between its operations and the Institute's strategy. BNPP will be operationally engaged during the full implementation of the project and will be particularly in terms of: selection of IFSPs, adaptation of processes to include certification into its lending processes but also taking into account the wider investor community to attract additional private funding, coordination with BNPP local subsidiaries in the selected countries, networking with other investors and promotion of the certification scheme within the sector (investors and IFSPs). Even if the actual credit provision to IFSPs is not included in the present project, BNPP will use the climate change adaptation portfolio certification of the project for the loans that it will directly disburse for the period 2023-24 with the IFSP that are part of GEF project and that would qualify for BNPP funding after financial, operational and social performance assessment along BNPP, strategy and objectives. Moreover, BNPP will refine its climate change adaptation strategy in inclusive finance by including the direct and 'climate change adaptation portfolio' certified (purpose of the present project) part of IFSPs that it will refinance.

The CBIFI will ensure the execution and management of the project, as well as the quality of activities and deliverables. The CBIFI will invite: BNPP, IFAD, GEF, YAPU to sit on a technical committee that will ensure that the certification scheme developed is aligned with the needs of the various stakeholders involved, useful for their existing and forthcoming projects and operation, and more broadly to be a catalyzer for the engagement of other public and private stakeholders, and in particular investors, to use the certification developed to enhance their investment into climate change adaptation and biodiversity conservation.

The technical committee will coordinate with other representatives of stakeholders, including IFSPs, local networks, public bodies, GEF Operational Focal, among others, for which an extended project coordination committee will be proposed.

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



### Coordination with other GEF-financed projects and other initiatives

The GEF supports other two Challenge Program projects for which IFAD serves at the GEF Agency. They are, respectively, the project *Investment Framework for Increasing Climate Change Adaptation Finance for Smallholders and Rural Communities (AIF)* led by the Grameen Credit Agricole Foundation 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 these two projects. The present project and the Grameen Credit Agricole Foundation led project have been designed to complement each other.

The Grameen Credit Agricole Foundation led project focuses on the establishment of dedicated financial products for Climate Change Adaptation finance for smallholders and rural communities (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 leverage the portfolio certification for climate change adaptation delivered in the present project (not included in the Grameen Credit Agricole Foundation led project) to attract funds by private and public investors that will be using the financial products for Climate Change Adaptation conservation finance developed in the Grameen Credit Agricole Foundation led project. This would also contribute to increasing the appeal of the certification scheme for IFSPs by showing its capacity to attract dedicated funds, and support the IFSP with further

training and technology. To the extent possible, efforts will be made to identify one IFSP that could participate in both projects to pilot the complementarity and synergies of the two 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 both the project both in terms of demand and supply side intervention.

**General synergies and complementarity with IFAD existing projects[1]:** the present project focuses to generate transparency into the portfolio of IFSPs that will hence be able to receive tailored finance for climate change adaptation as well as TA support. IFSPs will hence be able to finance the implementation of climate change adaptation practices and technologies to smallholder farmers (i.e. the Supply side intervention.) IFAD is constantly and extensively working on the training and capacity building of smallholder farmers and value chain actors, 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 two approaches are hence complementary and have great synergies to ensure at once solutions both at 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 certification scheme will be used in supply side intervention of IFAD to better identify financial needs and capacities of IFSP and eventually attract private funds to blend IFAD finance.

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[1] for more details please refer to Annex D3. General synergies and complementarity between IFAD activities and the present project

## **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 INDC and NAPs. Indeed in the development of the certification scheme we will ensure to include into the taxonomy of climate change adaptation practices and technologies 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 INDC and NAPs per country.

The details of NDCs and NAPs for each country where the project will be implemented are presented below.

### **One country in LAC, TBD during full project design: NDC, NAP priorities**

To be completed during the full project design, once the additional country in LAC will be defined.

### **Senegal: NDC, NAP priorities[1]**

Total cost of implementation of NDC in Senegal is estimated at 21.07 Bn USD. It targets the reduction of -21% in greenhouse gas emission in comparison to BAU by 2030. NDC also includes adaptation strategies and activities to be implemented by 2030 for a cost of 14.27 bn USD, including for example climate smart agriculture (e.g. technologies for sustainable management, improve plant and forest production, promote agriculture insurance), improved livestock management (e.g. pastoral insurance, improve breeding species, improve the production of health care of livestock). The Senegalese National Adaptation Plan (NAP) is using a sectoral approach, seeking to reinforce its governance to integrate climate change adaptation into development processes and budgets.

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 (quote). Senegal has submitted 3 National Communications to the UNFCCC (1997, 2010, 2016) [2], the third of which informed its INDC. A Technical Needs Assessment (TNA) was conducted in 2012 providing guidance on the evaluation of adaptation measures in agriculture and water resources. The Senegal government is also part of the support project for science-based BAPs for Least Developed Countries in Francophone Sub Saharan Africa.

Senegal implemented various adaptation projects, among which: Storm Water Management and Climate Change Adaptation Project (2012-19), Adaptation to Coastal Erosion in Vulnerable Areas (2011-14).

### Morocco: NAPs and NDCs[3]

Morocco updated its NDC in 2021[4], putting forward an enhanced and more ambitious engagement aiming at a 45.5% reduction of its greenhouse gases emissions by 2030. Specific activities, concerning sectors relevant for the present project, includes: agriculture, with the objective to promote natural resources and sustainable management: improve market competitiveness of agriculture sector, as well as improve agriculture waste management; land use change and forestry with key focus on conservation, reforestation, and afforestation (50000 ha per year). The NAP includes 8 strategic adaptation priorities in MCCP[5], targeting 9% of government budget on adaptation, a predicted USD35bn cost of adaptation projects 2020-2030.

