Climate security and sustainable management of natural resources in the central regions of Mali for peacebuilding

Part I: Project Information

GEF ID
10687

Project Type
FSP

Type of Trust Fund
MTF

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

Project Title
Climate security and sustainable management of natural resources in the central regions of Mali for peacebuilding

Countries
Mali

Agency(ies)
UNDP

Other Executing Partner(s)
Agency for Environment and Sustainable Development (AEDD)

Executing Partner Type
Government

GEF Focal Area
Multi Focal Area

Taxonomy

Climate Change, Focal Areas, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Climate Change Mitigation, Renewable Energy, Agriculture, Forestry, and Other Land Use, Climate Change Adaptation, Innovation, Mainstreaming adaptation, Least Developed Countries, Disaster risk management, Community-based adaptation, Livelihoods, Climate resilience, Land Degradation, Food Security, Sustainable Land Management, Sustainable Pasture Management, Improved Soil and Water Management Techniques, Ecosystem Approach, Integrated and Cross-sectoral approach, Sustainable Livelihoods, Sustainable Agriculture, Restoration and Rehabilitation of Degraded Lands, Sustainable Forest, Community-Based Natural Resource Management, Income Generating Activities, Land Degradation Neutrality, Land Productivity, Land Cover and Land cover change, Gender results areas, Gender Equality, Access and control over natural resources, Capacity Development, Participation and leadership, Gender Mainstreaming, Sex-disaggregated indicators, Beneficiaries, Women groups, Knowledge Generation, Knowledge Exchange, Capacity, Knowledge and Research, Influencing models, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Demonstrate innovative approache, Stakeholders, Private Sector, Financial intermediaries and market facilitators, SMEs, Capital providers, Individuals/Entrepreneurs, Type of Engagement, Partnership, Participation, Communications, Behavior change, Awareness Raising, Education, Local Communities, Civil Society, Academia, Community Based Organization, Non-Governmental Organization, Learning, Theory of change, Adaptive management, Indicators to measure change

Sector
Mixed & Others

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 0

Climate Change Adaptation
Climate Change Adaptation 2

Submission Date
9/25/2020

Expected Implementation Start
10/1/2022

Expected Completion Date
9/30/2028

Duration
72In Months

Agency Fee($)
713,693.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	LDCF	4,872,831.00	50,465,130.00
LD-1-1	Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)	GET	1,680,000.00	10,173,143.00
LD-1-4	Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape	GET	539,726.00	3,338,325.00
LD-2-5	Create enabling environments to support scaling up and mainstreaming of SLM and LDN	GET	420,000.00	2,620,685.00
		Total Project Cost($)	**7,512,557.00**	**66,597,283.00**

B. Project description summary

Project Objective

To ensure the long-term sustainability of vulnerable productive landscapes in Mali?s central region of Mopti, through nature-based solutions that reverse land degradation, strengthen communities? climate resilience and promote conflict resolution

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

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1: Enhancing coordination and monitoring for land degradation neutrality and climate security	Technical Assistance	Outcome 1: Capacity is improved for national coordination and monitoring, to achieve implementation of Land Degradation Neutrality targets and adapt to climate change Indicator 1: Degree to which the capacity of targeted institutions is strengthened to coordinate and monitor LDN targets and adaptation interventions Target: Increase of 2 in the capacity score of each institution (out of a maximum of 4: Low capacity = 1; Basic Capacity = 2; Moderate Capacity = 3; Strong Capacity = 4)	Output 1.1: National LDN committee revitalized and capacitated for better coordination of cross-sectoral decision-making for LDN Output 1.2: Action plan for achieving and monitoring targets for Land Degradation Neutrality	GET	226,560.00	859,651.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1 (same as above)	Technical Assistance	Outcome 1 (same as above)	Output 1.3 Regional climate risk and vulnerability assessments and maps developed, with an application of security sensitivity framework	LDCF	168,060.00	12,732,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2: Enhancing resilience of degraded production landscapes with communities vulnerable to climate change	Investment	Outcome 2: Productivity is restored and yields are increased in vulnerable grazing, farming and fishing landscapes through effective community management in the central regions of Mali *Indicator 2: Number of hectares of land in the target landscapes seeing a statistically significant improvement in land (vegetation) productivity* *Target: 36,000 ha*	Output 2.1: Socially and gender inclusive community-based natural resource management committees are created/revitalized and supported to serve as platforms for negotiating and resolving natural resource conflicts between user groups Output 2.3: Training and inputs provided to farmers and herders in 15 target communes of Mopti and S?gou for landscape regreening, based on traditional/local knowledge and solutions	GET	1,434,855.00	13,774,744.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2 (same as above)	Investment	Outcome 2 (same as above)	Output 2.2: Adaptation measures are integrated into local development plans Output 2.4: Capacity development programme for climate-smart agriculture in target communes Output 2.5: Rehabilitation of 21,000 hectares of degraded grass/shrubland and wetlands for improved climate resilience	LDCF	2,095,106.00	19,305,795.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 3: Supporting family farms, youth and women to innovate and adopt resilient and sustainable livelihoods	Investment	Outcome 3: Rural households and community-based organizations enhance their resilience to conflict and climate change by restarting and diversifying productive activities and businesses that spread household risk, whilst simultaneously provide inputs to climate-smart agriculture, or adding value to climate-smart agricultural products Indicator 3: Number of entrepreneurs benefiting from improved revenue streams (gender disaggregated) as a result of restarting and diversifying productive activities Target: 17,000 individuals with increased income of at least 30% over baseline, of which 60% women	Output 3.1: New cooperative climate-smart businesses established involving women, youth and displaced people Output 3.2: Entrepreneurship training and business incubation services provided to women and youth from target landscapes for adaptation-linked business ideas Output 3.3: Training, technical support and equipment provided to climate-smart cooperative enterprises involving women, youth and displaced persons	LDCF	1,947,625.00	14,718,635.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 4: Monitoring and evaluation and knowledge management for upscaling	Technical Assistance	Outcome 4: Project impacts are monitored and learning shared for scale-up of results across Sahel regions of Mali, and beyond Indicator 4: Number individuals replicating good practices (in monitoring, communication, gender, conflict management, landscape restoration, adaptation) based on lessons learned from the project activities Target: 2,500 individuals	Output 4.1: Knowledge platform operational for coordination and lessons sharing among stakeholders at commune, cercle, region, national and international levels	LDCF	430,000.00	1,704,800.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 4 (same as above)	Technical Assistance	Outcome 4 (same as above)	Output 4.2: A learning framework is developed and implemented for project as a whole Output 4.3: A participatory M&E framework is developed and implemented for the project as a whole (including sites for Component 2 and 3 activities) Output 4.4: Environmental and Social Safeguards Management	GET	852,610.00	92,058.00
				Sub Total ($)	**7,154,816.00**	**63,187,683.00**

Project Management Cost (PMC)		
LDCF	232,040.00	2,003,900.00
GET	125,701.00	1,405,700.00
Sub Total($)	**357,741.00**	**3,409,600.00**
Total Project Cost($)	**7,512,557.00**	**66,597,283.00**

Please provide justification

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	UNDP TRAC	Grant	Investment mobilized	1,500,000.00
GEF Agency	UNDP ? Gender and Climate	In-kind	Recurrent expenditures	300,000.00
GEF Agency	UNDP - Liptako-Gourma Facility	In-kind	Recurrent expenditures	10,000,000.00
Recipient Country Government	Ministry of Environment - Transformation produits agricoles, R?silience femmes et jeunes et P.R.E.V.U.C.C.)	In-kind	Recurrent expenditures	1,650,000.00
Recipient Country Government	Ministry of Environment - LoCAL	In-kind	Recurrent expenditures	8,000,000.00
Recipient Country Government	Ministry of Environment - PRGIP	In-kind	Recurrent expenditures	6,000,000.00
Recipient Country Government	AER ? Modern Energy	In-kind	Recurrent expenditures	5,314,437.00
Donor Agency	Ministry of Security and Civil protection / HYDROMET-MALI	In-kind	Recurrent expenditures	17,000,000.00
Other	Embassy of The Netherlands - PASARC II	In-kind	Recurrent expenditures	16,832,846.00
			Total Co-Financing($)	**66,597,283.00**

Describe how any "Investment Mobilized" was identified

The project conducted extensive consultations with the different stakeholders during PIF preparation and throughout the PPG phase, which identified key complementarities between ongoing and planned activities in the areas of intervention of the project. Where potential direct contributions/inputs to this GEFTF/LDCF project results were identified, the co-financings were mobilized.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	LDCF	Mali	Climate Change	NA	4,872,831	462,919	5,335,750.00
UNDP	GET	Mali	Land Degradation	LD STAR Allocation	2,639,726	250,774	2,890,500.00
				Total Grant Resources($)	**7,512,557.00**	**713,693.00**	**8,226,250.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

250,000

PPG Agency Fee ($)

23,750

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	LDCF	Mali	Climate Change	NA	150,000	14,250	**164,250.00**
UNDP	GET	Mali	Land Degradation	LD STAR Allocation	100,000	9,500	**109,500.00**
			Total Project Costs($)		**250,000.00**	**23,750.00**	**273,750.00**

Please provide justification

The PPG amount includes US$150,000 for the LDCF and US$100,000 for the GEF TF. This remains within the limits indicated by the GEF (US$ 150,000 for projects under US$ 10,000,000 and US$ 100,000 for projects under US$ 3,000,000).

Core Indicators

Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
21000.00	36000.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	10,000.00		

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	5,000.00		

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
14,000.00	15,000.00		

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
7,000.00	6,000.00		

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15000.00	225000.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	0.00		

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	0.00		

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
15,000.00	225,000.00		

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
	0.00		

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 5 Area of marine habitat under improved practices to benefit biodiversity (excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 5.1 Number of fisheries that meet national or international third party certification that incorporates biodiversity considerations

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Type/name of the third-party certification

Indicator 5.2 Number of Large Marine Ecosystems (LMEs) with reduced pollutions and hypoxia

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (achieved at MTR)	Number (achieved at TE)
0	0	0	0

LME at PIF	LME at CEO Endorsement	LME at MTR	LME at TE

Indicator 5.3 Amount of Marine Litter Avoided

Metric Tons (expected at PIF)	Metric Tons (expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	900000	2648591	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	900,000	2,648,591		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting		2022		
Duration of accounting	20	20		

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)		0		

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (indirect)		0		
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)		0		

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	80,000	73,427		
Male	70,000	69,165		
Total	150000	142592	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Meta Information - LDCF

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

Is this project LDCF SCCF challenge program?
false

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

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

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

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

This Project has an urban focus. false

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

Agriculture	**30.00%**
Natural resources management	**60.00%**
Climate information Services	**10.00%**
Costal zone management	**0.00%**
Water resources Management	**0.00%**
Disaster risk Management	**0.00%**
Other infrastructure	**0.00%**
Health	**0.00%**
Other (Please specify:)	**0.00%**
Total	**100%**

This Project targets the following Climate change Exacerbated/introduced challenges:*
Sea level rise false
Change in mean temperature true
Increased Climatic Variability true

Natural hazards false
Land degradation true
Costal and/or Coral reef degradation false
GroundWater quality/quantity false

To calculate the core indicators, please refer to Results Guidance

Core Indicators - LDCF

CORE INDICATOR 1	Total	Male	Female	% for Women
Total number of direct beneficiaries	142,592	69,165	73,427	51.49%

CORE INDICATOR 2	
Area of land managed for climate resilience (ha)	36,000.00

CORE INDICATOR 3	
Total no. of policies/plans that will mainstream climate resilience	15

CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained	2,000	855	1,145	57.25%

OUTPUT 1.1.1

Physical and natural assets made more resilient to climate variability and change

		Male	Female
Total number of direct beneficiaries from more resilient physical assets	**83,528**	**41,497**	**42,031**

Ha of agriculture land	Ha of urban landscape	Ha of rural landscape	No. of residential houses
15,000.00	**0.00**	**21,000.00**	**0**

No. of public buildings	No. of irrigation or water structures	No. of fishery or aquaculture ponds	No. of ports or landing sites
0	**0**	**0**	**0**

Km of road	Km of riverban	Km of coast	Km of storm water drainage
0.00	**0.00**	**0.00**	**0.00**

Other	Other(unit)	Comments
0		

OUTPUT 1.1.2

Livelihoods and sources of income of vulnerable populations diversified and strengthened

		Male	Female
Total number of direct beneficiaries with diversified and strengthened livelihoods and sources of income	**17,000**	**6,800**	**10,200**

Livelihoods and sources of incomes strengthened / introduced			
Agriculture	Agro-Processing	Pastoralism/diary	Enhanced access to markets
true	**true**	**true**	**true**
Fisheries /aquaculture	Tourism /ecotourism	Cottage industry	Reduced supply chain
true	**false**	**false**	**false**
Beekeeping	Enhanced opportunity to employment	Other	Comments
false	**true**	**false**	

OUTPUT 1.1.3

New/improved climate information systems deployed to reduce

vulnerability to climatic hazards/variability

		Male	Female
Total number of direct beneficiaries from the new/improved climatic information systems	**41,764**	**20,748**	**21,016**

Climate hazards addressed

Flood	Storm	Heatwave	Drought
true	**true**	**true**	**true**

Other	Comments
false	

Climate information system developed/strengthened

Downscaled Climate model	Weather/Hydromet station	Early warning system	Other
false	**true**	**false**	**false**

Comments

Climate related information collected

Temperature	Rainfall	Crop pest or disease	Human disease vectors
true	**true**	**false**	**false**

Other	Comments
false	

Mode of climate information disemination

Mobile phone apps	Community radio	Extension services	Televisions
false	**false**	**true**	**false**

Leaflets	Other	Comments
false	**false**	

OUTPUT 1.1.4

Vulnerable natural ecosystems strengthened in response to climate change impacts

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Types of natural ecosystem

Desert	Coastal	Mountainous	Grassland
false	**false**	**false**	**true**

Forest	Inland water	Other	Comments
true	**true**	**false**	

OUTPUT 1.2.1

Incubators and accelerators introduced

		Male	Female
Total no. of entrepreneurs supported	**0**	**120**	**180**

		Comments
No. of incubators and accelerators supported	**0**	

		Comments
No. of adaptation technologies supported	**0**	

OUTPUT 1.2.2

Financial instruments or models to enhance climate resilienced developed

Financial instruments or models			
PPP models **false**	Cooperatives **false**	Microfinance **false**	Risk insurance **false**
Equity **false**	Loan **false**	Other **false**	Comments

OUTPUT 2.1.1

Cross-sectoral policies and plans incorporate adaptation considerations

Will mainstream climate resilience	Of which no. of regional policies/plans	Of which no. of national policies/plan
0	**0**	**0**

Sectors

Agriculture	Fishery	Industry	Urban
false	**false**	**false**	**false**

Rural	Health	Water	Other
false	**false**	**false**	**false**

Comments

OUTPUT 2.1.2

Cross sectoral institutional partnerships established or expanded

No. of institutional partnerships established or strengthened	**0**

Comments

OUTPUT 2.1.3

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

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No. of systems and frameworks **0**

Comments

OUTPUT 2.1.4

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

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No. of systems and frameworks **0**

Comments

OUTPUT 2.2.1

No. of institutions with increased ability to access and/or manage climate finance

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No. of institution(s)

Comments

OUTPUT 2.2.2

Institutional coordination mechanism created or strengthened to access and/or manage climate finance

---

No. of mechanism(s)

Comments

OUTPUT 2.2.3

Global/regional/national initiatives demonstrated and tested early concepts with high adaptation potential

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No. of initiatives or technologies

Comments

OUTPUT 2.2.4
Public investment mobilized

Amount of investment (US$)

Comments

OUTPUT 2.2.5
Private investment mobilized

Amount of investment (US$)

Comments

OUTPUT 2.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

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		Male	Female
Total no. of people trained	**2,000**	**855**	**1,145**
		Male	Female
Of which total no. of people at line ministries	**155**	**105**	**50**
		Male	Female
Of which total no. of community/association	**1,500**	**600**	**900**
		Male	Female
Of which total no. of extension service officers	**45**	**30**	**15**
		Male	Female
Of which total no. of hydromet and disaster risk management agency staff	**0**	**0**	**0**
		Male	Female
Of which total no. of small private business owners	**300**	**120**	**180**
		Male	Female

Of which total no. school children, university students or teachers	**0**	**0**	**0**

Other	Comments

OUTPUT 2.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

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		Male	Female
No. of people with raised awareness	**2,500**	**1,000**	**1,500**

Please describe how their awareness was raised

OUTPUT 3.1.1

National climate policies and plans enabled including NAP processes by stronger climate information decision-support services

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No. of national climate policies and plans	**0**

Comments

OUTPUT 3.1.2

Systems and frameworks established for continuous monitoring, reporting and review of adaptation

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No. of systems and frameworks	**0**

Comments

OUTPUT 3.1.3

Vulnerability assessments conducted

No. of assessments conducted	**15**

Comments

OUTPUT 3.2.1

No. of institutions with increased ability to access and/or manage climate finance

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No. of institution(s) **0**

Comments

OUTPUT 3.2.2

Institutional coordination mechanism(s) created or strengthened to access and/or manage climate finance

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No. of mechanism(s) **0**

Comments

OUTPUT 3.2.3

Global/regional/national initiative(s) demonstrated and tested early concepts with high adaptation potential

No. of initiative(s) or technology(ies)	**0**
Comments	

OUTPUT 3.3.1

No. of people trained regarding climate change impacts and appropriate adaptation responses

		Male	Female
Total no. of people trained	**0**	**0**	**0**

		Male	Female
Of which total no. of people at line ministries	**0**		

		Male	Female
Of which total no. of community/association	**0**		

		Male	Female
Of which total no. of extension service officers	**0**		

		Male	Female
Of which total no. of hydromet and disaster risk management agency staff	**0**		

		Male	Female
Of which total no. of small private business owners	**0**		

		Male	Female
Of which total no. school children, university students or teachers	**0**		

Other	Comments

OUTPUT 3.3.2

No. of people made aware of climate change impacts and appropriate adaptation responses

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		Male	Female
No. of people with raised awareness	**0**		

Please describe how their awareness was raised

Part II. Project Justification

1a. Project Description

DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF

During the PPG phase, there were some minor restructuring and reformulation of the project outcomes and outputs, in order to better meet the project objective, reflect the focus on climate security, as well as better integrate gender across the project. Moreover, ambitions have been raised in terms of emission reductions and landscapes under improved practices, as a result of more accurate calculations and an increase in the number of targeted communes to 15. Based on the population estimates of the target communes, the total number of direct project beneficiaries has been revised to approximately 142,592. The following Table summarizes the changes made as a result of the consultations conducted during the PPG phase, in terms of the project?s outcomes/outputs and co-financing activities:

Output as written in the PIF	Output revised or added during PPG
Output not present in PIF	Output 1.1: National LDN committee revitalized and capacitated for better coordination of cross-sectoral decision-making for LDN PPG consultations highlighted the low capacity of the current LDN structures to develop and implement LDN action plan, hence the need for this new Output.
Output 1.2: Regional biennial climate risk and vulnerability assessments and maps developed, with an application of security sensitivity framework	Output 1.3 Regional climate risk and vulnerability assessments and maps developed, with an application of security sensitivity framework
Output 2.1: Community natural resource management committees are established and adaptation actions are embedded in local development plans	Output 2.1: Socially and gender inclusive community-based natural resource management committees are created/revitalized and supported to serve as platforms for negotiating and resolving natural resource conflicts between user groups AND Output 2.2: Adaptation measures are integrated into local development plans
Output 2.2: Training and inputs provided to farmers in 9-12 target communes in Mopti for regreening of farmlands	Output 2.3: Training and inputs provided to farmers and herders in 15 target communes of Mopti and S?gou for landscape regreening, based on traditional/local knowledge and solutions
Output 2.3: Capacity development programme for climate-smart agriculture delivered to farm households in target communes	Output 2.4: Capacity development programme for climate-smart agriculture in target communes
Output 2.4: Communal restoration work undertaken over 21,000 hectares of degraded grass/shrubland and wetlands	Output 2.5: Rehabilitation of 21,000 hectares of degraded grass/shrubland and wetlands for improved climate resilience

Output as written in the PIF	Output revised or added during PPG
Output 3.2: Entrepreneurship training and business incubation services provided to youth from target landscapes for adaptation-linked business ideas	Output 3.2: Entrepreneurship training and business incubation services provided to women and youth from target landscapes for adaptation-linked business ideas
Output not present in PIF	Output 3.3: Training, technical support and equipment provided to climate-smart cooperative enterprises involving women, youth and displaced persons This output was added as a result of consultations, highlighting this complementary need to support material/input/equipment needs of entrepreneurs, in addition to Outputs 3.1 and 3.2.
Output 4.2 split into two parts	Output 4.2: A learning framework is developed and implemented for project as a whole Output 4.3: A participatory M&E framework is developed and implemented for the project as a whole (including sites for Component 2 and 3 activities) This Output was added to emphasize M&E activities.
Output not present in PIF	Output 4.4 Environmental and Social Safeguards Management This Output was added to emphasize the importance of safeguards management for this project, and ensure proper risk management throughout implementation.

The changes in the Output plan have also resulted in changes to the amount of budget allocated to the project?s four Outcomes. These are displayed in the table below:

Outcome	Amount budgeted in PIF	Amount budgeted in PPG phase
Outcome 1	143,080 (GEFTF) 200,000 (LDCF)	226,560 (GEFTF) 168,060 (LDCF)
Outcome 2	1,851,831 (GEFTF) 2,083,538 (LDCF)	1,434,855 (GEFTF) 2,095,106 (LDCF)
Outcome 3	1,927,253(LDCF)	1,947,625 (LDCF)
Outcome 4	519,114 (GEFTF) 430,000 (LDCF)	831,610 (GEFTF) 430,000 (LDCF)

In terms of co-financing, since the project was initially prepared at PIF stage significant changes have taken place in terms of the eligible co-financings. As a result, new co-financing amounts are displayed in the table below:

Co-financing source	Amount budgeted in PIF	Amount budgeted in PPG phase
Ministry of Environment, Sanitation and Sustainable Development	600,000	0

Ministry of Environment, Sanitation and Sustainable Development (AEDD)	29,292	0
Ministry of Agriculture	121,518	0
Ministry of Livestock and Fisheries	97,650	0
Ministry of Ministry for the Promotion of Women, Children and the Family	67,272	0
Ministry of Youth, Employment and Citizen Construction	34,722	0
UNDP - TRAC	500,000	1,500,000
TETILISO ? Mali Agribusiness Incubation Hub	100,000	0
DoniLab Incubator ? Fablabs	100,000	0
Ministry of Security and Civil protection - HYDROMET-MALI	2,000,000	17,000,000
USAID	1,000,000	0
Government of Monaco	354,000	0
Government of Canada (1 + 2 + 3)	17,800,000	0
Embassy of The Netherlands ? PASARC II	6,000,000	16,832,846
Ministry of Environment (Transformation produits agricoles, R?silience femmes et jeunes et P.R.E.V.U.C.C.)	0	1,650,000
AER ? Modern Energy	0	5,314,437
UNDP Gender and Climate	0	300,000
UNDP Liptako-Gourma Facility	0	10,000,000
Ministry of Environment - LoCAL	0	8,000,000
Ministry of Environment - PRGIP	0	6,000,000
TOTAL	**28,804,454**	**66,597,283**

1a. *Project Description*. Elaborate on:

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

Mali is a landlocked Least Developed Country (LDC) in the heart of West Africa drylands covering 1,241,238 km2. The country?s Human Development Index (HDI) value put Mali at the 184th position out of 189 countries in 2019[1]. The poverty rate stood at 70%[2], disproportionately affecting populations in rural areas[3]. The economy is dominated by the agricultural sector which contributes to 36.7% of the GDP and employs 83% of the population[4]. The most productive agricultural areas lie along the banks of the Niger River between Bamako and Mopti, and extend south to the borders of Guinea, Ivory Coast and Burkina Faso. The arable lands cover 7.3 million ha, representing 18% of the

country?s land[5], with main agricultural products being millet, sorghum, maize, rice and cowpea.[6] Animal husbandry is practiced by 63% of households, with systems being both sedentary and transhumant. Fishing is practiced on all types of waterbodies (rivers, lakes, ponds, flood plains, dams), with the main potential essentially concentrated in the Central Delta region and the Mopti region, which accounts for nearly 80 percent of total production[7]. Forestry also plays an important role in socio-economic activities in Mali, contributing 4.9% of the country?s GDP, although forests cover only 3.8% of the total land area[8]. Timber provides more than 90 percent of Mali?s energy in the form of charcoal and firewood.

Security context

The country has been confronted to a multidimensional economic, political, and environmental crisis which has worsened significantly since 2012. National and intercommunal violence in Mali has emerged in the state-building process after Mali gained its independence in 1960, and the country faced political instability until now. The perceived inability by the Government to curtail massacres of civilians was a cause of the anti-government protests in Bamako in 2020, leading to the forced resignation of President Ibrahim Keita on August 18th, 2020[9]. On May 24th, 2021, the transition President and its prime minister were accused by the vice-president of violating the transition charter, and resigned the next day. In the lead-up to these recent events, the Tuareg rebellion initiated a separatist movement in 2012, whose strength came in the wake of political and revolutionary changes in Libya and C?te d?Ivoire and a return of Malians who had been living abroad, thereby intensifying separatist sentiments[10]. The rise of Islamist extremist groups in the north caused further instability. The government signed a peace accord with northern separatist rebels in 2015, but armed groups continue to assert territorial control in much of the area. At the same time, Islamist insurgent groups have expanded from the north into previously stable central Mali, allegedly leveraging interethnic tensions and local resentment toward state actors to recruit supporters and foment conflict.

In 2019 Mopti faced a dramatic deterioration of its security situation, with hundreds of recorded violations of human rights and international humanitarian law. 190 of the 305 violent events reported for Mali in 2019 occurred in the Mopti region, 90% of which in the four eastern cercles of the region: Bandiagara, Bankass, Douentza and Koro. The presence of armed groups and self-defence militias, increasing criminality (e.g. theft of livestock) and intercommunal tensions triggered a spiral of violence, leading to a loss of livelihoods for displaced populations, and difficulties in cultivating fields (illustrated by a 25% decline in the area under cultivation compared with the previous year) and difficulties accessing markets for those who remained in their villages. In addition to cropland losses and abandonment due to security fears, over one hundred villages were likely damaged or destroyed in 2019[11]. Moreover, insurgency and lawlessness have pushed more pastoralists south of the Niger River, and conflicts in northern Mali and the Inner Delta have increased tensions between farmers and herders. Pastoralists are both affected by and implicated in armed groups, with potential regional outreach[12]. Farmer-herder conflicts are further reflecting the state?s pastoral and land tenure policies and legislation, as these generally favor farmers and tend to lead pastoralists out of access to grazing land[13].

Historically, in the Mopti region, conflicts between farmers and pastoralists have been resolved through local customary mechanisms and traditional agreements (Djowro) for the management of grazing lands and agricultural lands. However, the system regulating access to lands and framework for conflict

resolution is fragile due to the increased competition between farmers, pastoralists, rice farmers and fishermen, and becoming more complex, exploited by both militias and violent extremist groups.

COVID-19

Mali was one of the last countries in Africa to record an outbreak of coronavirus. From 3 January 2020 to 24 May 2021, there were 14,241 confirmed cases of COVID-19 with 514 deaths reported to WHO. These figures are likely an under-reflection of the real situation, given the limited capacity of healthcare facilities across large parts of the country, the low level of testing capacity available, and the unavailability of data and analysis. In this fragile context, the pandemic has worsened poverty and living conditions of the population, especially the protection of civilians facing health and security risks. Indeed, the pandemic has limited access to humanitarian aid by slowing down logistic capacities and restricting displacements, and reduced access to health services. Moreover, several sources indicate that the crisis increases the risks of Gender-Based Violence (GBV)[14] towards women, who are also economically more vulnerable during lockdown. Young generations are especially at risk, considering that non-monetary poverty (e.g. deprivation of education, access to water, health) affects 54% of children under 17 years old, and more than 80% of them in the Mopti, Tombouctou, Gao and Menaka regions[15].

The pandemic and sociopolitical crisis resulting from the 2020 coup have tipped Mali into an economic recession. The pandemic led to a contraction of the GDP estimated to 2% in 2020 and a deterioration of the budget deficit from -1.8% of GDP in 2019 to -6.1% of GDP in 2020, reflecting the decline in global demand, supply challenges, and domestic restrictions and impacting the performance of the agricultural sector. The economic impact of the COVID-19 crisis is being felt on supply chains and markets, leading to: increased prices for food, inputs, and services for agriculture and livestock; increased transportation and production costs; and loss of employment and income, with increased impacts for youth and women working in the primary and tertiary sectors. An FAO study on COVID-19 impacts in Mali[16] also showed that the pandemic impacts communities differently. Notably, pastoralists were more affected by restriction measures than farmers (60% against 41%), while farmers were more affected than pastoralists by income loss (53% against 42%). The crisis impacts in particular medium and small private enterprises, a majority of which are not eligible to government financial aids (tax rebate, credits, private sector guarantee fund)[17]. The Malian authorities adopted a CFAF 214 billion plan to address the COVID-19 socioeconomic crisis, which resulted in higher budget expenditure[18].

Problem statement

The proposed project tackles Mali?s interlinked challenges of land degradation and climate change that together threaten the long-term sustainability of vulnerable productive landscapes in the country?s central regions, and multiply the security threats. Indeed, as anthropogenic and climate impacts shrink the productive natural resource base, conflicts over land and water intensify, particularly between farming and herding communities, feeding into the ongoing conflict between jihadists and civilian militias.

Land degradation

The Republic of Mali is committed to achieving Land Degradation Neutrality, defined by the UNCCD as ?a state whereby the amount and quality of land resources, necessary to support ecosystem functions

and services and enhance food security, remains stable or increases within specified temporal and spatial scales and ecosystems?. Currently this global challenge is not being met: in Mali, the area over which productivity has been lost in the past two decades far exceeds the small pockets where productivity has been restored, and these trends continue. In Mali, land degradation is affecting over 2 million people[19], a reflection of socio-economic inequalities as degraded land is disproportionately found in areas with the highest incidence of poverty[20]. The country is facing serious threats from the encroachment of the Sahara , whose southern boundary is estimated to have advanced more than 100km between 1950 and 2015, a trend which could be reversed through the 2050s under RCP4.5, when assuming no land use change contributions[21]. Desertification is estimated to threaten 98% of the territory[22]. Forests are also increasingly subject to degradation, mainly due to the aridity of the climate, successive droughts and especially to anthropogenic activities (agricultural clearing, exploitation of firewood, overgrazing, bush fires, etc.), and around 100,000 hectares are estimated to disappear each year[23].

