Improving the climate resilience of agro-sylvo-pastoral production systems in Burkina Faso

Part I: Project Information

GEF ID
10516

Project Type
FSP

Type of Trust Fund
LDCF

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

Project Title
Improving the climate resilience of agro-sylvo-pastoral production systems in Burkina Faso

Countries
Burkina Faso

Agency(ies)
FAO

Other Executing Partner(s)
Minist?re de l?Agriculture, des Am?nagements Hydro-Agricoles et des Ressources Animales et Halieutiques

Executing Partner Type
Government

GEF Focal Area
Climate Change

Taxonomy
Climate Change Adaptation, Climate Change, Focal Areas, Community-based adaptation, Mainstreaming adaptation, Climate resilience, Climate finance, Private sector, Ecosystem-based Adaptation, Innovation, Least

Developed Countries, Adaptation Tech Transfer, National Adaptation Plan, Complementarity, Influencing models, Strengthen institutional capacity and decision-making, Deploy innovative financial instruments, Demonstrate innovative approache, Local Communities, Stakeholders, Private Sector, Individuals/Entrepreneurs, Financial intermediaries and market facilitators, SMEs, Civil Society, Non-Governmental Organization, Community Based Organization, Type of Engagement, Consultation, Participation, Information Dissemination, Partnership, Communications, Behavior change, Strategic Communications, Education, Awareness Raising, Gender Mainstreaming, Gender Equality, Beneficiaries, Women groups, Sex-disaggregated indicators, Gender-sensitive indicators, Gender results areas, Knowledge Generation and Exchange, Participation and leadership, Access to benefits and services, Capacity Development, Access and control over natural resources, Capacity, Knowledge and Research, Learning, Indicators to measure change, Adaptive management, Theory of change, Knowledge Generation, Master Classes, Professional Development, Training, Course, Workshop, Knowledge Exchange, Field Visit, Peer-to-Peer

Sector
AFOLU

Rio Markers
Climate Change Mitigation
Climate Change Mitigation 0

Climate Change Adaptation
Climate Change Adaptation 2

Submission Date
3/19/2020

Expected Implementation Start
10/1/2022

Expected Completion Date
9/30/2028

Duration
72In Months

Agency Fee($)
848,580.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CCA-1	LDCF	LDCF	6,932,420.00	32,424,707.00
CCA-2	LDCF	LDCF	2,000,000.00	10,000,000.00
		Total Project Cost($)	**8,932,420.00**	**42,424,707.00**

B. Project description summary

Project Objective

Increase the climate resilience of agro-sylvo-pastoral family farming communities in the Sudanian and Sudano-Sahelian zones of Burkina Faso

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($)	Confirmed Co-Financing($)
Governance for climate resilient development of agro-sylvo-pastoral communities in the Sudano-Sahelian zone	Technical Assistance	Outcome 1: strengthened governance and institutional capacity for climate resilient, conflict-free and agro-sylvo-pastoral (ASP) community development in three pilot landscapes	Output 1.1: At least 100 staff from extension services are trained and coached on the resolution of climate-driven conflicts, community mobilisation and facilitation skills in pilot landscapes, and adequate mechanisms (e.g. CCFV) are strengthened	LDCF	1,687,752.00	3,101,973.00
			Output 1.2: Climate change adaptation is mainstreamed into the practical governance of land-use management in pilot landscapes through the strengthening of Village Development Councils, including securing land tenure, mobility of pastoralists and access to resources			
			Output 1.3: The capacity of at least 23 municipal councils, 3 regional councils, 23 local multistakeholder platforms, 3 regional and 1 national platform			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Climate-resilient productive landscapes	Investment	Outcome 2: In the pilot landscapes, the implementation of landscape management plans strengthens the resilience of ASP production systems, as they become more productive, soil health improves and agricultural biodiversity increases	Output 2.1: Establish and support Dimitra Clubs in 8 communes to facilitate the self-mobilisation of communities, women?s leadership, the definition and implementation of land-use management plans and to improve conflict resolution Output 2.2: Climate-smart, locally-adapted agroecological practices (e.g. zai, Delfino ploughing, assisted regeneration of indigenous woody species, afforestation, controlled access) are introduced on 15,000 hectares of pasture and forested land to support the climate resilience of ASP production systems by sustainably intensifying production Output 2.3: the climate threats to water availability for ASP communities is reduced through the uptake of	LDCF	2,397,120.00	12,838,064.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Climate resilient agro-sylvo-pastoral livelihoods	Technical Assistance	Outcome 3: Agro-sylvo-pastoral livelihoods are diversified and made more resilient, through upstream upscaling of the Agro-Pastoral Field Schools (APFS) approach, and downstream support to transformation and market linkages	Output 3.1: The technical and functional capacities of 50 APFS master trainers from the MTEE and MAAHRAH are strengthened Output 3.2: The technical and functional capacities of 200 new technical facilitators from the MTEE and, MAAHRAH, local NGOs and CSOs and 500 endogenous facilitators are strengthened Output 3.3: The capacity of target communities to implement climate-resilient regenerative agro-sylvo-pastoral practices is improved through the creation of 500 APFSs Output 3.4: 500 APFSs are supported with Farming Busines/Marketing School modules to improve the capacity to organise and manage production as well as access	LDCF	3,484,045.00	22,876,186.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Monitoring, evaluation, capitalisation and knowledge building	Technical Assistance	Outcome 4: The results of the project are evaluated, and lessons learned are documented and disseminated	Output 4.1: Gaps in the evaluation of the mid- to long-term transformational impacts of APFSs are addressed through a sustainable research programme	LDCF	938,150.00	1,600,000.00
			Output 4.2: Relevant national sector development strategies and the curricula of universities and schools of agriculture mainstream the APFS and agroecology approaches in order to upscale and outscale climate change adaptation practices			
			Output 4.3: Effective and participatory Monitoring, Evaluation and Learning implemented, including tools adapted to/with communities for them to define, monitor and visualise progress			
			Output 4.4: Communication materials are			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
				Sub Total ($)	**8,507,067.00**	**40,416,223.00**
Project Management Cost (PMC)						
				LDCF	425,353.00	2,008,484.00
				Sub Total($)	**425,353.00**	**2,008,484.00**
				Total Project Cost($)	**8,932,420.00**	**42,424,707.00**