Agriculture is included among the 8 adaptation priorities and it highlights the development of a NAP that should identify priority activities to address adaptation requirements. Six out of them (all but 6 and 8) are partly financed by the microcredit association and can be linked to the present certification project. Morocco commenced the adaptation planning process in 2015 following the adoption of the MCCP (Moroccan Climate Change Policy). The NAP goal is to reduce vulnerability to the impacts of climate change and to integrate adaptation into all levels of development planning (multi-sectoral, involving Ministries of Environment and other key Ministries such as Finance and Planning).

NDC also includes relevant climate change adaptation interventions, among which: water infrastructure, water efficiency, agriculture (conversion of nearly 1 M ha of grain crops to fruit plantation that likely protect agriculture areas from erosion by 2030), irrigation (large conversion of surface irrigation to drip irrigation, with expected water saving of 2.4 bi m<sup>3</sup>/year), environment (treatment to prevent erosion of 1.5 M ha over 20 years, in 22 priority watersheds), ecosystems and biodiversity (ecosystem based adaptation approach, and restore ecosystems and strengthening their resilience to combat soil erosion and prevent floods), sustainable land management (integrated land planning to build resilience), climate risks management (risk- prevention management in most venerable areas, and protection of climate sensitive production systems, including agriculture).

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[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)

[3] Intended Nationally Determined Contribution ? (I) NDC Climate Policy Team , World Bank Group , 2016;

[https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Morocco%20First/Moroccan%20updated%20NDC%202021%20\\_Fr.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Morocco%20First/Moroccan%20updated%20NDC%202021%20_Fr.pdf)

[4][https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Morocco%20First/Moroccan%20updated%20NDC%202021%20\\_Fr.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Morocco%20First/Moroccan%20updated%20NDC%202021%20_Fr.pdf)

[5] National Adaptation Plans in focus: Lessons from Morocco (UNDP, UN Env, GEF)

## 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.**

The project foresees the analysis of the landscape for relevant projects that are being implemented in the project regions to capitalize upon existing synergies. Institutions and individuals implementing relevant projects in the countries selected will be contacted with the objectives to learn from the projects, make them aware of the present project, and explore synergies. Therefore, the proponents suggest various virtual events and a distribution of the project results to relevant actors.

Due to the private sector approach of the project knowledge will be automatically distributed to further IFSPs and investors interested in the certification scheme.

Two outputs of the project are dedicated to knowledge management:

? Output 2.1: ?Climate Change Adaptation certification scheme assessed, and knowledge shared? will ensure that the result of the first pilot with four IFSPs is assessed and lessons learnt shared to improve the next implementations. Public and private stakeholders' motivation to use the certification in their investment decision will be assessed and the knowledge generated will be used to share communication around the certification, as well as to adapt further the certification scheme. A short white paper on ?Climate Change Adaptation certification scheme for investors (public / private)? will be prepared where the methodology developed will be explained as well as the first pilots, and shared with all sector stakeholders. Communication material will be prepared and distributed to IFSPs and investors. A virtual event will be organized, where public and private actors will be invited and the experience and lessons learnt of the project will be shared with the sector. Further actors will be engaged to support climate change adaptation finance for the scale up phase.

? Output 2.2 ?Capacity building for inclusion of Climate Change portfolio certification delivered to private and public investors?. Training material will be developed for private and public investors to develop their capacity to use the certification of the project in their lending decisions. Ongoing training on the certification scheme will be delivered to private and public investors. A short concept paper on inclusion of Climate Change Adaptation portfolio certification schemes into a package of intervention for Climate change adaptation will be prepared and shared with donors, DFIs, public and private investors, and other channels.

Within the group, BNP Paribas wishes to strengthen internal communication around the implementation of the project, with the dissemination of the results and the organization of internal events on this subject.

The knowledge acquired through this project will enable BNP Paribas to use it for ongoing projects and in order to target more relevantly future projects. Beyond the project, the implication of BNPP will strengthen the operational framework governing its activities. Moreover the BNPP will support dialogue with customers in the most sensitive sectors, development of product and service relying on nature-based solutions (NbS).

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 on knowledge generation through its participation to 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. On going communication on the project achievement will be ensured as well as an ongoing learning process with the sector.

Broad cross-regional knowledge exchange will be facilitated thanks to the project implementation in three countries belonging to three different regions. Indeed stakeholders from or engaged in Western African, Northern African and South America will be invited in the knowledge management events and engaged in the project, to ensure the diffusion of beneficial lessons learnt in the full region and put the basis for regional expansion of the project.

## 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/Approva I	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.

In this section we provide the preliminary E&S Safeguard Screening and Climate risk Screening and briefly describe what the risks might be. The environmental risk has been assessed as low. Nevertheless 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 moderate climate risk rating. Additional assessment will be conducted as part of project 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_SECAP_ESC_Screening_BNPP	

**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).**

<b>Name</b>	<b>Position</b>	<b>Ministry</b>	<b>Date</b>
Baba Drame	Directeur de l'Environnement et des Etablissements Classes	Minist?re de l'Environnement et du Developpement Durable - Senegal	4/21/2022
Rachid Firadi	Director of Partnership, Communication and Cooperation	Secretariat of State in Charge of Sustainable Development - Morocco	4/18/2022

**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 (Morocco and Senegal) and in one Latin America country. The actual IFSPs to receive the first certifications will be selected at the beginning of the project. Geo-information and maps where the intervention will take place will become available once the IFSPs participating in the project will be known.