Land degradation negatively affects agricultural production and water availability for local populations and livestock, and significantly reduces the area of cultivable lands. Soil quality is often poor, vegetative cover is low, and resources are threatened by overgrazing, continuous cropping, and sand intrusion[24]. Human activities act as an accelerator of the phenomenon especially in the absence of regulation. Reports estimate that land degradation and misuse of natural resources cost each year more than 30% of the GDP (~US$2.2 billion). Estimates suggest a return on investment of US$5 for every US$1 invested in actions to fight land degradation in Mali[25].

Historical climate trends and impacts

Being half-covered by the Sahara Desert and located between the arid Sahelian zone and the north-Sudanese zone, Mali displays high levels of aridity and is estimated to be among the most vulnerable countries to climatic stress. Mali is currently experiencing three seasons: a rainy season from June to October; a cool and dry season from October to January; and a hot, dry season from February to May, during which temperatures reach 33?C on average. Maximum temperatures can reach 45?C, while minimum temperatures are rarely below 10?C.

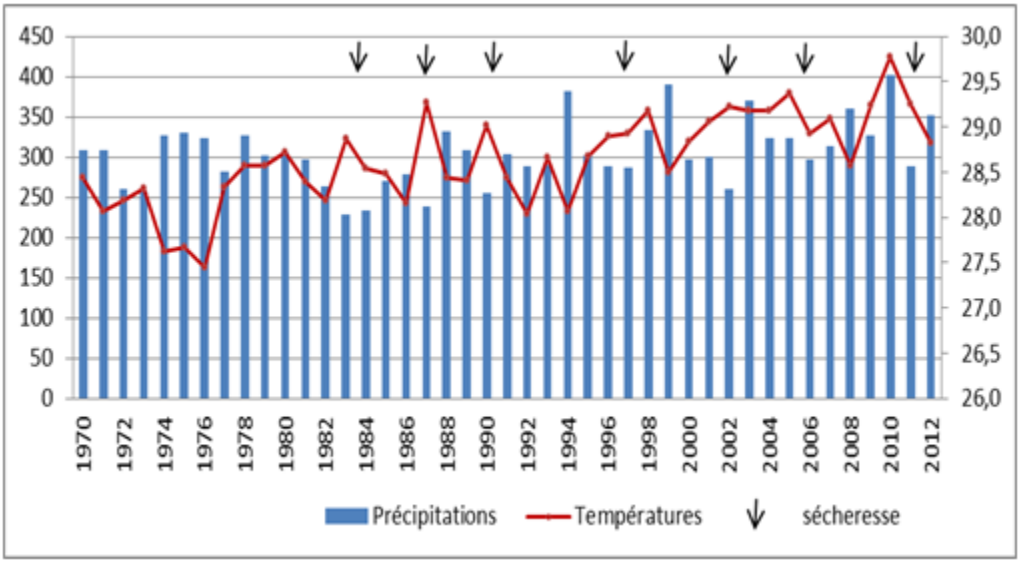

Figure 1 Evolution of temperature, precipitation, and droughts in Mali over the period 1970-2012 (Makougoum, 2018).

Trends of the last decades show increasing average temperatures (see Figure 1): between the 1960s and 2015, Mali experienced an average increase in annual temperatures of 1.2?C, with rates of warming greater than 0.23?C per decade[26]. The historical observed monthly precipitation of Mali is reflected in Figure 6: besides the rainy season from June to October Mali receives on average very low levels of precipitation.

The observed trend in precipitation is less unequivocal than the observed changes in temperature. While the period between 1970 ? 1990 was a very dry period (compared to 1940-1970) with historically low precipitation levels, there is an increasing trend being observed since 1990 (see Figure 2). Moreover, the isohyets have moved to the north (see Figure 4) meaning that most regions in Mali have experienced an increase in rain in the last three decades. However, when analyzing the rainfall patterns since 1900, a decreasing trend is observed with rain both decreasing in space and time. Lastly, communities widely report increased inter-annual variability and a more unpredictable monsoon.

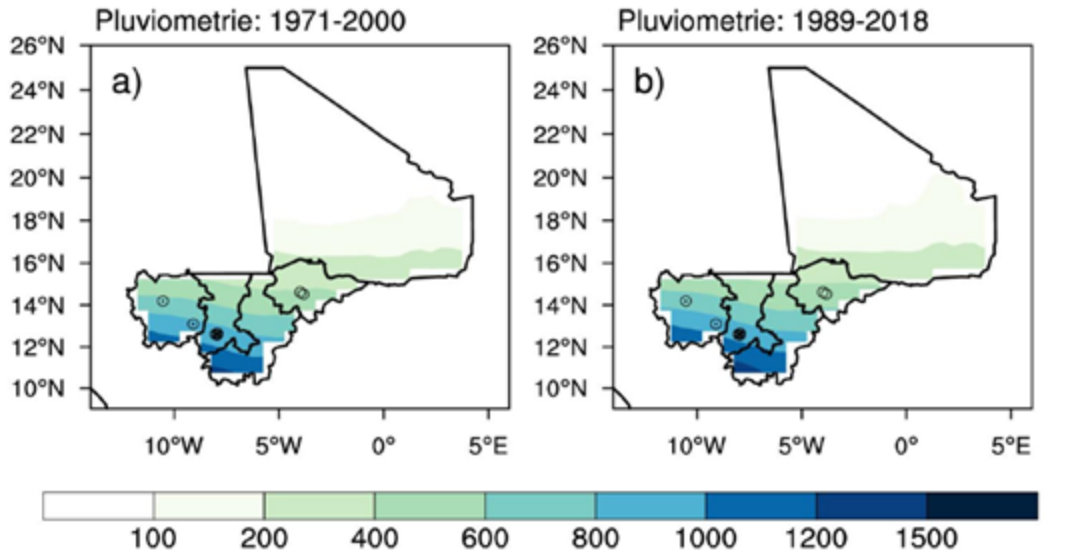

Figure 2: Map of Mali showing average annual isohyets (mm)[27]

Despite the increase in precipitation over the last decades in Mali, the country continues to experience droughts. Mali underwent recurring droughts in the 1970s and 1980s, five major droughts from 1987 to 2007 and a drought in 2012 that impacted 4.6 million of people. While droughts in the 1970s and 1980s were a consequence of both increasing temperatures and decreasing level of precipitation, this cannot be said for more recent droughts as precipitation is increasing in the last two decades. Nevertheless, the increase is not sufficient to outbalance the increasing temperature and the high evapotranspiration that comes with it.[28]

Besides droughts, Mali has also been experiencing recurrent winter flooding, such as the significant floods that hit Mali in 2013. Many localities located in the inland delta of the Niger River are vulnerable as these floods, which can provoke the isolation of agricultural zones of the Niger delta, hindering access to crop production, with important implications for disaster management.

Table 1: Observed and projected climate change impacts in Mali

Climate parameter	Current conditions and trends (1960-2015)	Climate projections by 2050	Impacts
Temperature	Increase in average annual temperatures of 1,2?C, increase in hot nights	Longer heatwaves: 0,9?C-1,5?C increase in average annual temperatures	Damage of crops and livestock
Drought	High interannual variability in rainfall, Severe drought becoming longer and more frequent	Increase in extreme rain and flood frequency and intensity, accelerated desertification.	Damage of crops, livestock, reduced productivity of lands
Extreme weather	Increase in frequency of dust storms in northern and central Mali, recurrent floods	Increase in the frequency and intensity of rainfall events and floods	Desertification limits the availability of agricultural lands
Precipitation	Decrease in average annual rainfall (north) and increase in rain intensity (south), poorly distributed rainfall in some areas, erratic and unpredictable rainfall	Uncertainty in average annual rainfall, Increase in interannual variability in average annual rainfall, less wet season rainfall.	Decrease of water availability per habitant

Climate change projections

Land degradation and climate change are closely related. Indeed, on the one hand, land degradation is expected to contribute to regional and global climate change through impairment of carbon sequestration capacity. On the other hand, climate change exacerbates some effects of land degradation, such as dust storms, siltation into rivers, downstream flooding, erosion and dune formation. It can have

devastating social impacts, such as increased poverty, decreased agricultural and silvicultural production, and adversely affect food security and human health.

Future climate projections for Mali mean annual temperatures are projected to increase by 1.2 to 3.6?C by the 2060's, depending on the scenario. For Mopti specifically, SSP2-4.5 and SSP5-8.5 projections show median increases of 0.9C to 1.8C, with lowest increases in September and highest in June (see FIGURE 3). The proportion of the population affected by at least one heatwave per year is likely to increase to 16% in 2080, from 2% in 2000. Deaths related to heat waves could be multiplied by 5 by 2080.

Projections of precipitation changes for Mali and the Sahelian and south Saharan regions in general are highly uncertain and show wide disagreement (see FIGURE 5). However, both the SSP2-4.5 and SSP5-8.5 projections show significant changes by the 2050s in particular at the end of the main rainy season (e.g. approximately +23% in September). Similarly, there is a projected increase in frequency and intensity of extreme events projected (see for example FIGURE 6).[31][1] [32]

For instance, long dry spells during the rainy season could affect the natural water supply sources as both surface water and groundwater would decrease, with water availability projected to decrease overall by 77% by 2080 compared to the year 2000.[33][2]

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[30] Rapport des ?tudes et examens techniques pr?paratoires ? changement climatiques, 2021

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[31] Rapport des ?tudes et examens techniques pr?paratoires ? changement climatiques, 2021

[32] USAID, Climate Risk Profile ? Mali, 2018. F

[33] Rapport des ?tudes et examens techniques pr?paratoires ? changement climatiques, 2021

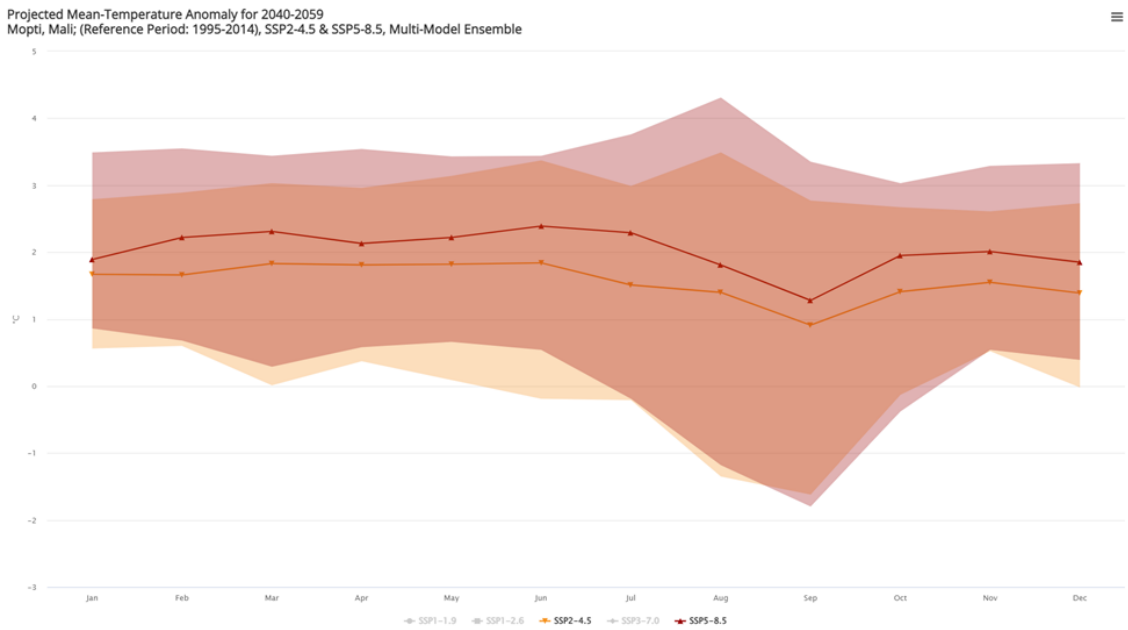

Figure 3 Mean Temperature Anomaly for the 2040-2059 - Mopti**[34]**

[34] This figure and the subsequent ones were extracted from the World Bank Climate Change Knowledge Portal, and present the latest CMIP6 data.

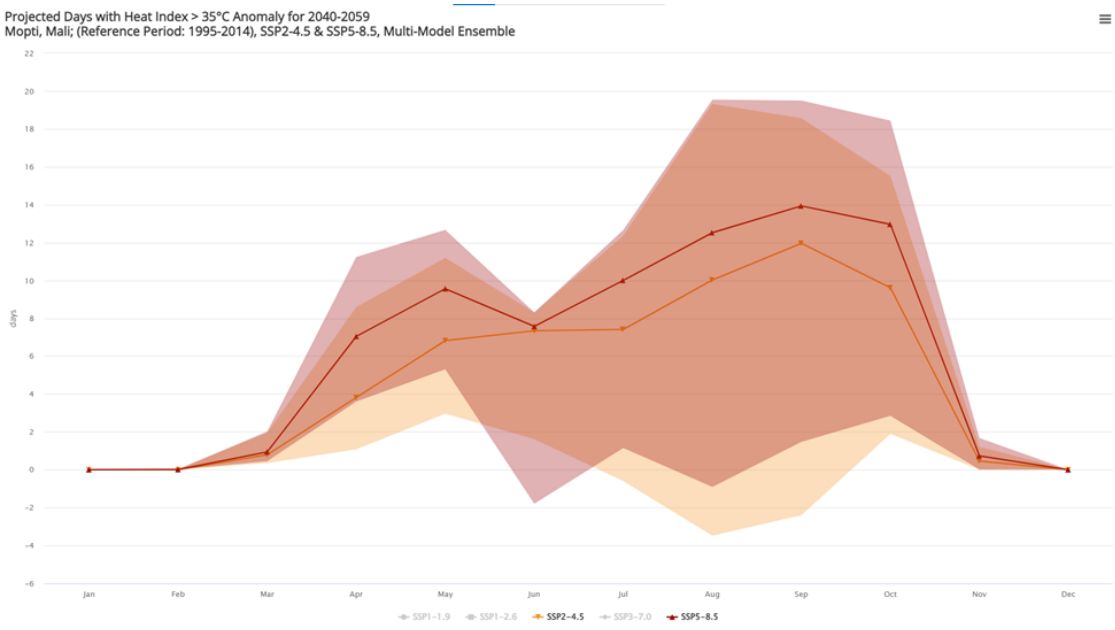

Figure 4 Days with Heat Index >35C Anomaly for the 2040-2059 - Mopti

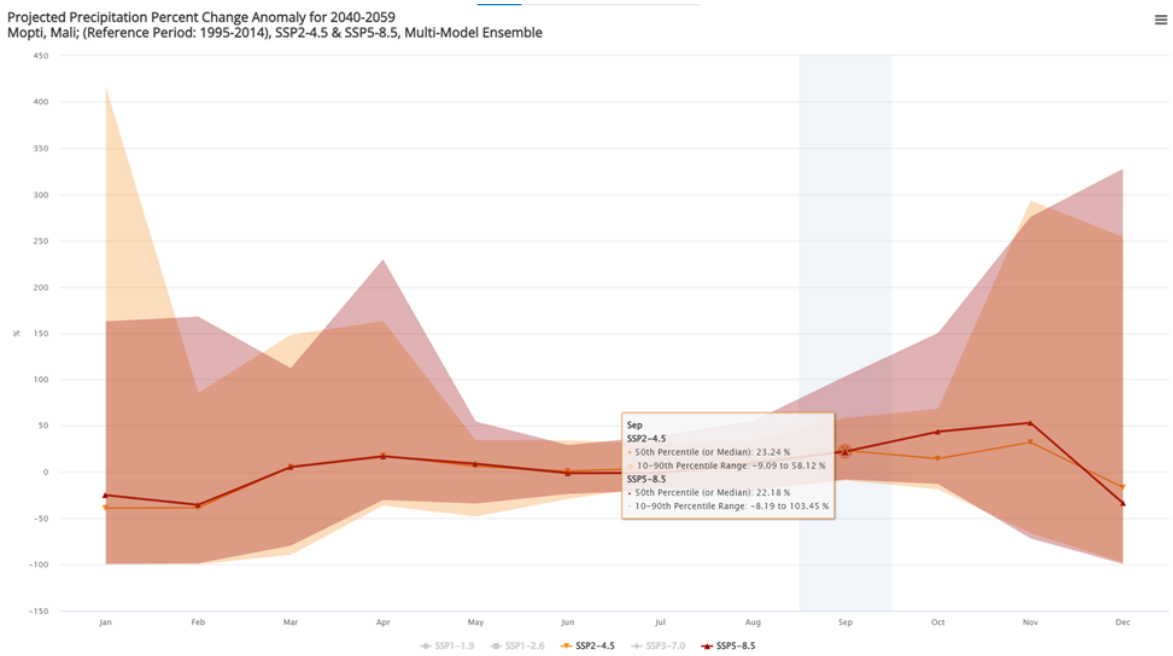

Figure 5 Percent Change Monthly Precipitation 2040-2059 - Mopti

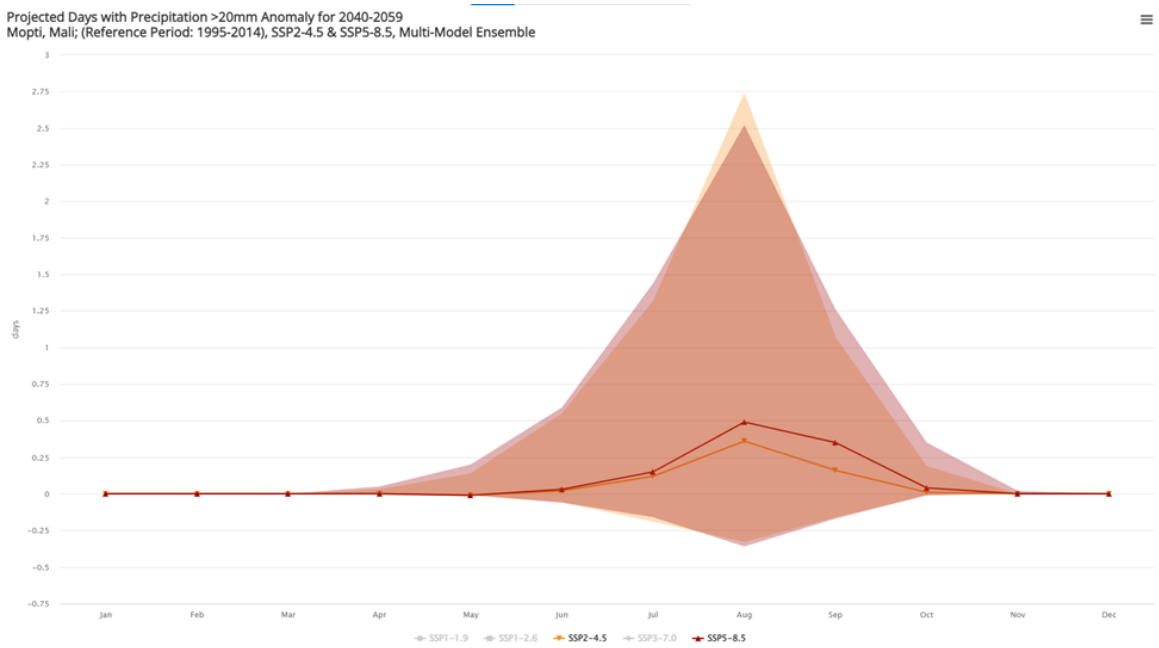

Figure 6 Days with Precipitation >20mm Anomaly for 2040-2059 - Mopti

These projected changes in climate will likely have significant adverse impacts on local communities, livelihoods, and the ability of ecosystems to provide valuable services. Projected impacts identified during the PPG phase include the following (see Consultant Report on Climate Change in Annex 13 of the Project Document for full analysis and references):

Crop production. Farming systems in Mali are highly vulnerable to climate change, due to reliance on rain-fed agriculture (90%), poor water resource management, drought and disasters, and low household

incomes. Under a changing climate, crop yields are projected to decrease, particularly of staple crops such as maize, millet, and sorghum and especially in the regions of Mopti, Timbuktu and Gao. The Ministry of Environment has estimated that maize production deficit could vary between 51 tons to 1,518 tons by 2025 in relation to 1961-1990 conditions. This is associated to a number of factors, including unreliable rainfall, as well as increased wind and water erosion, and increased incidence of pest and diseases. Cultivated lands are already marked by an average to low level of fertility, with deficiencies in phosphorus, potassium, and sulfur, and by a high sensitivity to wind and water erosion. The incidence of extreme weather events such as droughts, floods, and intense rainfall events will lead to a greater degradation of soil fertility and thereby agricultural productivity.

? **Pastoralism**. Drought and desertification can alter pastoralists? access to pastures and impact livestock mortality due to diseases and water restriction exacerbated by heat. The entire pastoralist lifestyle based on transhumance can be affected: in 2012, the extreme drought in the region contributed to the displacement of 100,000 people to neighboring countries, resulting in changes in production systems.

? **Fisheries**. The Senegal and Niger rivers provide the Malian population with fish production potential, which they mainly exploit on a small-scale and artisanal way. The influence of the increasing temperatures and droughts decrease the inundated areas, especially in the Niger delta which has affected the fish production potential. As precipitation is not projected to outbalance the increasing temperature and evapotranspiration rates, the fish production potential is projected to keep decreasing.[35]

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[35] Rapport des ?tudes et examens techniques preparatoires ? changement climatiques, 2021

Root causes

Several factors are responsible for land degradation and climate vulnerability in the areas of intervention, in particular:

1. **Demographic pressure** acts as an additional stressor on the natural resource base, as well as ecological footprint, as the country exceeded 20 million inhabitants in 2020 and is projected to double by 2050 with a fertility rate of 5.46 births per woman. In regions where demographic pressure is high, it is also reflected in the cultivation of marginal or forest lands, a reduction in the duration of fallow periods, a decrease in fertility and an increase in the phenomenon of erosion.

2. **Insecurity and internal displacements:** Conflicts in the North and Central regions since 2012 have caused significant internal migration, with 56,400 internally displaced persons (IDP) registered in the Mopti region, (45% of the IDPs in Mali). In the region, most farms and small businesses were directly impacted by displacements, resulting in unemployment; crop abandonment; decrease in revenues; lack of production; exodus of populations; resources shortages; lack of customers; local business shutdowns; as well as increased tensions between user groups. The rise in conflicts in the Mopti Region in 2019 led to a 25% decline in the area under cultivation compared with the previous year. Farmers were prevented from cultivating fields outside of perimeters close to their homesteads, reducing production potential and increasing the vulnerability of households to food insecurity.

3. **Poverty**. Before the recent 8 years of conflict, Mopti?s poverty rate at 79% was already much higher than the national average of 43% and increased by 5% in 2020. A UN report in 2011 highlighted that 59.5% of the population was living on degraded land and only 29.2% had satisfactory water quality. Living on degraded lands increases the level of poverty of vulnerable populations, who rely mostly on natural resources exploitation for their living and encounter difficulties to access productive lands, chemical inputs and equipment, leading to the use of lands with low crop yields and adopting unsustainable practices (e.g. poaching, overgrazing, forest clearing).

4. **Gender inequality**. Sociocultural traditions regulate women?s role and status regarding land property and management and conflict resolution. Women are mostly in charge of market gardening and taking the responsibility of the entire process, from preparing the plots to the harvest and the maintenance of the plots. They also collect firewood for the winter or rainy season. However, they are excluded from the direct management of lands and decision over land tenure and have a low access to agricultural services, institutional credit, and participation in planning and policy making processes.

Drivers of land degradation and climate vulnerability in the landscape

1. **Climatic factors**: Land degradation and climate change are closely related. Indeed, on the one hand, land degradation is expected to contribute to regional and global climate change through impairment of carbon sequestration capacity. On the other hand, climate change exacerbates some effects of land degradation, such as dust storms, siltation into rivers, downstream flooding, erosion, and dune formation. It can have devastating social impacts, such as increased poverty, decreased agricultural and silvicultural production, and adversely affect food security and human health. The areas of intervention are already marked by progressive land degradation due to water and wind erosion, and extreme climatic events such as droughts and floods. Indeed, 3 to 3.5 million ha of cultivated land are characterized by a medium or low level of fertility due to several constraints, and the estimated losses of arable land due to soil erosion reach an average of 6.5 tons/ha/year[38]Climatic factors are expected to be aggravated under the effects of climate change and to impact more severely cultivated lands. The household survey conducted in the Mopti region during the PPG phase highlights that 82% of the fields were already affected by climate change. Detailed projected impacts of climate change are available in Annex 13 of the Project Document.
2. **Overexploitation of forest formations:** The Mopti region is covered by 7 classified forests in the cercle of Youwarou and several rich woodlands in the cercles of Mopti and Tenenkou. High pressure on natural resources and ecosystems for energy production (charcoal, firewood) as well as uncontrolled timber trade represents a threat to the conservation of forests. In 1987, the total area of forests in the Mopti region was estimated at 1,450,000 ha, while in 2007 it was down to only 451,114 hectares, a regression of nearly 67%[39] Moreover, the forest area in the flooded area of the Mopti region is estimated to have declined by 93% in 21 years. Loss of vegetation allows valuable topsoil to be eroded by wind and rain, resulting in serious sand encroachment in the northern Sahel, and siltation of waterways in the Delta zone. Climate change will likely exacerbate these issues. Already, reduced precipitation and longer and more severe droughts have altered forest lands and reduced biodiversity; water scarcity has led to the degradation of trees, plants, and soil; and droughts and bush fires have turned forest areas into sandy, grassy dune, and dead wood areas[40]. Compounded, the impacts of anthropogenic and climatic degradation of forest formations will have significant adverse impacts on the ability of ecosystems to provide valuable services and sustain the livelihoods that depend on them.
3. **Poor agricultural management practices:** Agriculture is extensive and characterized by low crop yields which are not sufficient to ensure food security and can be attributed in part to poor agricultural practices and lack of resources. Shifting cultivation, which contributes significantly to deforestation, is widespread. Intensified by the rising need of cultivated areas, land clearings are a driver of land degradation and soil fertility reduction. With the disappearance of fallow systems, farmers started to cultivate lands on fragile soils with low

crop yields, or marginal or forest lands. Uncontrolled and frequent bush fires are often triggered by slash-and-burn practices. The lack of technical and advisory support from local authorities also contributes to poor land management. Crop yields are projected to decrease with climate change, associated with increased temperatures, unreliable rainfall patterns, and an increased incidence in pest and diseases.

4. **Overgrazing by livestock:** Overgrazing is one of the drivers of land degradation by causing significant soil erosion and hardening of the top layers of soil, preventing infiltration of rainwater, furthering the loss of vegetation, and worsening the climate change-induced impacts of floods and accelerating desertification. Most of Malian livestock is transhumant and currently highly dependent on pastures with low productivity, fluctuating fodder availability and an inadequate water management, inducing an overexploitation of these resources. High numbers of livestock exceed the land capacities for production, which explains the concentration of herds around water points and the modification of the routes reserved for cattle crossing. This has led to the shift of pastures towards the Sudanian and Guinean zone in the south, strengthening the conflicts between farmers and herders. Equipment is often insufficient as well as pastoral planning (drilling, wells?).
5. **Poor water management:** With climate change-induced increased variability in rainfall and localized droughts, villages in the north and center of Mali need adaptation strategies to maximize water availability for drinking, sanitation, livestock and crop irrigation. Water resources are threatened by waste or unsustainable water management, silting of water courses and lakes, and pollution. Seasonal flooding of the Delta area is the basis for irrigated rice, fishing and grazing, but the inundated area has shrunk from over 35,000 km2 each year to sometimes as small as 10,000 km2 under drought conditions. Underlying this is a decline in the Niger?s average flow ? which fell from 1,300 m3/second in 1978 to 895 m3/second in 2002. Irrigated cropland is subject to problems of leaching and alkalization of soils, and the spread of invasive plants, as well as ineffective management to combat siltation. As vegetation is lost in upstream watersheds, erosion of banks is causing massive siltation of rivers, channels and ponds, especially in the Niger downstream from Bamako and the Delta. This led to the modification of production systems and decrease pastures, stirring tensions between farmers and herders.
6. **Unsustainable fishing practices:** Fishing is primarily done for self-consumption, although it is also an important source of revenues for local populations in Mopti and is the third main economic activity of the Mopti region. Mainly practiced in the Niger Delta and Sourou, fishing has exacerbated the pressure on fish stocks, leading to a decrease of fish production and a damage of natural habitats, due to unsustainable fishing practices amongst others. Illegal fishing practices implying the introduction of fishing gears, toxic substances and explosives also contributed to environmental degradation and decrease of fish stocks? capacity for renewal. Conversely, land degradation compounded with climate change can have negative impacts on fish production, such as the reduction of flooded area surface in the central delta due to drying of shallow soils or successive droughts.

[38] World Bank. 2012. Options for Preparing a Sustainable Land Management (SLM) Program in Mali Consistent with TerrAfrica for World Bank Engagement at the Country Level

[39] PLAN/ PROGRAMME DE DEVELOPPEMENT ECONOMIQUE, SOCIAL ET CULTUREL (PDESC : 2017-2021), Conseil R?gional de Mopti

[40] USAID, Climate Change Adaptation in Mali, 2012.

Barriers to achieving LDN and to climate change adaptation

Barriers to achieving LDN and to climate change adaptation

There is an urgent need to reverse land degradation and actively address climate change in the central regions of Mali. However, a number of barriers are present which are impeding efforts to achieve this,

including poor institutional capacity for LDN and adaptation, inconsistent and ineffective NRM at community level which fail to integrate conflict prevention, insufficient support for engaging in alternative and climate-resilient livelihoods (especially for women and youth), and poor information exchange preventing scaling up of successful interventions. Specific Detailed descriptions of the barriers to achieving the project?s objective are as follows:

Barrier 1: Limited institutional capacity, governance mechanisms, and tools for cross-sectoral approach to LDN and adaptation implementation

Mali has a comprehensive set of national policies, laws, and strategies for achieving its international environmental commitments (including UNFCCC, UNCCD and CBD), though some gaps exist. Weaknesses in policies include: inadequacy of the texts with respect to local realities; difficulty of mastering the texts due to their abundance resulting in overlapping mandates between actors; insufficient coordination/harmonization of the actions; non-adoption of all the applicable texts; constraints of application linked to the ambiguity of the texts; insufficiency of human resources; and the lack of decentralization. There is inconsistency in the allocation of resources, with only 1.13% of the national budget for environmental protection. The effective inclusion of LDN actions in projects and operational programs in the field requires the harmonization of policies upstream and an adequate allocation of resources. Additional constraints to policy implementation include: conflicts between national institutions; difficulty in inter-ministerial coordination around LDN; weak consultation between the focal points of the Rio Conventions (although all National Focal Points are now under the MEADD). For adaptation, some interministerial cooperation has been achieved around CCA through the AEDD, but the mainstreaming of resilience principles into sectors like agriculture, water and forestry, as envisaged in the 2007 NAPA, has not been effectively achieved. This is partly because of the ongoing security situation, the uneven presence of state institutions across the country, and the challenges of decentralization ? which has built capacity at regional and cercle (district) levels but has also caused confusing overlaps between local government and traditional authorities over NRM.