Please provide justification

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	MAAHRAH	Grant	Investment mobilized	35,811,497.00
Recipient Country Government	MTEE	Grant	Investment mobilized	4,358,190.00
GEF Agency	FAO	Grant	Investment mobilized	2,255,020.00
			Total Co-Financing($)	**42,424,707.00**

Describe how any "Investment Mobilized" was identified

Aligned with the co-financing guidelines, the investment mobilised comprises all relevant investments by project partners and FAO as GEF Agency in the three target regions that are not operating or operational costs. A summary is provided here: Ministry of Agriculture, Hydro-Agricultural Development, Animal Resources and Fisheries (MAAHRAH) co-financing totals USD 35,811,497, comprising the following relevant projects operating in the same geography as the LDCF project: ? Projet d?appui ? la promotion des fili?res agricoles (Agricultural Value Chains Promotion Project, PAPFA) : USD 22,429,881; ? Projet de D?veloppement d?Infrastructures Agricoles Post R?coltes (Project for the Development of Post-Harvest Infrastructures, PDIAP): USD 3,951,915; ? Projet de D?veloppement d?Incubateur d?Entrepreneurs dans les Fili?res Agricoles Porteuses (Project for the Development of an Entrepreneurs Incubator for High-Potential Agricultural Value Chains, PDIEFAP): USD 666,684; ? Projet de D?veloppement de la Valeur Ajout?e des Fili?res Agricoles du Burkina Faso (Project for the Improvement of Value Added of Agricultural Value Chains in Burkina Faso, VAFA) : USD 3,551,973; and ? Projet Agriculture Contractuelle et Transition Ecologique (Project Contractual Agriculture and Ecological Transition, PACTE): USD 5,211,044. Ministry of Ecological Transition and Environnment (MTEE) co-financing totals USD 4,358,190, comprising the following projects: ? Programme Am?lioration des moyens d?existence durables en milieu rural dans les r?gions de la Boucle du Mouhoun et du Centre Ouest, au Burkina Faso (Programme to Increase sustainable, rural livelihoods in the Boucle du Mouhoun and Centre-Ouest regions of Burkina Faso, PAMED) : USD 2,409,712; and ? Projet d?appui au d?veloppement de l?anacarde dans le bassin de la Como? pour la REDD+ (Project to strengthen the cashew nut sector in the Como? basin for REDD+, PADA/REDD+) : USD 1,948,478. FAO cofinancing totals USD 2,255,020, comprising the following projects: ? Programme r?gional conjoint Sahel en r?ponse aux D?fis COVID-19, Conflits et Changements climatiques (Joint Sahel programme in response to Covid-19, conflicts and climate change challenges, SD3C) ? Burkina Faso component: USD 1,981,213 ? Facilitation de l?acc?s ? la terre et participation des jeunes ? la pr?vention et la gestion des conflits fonciers dans les r?gions de la Boucle du Mouhoun et des Hauts-Bassins (Facilitation of access to land and participation of young people in the prevention and management of land conflicts in the Boucle du Mouhoun and Hauts-Bassins regions)

: USD 900,00 ? Renforcement de la r?silience des m?nages par les actions d?adaptation et de mitigation aux effets du changement climatique et du COVID-19, dans la r?gion de la Boucle du Mouhoun au Burkina Faso (Strengthening household resilience through adaptation and mitigation actions to the effects of climate change and COVID-19): USD 2,221,613

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($)
FAO	LDCF	Burkina Faso	Climate Change	NA	8,932,420	848,580	9,781,000.00
			Total Grant Resources($)		**8,932,420.00**	**848,580.00**	**9,781,000.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

200,000

PPG Agency Fee ($)

19,000

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

Meta Information - LDCF

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

Is this project LDCF SCCF challenge program?
false

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

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

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

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

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This Project has an urban focus. false