Barrier 2: Absence of harmonized approach to monitor, evaluate, and report on progress for LDN/adaptation targets

Mali has recently set overall targets for achieving LDN by 2030, and adopted the sub-indicators of SDG indicator 15.3.1 - Proportion of land that is degraded over total land area: (i) land cover and land cover change; (ii) land productivity; and (iii) soil organic carbon; and a baseline was developed. There remains a lack of agreement on how these will be measured and monitored and a detailed implementation plan for the actions required. While the CREDD is a framework for harmonization, it does not involve implementation. The LDN-NWG must therefore ensure that composite indicators are developed to facilitate integration into the operationalization of sectoral programs and projects. Much data and monitoring capacity exists, scattered between actors, but there has been little coordination, and reporting on Mali?s progress to the MEAs is not done in an integrated fashion.

For CCA, climate vulnerability mapping has recently featured in some donor-funded projects. However, there is no long-term or standardized system for regular assessment and mapping, or for ongoing analysis of the links between security and climate change risks. Indeed, the National Climate Services Framework (CNSC) developed by MALI METEO in 2021 in accordance with the Global Framework for Climate Services is a systemic response to this issue. This framework will allow users,

experts and service providers to collaborate at different scales to ensure that the desired objectives are achieved.

Barrier 3: Lack of effective frameworks for community-based land-use planning, natural resources management, and conflict resolution mechanisms

The coexistence of modern land laws and traditional rules and practices leads to a debate on the legal and institutional framework for natural resource management. Inconsistencies between these different systems contributes to the ineffectiveness of mechanisms for natural resources-based conflict resolution. However, traditional rules and practices can be useful in regulating and managing natural resource conflicts at the village level. Bringing the local communities to the forefront of crisis management would be an efficient factor for sustainable social cohesion in the project area, a factor which is currently threatening the sustainability of any NRM intervention. There is therefore a need to enhance coordination and cooperation between community NRM structures and customary committees to negotiate agreements between herding, farming and fishing communities on boundaries for grazing and farmland, access to pasture and water, timing and regulated migration. At this time, the roles and responsibilities of the different groups involved in managing natural resource conflicts at the village level are limited and not fully complementary. Indeed, there are often no structures in place with a role of conflict prevention in particular:

- Community NRM committees have a role generally limited to surveillance;
- Community conflict resolution committees have roles beyond NRM-related conflicts;
- Land commissions (CoFos), created by the Agricultural Orientation Law of 2006 are responsible for arbitrating agricultural land conflicts and promoting access to land for vulnerable populations (women, youth), but do not yet function effectively due to a lack of recognition at the village level;
- Local customary mechanisms and traditional agreements (e.g. Djowro) for the management of grazing lands and agricultural lands;
- Village chiefs are ultimately called in to arbitrate user conflicts;
- Community relays (Relais communautaires/RECO and RECOTRADE) are often well-respected elder men (*hommes de castes*) with a key role as mediators;
- Women are rarely involved in those conflict resolution mechanisms, due to cultural factors. When they are, those called upon are those with a significant social status such as elderly women who perform excisions and who are generally a part of the blacksmith caste.

Overall, there is a need to strengthen local governance of natural resources in a manner which enhances climate resilience, promotes peace, and allows for social inclusion and equity. This can be supported by establishing effective mechanisms for participatory community-based land-use planning.

Barrier 4: Limited capacity (human, technical, inputs) to implement resilient practices through a landscape approach

Mali, and particularly the Mopti and Segou Regions, has complex, interlinked socio-ecological systems built around grazing, farming, forestry, and fishing that are increasingly vulnerable to climate impacts. There is a need for landscape protection and restoration interventions to be piloted, adapted for local contexts, and scaled up across the country to ensure systemic approaches are used to tackle these issues. At present, managers and officials at the local level often lack the technical knowledge necessary to tackle environmental challenges, and extension services are very limited in the central

regions. Hence, there is a need to provide technical training and support to extension services, and ultimately to households, and support the latter in accessing inputs (including women-headed households) to adapt farming practices to climate change, restore land productivity, and increase the adoption of sustainable land and water management techniques by building on traditional knowledge and local preferences. Although donor-funded projects have led to some communal rehabilitation works to restore land and water resources (e.g. desilting water infrastructure, stabilizing dunes to prevent sand encroachment) and developed new water sources in a sustainable basis, there is a need for this work to be better coordinated, and scaled up, with work opportunities created especially for youth and internally displaced people. Finally, responding to climate change requires that a significant effort is made to raise awareness regarding current and projected climate variability and change. Integrating climate change into formal education as well as local development programs could help in meet these goals.

Barrier 5: Insufficient support for households and communities wishing to engage in innovative green businesses

As the changing climate puts increasing pressure on the natural ecosystems on which traditional livelihoods, there is a need to (i) diversify into other activities which are less directly dependent on these fragile ecosystems, and (ii) generate cash income so households can buy the food and materials needed for enhanced resilience. Indeed, at the household level, the top adaptation strategy reported during the PPG phase was engaging in alternative livelihoods/income-generating activities (51.6%). Although there is potential for value-addition activities, communities lack training on new opportunities, micro-finance, and access to markets. There is also a lack of access to electricity for processing agri-products and for cold storage. While solar water heating is widespread, photovoltaic technology remains expensive and complex, and communities lack skills to install and maintain equipment. Although the government has a number of programmes to support youth entrepreneurs, in practice access to opportunities has tended to be limited to young people in urban areas, with a focus on individuals involved in trading, and have not facilitated real entrepreneurial growth and job creation. There is a need to learn from the more successful initiatives (e.g. TETILITSO and DoniLab) and create links to these for emerging entrepreneurs in rural areas, including women, young people and internally displaced people, all of whom may have limited direct access to productive assets, but can get involved in value addition and new value chains. There is a particular need to support organizations for widowed women, who sometimes receive local government support, but are often left without access to land or productive assets because of discriminatory legislation and customary practices. Access to regular commercial loan finance is near-impossible for many rural entrepreneurs, especially youth and married women, but progressive microfinance opportunities do exist (e.g. APPIM, PMR) and even loan guarantees for promising projects (FGSPSA, ANPE?s FARE Fund), and need to be made accessible.

Barrier 6: Lack of information exchange and opportunities for learning across multiple fragmented initiatives in the central regions and the Sahel

There is little systematic effort to share learning between the multiple initiatives intervening[41] in the region, contributing to limited attempts to scale up successful interventions. Regional platforms are in the process of being implemented to promote climate change adaptation across sectors yet require good strategies to ensure they sustain themselves after project implementation[42]. There is a need to

harmonize and rationalize the knowledge management activities of a set of related initiatives that are important for achieving LDN and climate security. Secondly, there is also much untapped potential for sharing the lessons between Mali?s Sahel zone and other countries. There are a number of international initiatives under the umbrellas of the African Forest Landscapes Restoration Initiative (AFR-100) and the Great Green Wall which are generating learning about best practice, and effective and cost-effective ways of combating desertification in this region. Finally, there are also barriers to effective monitoring and evaluation of donor-funded projects in Mali ? because of the constraints under which many project management teams operate, evaluation is often limited to measuring the outputs of a project, and not finding creative ways to assess its overall impact; what really worked and what didn?t, and why; and how the positive impacts can be sustained and scaled up. Project monitoring is also rarely linked to long term development of monitoring capacity at regional and national levels for purposes of MEA reporting. This relates to Barrier 1, whereby the efforts of disparate initiatives can all be matched up against national targets, hence the need to take into account the operationalization of the National Framework for Climate Services.

2) the baseline scenario and any associated baseline projects;

In the baseline scenario, several policies and legislations are put in place to support adaptation and LDN (see Project Document-Consultant Reports). Yet, Mali?s trend to lose land productivity faster than it can be restored, will likely continue unchecked, with vulnerable communities in the central regions experiencing increasing competition over a productive asset base that is shrinking ? both in absolute terms (because of climate change and human-induced degradation) and in per capita terms (because of rapid population growth). Without the proposed project, Mali remains committed in principle to Land Degradation Neutrality and the adaptation goals set out in the Nationally Determined Contribution, but unable in practice to ensure a systemic approach to achieving these goals, or even to tracking progress and reporting on them. In the absence of the GEFTF/LDCF-funded project, limited baseline government spending will continue in the relevant sectors, but without inter-ministerial coordination to instill a landscape approach across the sectors in their planning of investments. In this scenario, it will not be possible to ensure landscape integrity for climate hazard risk reduction, long term productivity and resilience, or to track progress towards land degradation neutrality and effective climate change adaptation. In this scenario, there is also no attempt to ?build back better? after the COVID-19 pandemic.

The list below presents the baseline projects to which the GEFTF/LDCF investment is incremental:

Table 2 Baseline projects with co-financing

Project title	**Project objectives/Outcomes**	**Type and amount of co-financing**

Project title	Project objectives/Outcomes	Type and amount of co-financing
Liptako Gourma Stabilization Facility (UNDP;2021-2024; $335M)	The overall objective of the facility is to reduce the risk of violence in target areas, thereby enabling longer-term peacebuilding, recovery and development programs.	A co-financing of US$10,000,000 will be provided as grant, investment mobilized.
Natural Resource Conflict Management - A Gender and Climate Resilience Approach to Reducing Community and Transboundary Natural Resource Conflicts (UNDP;2019-2022; $4M)	This project focuses on the role of women in the prevention and resolution of conflicts related to natural resources in a context of climate change.	A co-financing of US$300,000 will be provided as grant, investment mobilized.
Resilience and Integrated Landscape Management - PRGIP (World Bank, 2022-2027, $150M)	The project will work on: a. Capacity building: institutional, legal, human and technical at all levels (national, regional and local); b. Investments: physical restoration, productivity improvement, intangible capital development; and c. Private sector development: through support to value chains and productive alliances.	A co-financing of US$6,000,000 will be provided as grant, investment mobilized.
National mechanisms for financing adaptation at the local level **(LoCAL)** (UNCDF ; 2020-2025 ; $31.2M)	The project aims to strengthen the capacity of local governments to access public and private climate finance and to make climate change adaptation investments, as well as contribute to the establishment of an internationally recognized standard country mechanism for performance-based climate finance transfers.	A co-financing of US$8,000,000 will be provided as grant, investment mobilized.
FP012: Africa Hydromet Program ? Strengthening Climate Resilience in Sub-Saharan Africa: Mali Country Project[1] (Green Climate Fund, 2020-2024, $22,7M)	The project components are: i) Capacity building and institutional development, ii) Improvement of hydromet and early warning infrastructure, iii) Enhancement of service delivery and warnings to communities, and iv) project management.	A co-financing of US$17,000,000 will be provided as grant, investment mobilized.
Modern Energy Access Programme (Agence des Energies Renouvelables du Mali AER-MALI ; 2022-2025 ; $58.5M)	The Outcomes of this project include an improved rate of access to electricity, as well as increased security in the beneficiary localities.	A co-financing of US$5,314,437 will be provided as grant, investment mobilized.

Project title	Project objectives/Outcomes	Type and amount of co-financing
Project to support the promotion of the processing of agricultural products through various productive uses of renewable energy (Mali Climate Fund, $987,640; period 2021-2023)	This project focuses on the transformation of agricultural products through the use of renewable energy.	A co-financing of US$1,650,000 will be provided as grant, investment mobilized
Strengthening the resilience of vulnerable women and youth groups to the adverse effects of climate change in the circles of Djenn? and Tominian (Mali Climate Fund, $990,328 for 2022-2023)	This project focuses on agricultural intensification, pastoralism, income diversification, and water.	
Program to strengthen the resilience of vulnerable populations to climate change in the Inner Niger Delta "P.R.E.VU.C.C" (Mali Climate Fund, $992,115 2022-2023)	This program aims to promote the creation of modern water access, surface runoff capture and storage, aquaculture, and the development of income generating activities with a focus on women and youth.	
Food Security and Community Resilience to Climate and Social Crises in the Mopti Region Support Programme ?PASARC-II CCC? (Embassy of The Netherlands in Mali, $ 16,832,846, 2022-2026)	This program aims to improve food security and resilience of rural populations in the Mopti Region in the face of climate change and other social crises.	A co-financing of US$16,832,846 will be provided as grant, investment mobilized.

[1] https://www.greenclimate.fund/project/fp012#details

Table 2 Baseline projects without co-financing

Project title	Project objectives/Outcomes	Relevance to this project

Project title	Project objectives/Outcomes	Relevance to this project
Phase II: Agricultural Value Chains for the Food Security Reinforcement Programme (PRCA-SA) ?Jege ni Jaba?[44] (Govnt of Netherlands/ 2020-2024, $12,9M)	The project is implemented by ICCO Cooperation in Bamako, Koulikoro, Mopti, S?gou and Tombouctou, and aims to improve food security in Mali, without increasing the pressure on the environment, especially water resources, while contributing to the promotion of sensitive sectors - women and young people.	This project will complement the proposed GEFTF/LDCF project which aims at increasing yields in vulnerable grazing, farming and fishing landscapes through trainings and capacity development on sustainable land and water management and climate resilience for farmers, herders and fishermen.
FP092: Programme for Integrated Development and Adaptation to Climate Change in the Niger Basin (PIDACC/NB)[45] (GCF, AfDB, 2019-2024, $67,8 million)	The project Components are: i) improving the resilience of ecosystems and natural resources management by: strengthening SLM and shared management of natural resources; ii) to develop population resilience by implementing climate resilient growth infrastructure and promoting income generating activities; and iii) to ensure the coordination, monitoring evaluation and communication through the dissemination of good adaptation practices and climate information.	The project?s Component 1 is well aligned with the proposed GEFTF/LDCF project: Output 1 and 2 about Strengthened land and forest management; Output 5. Strengthened climate and weather information services. The same applies to Component 2, especially for Output 14: Community-based Climate adaptation Plans prepared and implemented.
Implementing regional and national adaptation priorities in Central and West Africa (PACO) (GIZ, 2020-2025, EUR 20 million)	The project aims to strengthen climate resilience through effective NAP/NDC implementation. The project seeks results in: climate resilient food systems; EbA; climate-resilient management of (transboundary) water resources; forests and land resources; improvement of the access of people and production systems to climate resilient infrastructure; enhanced use of climate information.	The GIZ project will support the activities Components 1 and 2 of the GEFTF/LDCF project, and close coordination will be undertaken during implementation.
Agriculture and Rural Financing in Mali (FARM)[46] (Government of Canada (1), FAO, 2020-2024, CAD 18,9 million)	The project assists selected viable financial institutions in acquiring the expertise and capacity in agricultural financing to address unmet agricultural producer demand for medium to long-term financial services in southern regions of Mali, namely S?gou, Koulikoro, Bamako and Sikasso.	The GoC project will contributes to Component 3, through the following outcomes: i) agriculture and agri-food financing system contribute to an environment that adequately meets the needs of rural sector actors; and ii) the rural economy is stimulated by controlling the risks associated with rural finance and supporting expansion of financial services.

Project title	Project objectives/Outcomes	Relevance to this project
Strengthening the nutritional Resilience and Food Security of the Most Vulnerable in Mali[47] (Govnt of Canada, FAO, UNICEF, UN WFP, 2021-2024, CAD 20M)	The project objective is to strengthen resilience central Mali by improving the food, nutritional and health security and increasing agricultural productivity and incomes, while addressing the effects of climate change on food security in their communities.	The GoC project contributes to the baseline and supports the achievement of GEFTF/LDCF Component 2 in particular.
Inclusive Financing of the Agricultural Sector (INCLUSIVE)[48] (Govnt of Canada, 2021-2024, CAD 16M)	The project aims to improve the financial inclusion of Malian rural populations, organizations and enterprises (particularly women) excluded from the traditional financial system in order to improve their resilience to climatic, social and economic shocks.	This GoC project contributes achieving GEFTF/LDCF project Outcome 3 through work on village-level micro-finance.
Strengthening resilience in the face of climate change in the Mopti Region through support for women's initiatives[49] (Government of Monaco, FAO, 2020-2023, EUR 300,000)	This project aims to strengthen the resilience and food and nutritional security of households by promoting market gardening, fattening of small livestock, processing of agricultural products, access to credit and nutritional education for women?s empowerment.	This project aligns with the Components 2 and 3 of the proposed GEFTF/LDCF project and contributes to the baseline through the work on women?s livelihood activities in Mopti.
Three Borders Project[50] (G5 Sahel, 2019-2024, 55,5M ?)	The ?Three Borders? project objectives are to: (i) respond to the most urgent needs expressed by the communities; (ii) support the recovery of economic activity; (iii) promote the restoration of the states? legitimacy and strengthen the rule of law in the border area.	The proposed GEFTF/LDCF project can capitalize on ongoing economic recovery activities related to livestock and seed banks, among others, and replicate good practices where relevant. A strengthened rule of law will also support a safer implementation of this project.

Project title	Project objectives/Outcomes	Relevance to this project
2. Community-Based Recovery and Stabilization Project for the Sahel[51] (World Bank, 2021-2026, USD 352.5 million)	The objective of the project is to contribute to the recovery and resilience of communities in target areas of the Liptako-Gourma Region through a regional approach supporting integrated socio-economic services and infrastructure, livelihoods and territorial development, and regional data and coordination.	The proposed LDCF project will capitalize on the results achieved by this project, to pursue its objectives, especially those related to the revision of PDSECs (Output 2.2).
1. Women?s participation in the peace, security and recovery process in Mali [52](Swiss Cooperation, 2023-2031, CHF 6,250,000)	The objective of this project is to strengthen the participation of women as actors and beneficiaries of the peace, security and recovery processes in Mali.	The proposed LDCF project will build upon this intervention and scale up women engagement in decision-making processes and economic recovery processes, in particular in the implementation of Components 2 and 3.
2. Promotion of agricultural finance for agri-based enterprises in rural areas[53] (GIZ, 2016-2025)	The project aims at improving the provision of financial services to agricultural and agri-based enterprises in rural areas. The project also supports the expansion of financial institutions into the agricultural sector and provides trainings to enterprises in that sector.	The proposed LDCF project will capitalize on the support provided to rural vulnerable groups in the field of business management, trainings and learning of financial skills, especially for Component 3 and will build on the lessons learnt from this project.

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

The proposed project aims to ensure the long-term sustainability of vulnerable productive landscapes in Mali?s central regions of Mopti and S?gou, through nature-based solutions that simultaneously reverse land degradation, strengthen communities? resilience to climate change impacts and contributes to peacebuilding. These nature-based solutions will follow the principles of conflict-sensitive adaptation ? critical in areas where there is high dependence on natural resources and in already fragile (politically, socially, economically, environmentally) contexts[54]. The main emphasis of the project are focused on activities on the ground involving communities and their structures, deconcentrated technical services, local government (territorial collectivities), and private sector actors ? through Components 2 and 3. Component 1 will support on-the-ground efforts of Components 2 and 3, through creating an enabling environment that supports strategies for restoration of land productivity and climate change adaptation, and sets a baseline for and tracks changes in communities? climate change vulnerability and adaptive capacity. The project fully aligns with the newly defined Land Degradation Neutrality targets

(2020), enhances coordination for implementation of adaptation and re-greening strategies, and support progress tracking towards achievement of land degradation neutrality and climate security.

Project Theory of Change

The project seeks to address the vulnerability of productive landscapes in the central regions of Mali, caused by severe land degradation and decreased land productivity, desertification and encroachment of the Sahara, biodiversity loss, frequent intercommunal conflicts, and increasing exposure to climate change. This is impeding the ability of ecosystems to provide goods and services essential for livelihoods, food security, human health, and overall economic development, adversely affecting climate resilience of local communities.

In terms of climate resilience, the project will seek to stabilize crop yields affected by increasing evapotranspiration (associated with higher temperatures) and erratic rainfall patterns by focusing on adaptation measures that provide reliable supplies of water, promote improved access to drought-resistant and otherwise climate resilient seed varieties, and capacitate farmers on integrated pest management. Moreover, it will capacitate communities to undertake works that rehabilitate ecosystems including grasslands and wetlands, so they are more resilient to climate change, including measures to reduce siltation associated with increasing water erosion; stabilize dunes and reduce sand encroachment; and reduce the impact of recurring extreme flooding events. The project under Component 3 will also focus on supporting climate-smart cooperative enterprises in the provision of essential adaptation service, which will both diversify incomes and enable adaptation activities under Component 2.

The root causes and drivers of this degradation and vulnerability to climate change can be summarized as follows: (i) strong demographic pressures, (ii) very fragile context with recurrent intercommunal conflicts and extremism, (iii) widespread poverty, (iv) pervasive gender inequality and gender-based violence, (v) climate change impacts, (vi) overexploitation of forest formations, (vii) poor agricultural management practices, (viii) overgrazing by livestock, (ix) poor water management, (x) unsustainable fishing practices.

The objective of the project is to ensure the long-term sustainability of vulnerable productive landscapes in Mali?s central region of Mopti, through nature-based solutions that reverse land degradation, strengthen communities? climate resilience and promote conflict resolution. Specifically, the project aims to overcome the following six barriers:

- ? Limited institutional capacity, governance mechanisms, and tools for cross-sectoral approach to LDN and adaptation implementation
- ? Absence of harmonized approach to monitor, evaluate, and report on progress for LDN/adaptation targets
- ? Lack of effective frameworks for community-based land-use planning, natural resources management, and conflict resolution mechanisms
- ? Limited capacity (human, technical, inputs) to implement resilient practices through a landscape approach

? Insufficient support for households and communities wishing to engage in innovative green businesses

? Lack of information exchange and opportunities for learning across multiple fragmented initiatives in the central regions and the Sahel

The project will work across four complementary Components to achieve a set of four immediate project-level Outcomes. The project also will contribute to yielding development and socio-economic benefits, ultimately making direct contributions to MEA objectives and SDGs.

Component 1 will address Barriers 1 and 2, by strengthening the enabling environment for LDN and adaptation implementation. It will achieve this through reformulating the LDN-NWG, creating its regional counterpart, supporting the development of an LDN action plan, and strengthening knowledge on climate risks and vulnerability, ultimately contributing to monitoring progress in the achievement of LDN and adaptation

Component 2 will address Barriers 3 and 4, by working alongside communities and traditional conflict resolution mechanisms to adopt more broadly conflict prevention measures as it relates to natural resources management. In addition, the project will support the mainstreaming of adaptation concerns into local development plans and will further promote the adoption of good management strategies that support landscape regreening and restoration.

Component 3 will address Barrier 5 by focusing on enabling entrepreneurs, especially women and youth, to engage in climate-smart businesses through a business incubation approach.

Finally, Component 4 will address Barrier 6, by supporting effective knowledge management and sharing of lessons across the Sahel region, enabling scaling up of good practices and supporting peacebuilding efforts.

External factors are necessary for long-term changes to take place. These assumptions include:

A1 ? Land-based conflicts are mitigated through the participatory approach taken by the project, and other project activities are able to proceed

A2 ? Communities are willing and able to partake in the project activities

A3 ? Restoration efforts are not threatened/undermined by local conflicts or climate change impacts, and are supported by significant local buy-in from all local actors through the community-based approach

A4 ? Capacity-building at the local level leads to increased uptake of adaptation strategies

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

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

If the project assumptions (A1-6) are met, then delivery of the four project Components will result in further gains along the pathway to sustainable management and climate resilience of the landscapes of central Mali, represented by five Medium term Outcomes (MTO). These are: (1) LDN is up-scaled and out-scaled across Mali through the implementation of the national action plan (MTO1); (2) The enabling environment for scaling up climate change adaptation is in place and effectively supports Mali?s NAP implementation (MTO2); (3) Increased adoption of community-based NRM good governance practices and adaptation strategies as a mechanism contributing to security across the

targeted landscape, including food security (MTO3); (4) Increased involvement of the private sector in adaptation and land restoration action (MTO4); and (4) Increased coordination and exploitation of synergies between initiatives across the Sahel, addressing LDN, adaptation, and security holistically from a systems perspective (MTO5).

Achievement of these longer-term outcomes, which is beyond the immediate influence and accountability of the project (shown as dotted line in the ToC), is subject to impact drivers (D1-3), namely:

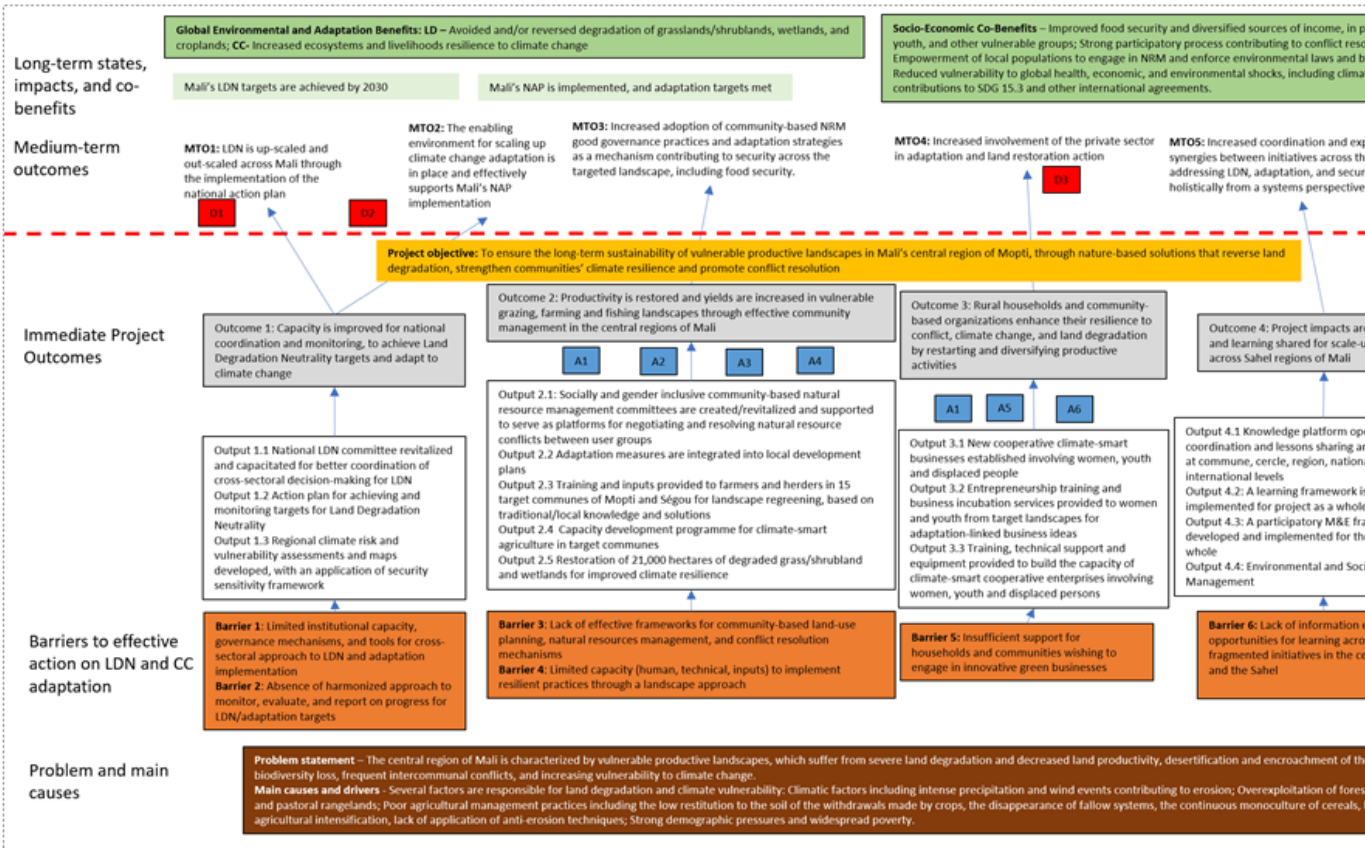
D1 ? Participatory/community-based development/land-use planning processes

D2 ? International legal obligations, including SDGs (15.3), UNCCD, UNFCCC, CBD, AFR100/Bonn Challenge

D3 ? Supportive environment for new business initiatives (e.g. market demand, strategies, policies)

This project, combined with contributions from the baseline projects, are expected to lead to the long-term state whereby land degradation is avoided and/or reversed in grasslands/shrublands, wetlands, and croplands; and there is an increased ecosystems and livelihoods resilience to climate change across the central regions of Mali.

Figure 1. The project?s Theory of Change (TOC)



Component 1: Enhancing coordination and monitoring for land degradation neutrality and climate security.

The planned outcome of this component is that *capacity is improved for national coordination and monitoring, to achieve implementation of Land Degradation Neutrality targets and adapt to climate change*.

In 2020, Mali set its LDN targets through a National Working Group on LDN, in an attempt to systematically address land degradation. In this alternative scenario, the project will support the revitalization and capacitation of the National LDN Working Group (LDN-NWG) for better coordination of cross-sectoral decision-making for LDN, and ensure it has sufficient representation at the regional and local levels to enable vertical decision-making processes. Moreover, this structure will be necessary to coordinate the monitoring process of LDN targets. Indeed, the project will also support the development of an LDN action plan across all economic sectors necessary for achieving the targets, and a monitoring system will be set up. This will involve work at national level around LDN targets, building on existing data to review established baselines, targets, indicators and means of measurement / monitoring. Indicators will focus on the three core areas of land cover and land cover change; land productivity; and soil organic carbon[55]. The AEDD will be supported on this output by the Institute of Rural Economy (IER)[56] and Mali Meteo through the CNSC and will be closely linked to Component 4 (see below).

To support institutional capacity for climate change adaptation, the project will also work on providing data relevant for decision-making, in the form of climate risk profiles and vulnerability mapping (LDCF). The AEDD will be supported on this output by the Mali Geographic Institute (IGM)[57]. The vulnerability assessment and mapping process planned for Component 1 will include the application of a security sensitivity framework.

Without the project interventions, the capacity of national actors to achieve the implementation of Mali?s LDN targets and adapt to climate change will be insufficient. Underlying challenges contributing to land degradation and climate vulnerability, including poor cross-sectoral coordination on land management and planning, as well as limited data to inform decision-making and progress monitoring, would remain unaddressed. While an LDN National Working Group (NWG) was formed and active during the 2020 formulation of the country?s LDN-TSP, at the time of PPG formulation this committee was still active and its capacity to serve in the implementation of LDN targets was evaluated. Its original composition (21 members, mainly from national ministries, agencies, and institutes (DNEF, IER, IFRA, DNAT, ANGMV, PFN, AFOMA, DNA, AEDD, DNPIA, LCV, MEADD), AOPP S?gou, and 4 individual experts) was deemed insufficiently representative of all the sectors required to be actively involved in the LDN process (e.g. Ministry for the Promotion of Women, Children and the Family and its regional branches), nor was there sufficient regional or local level stakeholders involved in the LDN NWG. This precludes the vertical decision-making processes necessary for achieving LDN targets nationally from taking place.

Co-financing for this Outcome will be provided through:

? LoCAL will contribute an estimated USD3.9Min co-financing through the development of methodologies, tools, and analyses for adaptation needs prioritization and risk analyses. Moreover, it will provide analyses of climate data needs for local communities (Output 1.3).

? PRGIP will contribute an estimated USD582,000 in co-financing by strengthening the institutional and legal frameworks required for mainstreaming adaptation and LDN.

? GCF Hydromet Program will contribute an estimated USD8.25M in co-financing. The GCF funds will support the GEFTF/LDCF project Ouput 1.3, in particular through sub-component 3.1 Establishing a national framework of climate services with sectoral working groups.

? UNDP will contribute cash co-financing to Component 1 by supporting costs associated with Output 1.3, (estimated co-financing amount for Component 1: USD850USD884,000100).

Output 1.1 National LDN committee revitalized and capacitated for better coordination of cross-sectoral decision-making for LDN (GEFTF)

As a first step to inform the development of the LDN action plan, the project will carry out an in-depth diagnosis to assess the capacity of different government institutions and its partners to contribute to the achievement and monitoring of LDN targets. This will contribute to identifying capacity-building needs, be they on knowledge regarding existing strategies and regulations, or their implementation and enforcement. At the local level, this will take the form of a community diagnosis, which will be carried out to identify community approaches, community structures and the state of play of LDN in the target

communes. It will also include a rapid stocktaking exercise, to assess the status and membership of the LDN NWG at that time, and its capacity to undertake the responsibilities necessary to drive the LDN process at the national, regional, and local levels. The project will then undertake actions to review the membership of the national LDN-NWG and, as deemed necessary, establish regional and local committees in the intervention areas to enhance the vertical exchange of information, the coordination of the LDN process at landscape level, and foster multi-stakeholder dialogues. Each committee will be trained on their roles and responsibilities. Also, the project will help equip the various committees for better liaison and coordination in order to undertake joint actions related to the achievement of LDN targets. Specifically, the project proposes to conduct on-the-job training for members of the LDN-NWG and their regional and local counterparts, on topics such as monitoring of LDN targets, integrated land use planning, etc., as relevant to support Output 1.2 (see below). Terms of Reference for this working group as well as a memorandum of understanding between the different partners will be developed and approved by all parties in PY1, although the UNCCD focal point would be expected to continue to lead the group, to ensure the alignment with UNCCD reporting requirements and the sustainability of the LDN-NWG.

? Activity 1.1.1 Conduct a survey to assess the capacity of government and partners to implement LDN strategies and actions, and enforce relevant legislation

? Activity 1.1.2. Draft the terms of reference of the national LDN working group and its regional equivalent in Mopti

? Activity 1.1.3 Review the membership of the LDN-NWG committee for better coordination of intersectoral decision-making for LDN

? Activity 1.1.4 Support the creation of a regional LDN committee in Mopti

Output 1.2 Action plan for achieving and monitoring targets for Land Degradation Neutrality (GEFTF)

The project will organize a series of workshops led by the LDN-NWG, and supported by Mali's Institut d'Economie Rurale (IER), with government (national, regional, circle levels represented), technical services, research, and civil society partners to develop an action plan to achieve and monitor land degradation neutrality targets. The action plan will focus on: land use planning; combating desertification; adopting good sustainable land management practices by facilitating the operation of agricultural land management schemes and plans; making LDN visible at all levels by maintaining communication efforts around the planned actions in order to ensure broad support from decision-makers and land resource users, etc.

The project will also undertake the identification of gaps, limitations, and needs, where legal frameworks may require revisions and harmonization in order to give coherence between the content and the form of the laws to support LDN. Through a series of meetings with the relevant government actors, the project will support updating some of the following laws and regulations: the mining code to better control gold panning; review of the land code and the investment code so that environmental and social impact studies and their implementation can help avoid land degradation and also reduce the phenomenon of land grabbing and land speculation, etc.

Based on the initial diagnostic conducted (Output 1.1.), relevant capacity-building plans will be implemented, including trainings on specific topics and relevant training materials will be developed. The stakeholders targeted by the capacity building sessions are: agents of technical services (national, regional and local levels), local elected officials, members of community structures, members of cooperatives and POs and other resource persons. It is anticipated that, amongst others, awareness raising on the legislation supporting LDN would be provided, including: the agricultural orientation law, the pastoral charter and other texts and legal instruments governing the land and property code, agriculture, pastoralism and forestry resources. For instance, it is anticipated that trainings for local government actors on the nature of the laws and support for their enforcement would be provided. Finally, consideration will be given under this Output to existing spatial planning tools such as different planning schemes, including the new development plans for the Inner Niger Delta.

? Activity 1.2.1 Organize a series of workshops led by the LDN-NWG and Mali's Institut d'Economie Rurale (IER) with government (national, regional, circle levels represented), research, and civil society partners to develop an action plan to achieve and monitor land degradation neutrality targets.

? Activity 1.2.2 Undertake an update of natural resource legislation to harmonize and address gaps in effective management and restoration as a basis for effective LDN implementation

? Activity 1.2.3 Organize a series of capacity building sessions for relevant actors on the laws relating to LDN

Output 1.3 Regional climate risk and vulnerability assessments and maps developed, with an application of security sensitivity framework (LDCF)

Mali lacks up to date climate risk and vulnerability information to enhance decision-making processes. Hence, the project proposes, with the assistance of IGM and Mali Meteo, to develop a common methodology for measuring community vulnerability and adaptive capacity to climate change, building on existing initiatives including the CNSC. As part of this activity, training will be provided for staff of Mali Meteo, AEDD, DGPC, and IGM on the methodology of climate risk and vulnerability map making (i.e. data collection and processing methodology, processing software) through a 2-day workshop. The trainings will cover the identification of climate impacts as well as sensitivity and vulnerability parameters to be considered in the methodology. Implementation of the biennial assessments will rely on data collection conducted by 40 youth in the two central regions of Mali affiliated with the DRPSIAP where the project will be implemented, who will have received a one-day training on aspects including the administration of household surveys and field verification of maps. The project will also rely on members of well-organized community platforms, such as early warning groups that respond to the regional EWS, and/or communal youth committees. Ultimately, the project will work on capacitating the DRPSIAP to ensure the long-term sustainability of this intervention, and ensure that data required by IGM to update vulnerability assessments and maps is collected on a regular basis.

IGM will lead the preparation of the assessment and mapping at the start and at the end of the project, and will designate a team in charge of supervising the process, and conducting monitoring and

evaluation. They will also report results to communal authorities and target communities, as well as national authorities, analyzing the links between security and climate change risks, and provide a spatial risk analysis with recommended mitigation and governance measures. This will include a workshop to report the results at the national level, as well as dissemination of the results to relevant local technical services (e.g., EWS, agriculture) and other community structures. Information will also be communicated to communities through general assemblies and radio broadcasts. Finally, a climate data and information system will be established through a partnership with DGPC, to ensure continued access to the climate knowledge generated by this project and others across the country. This activity will complement the activities of the GCF HydroMet project, (in particular the planned development of flood forecasting systems and agro-meteorological applications and the design of an open source platform to share and exchange data[58]), and respond to a need expressed by stakeholders across sectors for actionable climate data and information to support adaptation prioritization.

? Activity 1.3.1 Development of a common methodology for measuring community vulnerability and adaptive capacity to climate change

? Activity 1.3.2 Organize training for youth affiliated with DRPSIAP in the two central regions to conduct an assessment, including household surveys and field verification of maps

? Activity 1.3.3 Conduct two assessments and mapping of vulnerability to climate change in the two regions of central Mali (at the start and end of the project)

? Activity 1.3.4 Report results to communal authorities and target communities, as well as national authorities, analyzing the links between security and climate change risks, and providing a spatial risk analysis with recommended mitigation and governance measures

? Activity 1.3.5 Design and operationalize a national climate data and information system for multi-sectoral applications

Component 2: Enhancing resilience of degraded production landscapes with communities vulnerable to climate change. The expected outcome of this component is that *productivity is restored and yields are increased in vulnerable grazing, farming and fishing landscapes through effective community management in the central regions of Mali*.

Through this Component 2, significant resources are invested in building resilience of highly vulnerable communities of the central regions of Mali to the impacts of climate change, on top of human-induced degradation of the different target landscapes. Since the net result of these climate and anthropogenic effects is a shrinking of productive capacity, the focus in the alternative scenario is on project interventions that restore and enhance productive capacity ? in the process also reducing competition over natural resources and enabling adaptation to climate change. The agriculture and agroforestry activities under Component 2, focusing on increased production, will be linked to small business development in Component 3, prioritizing opportunities for women and youth. The project interventions are carefully designed to promote peace and reconciliation between communities in target landscapes in the central regions of Mali, and to avoid unintentionally feeding into underlying tensions or conflicts ? applying a conflict and gender-sensitive adaptation approach.

Without the project interventions under Component 2, local natural resources governance will remain weak, and inter-communal and inter-user conflicts associated with access and use of natural resources

will continue to take place at high rates. Moreover, due to a lack of awareness and poor governance, natural regeneration of productive capacity will not be possible or reduced, leading to further food insecurity and missed business opportunities.

Co-financing for this Outcome will be provided through:

- ? Liptako Gourma Stabilization Facility will provide as estimated USD 8,000,000 in co-financing for Component 2. It will support and scale up Outcome 2 of the GEFTF/LDCF project, in particular through strengthened local resource management mechanisms, development and implementation of climate risks management support tools, and improved livelihood resilience through access to renewable energy and energy efficiency which remains a key barrier to sustainable development and adaptation.
- ? Natural Resource Conflict Management - A Gender and Climate Resilience Approach to Reducing Community and Transboundary Natural Resource Conflicts will contribute an estimate USD97,000 to Component 2, as the GEFTF/LDCF will capitalize on the efforts of this project to promote the active participation of women in local/community management bodies.
- ? PRGIP will contribute an estimated USD3.2M to Component 2, through its work towards improving knowledge on natural resources and restoring ecosystem functions.
- ? LoCAL will contribute approximately USD2.3M to Component 2, through its work to influence local planning and budgeting for adaptation (Output 2.2)
- ? GCF Hydromet Program funds will support the GEFTF/LDCF project Outcomes, in particular by building systems to ensure that climate information reaches the municipal and community level through better ?last mile? systems. As such, this GCF project will contribute USD8.25M million in co-financing towards GEFTF/LDCF project Component 2, increasing the capacity of local communities to respond to climate risks.
- ? Modern Energy Access Programme will contribute an estimated USD2.06 to Component 2, by enabling activities to take place by increasing security in the region and reducing pressure on ecosystems associated with increased access to modern energy sources.
- ? P.R.E.VU.C.C is expected to contribute approximately USD535,000 to Component 2, through its activities on the development of ponds, and improving access to water.

•PASARC II CCC will contribute approximately USD 8,315,960 to Component 2, through its activities on participatory governance of natural resources and prevention of conflicts.

- ? UNDP will contribute cash co-financing to Component 2 by supporting vehicle and equipment maintenance costs associated with the implementation of activities on the ground, and ensure project team access to the field (estimated co-financing amount for Component 2: USD151,500)

Output 2.1: Socially and gender inclusive community-based natural resource management committees are created/revitalized and supported to serve as platforms for negotiating and resolving natural resource conflicts between user groups (GEFTF)

Traditional natural resource and conflict management mechanisms exist in all project intervention areas, yet their structuring, legitimacy, and effectiveness vary greatly, and women and youth are poorly represented. For example, in the bourgou (grazing area), the owners have local associations and are responsible for managing the area, and these are very legitimate, but their effectiveness is being threatened by the emergence of armed groups. At the communal level too, there are committees that are recognized by law. Natural resource management committees often play a role that is limited to monitoring (brigades), and are not responsible for conflict prevention. The village chiefdoms, on the other hand, are responsible for managing conflicts, and they too have no concrete role in conflict prevention. In some cases, traditional management institutions, specific to each circle, lack capacity and legitimacy and need to be strengthened and re-energized. The technical services have a determining role in the management of NRM conflicts because it is the first entity to be called upon for the realization of reports and proof of the damages and the estimates of the losses undergone, in view of eventual reparation.

The project proposes to build on these existing customary mechanisms and committees in each locality (Internal Delta, Dogon Plateau, Seno Plain, Tominian), in harmony with legal texts and powers (governors, prefects, sub-prefects and mayors, judges) to negotiate, formalize and enforce agreements between (and/or within) communities of herders, farmers, and fishers on grazing and farmland boundaries, access to grazing and water, timing and regulation of migrations, and NRM agreements (including pastoral corridors).

As a first step, the project will conduct the participatory diagnosis of the functioning of existing NRM committees (e.g. regularity of meetings, respect of rules and NRM measures, statute and regulations) in the fisheries, agriculture, forestry, agroforestry and pastoralism sectors. In communities where NRM-specific committees do not exist, the project will evaluate whether such committees are needed or if other committees such as local conflict resolution committees could be supported to have enhanced roles. The project will then accompany the communities in the development and/or revitalization of NRM committees, taking into account the need for social inclusion and increased access to decision-making processes for women and youth. Moreover, committees? statutes and regulations will be updated to ensure their roles and responsibilities in terms of NRM and conflict resolution are clear.

The community-based NRM committees and customary committees/community leaders will be trained on mechanisms for managing and preventing conflicts related to natural resources and climate change. To ensure full social inclusion, village relays (RECO ? i.e. a volunteer chosen by villagers/locals/indigenous groups who agrees to act as liaison between the community and the project) will also be trained and will be in charge of raising awareness in the communities. Where appropriate, women will also be involved and trained similarly to the RECOs. These relays will be decisive in ensuring sustainability after the project's departure.

To ensure the legitimacy and acceptance of the project interventions, the project will also actively engage in a participatory consultation process, including on topics related to the restoration of social, cultural and traditional values in NRM. Indeed, the project will support an annual forum on the socio-cultural values, mechanisms and traditional techniques of natural resources management, which will bring together all key actors, and will be facilitated by RECOTRADE and the village chiefdoms. The aim is to create a framework for exchanges on social and cultural values. This meeting will be as

participatory and inclusive as possible and bring together all sensibilities, and as such will actively involve vulnerable groups including women, youth, and displaced populations. The forum will be complemented by a cultural event. Each component will touch upon the common theme of environmental management and conflict resolution. Through an inclusive and participatory process, the event will yield the development of an action plan for the restoration of social, cultural and traditional values in NRM which are intended to enable project activities, including provisions for implementation and follow-up which will be decided upon by the communities.

During these cultural events there is a risk that traditional knowledge of Indigenous People could be mishandled or mismanaged by project professionals, intentionally or unintentionally. Such situation could lead to serious grievance and/or erosion of trust between the Project and Indigenous People, ultimately jeopardizing project outcomes. These Indigenous Communities include Bozos, Dogons, Sonrhais, Berabish Arabs.

The Project will identify existing information-sharing structures for both communities and partners and ensure that they are complementary and determine the most appropriate way to manage sensitive information, in agreement with the community. This will be done as part of the FPIC process. The project will also draw upon current work of the World Intellectual Property Rights to protect the Intellectual Property rights of Indigenous Peoples worldwide. WIPO has developed a Practical guide to Protect Intellectual Property of Indigenous Peoples and Local Communities which will serve as a reference document to guide efforts to protect the intellectual property of local people.

Specifically, this Output will also support both Component 2 and 3 activities, and ensure that adaptation-based business endeavors are well understood and supported by the communities, addressing a key socio-cultural barrier to involvement by vulnerable groups.

? Activity 2.1.1 Participatory diagnosis of existing natural resources and/or conflict management committees, as well as tenure commissions (CoFo) in the fisheries, agriculture, forestry, agroforestry and pastoralism sectors

? Activity 2.1.2 Revitalize/create NRM committees with a clear role in the management of natural resource conflicts at the village level, involving women and youth

? Activity 2.1.3 Train NRM committees and customary committees/community leaders on conflict prevention, management and resolution mechanisms related to natural resources and climate change

? Activity 2.1.4 Organize annual forums on the traditional management of natural resources

Output 2.2 Adaptation measures are integrated into local development plans (LDCF)

Local Social, Economic, and Cultural Development Plans (PDSECs) constitute an ideal entry point for the integration of adaptation priorities and measures, as well as climate security, and constitute the most important document used in local planning. The project will therefore support the integration of

community-based land management for adaptation and rehabilitation into the PDSECs and budgetary frameworks of the cercles and 15 communal councils targeted by the project. To achieve this, the project will first provide training to 15 local agricultural officers and 15 project field officers on APVACC[59] (Participatory Analysis of Vulnerability and Adaptation to Climate Change) and PICSA (Participatory Integrated Climate Services for Agriculture) approaches. These individuals will then undertake the participatory processes with households and cooperatives, women's groups, and NRM committees to yield comprehensive participatory analyses, the results of which will then feed directly into 15 PDSECs (communal and cercle level) and into the budgeting of these PDSECs. As financial resources of communes are very limited, it has been demonstrated that it will also be required to provide trainings on good budget management and procurement to enable effective implementation[60]. Moreover, while other projects such as the Decentralization and Inclusive and Sustainable Local Governance project have provided training to local leaders and elected officials on conflicts, the issues and those associated with climate security have not yet been taken into consideration into PDSECs. Considering PDSECs are the most relevant entry point to ensure the sustainability of project interventions, multiple projects might be supporting their revision. Prior to the revision process, ongoing and planned projects will be approached for coordination and complementarity. Among key recent interventions and developments, it is worth noting that AEDD has developed a guide on the integration of SDGs into PDSECs, which has been piloted in the Segou region, and GIZ has recently supported integrating the Climate Proofing tool into PDSEC development guidelines through the ASNACC project. The GEF/LDCF project will review lessons learnt from the process and scale up the approach in the intervention sites.

? Activity 2.2.1 Support 15 communes (through community natural resource management committees) in the APVACC to determine adaptation needs and strategies

? Activity 2.2.2 Integrate adaptation priorities into 15 PDESCs based on the results of the APVACC

Output 2.3 Training and inputs provided to farmers and herders in 15 target communes of Mopti and S?gou for landscape regreening, based on traditional/local knowledge and solutions (GEFTF)

To regreen the target landscapes, the project will take a participatory approach and provide trainings on the principles of Assisted Natural Regeneration (ANR) and Sustainable Land and Water Management (SLWM), and support the progress monitoring of the regreening efforts (in particular with regards to ANR). In terms of SLWM, the project will provide training and inputs to increase the adoption of soil and water conservation strategies, such as half-moons, zai pits, contour bunds with stones, etc. For better adoption of ANR and SLWM practices, the project will train the agriculture, fisheries and NRM departments as well as producers. Extension agents will receive training of trainers to disseminate knowledge on ANR and SLWM in their respective areas of intervention, drawing on local and traditional knowledge and preferences. This will translate in the establishment of farmer field schools for producers, thereby providing a platform to support continuous learning and skills development necessary to improve adoption rates of ANR and SLWM practices for regreening.

Recent experience from the PACV project has shown that it is necessary to ensure continuous monitoring of ANR activities, beyond initial trainings, to yield long-term behavioral changes and scale up the adoption of ANR practices within local communities. Transect walks should also take place at the onset of project implementation, where new growth can be identified, mapped, and immediately tagged for future protection. Subsequently, regular transect walks to demonstrate progress are required, and are shown to effectively increase buy-in. Indeed, it was reported during PPG consultations that individuals often do not view their own cropping and grazing practices as impacting the presence of trees, and rather reported climate change as the primary driver of environmental degradation. Hence, the project proposes to build on the good practices identified in the PACV project. The project will then support ongoing participatory monitoring of progress on ANR and assess the results at the end of the project.

? Activity 2.3.1 Conduct training of trainers (extension agents) in ANR and SLWM techniques, based on traditional knowledge and local preferences

? Activity 2.3.2. Establish farmer field schools for the training of producers, including women farmers, and demonstration plots for train-the-trainer activities

? Activity 2.3.3 Conduct a participatory mapping of fields to identify new growth at the onset of the project,

? Activity 2.3.4 Conduct annual monitoring, including a final evaluation of ANR success

? Activity 2.3.5 Provide equipment to support the adoption of ANR and SLWM (e.g. shears, pickaxe, wheelbarrow, boots and gloves)

Output 2.4: Capacity development programme for climate-smart agriculture in target communes (LDCF)

The project will support the adoption of climate-smart practices by farmers and herders, through improved access to drought-resistant and otherwise climate resilient seed varieties; training and technical support to integrated pest management, fodder production, and dry season market gardening; and production of tree seedlings for NTFP uses (fruit trees, gum trees and other products). The selection of specific varieties and the identification of specific needs at local level will be informed by the APVACC (Output 2.2), priorities identified by entrepreneurs for complementarity with Component 3, and varieties will be carefully selected in line with the ESIA/ESMP, so as to ensure that no invasive species are introduced, and that varieties have the required characteristics to ensure sustainable adoption, amongst other risks to be mitigated.

The project will support the adoption of climate-smart practices by farmers and herders, through improved access to drought-resistant and otherwise climate resilient seed varieties; training and technical support to integrated pest management, fodder production, and dry season market gardening; and production of tree seedlings for NTFP uses (fruit trees, gum trees and other products). The selection of specific varieties and the identification of specific needs at local level will be informed by the APVACC (Output 2.2), priorities identified by entrepreneurs for complementarity with Component 3, and varieties will be carefully selected in line with the ESIA/ESMP, so as to ensure that no invasive species are introduced, and that varieties have the required characteristics to ensure sustainable adoption, amongst other risks to be mitigated.

The project will work closely with the producers in Producer Organizations, technical services in charge of the management of seeds (ie. National Seed Service and the Regional Directions for Agriculture in charge of seed dissemination) and research institutes (ie. IER, CRRA, ICRISAT, AMEDD) and other actors involved in seed production and dissemination (ie. AOPP and women cooperatives) to identify the seeds to be selected, based on criteria such as quality, productivity, availability, accessibility, conservation and cost. The aim will be to respond to the needs of most climate-vulnerable communities and creates environmental benefits such as the reduction in soil degradation, increasing yields, reduced cleared areas, production of fodder and reduced food insecurity. As such, the project will establish at least one production unit per cercle for improved/adapted seeds (cereals, legumes, fodder crops, fruit trees, etc.) to ensure a sustainable supply of seeds for producers. Trials will be conducted in field schools, and beneficiary farmers (with a priority given to women) will experiment the different varieties that enable a sustainable change and the adoption of these varieties. In addition, research institutions will be engaged, through the Producer Organizations, to provide varieties with high nutritive value and more accessible to producers to facilitate the upscaling. In addition, a production cooperative (ie. the national network for seed producers) for certified seeds is already in place in S?gou and provides seeds to the circles of Bankass, Koro and Mopti with sesame, fonio and rice seeds, and will be supported by the project.

The project will support the establishment of nurseries for different endemic tree species, which are climate-resilient, and can be integrated into agroforestry systems to produce NTFPs. Successful approaches, such as the PACV, which included training nursery staff within villages through partnerships with extension agents from the Water and Forests Department (DREF), collecting seeds in the natural environment, and implementing nurseries at the commune level, will be replicated. To assist in scaling up adoption, the project will develop and pilot in local languages: a radio program, SMS for farmers, a network of traditional communicators and materials for schools on SLWM, climate-smart agriculture, and climate change adaptation more generally. Farmer days will be organized to enable researchers to present the results of the researches and enable structures in charge of the dissemination to promote the upscaling.

? Activity 2.4.1 Provide training to farmers and herders on climate-smart practices - including new drought-resistant crops/local varieties, improved pest management, fodder and fruit tree management, and dry season gardening programs

? Activity 2.4.2. Establish one unit for the production of improved/adapted seeds (cereals, legumes, fodder crops, etc.) per cercle

? Activity 2.4.3. Establishment of nurseries at commune level for the production of tree seedlings for NTFP uses in agroforestry

? Activity 2.4.3. Dissemination of information on climate-smart agriculture through locally appropriate means

Output 2.5: Rehabilitation of 21,000 hectares of degraded grass/shrubland and wetlands for improved climate resilience (LDCF)

This output targets land and water resources (outside of family farms) for rehabilitation through communal works for ecosystem-based adaptation. This includes: (i) training NRM committees and other relevant community members, including youth and displaced persons, to analyze adaptation needs, and to plan, carry out and monitor rehabilitation efforts; (ii) equipping NRM committees and/or other relevant community-level structures (e.g. infrastructure committees, women groups, herders cooperatives) and carrying out plantings for rehabilitation of pastureland and protection of villages from sand encroachment; (iii) equipping and training NRM committees and/or other relevant community-level structures to develop and carry out sustainable rehabilitation works on watercourses (channels, rivers, ponds, pools); and (iv) equipping the NRM committees and/or other relevant community-level structures to construct/rehabilitate local earth dams, and wells with solar PV-powered pumps, to increase household water supply and irrigation (for Output 2.1).

The project will support, through the NRM committees, the participatory mapping of areas requiring rehabilitation efforts, and geo-reference them. Subsequently, rehabilitation plans will be developed to identify prioritized activities (e.g. fencing, bank restoration, dredging, tree planting, respect of buffer zones, seeding of perennial grasses) in 20 villages needed for climate change adaptation. To ensure smooth operations, five agreements for the rehabilitation of rangelands and wetlands will be signed, including on monitoring and supervision requirements and assign clear responsibilities. The project will also support awareness raising for communities on the importance of rehabilitation of targeted areas.

In wetlands, rehabilitation efforts will consist of cleaning/dredging works, fixing the banks with herbaceous mats and/or planting indigenous species. These works will be completed by fish stocking activities and continuous monitoring to promote their sustainability. The project will provide material and equipment that can facilitate the adoption of these sustainable management practices of land and water and increase the capacity of beneficiaries. The project could inadvertently introduce exotic/invasive plant or fish species which will lead to adverse environmental and social effects. The ESIA/ESMP will layout the measures to prevent the introduction of invasive species. The project will promote the use and resilient indigenous tree species for regreening/rehabilitation, and promote best practice in fish farming using indigenous and/or non-invasive species.

Water availability in the region is a major roadblock to the sustainability of many rehabilitation activities. Hence, through the project, it will be necessary to rehabilitate small-scale dykes and water retention dams (if necessary) or to build new water retention dykes, wells equipped with solar pumps for the supply of water for drinking, irrigation and watering animals. Assessments on water availability will be conducted prior to the selected work to ensure the water recharge is sufficient and no over-extraction will be facilitated through the project. Furthermore, the ESIA will analyse the potential impact risk on groundwater extraction, and develop a plan that promotes the sustainable use of water resources. This will include requirements related to:

? optimal siting of new or refurbished well-points

? measures to enhance natural recharge of aquifers where possible, and

? an agreed governance system to allocate and enforce access, timing and length of extraction by community members.

Full safeguards measures will be determined by the ESIA/ESMP prepared during implementation.

Activities under this Output include:

? Activity 2.5.1 Conduct diagnostic study on rehabilitation needs in each commune, taking into account the PDSECs and the priorities identified by the technical services, including assessments of water availability for water-related activities

? Activity 2.5.2 Train relevant community structures (7-13 people including women, youth and internally displaced people, e.g. NRM committees) on the planning, implementation and monitoring of adaptive rehabilitation efforts

? Activity 2.5.3 Equip community institutions, (e.g., herders' cooperatives, agricultural producers and forest users; women groups), and establish plantings for pasture rehabilitation and village protection from sand encroachment (e.g. anti-erosion techniques; dune fixation)

? Activity 2.5.4 Equip community institutions (e.g., herders' cooperatives, women groups) to sustainably manage and restore watercourses (canals, rivers, ponds) and support effective rehabilitation works

? Activity 2.5.5 Equip community institutions (e.g., infrastructure committees) to construct/rehabilitate earth dams and wells with solar PV pumps to increase household water supply and irrigation.

Component 3: Supporting family farms, youth and women to innovate and adopt resilient and sustainable livelihoods

The planned outcome of this component is that *rural households and community-based organizations enhance their resilience to conflict and climate change by restarting and diversifying productive activities and businesses that spread household risk, whilst simultaneously provide inputs to climate-smart agriculture, or adding value to climate-smart agricultural products*. The component involves two clusters of work outlined below ? (i) strengthening / establishing small agri-businesses and cooperatives at village level, (based on the enhanced and diversified production stimulated in Component 2); and (ii) linking these to value chains beyond the village through targeted support to women and youth entrepreneurs.

As part of the alternative scenario there is a need to enable market access for agri-products. Selling climate-smart agricultural produce and value-added products will bring new income streams into households and provide cash that can be used to improve the nutritional status. It can also help build resilience against external shocks and stresses of all kinds ? including community conflict and climate hazards. In Component 3, technical assistance will be provided to establish cooperative businesses involving youth and women, for the production of climate-smart agricultural inputs (e.g. liquid organic fertilizer or agroforestry seedlings), or focusing on processing of agricultural and fish products (e.g. primary processing of drought-resistant millet, or fish drying and smoking (using energy efficient

technology), and selling these products on local markets[61]. Component 3 will also facilitate the incubation of sustainable youth-led businesses that can enable the productivity-enhancing adaptation strategies of Component 2.

The Environmental & Social Management Framework (ESMF) that was developed during the PPG phase, and the ESIA/ESMP to be developed during implementation (Output 4.4) will provide further guidance on the management/mitigation of the risks posed by the activities in this Outcome.

Without the project interventions, local entrepreneurs will continue to face significant barriers to develop and launch new businesses and lack the skills to develop sustainable businesses that take into account climate resilience and environmental impact. Some challenges are of a social nature, and women and youth may face cultural and societal barriers, including for instance hostile family conditions to the sharing of the means of production and especially of income.

In addition, some men could resort to violence to maintain or restore their traditional power over women. A Gender Expert with local knowledge conducted a detailed Gender Analysis outlining and explaining gender inequalities, and the complex legal, cultural, and religious constraints on women?s participation, and drew up a Gender Action Plan. Throughout project implementation, awareness and sensitization sessions will be organized and/or reinforced to explain the benefits of the Gender Equality and Women?s Empowerment for the communities. Furthermore, in advance of undertaking community engagement, steps will be taken to gather information about obstacles faced by women, their preferred approaches for consultation, and how to provide and share information with them.

There are administrative formalities which make entrepreneurship inaccessible to the majority, and despite the national political will, rural entrepreneurs enjoy little access to finance and micro-credit through banks. In fact, few entrepreneurs manage to get a loan without an external guarantee. Hence, as entrepreneurs are forced to use only their own resources, they tend to take minimal risks. On the other hand, most companies do not add enough value to their products and are not very competitive. Isolated initiatives, scattered investor support, and awareness campaigns are not enough to bring about a profound structural change. Rather, there is a need to provide systemic support through help for production, the transformation of raw products into value-added products, effective public policy, good governance program, and the guarantee of an efficient business administration. Finally, businesses in the central regions of Mali, as in the rest of the country, do not benefit from research and development outcomes. Their products are generally the result of lengthy processes of trial and error, and thus remain produce less added value and are of lesser quality. This is due to low public sector investment in raising the level of technology, compounded by a lack of knowledge exchange mechanisms and business incubation support.

Local entrepreneurs receiving entrepreneurial training/support through the project could go on to start businesses which will have a negative environmental impact or cause maladaptation to climate change. The ESMF contains procedures for screening the initiatives, and/or that the relevant activities will involve the development of such a procedure. The Project will carry out due diligence on the local initiatives to be funded using these procedures. Funding will be directed initiatives that have less negative environmental impact and/or that have the capacity of meeting the requirements of UNDP Environmental and Social Standards.

Co-financing for this Outcome will be provided through:

•Natural Resource Conflict Management - A Gender and Climate Resilience Approach to Reducing Community and Transboundary Natural Resource Conflicts will provide and estimated co-financing of USD97,000 will help support efforts to normalize the involvement of women in economic activities that respect sustainable natural resource management in sectors with high potential for generating income for women and mitigating conflicts related to natural resources;

•PRGIP will contribute an estimated USD2.04M through its work on promoting income-generating activities;

•Modern Energy Access Programme will contribute an estimated USD3.1M in co-financing by directly feed into the baseline of this GEFTF/LDCF project, and enabling project activities to take place by increasing security and providing necessary energy infrastructure for innovative adaptation-based businesses.

•Project to support the promotion of the processing of agricultural products through various productive uses of renewable energy will contribute an estimated USD534,000 to Component 3.

•Strengthening the resilience of vulnerable women and youth groups to the adverse effects of climate change in the circles of Djenn? and Tominian will also contribute an estimated USD534,000 to Component 3, through its focus on women and youth groups.

•? PASARC II CCC will contribute approximately USD 8,416,423 to Component 3, through its activities on agricultural value chain development, with a focus on women and youth.

•UNDP will contribute cash co-financing to Component 3 by supporting miscellaneous activity costs (estimated co-financing amount for Component 3: USD138,900)

Output 3.1 New cooperative climate-smart businesses established involving women, youth and displaced people (LDCF)

Women and displaced people are particularly vulnerable populations, while unemployed or underemployed youth can be susceptible to engage in violent groups. Widowed women in particular will be targeted by the project. The project will first conduct value chain and market studies (one per commune) to identify the gaps, opportunities, and ensure the relevance and revenue generating potential of the climate-smart businesses[62] supported, as well as identify the new cooperative climate-smart businesses with the most potential to be supported by the project following a social and gender inclusive approach. Supported businesses will be linked to the areas of production supported under Component 2 (e.g. processing of cereal crops, drying and smoking of fish, liquid organic fertilizers, seed nurseries).

As stated earlier, targeted individuals (in particular women) may face cultural and social barriers to engaging in these business endeavors. To ensure maximum engagement potential, the project will streamline a participatory approach which builds on the local cultural context to ensure buy-in of both targeted beneficiaries and their social networks. A forum led by RECOTRADE, the village leaders and religious leaders, as well as local media (e.g. radio, ICT) will take place in each commune to create a framework for exchanges on social and cultural values, and how to reconcile them with the objectives of the business development activities.

Subsequently, the project will support the structuring of these vulnerable individuals in new, cooperative, climate-smart businesses to support income generation and long-term employment. To

enable this, the project will provide technical assistance for the formal registration of enterprises/cooperatives and on administrative and operational aspects. To ensure that the new businesses can effectively function following their initial structuring, the project will also provide start-up financing.

The project will be sensitive to the security context and ensure that new business structures are not inadvertently causing further vulnerability to project beneficiaries. In particular, women have been the targets of criminal groups, and the intervention of past project exposed them to theft and violence[63]. The Security Plan and other safeguards plans will be monitored to mitigate security risks (Output 4.4).

? Activity 3.1.1. Conduct value chain and market studies in each commune to identify the gaps and opportunities for climate-smart businesses

? Activity 3.1.2. Organize community forum to promote exchanges on social and cultural values, and how to reconcile them with the objectives of the business development activities

? Activity 3.1.3. Support the establishment/structuring of new cooperative and climate-smart businesses

? Activity 3.1.4. Provide financial support for the creation and operating costs of cooperatives/ associations for the first two years

Output 3.2 Entrepreneurship training and business incubation services provided to women and youth from target landscapes for adaptation-linked business ideas (LDCF)

This output will provide entrepreneurship training to the members of the new cooperative businesses (i.e. member-owned business structures) in the region, including on the formulation of sustainable business plans. These trainings will be conducted using the incubation programmes set up in Mopti and S?gou (Donilab). Provision will be made to matchmake rural entrepreneurs with microfinance institutions in Mopti and S?gou? including the Agency for the Promotion of Investments in Mali and the Program for Rural Micro-finance. Access to loan finance and loan guarantees will be provided for women and youth with solid business plans and family/community backing ? for new businesses in agri-processing and climate-smart technologies, with a potential partnership with Guarantee Funds for the Private Sector SA for loan guarantees. Beneficiaries will also be supported for two years with the creation of Village Savings and Credit Cooperatives (CVECs) in each commune to access financial institutions and support business start-up and operations. The project will also contribute to building partnerships between young entrepreneurs with financial institutions. The project will also support the participation of business leaders in fairs outside of the villages, to foster business partnerships with key actors (e.g. financial actors, suppliers, buyers), promote sustainable growth, and enhance market access.

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? Activity 3.2.1. Train women and youth in target communities on entrepreneurship (e.g. business administration and financial literacy)

? Activity 3.2.2. Train cooperative businesses to develop sustainable business plans

? Activity 3.2.3. Facilitate a platform to build business partnerships for women and youth-led cooperative businesses, including with private sector partners (e.g., suppliers, financial)

? Activity 3.2.4. Establish Village Savings and Credit Cooperatives (CVECs) in each commune

Output 3.3 Training, technical support and equipment provided to climate-smart cooperative enterprises involving women, youth and displaced persons (LDCF)

Based on the diagnostic study conducted under Output 3.2, the project will ensure that climate-smart cooperative businesses receive adequate technical support and are properly equipped to begin their activities.

It may include, amongst others, support to the capacitation of the aquaculture sector (e.g. logistical support to the breeding and fry production station in Mopti, or fry production by local climate-smart enterprises/cooperatives; equipping climate-smart enterprises/cooperatives for the production of fish raised in ponds or pools), agri-businesses (e.g. training of women agro-processors; provide processing equipment for selected agricultural products and NTFPs). Cooperative businesses will also be provided with materials for the production of nursery plants. Training will cover both the operation of equipment provided, as well as its maintenance, to ensure that there is local capacity to repair equipment in a context where insecurity could limit movements across the region. Competitive scholarships will also be provided for local youth to obtain the specialized technical skills to support entrepreneurship (including activities supporting adaptation activities under Component 2 such as PV maintenance). In partnership with the communities and the media, this competition will be organized by commune and publicized.

? Activity 3.3.1 Adequately equip climate-smart enterprises and cooperatives
? Activity 3.3.2 Train climate-smart enterprises and cooperatives on adaptive and value-generating production, transformation, and processing techniques (e.g. for aquaculture, agro-food production)
? Activity 3.3.3 Provide competitive scholarships for selected local youth

Component 4: Monitoring and evaluation and knowledge management for upscaling.

The planned outcome is that *project impacts are monitored and learning shared for scale-up of results across Sahel regions of Mali, and beyond*. The project activities in Component 4 will then enable knowledge platforms for replication and scale-up, facilitating learning within and beyond central regions of Mali, and sharing of lessons learnt with other countries of the Sahel zone. Youth in Mopti will also be equipped for agroecological monitoring of project results and impacts, which can be fed back through the IER into the national action plan as a pilot for monitoring. The project will also, through Mali-M?t?o, build on the Global Framework for Climate Services to improve user knowledge through a range of initiatives to educate, share, and provide online training programs in local languages. It also allows for the design of performance assessment and monitoring measures agreed upon by users, experts and providers at regional and global levels.

Co-financing for this Outcome will be provided through:

•Natural Resource Conflict Management - A Gender and Climate Resilience Approach to Reducing Community and Transboundary Natural Resource Conflicts will provide co-financing of about

USD97,000, whereby the GEFTF/LDCF will capitalize on the efforts of this project to support to community initiatives and improved knowledge management.

•LoCAL will contribute an additional USD1.55M to Component 4, through the generation of valuable knowledge on adaptation for regional and local levels, as well the deployment of an M&E framework for adaptation entitled ?Assessing Climate Change Adaptation Framework?.

•UNDP will contribute cash co-financing to Component 4 by supporting staff costs associated with Output 4.2, in particular on aspects of gender, communications, and safeguards (estimated co-financing amount for Component 4: USD154,800)

Output 4.1: Knowledge platform operational for coordination and lessons sharing among stakeholders at commune, cercle, region, national and international levels (LDCF)

This output will ensure that knowledge produced by the project is shared and disseminated to inform future initiatives, starting with the development of a project-level communication strategy. The PPG phase illustrated well the lack of coordination between existing initiatives on the ground, and the difficulty in accessing lessons learnt from past projects. Moreover, it identified the need to better connect with other regions of the Sahel and Africa, which are facing similar interactions between land degradation, climate change, and conflict. A knowledge platform with online and face-to-face elements, involving project stakeholders and related initiatives (peacebuilding, adaptation, mitigation, sustainable agriculture etc.) will be useful for the design and implementation of similar future projects. Annual multi-stakeholder dialogues will also be organized through the platform in target Cercles and Mopti Region to address interrelated challenges of SLWM, peace and climate security. A national learning event[64] will be held on Climate Security and Sustainable NRM to share learning from project, inviting participation by other conflict-affected Sahelian countries to promote South-South engagement. A publication on lessons learnt and series of short videos will be developed and use these as basis for participation by Mali in international forums and other knowledge exchange events to disseminate lessons learnt, in particular on the role of land degradation and climate in conflict.

? Activity 4.1.1. Develop a project-level communication strategy leveraging available frameworks (e.g. CROCSAD, CLOCSAD, CCOCSAD)

? Activity 4.1.2. Establish a knowledge platform

? Activity 4.1.3. Hold annual multi-stakeholder dialogues

? Activity 4.1.4. Host a national learning event on Climate Security and Sustainable NRM inviting participation by other conflict-affected Sahelian countries to promote South-South engagement

? Activity 4.1.5. Produce a publication on lessons learnt publication and series of short videos

? Activity 4.1.6. Set up and participate in knowledge exchange events at national and international levels

Output 4.2: A learning framework is developed and implemented for project as a whole (GEFTF)

In terms of learning, the project will arrange learning exchange visits to share experiences in climate change adaptation and agro-ecological restoration between target villages, communes and cercles, to scale up impact (close relationship to Component 2). Furthermore, it will act as a pilot for the monitoring system of the LDN action plan and will integrate relevant methodologies to ensure the

alignment with the LDN conceptual framework . Trainings will follow a ?training of trainers? approach. The training programme will focus on geo-referenced data collection for youth monitoring at the landscape level, while IER staff trainings will cover all LDN related assessment work: (i) Remote sensing to determine land use, land use change and productivity level (covering corresponding LDN metrics, verifying and updating LDN country data/baseline); (ii) a simplified land degradation assessment (using results from the remote sensing to identify key drivers of degradation per land use); (iii) tablet based, geo-referenced and representative resilient assessment (youth monitors at household level); (iv) carbon and biodiversity baseline assessment; and (v) mapping of soil organic carbon. The use of Trends.Earth, a platform from Conservation International for monitoring land change using earth observations will be explored during project implementation .

? Activity 4.2.1. Arrange learning exchange visits to share experiences in climate change adaptation and agro-ecological restoration between target villages, communes and cercles

? Activity 4.2.2. Operationalize the mechanism for monitoring changes in agro-ecological ecosystem condition, adaptive capacity and resilience in the central regions, including training and equipping youth for monitoring

Output 4.3: A participatory M&E framework is developed and implemented for the project as a whole (including sites for Component 2 and 3 activities) (GEFTF)

This output will ensure that project results are properly monitored throughout implementation through a performance framework, regular monitoring activities and evaluations.

? Activity 4.3.1. Project Inception Workshop

? Activity 4.3.2. Development and implementation of Monitoring and Evaluation Framework for the Project

? Activity 4.3.3. Mid-term review

? Activity 4.3.4. Terminal evaluation

Output 4.4: Environmental and Social Safeguards Management (GEFTF)

This Output will serve to address Environmental and Social Safeguards for the project and streamline processes across all project Components. Several plans, assessments, mechanisms, and procedures will be developed or updated, including ESIA, SESA, ESMP, gender and youth action plans, FPIC, SESP, Stakeholder Engagement Plan, Grievance Redress Mechanism, and Security Plan.

As such, the Project will conduct a Strategic Environmental and Social Assessment (SESA) for the upstream activities supported under Component 1. An ESIA will also be completed for relevant downstream activities prior to the start of these activities, and specific management plans will be developed to address issues related to conflict, access to natural resources, livelihood, grievance redress, etc. including Livelihood Action Plan(s) if required for SES compliance. Specialist studies will be conducted during the ESIA and the ESMP that will subsequently be developed will contain detailed recommendations to mitigate the risks related to such spatial or temporal restrictions. The SESA and ESIA will conduct further assessment of risks associated with partnering with the institutions/partners

concerned by Component 1 and integrate specific procedures into the ESMP. At a minimum, the procedures will include requirements for partners to:

? adhere to the UNDP social and environmental standards (SES),
? subject all on-the-ground activities to screening, using the SESP
? clear all proposed activities with the Project Safeguards expert
? ensure that gender considerations are fully integrated into all activities, and that activities proactively promote women?s empowerment and human rights.

Capacity for implementing environmental and social safeguards and/or integrating them into national policies and plans is expected to be limited. When necessary, the Project will organize trainings and/or workshops to build the capacity of key project implementation actors and equip them with necessary knowledge and tools needed to achieve the objectives of the Project effectively and efficiently. This is key to ensuring continued success over the course of the project implementation, and beyond. Such capacity building activities will start before the implementation of the first activity and will include a combination of the following topics:

? UNDP Social and Environmental Standards (SES)
? Stakeholder Engagement and FPIC (Free Prior and Informed Consent),
? UNDP Accountability Mechanism (Grievance Redress Mechanism, SRM, SECU),
? Understanding UNDP Project Cycle,
? Monitoring and Evaluation of UNDP Projects,
? Gender,
? Human Rights

Overall, the project will have a strong focus on enhancing capacity of relevant national actors, as well as targeted communities, to ensure that they have the required knowledge and skills to actively participate in project interventions, incorporate lessons learned, and uptake good practices.

In addition, while regions of operation have been established, exact locations for on-the-ground activities (and hence the project?s direct beneficiaries and project-affected communities), have not been specified at the present stage of project development (Components 2 and 3). Further screening is required to identify site-specific risks significance, and to effectively target any required further impact assessment or management. Locations, and proposed project activities specific to those locations, will be defined during the first year of the project. Once the initial project activities are fully specified and exact locations selected, further screening using the SESP will be required to ground-truth and update the SESP, and to determine whether additional social and environmental impacts may be present that will require further assessment and management.

The Project will develop such Screening Procedures. The development of the procedure and the screening will be the responsibility of the PMU and the Safeguards Officer.

In general, during the course of the project if activities, outputs and potentially additional locations not already covered by the existing SESP are proposed, they will require screening, assessment and management, using the SESP methodology to ensure that any impacts are identified, their significance is established, and any required impact-specific management actions are developed and applied. More details are available in the ESMF.

Indicative activities under this Output are:

? Activity 4.3.1. Conduct SESA
? Activity 4.3.2. Develop, implement, and monitor ESIA and related management Plans
? Activity 4.3.3 Develop, implement, and monitor ESMP

Strategy and action framework for response to the COVID-19 pandemic:

The project will contribute to the Government?s response to the COVID-19 pandemic, supported by the United Nations (UN) and other financial and technical partners. According to a rapid analysis by the UN Country Team of the socio-economic impacts of COVID-19 in Mali,[68] the indirect socio-economic impacts were anticipated to likely be even more devastating than the direct health effects. Indeed, the World Bank in 2021 found that the health crisis was estimated to

[68] Global Environment Facility, GEF?s Response to COVID-19 (May 2020)

have pushed an additional 900,000 people into poverty, reversing much of the poverty reduction progress achieved in Mali over the last decade.[69]

The project strategy is to contributes in two ways to assisting the Government of Mali with a ?green recovery? from the pandemic, building on UNDP?s support to Government, and on the Government?s commitment of new resources for social protection, corresponding to 1.3% of GDP[70][3]. This strategy responds to the guidance document ?GEF?s Response to COVID-19?[71][4], and has a dual action framework including for alignment of the project goals with the response and recovery strategies:

1. Actions to support COVID-19 response in the short-term:

The proposed project has been designed to maximize opportunities for job creation and training, local economic development, and productivity improvements, as follows:

Job creation through small business development: In Component 3 of the project, youth-led climate-smart agribusinesses, technologies and services are developed. This includes work to: (i) provide opportunities for local youth from target communities to receive entrepreneurship training in existing incubator programmes in Mopti city; (ii) promote access to loan finance and loan guarantees for youth with solid business plans and family/community backing ? in agri-processing and climate-smart technologies. In Output 2.3, training is provided in 15 target communes in Mopti to develop farmers?

capacity for Assisted Natural Regeneration and other Sustainable Land and Water Management (SLWM)[72][5] techniques, building on traditional knowledge and local preferences.

Productivity improvements: In Output 2.3 of the project, technical and financial support are provided to farming households (including women headed households) to adapt farming practices to climate change, and restore farm productivity. This includes work to: (i) form agro-ecological farmer?s groups / Farmer Field Schools, including women farmers, and establish demonstration plots for train-the-trainer activities; (ii) provide heads of households (male and female) with regeneration incentive package (e.g. shears, pickaxe, wheelbarrow, boots and gloves); and (iii) promote climate-smart agriculture ? including new drought-resistant local crops/varieties, improved pest management, fodder and fruit trees, and dry season gardening schemes, providing training and equipment, (e.g. seeds, seedlings, polyethylene bags, watering cans and spades).

2. Actions to support COVID-19 response in the long-term:

The proposed project has been designed to maximize opportunities for strengthening supply chains, consistent with long-term decarbonization targets, and increasing natural and economic resilience and adaptive capacity, as follows:

Strengthening supply chains: In Output 3.1 of the project, new value chains for climate-resilient crops and processed products are identified and catalyzed. This includes work to: (i) empower entrepreneurs with climate-smart business and leadership training; (ii) support / establish women producer associations and cooperatives of youth and displaced people., conducting value chain analysis and market studies with them; and (iii) support set-up and first two years of operation of cooperative climate-smart businesses ? including partnerships for land and infrastructure, technical training and business planning, market access and savings groups/micro-credit..

Supporting long-term decarbonization targets: Output 3.3 of the project involves creating scholarships for local youth to be trained in supply and maintenance of solar PV technology for adaptation activities (water pumps and agri-processing for adaptation). Solar power also support low-emissions development strategies and decarbonization targets as part of the post-COVID green recovery.

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[69] Mali : Understand COVID-19?s impacts for better actions (worldbank.org)

[70] https://www.undp.org/content/dam/rba/docs/COVID-19-CO-Response/undp-rba-covid-mali-apr2020.pdf

[71] Global Environment Facility, GEF?s Response to COVID-19 (May 2020)

[72] For example, soil and water conservation strategies such as digging half-moon pits, contour bunds with stone, banquets etc.

Increasing natural and economic resilience and adaptive capacity: In Output 2.5 of the project, land and water resources (outside of family farms) are restored through communal restoration works for ecosystem-based adaptation. This includes work to: (i) train community resource management committees and community members, including youth and displaced persons, to analyze adaptation needs, and to plan, carry out and monitor rehabilitation efforts; (ii) equip commune / village-level committees and carry out plantings for rehabilitation of pastureland and protection of villages from sand encroachment; (iii) equip committees to develop and sustainably restore watercourses (channels, rivers, ponds, pools) and carry out rehabilitation works; and (iv) equip committees to construct/rehabilitate communal earth dams, and wells with solar PV-powered pumps, to increase household water supply and irrigation.

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

The project is a multi-trust fund project, as envisaged in the GEF-7 Programming Strategy, under the objective of ?*Mainstreaming Adaptation across GEF Themes?,* in which the Government of Mali is jointly programming an LDCF grant synergistically with part of the country?s GEF Trust Fund STAR allocation under the Land Degradation focal area. The proposed project seeks to generate GEBs as well as adaptation benefits, capitalizing on the GEF?s unique mandate to serve multiple MEAs, and responding to recent COP guidance to promote synergies across focal areas. The proposed multi-trust fund project is also aligned with the Sahel-wide Great Green Wall initiative, promoting regional synergies and impacts.

The project directly addresses the objective of GEF Trust Fund Land Degradation of the LD focal area strategy:

(i) *Objective 1.1 Maintain or improve flow of agro-ecosystem services to sustain food production and livelihoods through Sustainable Land Management (SLM)*. As part of the activities under component 2, the project will directly support agroecosystem services through improved SLM, such as the regreening of farmlands (output 2.2) as well as communal restoration work in grass/shrubland and wetlands (output 2.4), participating to the achievement of LD-1-1;

(ii) *Objective 1.4 Reduce pressures on natural resources from competing land uses and increase resilience in the wider landscape.* With the improvement of natural resources management through the set up of community committees (output 2.1), as well as capacity building activities to disseminate the adoption of improved agricultural practices that are less resources-intensive or harmful to the ecosystem (components 2, 3 and 4), the project will be supporting the achievement of LD-1-4.

(iii) *Objective 2.5 Create enabling environments to support scaling up and mainstreaming of SLM and LDN* of the LD focal area strategy. As shown in the STAP LDN guidelines, put simply, the goal of LDN is to maintain or increase the amount of healthy and productive land[65]. The project aims to create an enabling environment for this to happen ? focusing on intragovernmental coordination for MEA implementation and spatial monitoring, natural resource governance at local level, and systemic

interventions to reduce degradation and desertification, and restore ecosystem productivity (land, water, grazing) (LD-2-5).

In this semi-arid Sahel region, systemic strategies to achieve Land Degradation Neutrality (GEFTF), are effectively complemented by specific adaptation strategies to enhance the resilience of farming, herding and fishing communities in the face of increased climatic variability and long-term change in climatic means (LDCF). The project is aligned with LDCF-1 *Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation,* and includes a focus on climate vulnerability assessment, adapting farming through innovation and best practice, and diversifying climate-adaptive livelihoods.

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

Under the baseline scenario without the proposed project, the bulk of donor investments in re-greening of degraded farmland, agricultural commercialization, and agri-processing, irrigated agriculture and small business development will take place in the more fertile regions to the south of Mopti. A few initiatives, listed below, will tackle the complex challenges of Mali?s central regions, in particular the fragile and vulnerable Mopti and S?gou Regions, but these will be insufficient in scale to meet these challenges. The proposed GEFTF/LDCF project will build upon and complement the baseline initiatives presented above to address some of the remaining barriers hindering mainstreaming of LDN and climate resilience in the central regions of Mali. Through its first component, the project will ensure that the enabling environment is in place to enable the achievement of LDN targets and the monitoring of climate adaptation and progress towards increased resilience. It will fill the gaps from the baseline, ensuring efficient governance frameworks for LDN, appropriate capacities, and monitoring tools are in place. Through its second component, the project will address climate security issues and land degradation holistically, focusing on peacebuilding through community-based NRM, as well as restoration and conservation management interventions to increase resilience of ecosystems. It will integrate lessons learnt from other baseline projects taking similar approaches (see above baseline project descriptions), and adopt good practices from recently closed projects. Component 3 will then focus on the needs of women and youth, addressing systemic barriers to their active involvement in income-generating activities, and taking a culturally-sensitive approach. Through this component, the project will not only support green value chain development, but will support businesses that can provide adaptation services complementary to the Component 2 activities.

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

Through the proposed project, Mali will develop an action plan towards achieving LDN targets, and is expected to contribute (i) to a total area of 21,000 ha in communal lands (shrubland and wetlands) with ecosystem functioning restored and brought under effective community management, delivering

ecosystem services that enhance vulnerable communities? resilience to increased temperatures and erratic rainfall, building their capacity to adapt to climate change; (ii) to a total of 10,000 ha in family farms is brought under improved practices through use of agro-ecological techniques that restore land productivity, reverse desertification and enhance resilience to disaster: increasing crop yields, improving groundwater recharge, retaining soil moisture, and increasing soil organic carbon, nutrient recycling, shade, wind and dust barriers, fodder and compost production and availability of fruit and medicine; (iii) 5,000ha of forests and forest land restored; and (iv) an estimated 2,648,591 metric tons of CO_2-equivalent greenhouse gas emissions are avoided as a result of retaining standing forest, restoring tree cover in farmlands, and improving soil organic carbon, helping to deliver on the Mali?s NDC ambition for GHG reduction by 29% for agriculture, and 21% for land use change and forestry (from a base scenario of 2015-2030 to a mitigation scenario of 2020-2030).

The project is also expected to generate several adaptation benefits. Amongst those, it is anticipated that the project will increase the knowledge on climate change vulnerability and impacts at national and local levels, which will contribute to enabling stakeholders to make evidence-based adaptation decisions. This knowledge will continue to be improved over time through regular updating of vulnerability assessments and maps. Adaptation will be mainstreamed into local planning, ensuring adaptation options are effectively selected, adopted, and implemented for long-term resilient planning.

The resilience of the key ecosystems local communities depend on for their livelihoods will also be enhanced, through a range of interventions aimed at restoration, as well as sustainable management, which will secure valuable ecosystem services and generate numerous socio-economic benefits. These benefits include, but are not limited to: i) increased financial security through diversified livelihoods; ii) increased food security, associated with adaptation practices, rehabilitated, and restored ecosystem services of economic value; iii) enhanced local NRM governance; iv) enhance climate security; and v) women and youth empowerment.

7) innovativeness, sustainability and potential for scaling up.

The project is innovative in several ways. First, it takes a systems approach to addressing the complex challenges facing the central regions of Mali. Amongst key project activities the project will develop a common methodology for climate vulnerability assessments, providing a framework for continuous monitoring of climate risks and the prioritization of adaptation strategies. Moreover, it will be support for natural resources management committees with expanded roles, including conflict prevention in addition to surveillance and monitoring. While conflict management committees at the village level are common, their roles are often limited to conflict resolution rather than prevention, a key gap the project seeks to address. Women will also be supported to gain a central role in these structures, empowering them to contribute actively to peacebuilding efforts, an area where they are generally excluded. In addition, the project also takes an innovative approach to the challenge of building climate-resilient livelihoods ? promoting opportunities in Component 3 for local youth from target communities to receive entrepreneurship training in existing incubator programmes in Mopti and S?gou (Donilab) ? for businesses and start-ups in agri-processing and climate-smart technologies; and supporting them and women?s cooperatives to access micro-finance and loan guarantees. Moreover, the project will adopt a

socially inclusive approach that addresses socio-cultural barriers alongside technical needs from the onset. An innovative approach is also taken to development of human capital for enhanced adaptive capacity ? creating scholarships for local youth to be trained e.g. in maintenance of solar PV systems (supporting adaptation activities) ? see Output 3.2. Such training, in addressing long-term operation and maintenance, also promotes sustainability and mitigates the risk of high-tech equipment becoming defunct after the project ends.

The approach to knowledge management taken by the project, including its focus on cross-sectoral mainstreaming and planning processes for LDN and climate change adaptation; the methodologies for monitoring of their results; and the development early on of a strong communication strategy involving local, regional, and international knowledge exchange will all enable scaling up of best practices and support the achievement of LDN targets and NDCs.

Sustainability of project results at local government level will be promoted through developing the capacity of the commune councils to integrate adaptation to climate change into their Economic, Social and Cultural Development Plans (see Output 2.1). Embedding adaptation actions into future planning of local government will help ensure their sustainability post-project. Similarly, a long-term impact on local government will be sustained through using the project to develop capacity to conduct climate vulnerability assessment and mapping.

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[1] UNDP. 2020. Human Development Report 2020 -The Next Frontier: Human Development and the Anthropocene; Briefing note for countries on the 2020 Human Development Report: Mali.

[2] Minist?re de l?environnement, de l?assainissement et du d?veloppement durable, R?publique du Mali, F?vrier 2020.

[3] United Nations, Analysis of COVID-19 socio-economic impacts, May 2020.

[4] Potsdam Institute for Climate Impact Research (PIK), 2020, Profil de risque climatique: Mali.

[5] Minist?re de la sant? et des affaires sociales de la R?publique du Mali, Septembre 2020, Cadre de gestion environnementale et sociale (CGES).

[6] US Aid, December 2018, Climate risk profile: Mali.

[7] FAO, May 2021, Moyens d?existence agricoles et s?curit? alimentaire dans le cadre de la covid-19.

[8] Key indicators 2020, Climate links https://www.climatelinks.org/countries/mali

[9] In early October 2020, the Economic Community of West African States (ECOWAS) and the African Union announced that they would lift sanctions?including trade and travel blockades?on Mali as the country announced its plans for a transitional government led by civilians. Interim President Bah Ndaw, a former army colonel and foreign minister, announced the West African country?s 25-person cabinet, of which four major posts?defense, security, territorial administration, and national

reconciliation?will be held by military officials. Former Foreign Minister and Ambassador to the United Nations Moctar Ouane will join the government as transitional prime minister, satisfying a key condition posed by ECOWAS that the transitional government be led by a civilian. Shortly after these announcements, former Prime Minister Boubou Cisse and other officials and military personnel detained during the coup in August were released. The transitional government is expected to hold elections within 18 months.

[10] Planet Security Initiative, Mali?s Fertile Grounds for Conflict: Climate Change and Resource Stress, December 2017.

[11] WFP, April 2020, https://docs.wfp.org/api/documents/WFP-0000115729/download/?_ga=2.40742690.1066946240.1589756894-757245637.1578047770

[12]UKAid. 2019. G5 Sahel report

[13] US Aid, 2019, Mali Political Economy analysis.

[14] Following a Demographic and Health study in Mali in 2018, half of women population (49%) of 15-49 years old have went through acts of physical, psychological or sexual violence. Moreover, 53% of 25-49 years old women are in union before 18 years old.

[15] United Nations, Analysis of socio economic impacts of COVID-19 in Mali, May 2020.

[16] FAO, May 2021, Moyens d?existence agricoles et s?curit? alimentaire dans le cadre de la COVID-19.

[17] United Nations, Analysis of socio economic impacts of COVID-19 in Mali, May 2020.

[18] World Bank Database, Mali, 2021.

[19] REPUBLIQUE DU MALI. 2020. Programme de d?finition des cibles nationales de la Neutralit? de d?gradation des Terres (PDC/NDT).

[20] Reliefweb, Press release, October 2019

[21] Liu, Y. and Xue, Y., 2020. Expansion of the Sahara Desert and shrinking of frozen land of the Arctic. Scientific reports, 10(1), pp.1-9.

[22] Reliefweb Press release, October 2019 https://reliefweb.int/report/mali/mali-heading-closer-civil-war

[23] MEADD, 2018.

[24]UK Aid 2019, G5 Sahel report.

[25] REPUBLIQUE DU MALI. 2020. Programme de d?finition des cibles nationales de la Neutralit? de d?gradation des Terres (PDC/NDT).

[26] US Aid, 2012, A climate trend analysis of Mali.

[27] Rapport des ?tudes et examens techniques pr?paratoires ? changement climatiques, 2021

[28] Rapport des ?tudes et examens techniques pr?paratoires ? changement climatiques, 2021

[29] Rapport des ?tudes et examens techniques pr?paratoires ? changement climatiques, 2021

[30] USAID, Climate Risk Profile ? Mali, 2018.

[31] Rapport des ?tudes et examens techniques pr?paratoires ? changement climatiques, 2021

[32] UNFPA. 2021, Database https://www.unfpa.org/data/ML

[33] Household questionnaire, 2021.

[34] World Bank. 2012. Options for Preparing a Sustainable Land Management (SLM) Program in Mali Consistent with TerrAfrica for World Bank Engagement at the Country Level

[35] PLAN/ PROGRAMME DE DEVELOPPEMENT ECONOMIQUE, SOCIAL ET CULTUREL (PDESC : 2017-2021), Conseil R?gional de Mopti

[36] USAID, Climate Change Adaptation in Mali, 2012.

[37] REPUBLIQUE DU MALI. 2020. Programme de d?finition des cibles nationales de la Neutralit? de d?gradation des Terres (PDC/NDT).

[38] Ibid.

[39] Ibid.

[40] Analyse de l'?conomie politique du Mali : 2019.

[41] These include initiatives that address stabilization and peacebuilding, planning for climate change adaptation, early warning systems and flood protection/drought management/locust invasions, resilience of rural communities, integrated water resource management, biodiversity conservation, sustainable land and water management, and entrepreneurship and economic development

[42] According to 2019 mid-term report of IKI/BMUB-UNDP ?Programme for the support of the National Strategy to Climate Change in Mali?

[43] https://www.greenclimate.fund/project/fp012#details

[44] Dutch Development results Mali

[45] GCF, Funding proposal, 28 November 2018. https://www.greenclimate.fund/sites/default/files/document/funding-proposal-fp092-afdb-multiple-countries.pdf

[46] Project profile https://w05.international.gc.ca/projectbrowser-banqueprojets/project-projet/details/A034767001

[47] https://w05.international.gc.ca/projectbrowser-banqueprojets/project-projet/details/D004927001

[48] https://w05.international.gc.ca/projectbrowser-banqueprojets/project-projet/details/P006682001

[49] https://cooperation-monaco.gouv.mc/fr/Projets/Les-projets-de-la-Cooperation-monegasque/Afrique-de-l-Ouest-et-Sahelienne/Mali/FAO-Renforcement-de-la-resilience-face-aux-changements-climatiques-dans-la-region-de-Mopti-a-travers-l-appui-aux-initiatives-feminines

[50] Project document https://www.alliance-sahel.org/wp-content/uploads/2020/04/Factsheet_REG_AFD_Trois-Frontieres_EN.pdf

[51] Project appraisal document: Burkina-Faso-Niger-Mali-and-the-States-of-Liptako-Gourma-Integrated-Development-Authority-Community-Based-Recovery-and-Stabilization-Project.pdf

[52] https://www.eda.admin.ch/deza/fr/home/pays/mali.html/content/dezaprojects/SDC/en/2018/7F10143/phase99

[53] https://www.giz.de/en/worldwide/42696.html

research policy, covering all of Mali's agro-ecological zones, and addressing climate change vulnerability and adaptation strategies.

[54] The Mali Geographic Institute (IGM) is in charge of the production, maintenance and diffusion of geographic reference information in Mali, including on land cover, land use and land degradation.

[55] UNCCD (2016) *Scaling up Land Degradation Neutrality Target Setting - from Lessons to Actions: 14 Pilot Countries? Experiences*

[56] The Institute of Rural Economy (IER) is the main research institution in Mali for the implementation of the national agricultural research policy, covering all of Mali's agro-ecological zones, and addressing climate change vulnerability and adaptation strategies.

[57] The Mali Geographic Institute (IGM) is in charge of the production, maintenance and diffusion of geographic reference information in Mali, including on land cover, land use and land degradation.

[58] fp012-annual-performance-report-cy2020-disclosable.pdf (greenclimate.fund)

[59] Boureima, M., Abasse, A.T., Sotelo Montes, C., Weber, J.C., Katkor?, B., Mounkoro, B., Dakouo, J-M., Samak?, O., Sigu?, H., Bationo, B.A., Diallo, B.O. 2012. Analyse participative de la vuln?rabilit? et de l?adaptation aux changements climatiques: un guide m?thodologique. Occasional Paper 19. Nairobi: World Agroforestry Centre

[60] UNDP. 2021. Final Evaluation of the Decentralization and inclusive and sustainable local governance project

[61] The SESP recognizes that there is a risk associated with the current security context in the central regions of Mali, with regards to physically accessing markets. Best practices for managing security concerns are presented the project Security Plan.

[62] According to Rosenstock et al. (2020), climate-smart business models target multiple Sustainable Development Goals by fostering agricultural productivity, supporting farm and farmer livelihood resilience, and encouraging climate mitigation.

[63] Individual interview with Telly Balougo, national coordinator of the PACV-MT project (Adaptation Fund)

[64] Potentially through a partnership with the UN Peacebuilding Forum

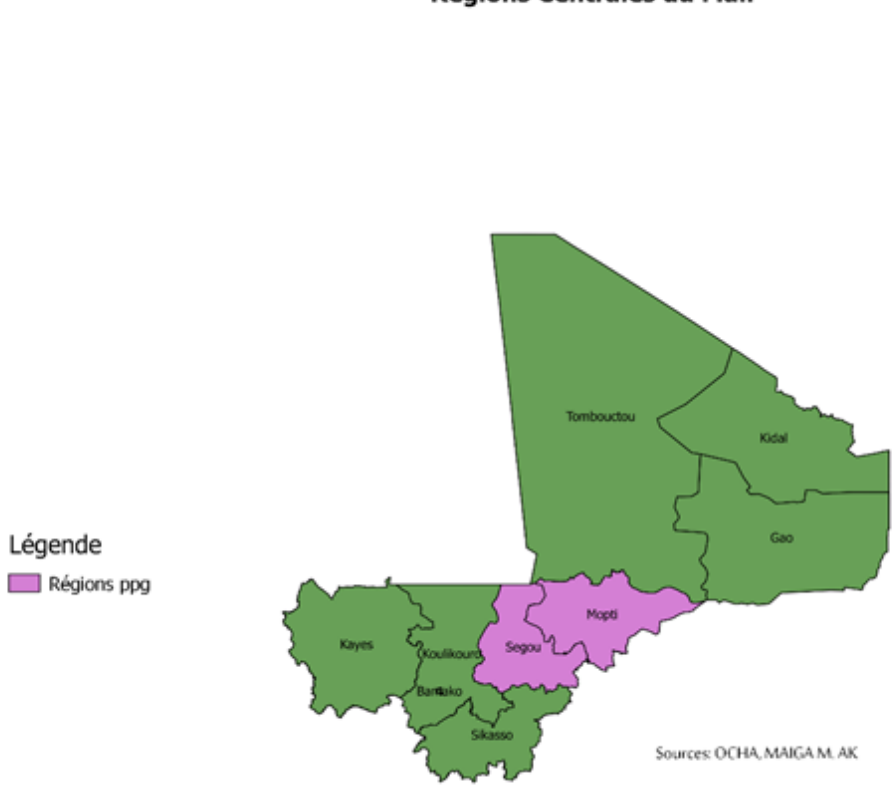
[65] Cowie, A. 2020. Guidelines for Land Degradation Neutrality: A report prepared for the Scientific and Technical Advisory Panel of the Global Environment Facility, Washington D.C.

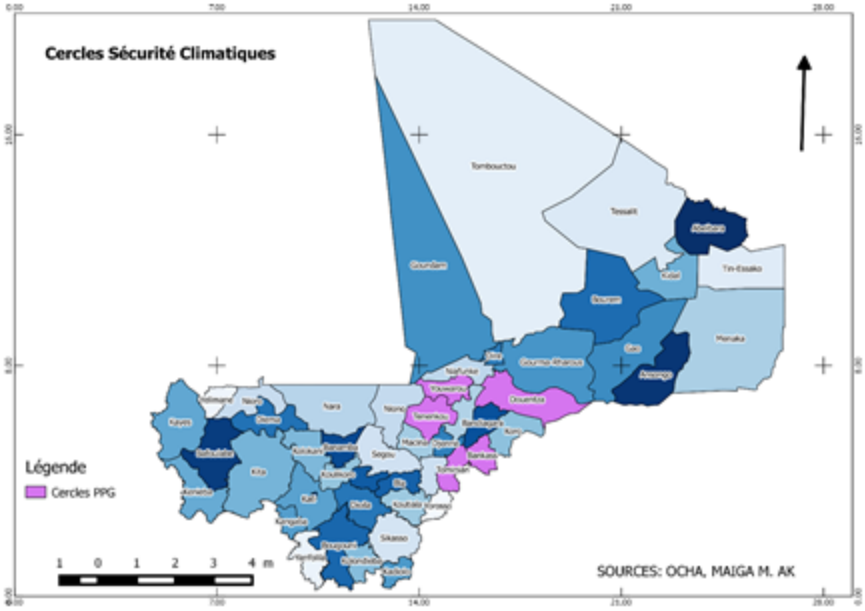
1b. Project Map and Coordinates

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

Project site geospatial coordinates:
Diallassagou (Bankass): 13?44?36?N, 3?37?47?W
Ouenkoro (Bankass): 13?23?25?N, 3?49?39?W
Bankass (Bankass): 14?04?21?N, 3?30?47?W
Dangol-bore (Douenza): 15?08?15?N, 3??29?15?W
Boni (Douenza): 15?04?30?N, 2?13?54?W
Hombori (Douenza): 15?17?10?N, 1?41?49?W
Togor?-Coumb? (Tenenkou) : 14?55?15?N, 4?35?47?W
Diondiori (Tenenkou) : 14?36?20?N, 4?46?03?W
Kareri (Tenenkou) : 14?49?28?N, 5?14?53?W
Farimake (Youwarou): 15?28?03?N, 4?36?49?W
Deboye (Youwarou): 15?21?5?N, 4?4?30?W
Youwarou (Youwarou): 15?22?30?N, 4?15?45?W
Diora (Tominian): 13?00?31?N, 4?49?48?W
Tominian (Tominian): 13?17?N, 4?35?W
Timissa (Tominian): 13?49?N, 4?12?W

Régions Centrales du Mali




Cercles Sécurité Climatiques
Légende
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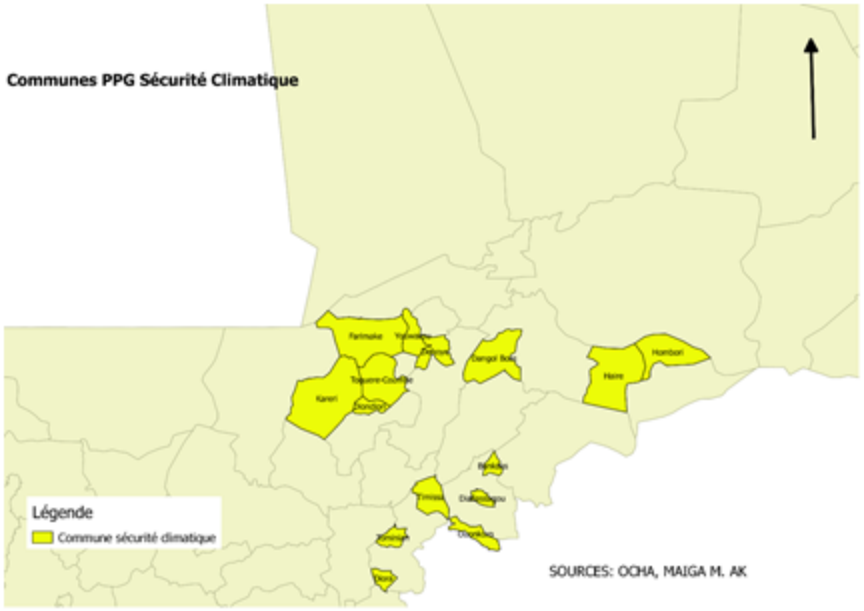
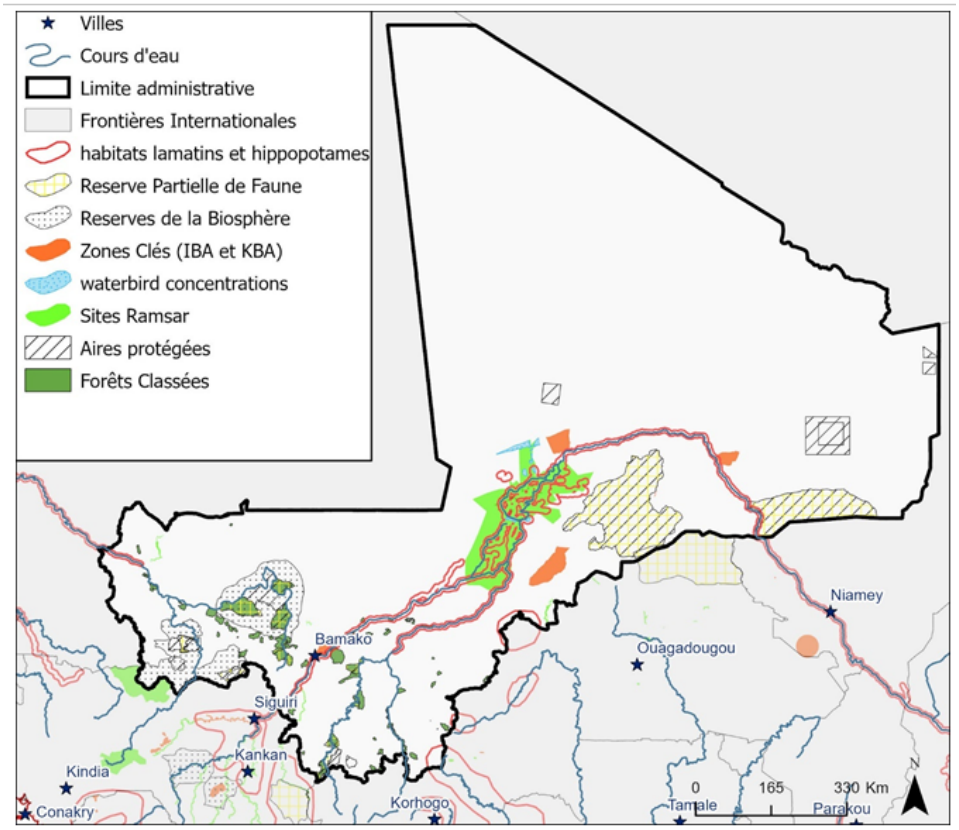

Communes PPG Sécurité Climatique
Légende
Commune sécurité climatique
SOURCES: OCHA, MAIGA M. AK



1c. Child Project?

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

N/A

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

Please see the Stakeholder Engagement Plan uploaded to GEF Portal (which can also be accessed directly via this link: https://gefportal.worldbank.org/api/spapi/LoadDocument?fileName=https%3A%2F%2Fworldbankgroup.sharepoint.com%2Fsites%2Fgefportal%2FGEFDocuments%2F6d92374c-7ffe-ea11-a815-

000d3a337c9e%2Fceoendorsement%2FOthers_STAKEHOLDER%20ENGAGEMENT%20PLAN.docx)

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

GEF Policy on Stakeholder Engagement require that the engagement activities be undertaken in a way that is:

? Constructive, responsive, accountable, and transparent.

? Fair, balanced, and ensures inclusive participation.

? Supported by appropriate documentation and easy and timely access to information.

The goal of the stakeholder engagement is to enhance project acceptance and ownership and strengthens the social and environmental sustainability and benefits of the project activities. Stakeholder engagement supports the development of strong, constructive, and responsive relationships that are critical for sound design of the project, as well as its implementation.

It is of paramount importance that project stakeholders be approached respectfully and in good faith. This is enabled when sound principles for fair and equitable engagement are adopted. There are a variety of engagement techniques used to build relationships with stakeholders, gather information from stakeholders, consult with stakeholders, and disseminate project information to stakeholders which the project proposes to use during implementation. When selecting an appropriate consultation technique, culturally appropriate consultation methods, and the purpose for engaging with a stakeholder group will be considered. This can include:

Table 3Proposed STAKEHOLDER Engagement Techniques

Engagement Technique	Stakeholder Groups	Application of Technique
Information Centre and Information Boards	? Indigenous People and Local Communities (IPLCs) ? NGOs and civil society organizations	? Project Management Unit (PMU) should establish Information Boards in each target selected communities.

Engagement Technique	Stakeholder Groups	Application of Technique
Correspondances (Phone, Emails, text messages)	? Academia ? NGOs and civil society organizations ? International organizations/partners. ? Industry/private sector ? Relevant Government agencies and departments	? Distribute information to Government officials in ministries and agencies, Local Governments, NGOs, and private sector/professional, organizations, ? Invite stakeholders to meetings and follow-up
Print media and radio announcements	? Indigenous People and Local Communities (IPLCs) ? NGOs and civil society organizations	? Disseminate project information to large audiences, and illiterate stakeholders ? Inform stakeholders about consultation meetings
One-on-one-interviews	? Academia ? NGOs and civil society organizations ? International organizations/partners. ? Industry/private sector ? Relevant Government agencies and departments	? Solicit views and opinions of target stakeholders ? Enable stakeholders to speak freely and confidentially about controversial and sensitive issues ? Build personal relations with stakeholders? group ? Recording of interviews
Formal meetings	? Academia ? NGOs and civil society organizations ? International organizations/partners. ? Industry/private sector ? Relevant Government agencies and departments ? Indigenous People and Local Communities (IPLCs)	? Present project information to a group of stakeholders ? Allow the group of stakeholders to provide their views and opinions ? Build impersonal relations with high level stakeholders ? Distribute technical documents ? Facilitate meetings using PowerPoint presentations ? Record discussions, comments/questions raised and responses

Engagement Technique	Stakeholder Groups	Application of Technique
Public meetings	? Indigenous People and Local Communities (IPLCs) ? NGOs and civil society organizations	? Present Project information to a large group of stakeholders, especially communities; ? Allow the group to provide their views and opinions; ? Build relationship with the communities, especially those impacted and vulnerable/disadvantaged; ? Distribute non-technical information; ? Facilitate meetings with presentations, PowerPoint, posters etc.; ? Record discussions, comments, questions.
Focus group meetings	? Indigenous People and Local Communities (IPLCs)	? Allow a smaller group of between 8 and 15 people to provide their views and opinions of targeted baseline information ? Build relationships with neighbouring communities ? Use a focus group interview guideline to facilitate discussions ? Record responses
Internet media	? Academia ? NGOs and civil society organizations ? International organizations/partners. ? Industry/private sector ? Relevant Government agencies and departments	? Facebook page, WhatsApp groups, twitter handle among others

Engagement Technique	Stakeholder Groups	Application of Technique
Workshops	? Academia ? NGOs and civil society organizations ? International organizations/partners. ? Industry/private sector ? Relevant Government agencies and departments ? Indigenous People and Local Communities (IPLCs)	? Present project information to a group of stakeholders; ? Allow the group of stakeholders to provide their views and opinions; ? Use participatory exercises to facilitate group discussions, brainstorm issues, analyze information, and develop recommendations and strategies; ? Recording of responses
Surveys	? Academia ? NGOs and civil society organizations ? International organizations/partners. ? Industry/private sector ? Relevant Government agencies and departments ? Indigenous People and Local Communities (IPLCs)	? Gather opinions and views from individual stakeholders ? Gather baseline data ? Record data; ? Develop a baseline database for monitoring impacts
Direct communication with owners of affected properties, land, crops/asset	? Indigenous People and Local Communities (IPLCs)	? Seek IPLCs participation during social economic survey

During the project lifespan, stakeholder engagement activities discussed and others will be carried out. In the following table, a tentative estimation of timeline and costs has been proposed with the assumption that it will be updated or amended as appropriate depending on arising project needs.

Table 4 Schedule and Budget Estimate of Stakeholder Engagement Activities

Project Output	Targeted	Budget (USD)

	Stakeholders	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Component 1: Strengthening the coordination and monitoring for land degradation neutrality and climate security.	Relevant Government agencies NGO / civil society organizations Academia IPLCs	10,000	5,000	3,000	2,000	2,000	500
Component 2: Strengthening the resilience of degraded production landscapes and communities vulnerable to climate change.	Relevant Government agencies NGO and civil society organizations IPLCs Academia International organizations	6,000	6,500	2,000	3,000	3,000	500
Component 3: Supporting family farms, youth and women to innovate and adopt resilient and sustainable livelihoods.	Relevant Government agencies NGO and civil society organizations IPLCs Academia International organizations Industry/private sector	7,000	3,000	2,000	2,000	1,000	500
Component 4: Monitoring and evaluation and knowledge management for scaling.	Relevant Government agencies NGO and civil society organizations IPLCs Academia International organizations Industry/private sector	7,000	3,000	3,000	2,000	2,000	2,000
	TOTAL	**30,000**	**17,500**	**10,000**	**9,000**	**8,000**	**3,500**

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor;

Co-financier;

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

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Please see Gender Analysis and Action Plan documents uploaded to GEF Portal.

A gender analysis and gender action plan were developed during the PPG phase. The results of the analysis were taken into consideration into the design of the project, and inform the strategy taken to tackle closing gender gaps in access to and control over natural resources; improving women?s participation and decision making; and generating socio-economic benefits or services for women. As such, the project will seek to increase women participation in mechanisms to prevent conflicts associated with natural resources (Component 2), as well as have a renewed focus on supporting women-owned businesses while taking into account not only the technical barriers (e.g. lack of access to credit, equipment, business know-how) but also the socio-cultural barriers that limit involvement of women in business activities or may increase the risk of GBV when women gain greater financial independence (Component 3).

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

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

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

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

Yes
4. Private sector engagement

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

Private sector engagement is at the core of the project. Indeed, as part of Component 3, the project will also contribute to building strong business partnerships between beneficiary cooperative businesses and

private sector actors, and address some of the key barriers to local engagement in green businesses such as lack of financial resources. As stated earlier, the project works on building climate-resilient livelihoods by promoting opportunities in Component 3 for local youth and women entrepreneurs (MSMEs) from target communities to receive entrepreneurship training in existing incubator programmes in Mopti and S?gou (Donilab) ?in agri-processing and climate-smart technologies; and supporting them to access micro-finance and loan guarantees. The project will work on the development of human capital for enhanced adaptive capacity ? creating scholarships for local youth to be trained e.g. in maintenance of solar PV systems (supporting adaptation activities) ? see Output 3.2. Such training, in addressing long-term operation and maintenance, also promotes sustainability and mitigates the risk of high-tech equipment becoming defunct after the project ends. In addition, recognizing that smallholder farmers are key actors of the private sector, Component 2 of the project will work to capacitate and empower them to widely adopt climate-smart agriculture and increase the resilience of production systems in the face of climate change. It will use an FFS approach and a training of trainers approach to scale up impact and ensure the long-term sustainability of the interventions.

5. Risks to Achieving Project Objectives

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

Risk	Risk category	Likelihood and Impact	Mitigation measures	Risk Owner

Ongoing conflict-related instability with high probability of affecting intervention areas during implementation	Social and Environmental	Risk of the persistence of an anti-rights environment (violent extremism, expansion of armed groups) that results in a weak capacity for action by rights defenders, particularly in areas of instability. L =4 I =4	- The project will monitor the security situation and apply a security and contingency plan as developed during the PPG. Risk prevention, management and resolution strategies will be jointly identified, monitored and evaluated regularly. - The project will partner with focus on community-based initiatives to promote peacebuilding and prevent acts of escalating violence against women and girls. - The project may organize exchange and support missions with other countries in the region that have made progress in this area. - The project will ensure that approaches are inclusive, contextually appropriate, and give a central place to influential institutions such as religious leaders - All of these actions will be accompanied by education on rights and the consequences of their non-implementation on individuals, communities and the nation.	PMU UNDP
Inadequacy of the legislative and political framework: Non-harmonization of the statutes and legal texts with international conventions; non-insertion of ratified texts in the official gazette; emphasis on customary rules to the detriment of the law.	Regulatory	L =3 I =3	- Devote a pillar of the project to the harmonization of texts and the proposal of implementation measures. Within this framework, advocacy for the revision of the ratified texts, the adoption of new legal texts aiming at a greater inclusion of women and vulnerable groups will be reinforced. - The capacities of judicial actors will also be strengthened. - In addition, the project will support the work of community and religious leaders in the harmonization of national legislation and customary law.	PMU UNDP

Resistance to change from communities (men in particular), as well as traditional and religious leaders	Social and Environmental	L =3 I =3	- Strengthen outreach and advocacy. - The project invests in building strategic alliances with key strategic leaders. It will work with CSOs and men's, women's and youth groups engaged in environmental protection. - Inclusion and empowerment through campaigns targeting the unconvinced public and providing incentives to groups initiating innovations.	Safeguards consultant PMU UNDP
Insufficient involvement of women and youth	Social and Environmental	The PPG phase identified several socio-cultural barriers to involvement of women and youth in planned activities, in particular as it relates to support for new businesses. L =4 I =3	- Awareness raising, advocacy with community leaders. - Involvement of community leaders, religious leaders, RECOTRADE and women's groups at all levels of project implementation	PMU Gender Consultant UNDP
Insufficient human resources engaged in other work sites or opportunities	Organizational	There is a limited human capacity to engage with the project, due to a lack of staff at regional level, etc. L =3 I =2	- Will replicate previous good practices of the same sector in the area. - Conduct rigorous monitoring of executing partners -Establish focal points within regional directorates	All the Agencies in their respective fields of intervention

Limited availability of data and limited capacity of state institutions to develop and analyze data	Operational	At the stage of the PPG it was deemed that several partners do not currently have sufficient capacity to carry out the roles intended through the project, including for the LDN-NWG and LDN monitoring, as well as climate adaptation mainstreaming. L =3 I =3	- The project will actively seek to strengthen the capacity of state institutions responsible for planning, monitoring, and data collection	PMU UNDP
High turnover of government officials that may delay project implementation	Political	Mali has been experiencing significant political instability in recent years, with the most recent coup having taken place in May 2021. L =4 I =3	- Advocate with policy makers to ensure the availability of government agents. - Create alliances at several levels (national, regional and local) for leadership and ownership of the actors.	PMU UNDP
Lack of synergy between the various actors, resulting in insufficient coordination and an integrated approach	Operational/Strategic	The areas of intervention are seeing multiple simultaneous interventions with similar or complementary objectives, and multiple synergies should be exploited for greater impact. L =3 I =2	- Establish a mechanism for coordination and synergies of executing partners at both the thematic and geographic levels. - The criterion of synergies with other actors and programs will be included in the selection criteria for executing partners.	PMU UNDP

Climate change impacts the project results (including impacts on the perception of the success of the project).	Social and Environmental	It is likely that extreme climate events will take place in the areas of intervention during project implementation and could adversely affect the perception of the effectiveness of interventions. L =3 I =3	The project will ensure to carefully assess climate risks from the onset and put in place measures that directly address those risks. Moreover, stakeholder expectations will be managed using participatory approaches, significant project efforts in awareness raising, and an effective communication strategy.	PMU UNDP

[1] Likelihood: Almost certain ? 5; Likely ? 4; Possible ? 3; Unlikely ? 2; Rare ? 1 and Impact: Extreme ? 5; Major ? 4; Moderate ? 3; Minor ? 2; Insignificant - 1

6. Institutional Arrangement and Coordination

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

[redacted]

Roles and responsibilities of the project?s governance mechanism:

Executing Partner: The Executing Partner for this project is the Agency for Environment and Sustainable Development (AEDD).

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

The Executing Partner is responsible for executing this project. Specific tasks include:
•Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Executing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.

•Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
•Procurement of goods and services, including human resources.
•Financial management, including overseeing financial expenditures against project budgets.
•Approving and signing the multiyear workplan.
•Approving and signing the combined delivery report at the end of the year; and,
•Signing the financial report or the funding authorization and certificate of expenditures.

Responsible Parties

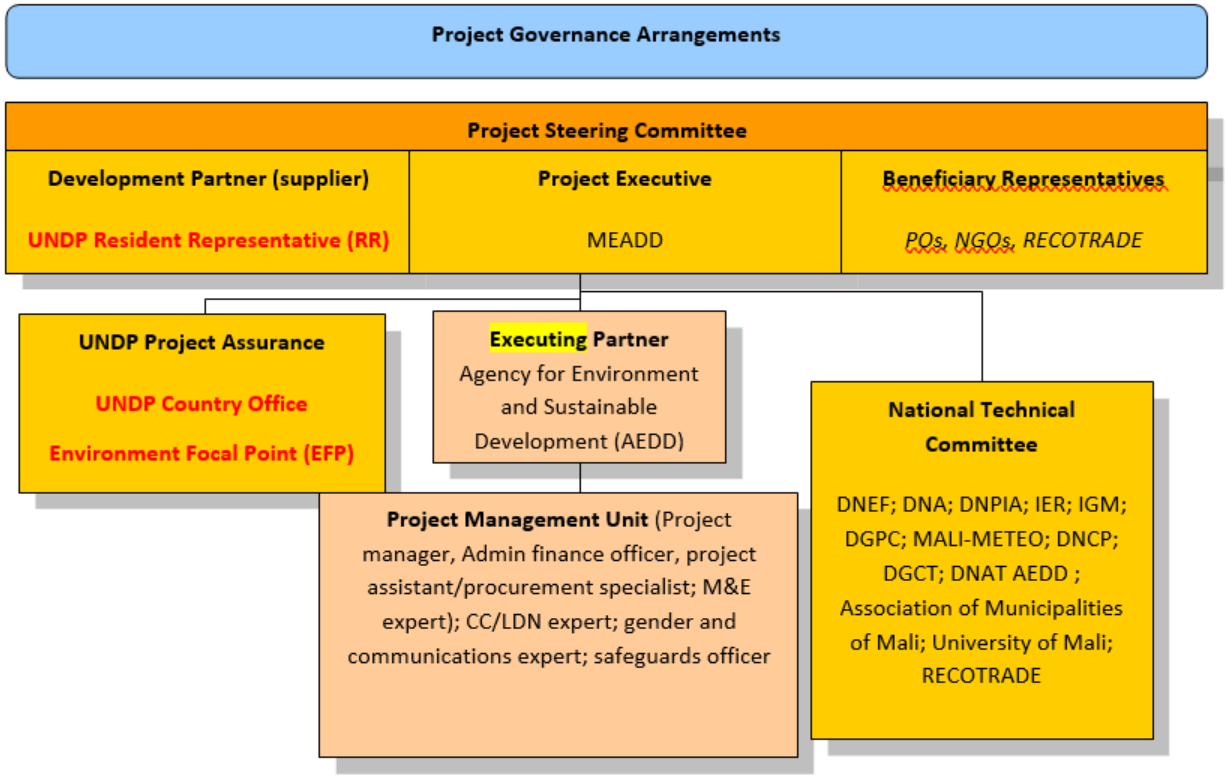
The **Project Management Unit (PMU)**, will be housed within AEDD in Bamako, and/or based in the Mopti region, within the coordination office or hosted by the following structures: DREF (CC/LDN expert), Regional Directorate for the Promotion of Women, Children and the Family (gender/communication expert). The exact PMU location will be determined during project inception. The PMU will implement the project activities for AEDD and ensure financial and administrative coordination, with support from a technical team based in Mopti (see below). The PMU will consist of one Project Manager (PM), one Finance and Administration Assistant, one project assistant/procurement specialist, one M&E expert, a CC/LDN expert, a gender and communication expert, and a safeguards officer.
The **National Technical Committee** will meet twice a year and consist of the following institutions: National Directorate of Water and Forests; National Directorate of Agriculture; National Directorate of Animal Production and Industries; Institute of Rural Economy; IGM; General Directorate of Civil Protection (DGPC); MALI-METEO ; National Directorate of Peacebuilding; General Directorate of Territorial Collectivities; National Directorate of Land Management (DNAT); AEDD ; Directorate for the Promotion of Women, Children and the Family; Association of Municipalities of Mali; the University of Mali; Grandes ?coles (IPR/ISFRA; FST/USTTB); and RECOTRADE. The Technical Committee, coordinated by AEDD, will support and advise the PMU for the detailed planning of certain actions and the effective mobilization of relevant actors. The project will also develop an MoU with the General Directorate of Civil Protection for the implementation of activities related to climate services.
Collaboration with local and regional structures, including CLOCSADs, CCOCSADs, and CROCSADs, will be established to support the execution of project activities in the field together with the deconcentrated technical services, in close collaboration with the communities and associations. The project will also develop MoUs/LoAs with government extension services and regional directorates based in Mopti to support the execution of planned activities (e.g. Regional Directorate of Water and Forests; Regional Directorate for the Promotion of Women, Children and the Family; Regional Directorate of Agriculture; Regional Directorate of Fisheries; Regional Directorate of Animal Production; Regional Directorate of Social Development; Regional Development Agency; DRPSIAP).
Depending on the security context, priority will be given to the identification of local focal points for the project in each cercle, which will be selected in a participatory manner by the technical extension services in each cercle. A prefect will formalize the appointment. They will be the relay of the project at the level of each cercle and will play a role in the M&E of the project.

-

Project stakeholders and target groups:
The project will rely on institutional structures (State services, local authorities) and civil society organizations at the central and local levels.
AEDD, in conjunction with the PMU, will ensure institutional capacity building, coordination, and monitoring and evaluation and will work in close collaboration with IER, IGM, MALI METEO, DGPC, DNGR, DNA, DNFP and the technical departments of the MEADD; it will sign partnership agreements with their technical departments in the implementation of activities.
Specifically, the IGM and the IER will be the privileged partners of the AEDD with a collaboration protocol. As such, the Institute of Rural Economy (IER) will contribute to the dissemination of adaptation technology; the Geographic Institute of Mali (IGM) will provide support for mapping (land cover, land use, land degradation) and monitoring of LDN targets; and an MoU will be established with the relevant partner(s) to provide relevant meteorological information in real time.
To support the implementation of activities under Component 3, the project will also establish MoUs/LoAs with local NGO?s and technical deconcentrated services from the government.

UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Executing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Executing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.
Project organisation structure:

Full NIM with Government as Executing Partner



The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures itimely implementation in compliance with the GEF-specific requirements and UNDP?s Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

Section 3: Segregation of duties and firewalls vis-?-vis UNDP representation on the project board:

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

Section 4: Roles and Responsibilities of the Project Organization Structure:

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

The two main (mandatory) roles of the project board are as follows:

1) **High-level oversight of the execution of the project by the Executing** (as explained in the ?Provide Oversight? section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.

2) **Approval of strategic project execution decisions of the Executing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Executing Partner (as explained in the ?Manage Change? section of the POPP).

? Oversee project execution:

o Agree on project manager?s tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager?s tolerances are exceeded.

o Appraise annual work plans prepared by the Executing Partner for the Project; review combined delivery reports prior to certification by the Executing partner.

o Address any high-level project issues as raised by the project manager and project assurance;

o Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies);

o Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.

o Track and monitor co-financed activities and realisation of co-financing amounts of this project.

o Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.

o Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

? Risk Management:

o Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.

o Review and update the project risk register and associated management plans based on the information prepared by the Executing Partner. This includes risks related that can be directly managed by this project,

as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project?s area of influence that have implications for the project.

o Address project-level grievances.

? Coordination:

o Ensure coordination between various donor and government-funded projects and programmes.

o Ensure coordination with various government agencies and their participation in project activities.

Composition of the Project Board: The composition of the Project Board must include individuals assigned to the following three roles:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Executing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: the representative of the Ministry of the Environment, Sanitation and Sustainable Development (MEADD).
2. **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) is/are: Selected Producer Organization representatives (including women associations); NGOs (AMEDD), the National Council of Employers of Mali, and RECOTRADE will ensure that the interests of the beneficiaries are considered.
3. **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is/are: The UNDP Resident Representative; the representatives of the National Directorate of Water and Forests (DNEF); National Directorate of Animal Production and Industries (DNPIA); Institute of Rural Economy (IER); Geographic Institute of Mali (IGM); National Meteorological Agency (MALI METEO); National Directorate of Land Management (DNAT); General Directorate of Civil Protection; IUCN; WETLANDS; Universities; National Directorate for the Promotion of Women, of the Child, and the Family; the National Directorate of Fishing; and the Director General of the AEDD.

b) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and

monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

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

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

The primary PMU representative attending board meetings is: the Project Manager.

Coordination with other relevant GEF-financed projects and other initiatives

The project will seek to work collaboratively with other ongoing initiatives. Below is a list of projects with which the project will seek to coordinate during implementation (in addition to the baseline projects cited earlier), to support the achievement of project objectives while avoiding a duplication of efforts:

Table 3 GEF projects to coordinate with

Project title/Source of Financing/Dates of Implementation	**Project objectives/Outcomes**	**Relevance to this project**

1. Community-based Natural Resource Management that Resolves Conflict, Improves Livelihoods and Restores Ecosystems throughout the Elephant Range *(GEF/UNDP, 2018-2024, $4.3M)*	This project aims at protecting Mali?s elephants within the Gourma region in mid-northeast Mali, that include illegal wildlife trade, natural resources management and human-elephant conflicts. The objective of the project is to protect Mali?s elephants in key sites and enhance the livelihoods of the local communities that live along the migration route to reduce human-elephant conflict. The project has four components: (i) Strengthening the legislative framework and national capacity to address wildlife crime; (ii) Protecting Gourma elephants from poaching and securing seasonal migration routes and key habitat; (iii) Community-based natural resource management (CBNRM) in the Gourma elephant habitat; and (iv) Gender Mainstreaming, Knowledge Management and M&E.	The proposed GEFTF/LDCF project will capitalize on those interventions and scale up community engagement aiming at improving natural resource management plans and capacities to manage natural resources sustainably.

[1] The PCAT and HACT assessments in 2021 showed a low level of risk for the AEDD.

[2] The HACT assessment showed a need for additional support for AEDD procurement.

7. Consistency with National Priorities

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

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

The project is well aligned with national priorities, as illustrated in the Table below:

Table 4 Policies and plans related to LDN and climate change adaptation

Policies and plans related to LDN and climate adaptation	Project consistency	LDN	CCA

LDN targets, 2020	**National target:** Increase the forest area to 26% of the total land area by 2030; Reduce the proportion of cultivated land annually affected by a decline in fertility and subject to erosion (i.e., about 2.5 million ha); Reduce the annual loss of forest area by at least 25% (i.e., about 125,000 ha), Net improvement in vegetation cover of 10%. The project intends to make to the following direct contributions to the National LDN Targets: a. Increase the forest area by 10% between 2015 and 2030, or about 200,000 ha, through reforestation ? The project will be contributing to the reforestation of 5,000ha of forests. b. Decrease by 50% the area of forests, cultivated land, pastures, affected by a decline in the net productivity of the land, i.e. about 1,000,000 ha. - The project will be contributing to the implementation of improved agroecological/climate resilient practices on 10,000 ha of agricultural lands and 21,000 of pastures and wetlands. c. Other project contribution towards national targets through 225,000 ha of landscapes under improved management.		
Nationally Determined Contributions (NDCs) - 2016	Mali?s adaptation priorities for 2020-2030 identified in its NDC include, amongst others: fight against siltation of waterways; reforestation, pastoralism, and climate-smart agriculture to increase resilience; improved watershed management; fight against wind and water erosion.		
National Adaptation Program of Action (NAPA), 2007	The NAPA identified priorities included income-generating activities; field scale soil and water management strategies; and capacity-building for climate information.		
National Action Plan (NAP 2019-2023)	Mali adopted its most recent National Action Plan (NAP) in 2019, after two other NAPs in 2012 and 2015. The third NAP focuses on the prevention of conflicts and gender-based violence, participation and representation of women in decision-making bodies, promotion of gender and women?s empowerment.		
National Policy on Climate Change (PNCC) and its National Strategy on Climate Change (SNCC), 2011	The SNCC integrates eight (8) strategic axes which concern the following aspects: the CC institutional framework, CC financing, national CC capacities, CC information and awareness, monitoring of Mali's climate, taking CC into account at the level of territorial sectoral policies and the involvement of the private sector in the fight against the effects of CC.		

National Forestry Policy and its Action Plan 2018-2022 (2017)	This new national forestry policy aims to ensure integrated and sustainable management of forest and wildlife resources to contribute to the fight against poverty, sustainable land management, and the fight against climate change.		
National Energy Policy	Aims at contributing to the sustainable development of the country, through the provision of energy services accessible to the largest number of the population at the lowest cost.		
Strategy and Action Plan of Implementation of the Great Green Wall of Mali	Improve the livelihoods of local communities in the Sahelo-Saharan zone through sustainable management of biodiversity between the 100 mm isohyets in the North and 400 mm in the South, a valorization of existing natural resources, and the fight against desertification and poverty of local populations.		
National Environmental Protection Policy and its Action Plan 2018-2022	Aims at integrating the environmental dimension in all decision-taking, planification and conception of policies.		
National Action Plan to Combat Desertification (PAN/LCD)	This plan has engaged Mali to (i) prepare a National Plan for Environmental Action, (ii) write an annual report on the progress in the execution of the Agenda 21, (iii) support the elaboration and the negotiation of an international Convention to Combat Desertification.		
Agricultural Development Policy (2013)	This policy is the strategic framework of the LOA. Its main objectives include an increase in competitiveness through modernization of production systems, the mobilization of resources for agricultural development. The PDA defines priority value chains (rice, maize, fruits, and vegetables); diversification of production (sesame, sorrel, sweet peas); and actions focused on establishing cross-sector structuring and infrastructure of collection, storage, packaging, and marketing.		
Agricultural Land Policy of Mali (2014)	Adopted in 2014, it was a major step toward a coherent national framework for land management that takes decentralization into account and strengthens the capacities of public services, civil society, and the private sector. The law attempts to address the issue of weak land governance while recognizing the importance of customary land rights. It also takes steps to improve women?s access to agricultural land.		

National Adaptation strategy of Mali?s forestry sector to the impacts of climate change	This strategy aims at anticipating the potential impacts of climate change on Mali?s forestry. The project is fully aligned with this strategy by aiming at a more sustainable use of forests.		
National Land Use Planning Policy	Aims at enhancing the territorial dimension of the planification of the economic development, within the framework of decentralization.		
National Water Policy (2006)	Contributes to the fight against poverty and to sustainable development by providing appropriate solutions to water-related problems.		
Strategic plan for Meteorology Development 2018-2027	This plan aims at developing weather and climate services to meet the needs of forecasting, disaster risk management, adaptation to variability and climate changes, to contribute to the economic and social development agenda through the transformation of meteorological information into practical advice that can be useful for decision makers.		
Strategic Investment Framework for Sustainable Land Management in Mali (CSI-GDT)	The framework integrates SLM as a strategic component of sustainable development in the country and poverty reduction.		
National Biodiversity Strategy of Mali and its Action Plan 2011-2020	Its purpose is to: ?contribute to reducing the loss of biological diversity?. In the field of combating desertification, notable progress is noted in the framework of dune fixation, reforestation, the development of a vast program on SLM.		
Strategic Framework for the Economic Recovery and Sustainable Development of Mali (CREDD 2019-2024)	Its main objective is to promote inclusive and sustainable development and to reduce economic inequalities, through five main objectives, of which (i) governance and political reforms, (ii) human capital development and social inclusion, and (iii) environment, climate change and sustainable development.		

Strategic Framework for Growth and Poverty Reduction (CSCRP 2012-2017)	To address food and nutrition insecurity, the strategic framework aims at improving the social well-being of populations and the reduction of food insecurity, hunger, and malnutrition. The strategic framework plans to ensure food security and the supply of other products in sufficient quantity and quality, through sustainable management of natural resources.		
Gender Action Plan (2011-2013)	This policy aims at improving the role of women in decision making process at the national level.		
National Strategy for Disaster Risk Reduction	The Strategy aims at: i) clarifying the relationships/responsibilities between the various technical services of humanitarian partners; ii) facilitating the coordination of actions and ensure the coherence of sectoral plans; iii) identifying and reducing the most likely risks; iv) providing a general framework for joint planning covering emergency risks; v) integrating the emergency preparedness and response process into national development plans and programs; (vi) reduce response times and loss of human lives.		
National Framework for Climate Services (CNSC, 2020)	Order N?2020-1699/MTMU-SG issued by the Minister in charge of meteorology on May 7, 2020. The CNSC aims to strengthen the production, accessibility, provision, exploitation of climatic and meteorological knowledge to meet the needs of socio-economic sectors.		

[1] US Aid 2019, Mali Political Economy Analysis.

8. Knowledge Management

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

Component 4 of the project contains the core Knowledge Management interventions, and is aligned with the GEF Knowledge Management Guidelines. As such, it will aim to develop an effective knowledge platform for the coordination and sharing of project lessons across stakeholder groups. The approach to knowledge management taken by the project, including its focus on cross-sectoral mainstreaming and planning processes for LDN and climate change adaptation, ; as well as the methodologies for monitoring of their results, ; and the development early on of a strong

communication strategy involving both local, regional, and international knowledge exchange to take place, will all enable scaling up of best practices and support the achievement of LDN targets and NDCs.

The project will also leverage traditional knowledge, and in particular the specific skills and capacities of women and other vulnerable groups, to ensure they can also be agents of change. Youth in particular will be mobilize to actively contribute to the monitoring of LDN indicators, and the skills they acquire through the project will be shared through a training of trainers approach. The project activities of Component 4 will be directly linked to Component 1, ensuring that new data produced can be directly integrated into decision-making processes.

All outputs relevant to knowledge management are listed in Table 1 below, along with an expected timeline.

Table 5 Knowledge management outputs.

Output	**Expected timeline**
Output 1.3 Regional climate risk and vulnerability assessments and maps developed, with an application of security sensitivity framework	The vulnerability assessments will take place in PY1 and PY6, and will serve to inform subsequent project activities related to adaptation in particular (Components 2 and 3). Moreover, the project will support the design and operationalization of a climate data and information platform to meet needs to multi-sectoral actors for adaptation planning throughout project implementation.
Output 2.2 Adaptation measures are integrated into local development plans	In PY2 and PY3, the project will proceed with the Participatory Analysis of Vulnerability and Adaptation to Climate Change. This will integrate traditional knowledge, local perceptions of change, and the information generated through the vulnerability assessments under Output 1.3, and will yield the prioritization of adaptation actions and their integration into PDSECs.
Output 2.3 Training and inputs provided to farmers and herders in 15 target communes of Mopti and S?gou for landscape regreening, based on traditional/local knowledge and solutions	Throughout project implementation, project beneficiaries will benefit from trainings related to ANR and SLWM. Farmer Field Schools will be established, and a training of trainers approach taken. Traditional/local knowledge will take a central role, and participatory approaches to map the state of ecosystems (e.g. transect walks) will be prioritized.
Output 2.4 Capacity development programme for climate-smart agriculture in target communes	This output will provide trainings on climate-smart practices, and develop communication products on climate-smart practices adapted to local needs which it will then disseminate to assist in scaling up adoption (PY2-PY5).
Output 2.5 Rehabilitation of 21,000 hectares of degraded grass/shrubland and wetlands for improved climate resilience	Under this output, the project will generate important knowledge on the state of ecosystems by conducting a diagnostic study of rehabilitation needs (PY1), and will provide training to community structures to build capacity for planning, implementation and monitoring of adaptive rehabilitation efforts (PY2-PY5).

Output 3.1 New cooperative climate-smart businesses established involving women, youth and displaced people	The project will generate critical knowledge on value chains through market studies, which will enable the identification of opportunities for climate-smart businesses (PY1).
Output 3.2 Entrepreneurship training and business incubation services provided to women and youth from target landscapes for adaptation-linked business ideas	Under this output, the project will provide trainings to women and youth on entrepreneurship-related topics (PY2-PY6).
Output 3.3 Training, technical support and equipment provided to climate-smart cooperative enterprises involving women, youth and displaced persons	Here the project will provide training to climate-smart enterprises and cooperatives on adaptive and value-generating production, transformation, and processing techniques (PY2-PY6).
Output 4.1 Knowledge platform operational for coordination and lessons sharing among stakeholders at commune, cercle, region, national and international levels	Under this output, the central KM activities will take place. This includes: Develop a project-level communication strategy leveraging available frameworks (e.g. CROCSAD, CLOCSAD, CCOCSAD); Establish a knowledge platform; Hold annual multi-stakeholder dialogues ; Host a national learning event on Climate Security and Sustainable NRM; Produce a publication on lessons learnt publication and series of short videos ; Set up and participate in knowledge exchange events (PY1-PY6)
Output 4.2 A learning framework is developed and implemented for project as a whole	Similarly to Output 4.1, this output contains critical activities related to the management of knowledge generated through project activities, and the approach to M&E that will enable lessons learnt to be actively used in adaptive management of the project interventions. Moreover, this output will Operationalize the mechanism for monitoring changes in agro-ecological ecosystem condition, adaptive capacity and resilience in the central regions, a central aspect of LDN monitoring system (PY1-PY6).

[1] See GEF Approach on Knowledge Management

https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.C.48.07.Rev_.01_KM_Approach_Paper.pdf

9. Monitoring and Evaluation

Describe the budgeted M and E plan

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP (including guidance on GEF project revisions) and UNDP Evaluation Policy **The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E**

requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.

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

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

Minimum project monitoring and reporting requirements as required by the GEF:

Inception Workshop and Report: A project inception workshop will be held within 2 months from the First disbursement date, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.

b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.

c. Review the results framework and monitoring plan.

d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.

e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework (where relevant) and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.

f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.

g. Plan and schedule Project Board meetings and finalize the first-year annual work plan. Finalize the TOR of the Project Board.

h. Formally launch the Project.

-

GEF Project Implementation Report (PIR):

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

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GEF and LDCF/SCCF Core Indicators:

The GEF and LDCF/SCCF Core indicators included as Annex will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the indicator status. The updated monitoring data should be shared with MTR/TE consultants prior to required evaluation missions, so these can be used for subsequent ground truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website.

Independent Mid-term Review (MTR):

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

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

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

The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC by June 10th 2025, *no later than 36 months after CEO Endorsement*. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report?s completion.

Terminal Evaluation (TE):

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and guidance for GEF-financed projects available on the UNDP Evaluation Resource Center. TE should be completed 3 months before the estimated operational closure date, set from the signature of the ProDoc and according to the duration of the project. Provisions should be taken to complete the TE in due time to avoid delay in project closure. Therefore, TE must start no later than 6 months to the expected date of completion of the TE (or 9 months prior to the estimated operational closure date).

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

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

The final TE report and TE TOR will be publicly available in English and posted on the UNDP ERC by July 1st 2028. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report?s completion.

Final Report:

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

Agreement on intellectual property rights and use of logo on the project?s deliverables and disclosure of information**:** To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding

projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed in accordance with relevant policies notably the UNDP Disclosure Policy and the GEF policy on public involvement.

Monitoring and Evaluation Plan and Budget:

This M&E plan and budget provides a breakdown of costs for M&E activities to be led by the Project Management Unit during project implementation. These costs are included in Component 4 of the Results Framework and TBWP. For ease of reporting M&E costs, please include all costs reported in the M&E plan under the one technical component. The oversight and participation of the UNDP Country Office/Regional technical advisors/HQ Units are not included as these are covered by the GEF Fee.

GEF M&E requirements	**Indicative costs (US$)**	**Time frame**
Inception Workshop and Report	$15,000	Inception workshop within 2 months of the First Disbursement
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	$4,750 per year	Annually and at mid-point and closure.
GEF Project Implementation Report (PIR)	Included in PMC costs	Annually typically between June-August
Monitoring of *Gender and Youth Action Plan; Safeguards Management Framework*	$6,835 per year	On-going.
Supervision missions	None	Annually
Learning missions	None	As needed
Independent Mid-term Review (MTR)	$70,000	*June 10th 2025*
Independent Terminal Evaluation (TE)	$70,000	*July 1st 2028*
TOTAL indicative COST	$224,510	

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

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

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

10. Benefits

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

The project will ensure the long-term sustainability of vulnerable productive landscapes in the central regions of Mali through nature-based solutions that reverse land degradation, build community climate resilience, and promote conflict resolution for 142,592 direct beneficiaries, of which 73,427 are women. The project beneficiaries will (i) receive support for transforming the landscapes for increased productivity and restoration of ecosystem services which will deliver long-term socio-economic benefits including increased food security; (ii) be accompanied towards ensuring greater community-based NRM with a focus on conflict resolution, improving community safety; and (iii) gain access to new employment opportunities which will increase household incomes, and the project approach will focus specifically on the needs and ambitions of women and youth. An additional 73,000 indirect beneficiaries will derive benefits from the project interventions as lessons learnt are scaled out. The socioeconomic benefits will in turn reduce pressures on natural resources, help ecosystems deliver valuable adaptation services, and increase community resilience to shocks, including those associated with climate change. 15 communes were selected for intervention areas (see Annex 13 of the Project Document). However, considering ongoing discussions with other interventions in the area, including the Liptako-Gourma Stabilization Facility, project interventions may be scaled up to other cercles of the region as feasible and relevant. Rigorous diagnostics will be conducted to assess eligibility of any new area of intervention, should this situation arise during implementation.

11. Environmental and Social Safeguard (ESS) Risks

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

Overall Project/Program Risk Classification*

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

Measures to address identified risks and impacts

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

Please see the SESP, ESMF an Security Plan documents uploaded to GEF Portal

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
Social and Environmental Screening Template-29Nov	CEO Endorsement ESS	
6317_ESMF_151121	CEO Endorsement ESS	
Mali PIF 6317 SESP Final 25 Sept	Project PIF ESS	

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

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

- SDG1: End poverty in all its forms everywhere
- SDG 5: Achieve gender equality and empower all women and girls
- SDG13: Take urgent action to combat climate change and its impacts
- SDG 15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (Target 15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world)

This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD): *Outcome 2: Advance poverty eradication in all its forms and dimensions*

Output 2.4: Vulnerable populations, especially women and youth empowered to gain access to financial and non-financial assets to build productive capacities and benefit from sustainable livelihoods and jobs

Outcome 3: Strengthen resilience to shocks and crisis, Accelerate structural transformations for sustainable development

Output 3.1: National and local actors, including vulnerable communities have strengthened technical and operational capacities for risks prevention and adaptation to climate change

Output 3.2: Communities enabled to sustainably manage natural resources and environment taking into account conflict prevention, risk management and pollution control

Output 3.3: Solutions adopted to achieve universal access to clean, affordable and sustainable energy and to generate income for women and young people through innovative technologies and financing

	Objective and Outcome Indicators **(no more than a total of 20 indicators)**	**Baseline**	**Mid-term Target**	**End of Project Target**
Project Objective:	**Mandatory** Indicator 1: # direct project beneficiaries disaggregated by gender (individual people)	*0*	71,291 (31,081 men and 36,713 women)	142,592 (of which 73,427 are women and 69,165 are men)

	Mandatory Indicator 2: # indirect project beneficiaries disaggregated by gender (individual people)	0	237,653 (115,275 men and 122,378 women)	475,306 (230,550 men and 244,756 women)
	Mandatory GEF Core Indicators: Area of land restored (Hectares) 3.1 Area of degraded agricultural lands restored 3.2 Area of forest and forest land restored 3.3 Area of natural grass and shrublands restored 3.4 Area of wetlands (including estuaries, mangroves) restored	*0*	*18,000* *3.1. 5,000* *3.2. 2,500* *3.3. 7,500* *3.4. 3,000*	*36,000* *3.1 10,000* *3.2 5,000* *3.3 15,000* *3.4 6,000*
	Area of landscapes under improved practices (excluding protected areas)(Hectares) *4.3 Area of landscapes under sustainable land management in production systems*	*0*	*100,000*	*225,000*

	Greenhouse Gas Emissions Mitigated (metric tons of CO_2-equ) *6.1 Carbon sequestered or emissions avoided in the sector of Agriculture, Forestry and Other Land Use*	*0*	*397,289*	*2,648,591 (End of 20-year accounting period)*
Project component 1	Enhancing coordination and monitoring for land degradation neutrality and climate security			
Project Outcome 1 Capacity is improved for national coordination and monitoring, to achieve Land Degradation Neutrality targets and adapt to climate change	**<u>Indicator 1:</u>** Degree to which the capacity of targeted institutions is strengthened to coordinate and monitor LDN targets and adaptation interventions *(measured with a capacity scoring methodology)*	Baseline Institutional Capacity Assessment to be conducted at the project inception stage to define the baseline level of capacity of targeted institutions to coordinate and monitor LDN targets and adaptation interventions. The project will develop a custom capacity assessment tool for monitoring and evaluation, which may be derived from similar tools, such as the USAID Global Climate Change Institutional Capacity Assessment Tool M&E module[1].	Increase of 2 in the capacity score of each institution (out of a maximum of 4: Low capacity = 1; Basic Capacity = 2; Moderate Capacity = 3; Strong Capacity = 4)	Increase of 2 in the capacity score of each institution (out of a maximum of 4: Low capacity = 1; Basic Capacity = 2; Moderate Capacity = 3; Strong Capacity = 4)
Outputs to achieve Outcome 1	Output 1.1 National LDN committee revitalized and capacitated for better coordination of cross-sectoral decision-making for LDN Output 1.2 Action plan for achieving and monitoring targets for Land Degradation Neutrality Output 1.3 Regional climate risk and vulnerability assessments and maps developed, with an application of security sensitivity framework			
Project component 2	Enhancing resilience of degraded production landscapes with communities vulnerable to climate change			

Outcome 2 Productivity is restored and yields are increased in vulnerable grazing, farming and fishing landscapes through effective community management in the central regions of Mali	**<u>Indicator 2:</u>** Number of hectares of land in the target landscapes seeing a statistically significant improvement in land (vegetation) productivity	*0*	18,000	36,000
Outputs to achieve Outcome 2	Output 2.1: Socially and gender inclusive community-based natural resource management committees are created/revitalized and supported to serve as platforms for negotiating and resolving natural resource conflicts between user groups Output 2.2 Adaptation measures are integrated into local development plans Output 2.3 Training and inputs provided to farmers and herders in 15 target communes of Mopti and S?gou for landscape regreening, based on traditional/local knowledge and solutions Output 2.4 Capacity development programme for climate-smart agriculture in target communes 2.5 Restoration of 21,000 hectares of degraded grass/shrubland and wetlands for improved climate resilience			
Project component 3	Supporting family farms, youth and women to innovate and adopt resilient and sustainable livelihoods			
Outcome 3 Rural households and community-based organizations enhance their resilience to conflict, climate change, and land degradation by restarting and diversifying productive activities	**<u>Indicator 3:</u>** Number of entrepreneurs benefiting from improved revenue streams (gender disaggregated) as a result of restarting and diversifying productive activities	*Baseline revenue streams and level of income of targeted entrepreneurs to be identified through baseline survey at the start of project implementation*	10,000 individuals with increased income of at least 15% over baseline, of which 60% women	17,000 individuals with increased income of at least 30% over baseline, of which 60% women

Outputs to achieve Outcome 3	Output 3.1 New cooperative climate-smart businesses established involving women, youth and displaced people Output 3.2 Entrepreneurship training and business incubation services provided to women and youth from target landscapes for adaptation-linked business ideas Output 3.3 Training, technical support and equipment provided to build the capacity of climate-smart cooperative enterprises involving women, youth and displaced persons			
Project component 4	**Knowledge management and M&E** Monitoring and evaluation and knowledge management for upscaling			
Outcome 4 Project impacts are monitored, and learning shared for scale-up of results across Sahel regions of Mali	**Indicator 4:** Number individuals replicating good practices (in monitoring, communication, gender, conflict management, landscape restoration, adaptation) based on lessons learned from the project activities	0	500	2,500
Outputs to achieve Outcome 4	Output 4.1 Knowledge platform operational for coordination and lessons sharing among stakeholders at commune, cercle, region, national and international levels Output 4.2: A learning framework is developed and implemented for project as a whole Output 4.3: A participatory M&E framework is developed and implemented for the project as a whole (including sites for Component 2 and 3 activities) Output 4.4: Environmental and Social Safeguards Management			

[1] Global Climate Change Institutional Capacity Assessment Tool | NDC Partnership

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

Below are the responses to comments received at PIF stage from STAP, as well as Council at work program inclusion:

Reviewer	Comment	Response
STAP Secretariat:	STAP suggests that the baseline scenario be better quantified or otherwise measured to allow for the clear measurement of project benefits going forward. This may include the development of locally-appropriate indicators of impact.	*The project Results Framework indicators were designed to be SMART, and the baseline values for some indicators which were not established during PPG will be determined as the project conducts a baseline study at the start of project implementation, as part of its monitoring and evaluation plan. Moreover, the project will be conducting several assessments including its SESA and ESIA, which will yield more locally-relevant information and could inform the revision/refinement of the project?s results framework.*
	STAP recognizes that Mopti is a very challenging implementation environment that has limited the ability of the project to engage communities in the process of developing the PIF. STAP recommends the project review existing studies of livelihoods and adaptation in the area, as these will point to important barriers and opportunities for engagement with the project. By identifying these in the literature, the project will have the opportunity to design effective strategies for what are likely to be limited opportunities to engage with beneficiaries during the PPG phase. This includes carefully considering what is already known about the barriers to participation that gender and seniority present in this part of Mali.	*Extensive consultations with communities were conducted during the PPG phase, with a survey being administered to nearly 200 households across the region. Moreover, both a gender and an indigenous/local communities experts consulted community leaders, NGOs, CSOs, to gather further information on barriers related to social and cultural norms. These aspects were systematically considered, and a Gender Action Plan was developed, as well as other relevant safeguards plans to address risks and barriers.*

	STAP also recommends that the project develop a process for extracting relevant lessons from the many parallel or related projects taking place in Mali, and in Mopti more specifically, and that it organize and employ these lessons to shape project design.	*Under Component 4, the project will ensure that lessons from the project are captured and disseminated appropriately. Moreover, during the PPG phase consultations with recent or ongoing projects were undertaken, and their lessons taken into consideration in the design.*
Denmark/Norway Council Member:	o Risks: ? Emphasis on partnering with state and local authorities. It is the central question as return of the state and local authorities is not something UNDP can do much about. Will require continuous dialogue with the governments (national and local) and probably collective push / alliance with other partners of Mali.	*This is well noted, and taken into consideration in the partnerships the project intends to build/continue to foster with local NGOs, CSOs, and private sector (e.g. Donilab Incubator). The PPG phase allowed for several consultations to be made, and several co-financings were mobilized through this process (including from the government), demonstrating a strong will to collaborate and partner in this area.*
	? Risk of duplication and overlap. The targeted regions are currently the focus of interventions throughout to HDP-nexus in Mali ? thus coordination and cooperation within and outside UN will be of outmost importance throughout the UNDP nexus.	*This is well noted. A mapping of relevant stakeholders and baseline interventions (including their linkages to this project such as overlapping objectives and activities, as well as identification of areas of intervention) was done during the PPG phase, which will be used as a starting point to ensure coordination during implementation. A lengthy site selection process was undertaken during PPG, weighing both the benefits of building on other interventions and the need to intervene in underserved areas.*
	? Security. The regions suffer daily from security incidents and as an example humanitarian staff is regularly kidnapped for shorter or longer durations. This entails many risks incl. on implementation and monitoring.	*This is well noted, and addressed in the project Security Plan.*

	? There is currently an ongoing Danish and Norwegian financed project ?Danish Regional Sahel Peace and Stabilisation Programme? that has similarities with the GEF proposed project and we would therefore encourage coordination and collaboration to ensure there is no over-lap and make the most of potential synergies.	*Coordination with the Programme was undertaken during PPG.*
Germany Council Member:	Germany welcomes the proposed measures as they are highly relevant. Notably, in order to strengthen the private sector, electrification is fundamentally important, particularly mini-grids in remote areas. However, some of the approaches mentioned already exist, which calls for an extensive scoping mission to prevent overlaps.	*The PPG phase provided some insights as to what are the current needs, as well as ongoing activities in the areas of intervention (see Stakeholder Engagement). The project will seek to continue engaging relevant stakeholders throughout implementation, coordinate closely with other initiatives, and build key partnerships with the private sector, to ensure there is no duplication of efforts in an area where multiple interventions are taking place simultaneously.*
	Germany requests that the following requirements are taken into account during the design of the final project proposal: ? We request that security conditions should be referenced more strongly in the risk management section. There is a possibility that the current security condition might hinder project implementation, especially in the Mopti region. As such, questions on the sustainability and the possibility of field implementation arise. Risk mitigation measures should be detailed and planned before implementation starts.	*The current security condition has been thoroughly taken into consideration during the PPG phase, and concerns are addressed in the SESP and project Security Plan.*

	? We suggest to consider whether the installation of solar-powered mini-grids could be included in project activities. It is not one of the measures listed, despite it having a great potential for mitigation, adaptation (reduction of firewood felling) and overall improvement of living conditions, including private sector development.	*While the project will not directly support the installation of solar-powered mini-grids, it does intend to support local youth entrepreneurs in the field of photovoltaics specifically, recognizing that energy access is central to the issues the project intends to address (Component 3).*
	We request to revise some issues in the presented analysis on climate and land degradation in the first part: ●Rainfall has been increasing again since 1990 at the latest, but with great variations. ●Land degradation does not seem to have played a major role for some time. Deforestation rate of 500,000 ha /year is being questioned. ●The decrease in the flow of the Niger River is also controversial. We do not expect a further decrease and the only flow station that seems reliable is Koulikoro, all others have been changed / relocated over the years.	*These points are well noted, and the project intends to address these issues by conducting both a baseline study at inception and several climate vulnerability studies to better identify local climate and land degradation trends. New studies are cited in the contextual section with regards to climate and land degradation trends, as well as government statistics. Flow of the Niger River are highly variable, and depend on a number of factors. It was unfortunately not possible to identify reliable projections for Niger River flow during the PPG phase.*

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

	PPG Grant Approved at PIF: **250,000**			
Project Preparation Activities Implemented	***Fund***	***GETF/LDCF/SCCF Amount ($)***		
		Budgeted Amount	***Amount Spent Todate***	***Amount Committed***
Formulation of Technical Reports and annexes	GEF TF	72,500	56,530.01	
	LDCF	49,000	44,130.09	2,500
Formulation of the UNDP-NCE Project Document, CEO Endorsement Request	GEF TF		4,584.14	
	LDCF	101,000	85,200.55	

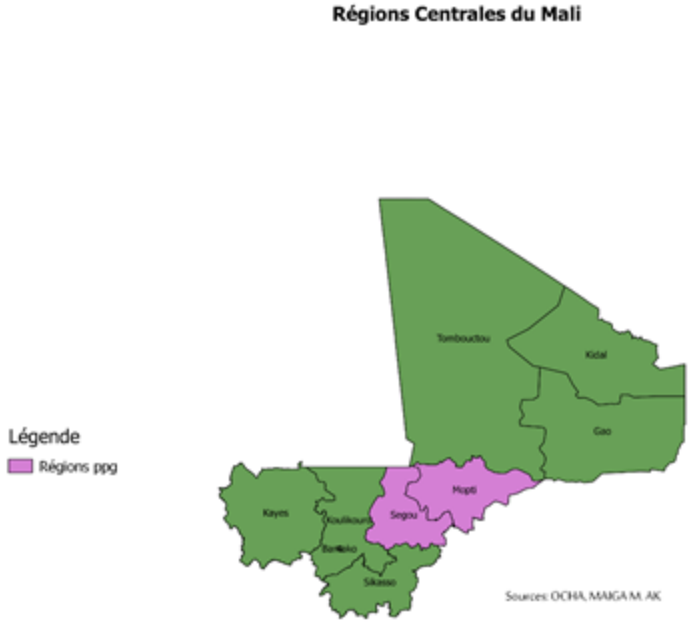
Workshops	GEF-TF	27,500	20,123.08	18,762.77
	LDCF		16,696.69	1,472.67
Total		**250,000**	**227,264.56**	**22,735.44**

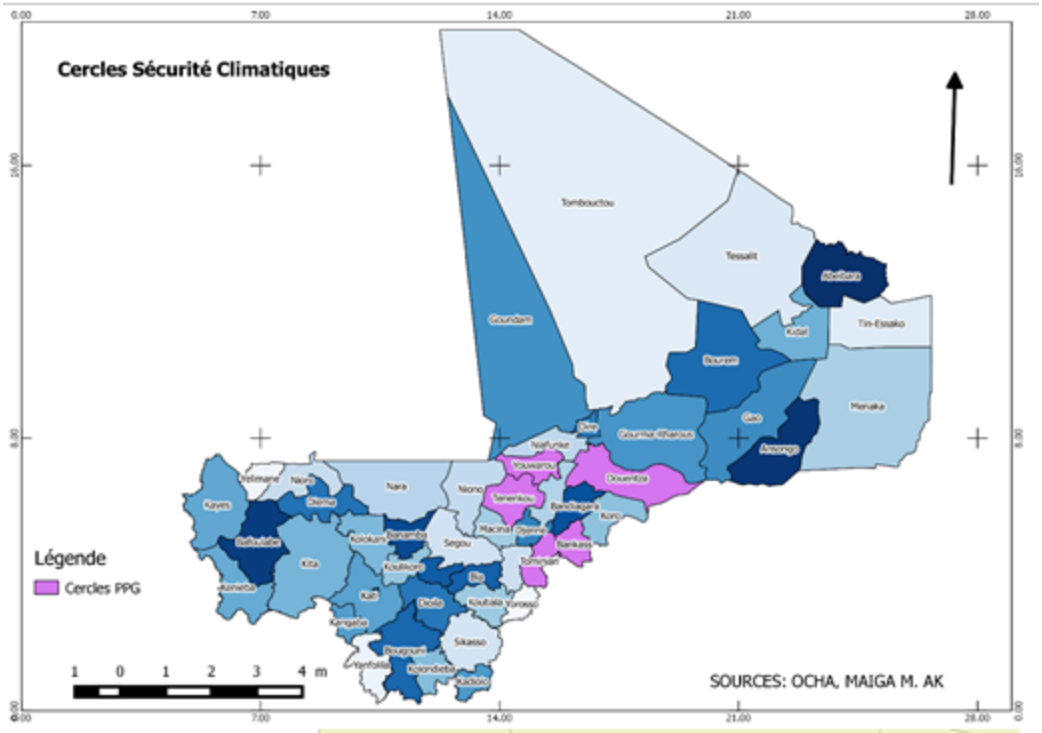
ANNEX D: Project Map(s) and Coordinates

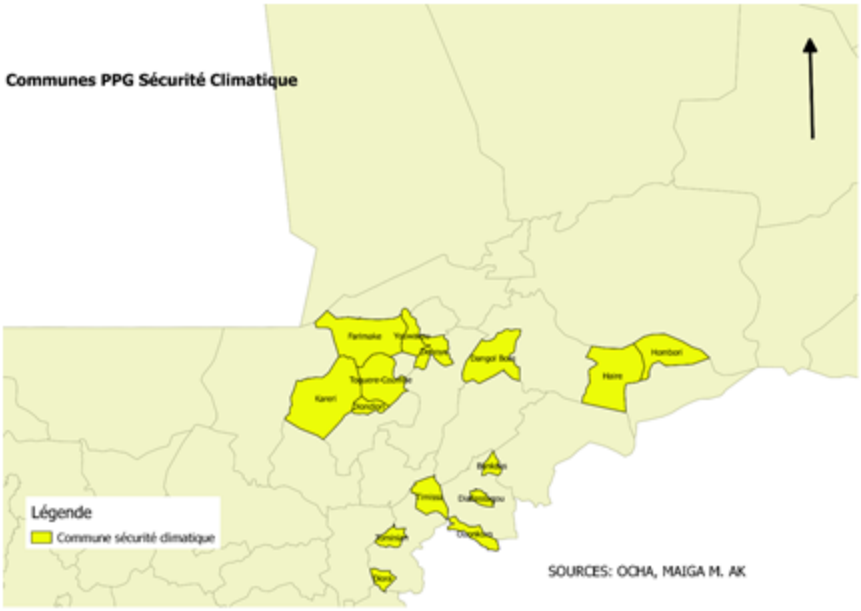
Please attach the geographical location of the project area, if possible.

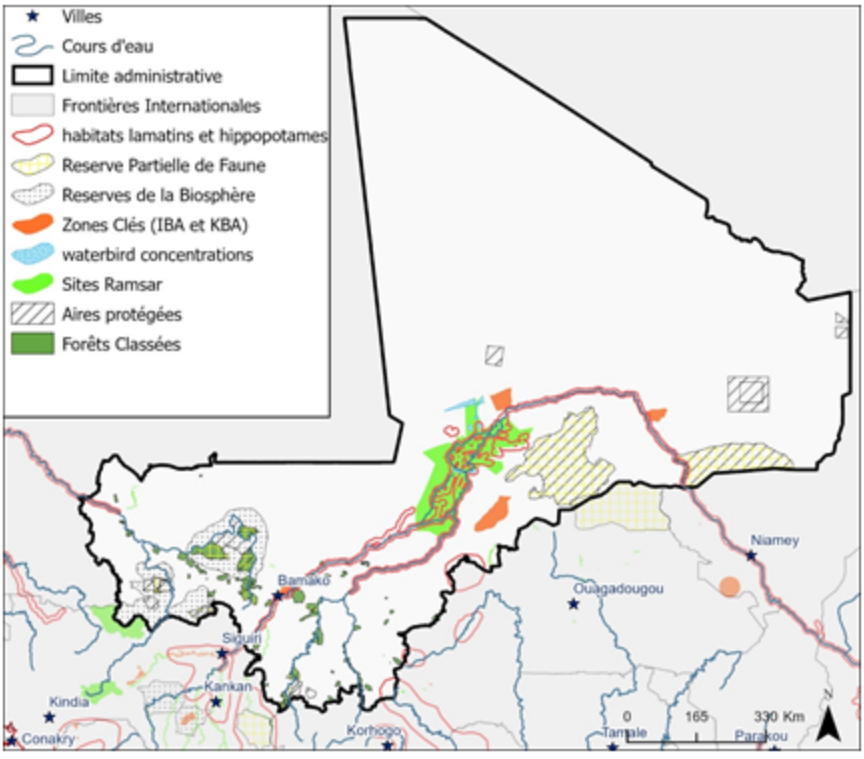
Project site geospatial coordinates:
Diallassagou (Bankass): 13?44?36?N, 3?37?47?W
Ouenkoro (Bankass): 13?23?25?N, 3?49?39?W
Bankass (Bankass): 14?04?21?N, 3?30?47?W
Dangol-bore (Douenza): 15?08?15?N, 3?29?15?W
Boni (Douenza): 15?04?30?N, 2?13?54?W
Hombori (Douenza): 15?17?10?N, 1?41?49?W
Togor?-Coumb? (Tenenkou) : 14?55?15?N, 4?35?47?W
Diondiori (Tenenkou) : 14?36?20?N, 4?46?03?W
Kareri (Tenenkou) : 14?49?28?N, 5?14?53?W
Farimake (Youwarou): 15?28?03?N, 4?36?49?W
Deboye (Youwarou): 15?21?5?N, 4?4?30?W
Youwarou (Youwarou): 15?22?30?N, 4?15?45?W
Diora (Tominian): 13?00?31?N, 4?49?48?W
Tominian (Tominian): 13?17?N, 4?35?W
Timissa (Tominian): 13?49?N, 4?12?W

Régions Centrales du Mali









ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Categ	Detailed Description	Component (USDeq.)	Total (USD eq.)	Responsible Entity	Agency

ory		*Component 1*	*Component 2*	*Component 3*	*Component 4*	*Component 4 KM*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]	
Equipment	Act 2.3.4 Equipment for ANR and SLWM in each commune		86,250.00				86,250.00			86,250.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Equipment	Act 2.4.2 Equipment for training and seed networks (five networks/one per cercle) @USD54,400 per cercle in Y2-Y5; Act 2.4.3 Equipment for training and nurseries (1 per commune) @USD25,000 per commune in Y3-Y5; Act 2.5.3 Equipment for training and pasture rehabilitation (5 villages per commune, 5 communes) @USD3,200 per village in Y2-Y5; Act 2.5.4 Equipment for training and water course restoration (5 villages per commune, 5 communes) @USD4,000 per village in Y2-Y5; Act 2.5.5 Equipment for training and water infrastructure (5 villages per commune, 5 communes) @USD5,000 per village in Y2-Y5		830,000.00				830,000.00			830,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Equipment	Act 3.3.1 Equipment for climate-smart enterprises in each commune			450,000.00			450,000.00			450,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Equipment	Computers and office equipment						-		8,700.00	8,700.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Grants	Act 3.1.4 Grants per cooperative enterprise for first two years operating costs @USD 180,000; Act 3.3.3 Grants per youth (20 youth per commune) @USD 300,000 (All grants are low-value grants aiming to support community-based income generating initiatives.)			480,000.00			480,000.00			480,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Contractual services-Individual	Act 1.2.1 20 surveyors in 5 cercles for 5 days for the community diagnostics/baseline @50USD/day/surveyor	5,000.00					5,000.00			5,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Contractual services-Individual	Act 1.3.3 25 surveyors in 5 cercles for one month @500USD/month at start and end of project;	25,000.00					25,000.00			25,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Contractual services-Individual	Act 2.1.1 15 surveyors (one per commune) for one month @500USD/ month per surveyor for participatory diagnosis of NRM committees in Y1; Act 2.1.2 15 facilitators (one per commune) for twelve month spread evenly between Y2-Y6 @500USD/ month to support development /capacity building of NRM committees; Output 2.1 Project CC/LDN expert @USD25,800 per year		252,300.00				252,300.00			252,300.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Contractual services-Individual	Act 2.5.1 25 surveyors in 5 cercles for one month @500USD/ month at start of project;		12,500.00				12,500.00			12,500.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Contractual services-Individual	Act 3.1.1 8 surveyors (one per two communes) for 15 days @100USD/day			12,000.00			12,000.00			12,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Contractual services-Individual	Baseline study: international consultant for 50 days @700 USD/day and national consultant for 50 days @300 USD/day; Project M&E officer @USD25,800/year; Project Safeguards Officer @25,800/year					359,600.00	359,600.00			359,600.00	Agency for Environment and Sustainable Development (AEDD)	GEF
	Full time project manager @USD38,673/year						-		232,040.00	232,040.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Contractual services-Company	Act 2.3.2 MoU/LoA extension services for the establishment of Farmer Field Schools, for the training of producers, including women farmers, and demonstration plots for train-the-trainer activities @USD 46,666 per commune		700,000.00				700,000.00			700,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Contractual services-Company	Act 2.4.1 MoU/LoA DREF for training on climate-smart practices in 15 communes @USD15,000/commune over Y2-Y5; Act 2.4.2 MoU with agricultural research institutions for the creation and monitoring of the seed production network in 5 cercles, @USD34,000 per cercle in Y3-Y4; Act 2.4.3 MoU/LoA DREF for training of village level nursery staff, for 15 communes @USD5,000 per commune in Y3-Y5; Act 2.4.4 Translation services for communication material on climate-smart agriculture @USD1,000 in Y4; Act 2.5.2 MoU with DREF for training of community structures on roles and responsibilities, and planning for rehabilitation efforts for adaptation @USD16,40		1,092,000.00				1,092,000.00			1,092,000.00	Agency for Environment and Sustainable Development (AEDD)		LDCF

Contractual services-Company	Act 3.1.3 MoU/LoA with NGO or existing incubation services @USD130,000; Act 3.2.1 MoU/LoA with NGO or existing incubation services (cost per business supported/20 per commune) @USD 130,000; Act 3.2.2 MoU/LoA with NGO or existing incubation services @USD 130,000; Act 3.2.3 MoU/LoA with NGO or existing incubation services @USD 130,000; Act 3.2.4 MoU/LoA with NGO or existing incubation services @USD 130,000; Act 3.3.2 MoU/LoA with NGO or private sector actors with required skills for trainings or relevant regional government actors (at village level, 5 villages per commune) @USD 130,000; Act 3.3.3			898,500.00			898,500.00			898,500.00	Agency for Environment and Sustainable Development (AEDD)		LDCF

Contractual services-Company	Act 4.1.2 Development of an online knowledge platform				85,000.00		85,000.00			85,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Contractual services-Company	Act 4.2.2 MoU/LoA with IER for LDN monitoring					50,000.00	50,000.00			50,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF
International Consultants	Act 1.1.1 International LDN expert; 18 days@700 USD/day; Act 1.1.2 International LDN expert; 15 days@700 USD/day; Act 1.1.3 International LDN expert; 8 days@700 USD/day	28,700.00					28,700.00			28,700.00	Agency for Environment and Sustainable Development (AEDD)	GEF
International Consultants	Act 1.3.1 Climate change vulnerability expert 20 days@700 USD/day	14,000.00					14,000.00			14,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

International Consultants	Act 4.1.5 Communications expert; 40 days@700 USD/day				28,000.00		28,000.00			28,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
International Consultants	Act 4.2.2 M&E and climate change expert 50 days@700 USD/day					35,000.00	35,000.00			35,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF
International Consultants	ESIA International consultant 60 days@700 USD/day in Y1; SESA international consultant 30 days@700 USD/day in Y1				63,000.00		63,000.00			63,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF

International Consultants	Mid-term review: M&E and climate change expert for 63 days 700 USD/day, total @USD 44,100; Terminal evaluation: M&E and climate change expert for 63 days 700 USD/day, total @44,100						-	88,200.00		88,200.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Local Consultants	Act 1.3.1 GIS/vulnerability mapping expert 10 days@300 USD/day; Act 1.3.2 Local GIS/vulnerability mapping expert for 6 days @300USD/day; Act 1.3.3 Local GIS/vulnerability mapping expert for 40 days @300USD/day; Act 1.3.4 Local GIS/vulnerability mapping expert for 60 days @300USD/day	34,800.00					34,800.00			34,800.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Local Consultants	Act 2.1.1 National NRM expert 40 days@300 USD/day in Y1 for participatory diagnosis of NRM committees; Act 2.1.2 National NRM expert; 80 days@300 USD/day in Y2-Y5 to support development of/capacity building of NRM committees; Act 2.1.4 National sociologist/communicator expert; 40 days@300 USD/day to support forum on traditional NRM in Y2; Act 2.3.1 National Consultant (ANR and SLWM) 15 days @300USD in Y1 for training of trainers; Act 2.3.4 National Consultant (ANR and SLWM) 2 days/year/commune @300USD to lead participatory mapping of fields and evaluate ANR success in Y2-Y6		97,500.00				97,500.00			97,500.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Local Consultants	Act 2.2.1 National Consultant on climate vulnerability to organize and facilitate community workshops; 36 days at 300USD/day in Y2; Act 2.2.2 National Consultant on climate vulnerability to prepare report for each commune (15) 75 days at 300USD/day in Y3; Act 2.4.4 National Consultant (ANR and SLWM) @300USD/day to assist development of locally adapted training material for 15 days in Y4; Act 2.5.1 National consultant on land degradation/restoration expert; 10 days@300 USD/day to write up analysis of restoration needs in each commune in Y1		40,800.00				40,800.00			40,800.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Local Consultants	Act 3.1.1 National private sector consultant for 80 days @300USD per day; Act 3.1.2 National sociologist/communicator expert; 40 days@300 USD/day			36,000.00			36,000.00			36,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Local Consultants	Act 4.1.1 Communications expert; 40 days@300 USD/day Act 4.1.5 Communications expert; 40 days@300 USD/day				24,000.00		24,000.00			24,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Local Consultants	ESIA National consultant 60 days@300 USD/day				18,000.00		18,000.00			18,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Local Consultants	Mid-term review: M&E and climate change expert; 63 days 300 USD/day, total @ USD18,900; Terminal evaluation: M&E and climate change expert for 63 days 300 USD/day, total @18,900						-	37,800.00		37,800.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Training, Workshops, Meetings	Act 1.1.1 National and regional consultations workshops- 2 days/workshop; Act 1.1.2 Workshops for formulation of ToRs Act 1.1.3 Three two-day Capacity-building workshops of the different national actors; Act 1.1.3 Logistical and technical support for quarterly meetings -4 workshops of 2 days with support for 30 participants for 5 years; Act 1.1.4 One two-day Capacity-building workshop of the different regional actors; Act 1.2.1 National and regional consultations workshops for five 2 days/workshop; Act 1.2.2 National and regional consultations workshops- 2 days/workshop; Act 1.2.3 Regional level training; 4 days/workshop	182,000.00					182,000.00			182,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Training, Workshops, Meetings	Act 1.3.1 One Training workshops on methodology for 6 participants from AEDD, Mali M?t?o, IGM over 3 days @USD5,000 ; Act 1.3.2 One training of 25 investigators for 2 days at 50USD per investigator/ day + meeting room (75USDX2d) + meals and supplies for total @USD3,150 ; Act 1.3.4 One-day training per commune for 45 participants, 50USD per participant plus room, at Y2 and Y6, USD2,325 per commune (total of 30 trainings), total @USD69,750	77,900.00					77,900.00			77,900.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Training, Workshops, Meetings	Act 2.1.1 Training of 15 investigators for 2 days at 60USD per investigator/ day + meeting room (75USDX2d) + meals and supplies, total of USD2,700 in Y1 for participatory diagnosis of NRM committees; Act 2.1.3 Community training of NRM committee members and customary committees/c ommunity leaders in 15 communes, as an ongoing process through the 15 facilitators; five trainings per commune per year at 400USD per training for a total of USD30,000 per year in Y2-Y6; Act 2.1.4 Community forums (15 communes) for 20 participants/ commune at 20USD per participant+7 5USD for the room for a total of USD7,125 in Y2; Act 2.3.1 Training of		210,0 55.00				210,0 55.00			210,0 55.00	Agen cy for Envir onme nt and Sustai nable Devel opme nt (AED D)	GE F

Training, Workshops, Meetings	Act 2.2.1 Training workshop costs for 15 workshops (one per commune) in Y2, total of $21,600 on APVACC; Act 2.2.2 Restitution workshop costs for 15 workshops (one per commune) in Y3, total of $18,000; Act 2.4.4 Dissemination of information on climate-smart agriculture to local communities (15 communes) through locally-appropriate means, @USD9,000 /year in Y2-Y5; Act 2.5.1 One training workshop on methodology for 25 surveyors @USD1,200 in Y1 for diagnostics of restoration needs; Act 2.5.1 Consultation workshops within communes on restoration needs, one per commune in Y1 @USD1,200 /workshop		95,306.00				95,306.00			95,306.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Training, Workshops, Meetings	Act 3.1.2 Community forums (15 communes) for 20 participants/ commune at 20USD per participant+75USD for the room USD475/commune in Y2, total @ USD 7,125; Act 3.3.1 Trainings on the operation and maintenance of new equipment for 300 trainings USD200/training in Y2-Y6 total @ USD60,000			67,125.00			67,125.00			67,125.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Training, Workshops, Meetings	Act 4.1.2 Workshops for project knowledge dissemination; Act 4.1.3 Annual Multistakeholder dialogue; Act 4.1.4 National learning event; Act 4.1.6 Annual knowledge exchange events				138,000.00		138,000.00			138,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Training, Workshops, Meetings	Act 4.2.1 Learning exchange visits					48,000.00	48,000.00			48,000.00	Agency for Environment and Sustainable Development (AED D)	GEF
Training, Workshops, Meetings	Inception workshop						-	15,000.00		15,000.00	Agency for Environment and Sustainable Development (AED D)	GEF
Training, Workshops, Meetings	Trainings associated with GAP; Consultation workshops for ESIA				42,500.00		42,500.00			42,500.00	Agency for Environment and Sustainable Development (AED D)	GEF
Travel	Act 1.1.3 DSA and travel: International Cons. 3000+ DSA@336USD/day; Output 1.1. On-site mission costs	10,360.00					10,360.00			10,360.00	Agency for Environment and Sustainable Development (AED D)	GEF

Travel	Act 1.3.1 DSA and travel: International Cons. 3000+ DSA@336USD/day; Act 1.3.2 DSA and travel : Nat.Cons. 2000 (communes) Act 1.3.4 DSA and travel : Nat.Cons. 4000 (communes); Output 1.3 On-site mission costs	16,360.00					16,360.00			16,360.00	Agency for Environment and Sustainable Development (AEDD)	LDCF

Travel	Act 2.1.1 DSA and travel : Nat.Cons. NRM expert (15 communes) in Y1 for participatory diagnosis of NRM committees @ USD4,000; Act 2.1.4 DSA and travel : Nat.Cons. sociologist/communicator expert (15 communes) to support forum on traditional NRM in Y2 @ USD4,000; Act 2.3.1 Travel national consultant (ANR and SLWM) in 5 cercles in Y1 for training of trainers @USD4,000 ; Act 2.3.4 Travel national consultant (ANR and SLWM) in 5 cercles (annual mapping and presentation of results) @USD4,000 ; Output 2.1 On-site missions travel (one visit per cercle (5) per year for project team USD2,425 per visit) total @USD72,750		88,750.00				88,750.00			88,750.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Travel	Act 2.2.1 Travel national consultant for workshops; Act 2.2.2 Travel national consultant for restitution workshops		8,000.00				8,000.00			8,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Travel	Act 3.1.2 DSA and travel : Nat.Cons. 4000 (communes)			4,000.00			4,000.00			4,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Travel	Act 4.1.4 International travel for participants (10 participants); Act 4.1.6 International travel for participants (12 participants)				140,000.00		140,000.00			140,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Travel	Act 4.2.2 DSA and travel : Int.Cons. USD5,000					5,000.00	5,000.00			5,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Travel	ESIA DSA and travel : Int.Cons. USD5,000 ; Nat.Cons. USD2,000				7,000.00		7,000.00			7,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Travel	M&E: Monitoring of indicators in project results framework @USD4,750 per year for whole project duration; M&E: Monitoring of gender and youth action plans, and safeguards management framework @USD6,835 per year for whole project duration; Mid-term review: DSA and travel for Int.Cons. @USD5,000 and for Nat.Cons. @USD2,000 ; Terminal evaluation DSA and travel : Int.Cons. @USD5,000 and Nat.Cons. @USD2,000						-	83,510.00		83,510.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Travel	Travel cost of the PMU project staff						-		33,000.00	33,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Office Supplies	Office Supplies						-		6,000.00	6,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Other Operating Costs	Office rent						-		42,000.00	42,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Other Operating Costs	NIM Audit as per UNDP audit policies						-		36,000.00	36,000.00	Agency for Environment and Sustainable Development (AEDD)	GEF

Other Operating Costs	Act 1.1.2 Printing services	500.00					500.00			500.00	Agency for Environment and Sustainable Development (AEDD)	GEF
Other Operating Costs	Act 2.2.2 Printing of reports for each commune; Act 2.4.4 Printing services for school materials		16,500.00				16,500.00			16,500.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
Other Operating Costs	Act 4.1.5 Printing services				15,000.00		15,000.00			15,000.00	Agency for Environment and Sustainable Development (AEDD)	LDCF
	Project Total	**394,620.00**	**3,529,961.00**	**1,947,625.00**	**560,500.00**	**497,600.00**	**6,930,306.00**	**224,510.00**	**357,740.00**	**7,512,556.00**		

ANNEX F: (For NGI only) Termsheet

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

N/A

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat

or the Trustee) in the Document Section of the CEO endorsement. The Agencys is required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

N/A

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

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

N/A