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

Agriculture	**50.00%**
Natural resources management	**25.00%**
Climate information Services	**0.00%**
Costal zone management	**0.00%**
Water resources Management	**25.00%**
Disaster risk Management	**0.00%**
Other infrastructure	**0.00%**
Health	**0.00%**
Other (Please specify:)	**0.00%**
Total	**100%**

This Project targets the following Climate change Exacerbated/introduced challenges:*
Sea level rise false
Change in mean temperature true
Increased Climatic Variability true
Natural hazards true
Land degradation true
Costal and/or Coral reef degradation false
GroundWater quality/quantity false

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	100,000	50,000	50,000	50.00%

CORE INDICATOR 2	
Area of land managed for climate resilience (ha)	250,000.00

CORE INDICATOR 3	
Total no. of policies/plans that will mainstream climate resilience	27

CORE INDICATOR 4		Male	Female	% for Women
Total number of people trained	60,750	30,375	30,375	50.00%

OUTPUT 1.1.1

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

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	Male	Female

Total number of direct beneficiaries from more resilient physical assets	**39,200**	**19,600**	**19,600**

Ha of agriculture land	Ha of urban landscape	Ha of rural landscape	No. of residential houses
60,000.00		**190,000.00**	**0**

No. of public buildings	No. of irrigation or water structures	No. of fishery or aquaculture ponds	No. of ports or landing sites
0	**20**	**0**	**0**

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

Other	Other(unit)	Comments
0		

OUTPUT 1.1.2

Livelihoods and sources of income of vulnerable populations diversified and strengthened

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		Male	Female
Total number of direct beneficiaries with diversified and strengthened livelihoods and sources of income	**60,000**	**30,000**	**30,000**

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
false	**false**	**false**	**true**
Beekeeping	Enhanced opportunity to employment	Other	Comments
true	**true**	**false**	

OUTPUT 1.1.3

New/improved climate information systems deployed to reduce vulnerability to climatic hazards/variability

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		Male	Female
Total number of direct beneficiaries from the new/improved climatic information systems	**800**	**400**	**400**

Climate hazards addressed

Flood	Storm	Heatwave	Drought
false	**false**	**false**	**false**

Other	Comments
false	

Climate information system developed/strengthened

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

Comments

Climate related information collected

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

Other	Comments
false	

Mode of climate information disemination

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

Leaflets	Other	Comments
false	**false**	

OUTPUT 1.1.4

Vulnerable natural ecosystems strengthened in response to climate change impacts

Types of natural ecosystem

Desert	Coastal	Mountainous	Grassland
false	**false**	**false**	**true**
Forest	Inland water	Other	Comments
true	**false**	**false**	

OUTPUT 1.2.1

Incubators and accelerators introduced

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

		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

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Financial instruments or models

PPP models	Cooperatives	Microfinance	Risk insurance
false	**true**	**true**	**false**

Equity	Loan	Other	Comments
false	**false**	**false**	

OUTPUT 2.1.1

Cross-sectoral policies and plans incorporate adaptation considerations

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Will mainstream climate resilience	Of which no. of regional policies/plans	Of which no. of national policies/plan
0	**3**	**1**

Sectors

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

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

Comments

OUTPUT 2.1.2

Cross sectoral institutional partnerships established or expanded

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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	**1**

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 **1**

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

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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Total no. of people trained	**60,750**	Male **30,375**	Female **30,375**
Of which total no. of people at line ministries	**50**	Male **25**	Female **25**
Of which total no. of community/association	**500**	Male **250**	Female **250**
Of which total no. of extension service officers	**200**	Male **100**	Female **100**
Of which total no. of hydromet and disaster risk management agency staff	**0**	Male **0**	Female **0**
Of which total no. of small private business owners	**60,000**	Male **30,000**	Female **30,000**
Of which total no. school children, university students or teachers	**0**	Male **0**	Female **0**
Other	Comments		

OUTPUT 2.3.2

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

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

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

Comments

OUTPUT 3.1.2

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

---

No. of systems and frameworks

Comments

OUTPUT 3.1.3

Vulnerability assessments conducted

No. of assessments conducted

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)

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)

Comments

OUTPUT 3.2.3

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

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No. of initiative(s) or technology(ies)

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**
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

---

		Male	Female
No. of people with raised awareness	**0**		
Please describe how their awareness was raised			

Part II. Project Justification

1a. Project Description

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

A) Global adaptation problem

a) Problem context & introduction

A least developed country strongly dependent on subsistence agriculture and threatened by insecurity

1. Landlocked Burkina Faso ranks 183 out of 189 countries in the 2018 Human Development Index and 144 out of 157 countries in the World Bank?s Human Capital Index. It is among the 14 poorest countries in the world[1][1] and qualifies as a Least Developed Country. Since 2016, the northern and eastern regions of the country have been plagued with terrorism and insecurity, with a deterioration of the situation from 2018. After having hosted Malian migrants fleeing insecurity in Mali, Burkina Faso witnessed widespread internal displacements, with as much as 486,000 people leaving their home in the Sahel and Est regions to settle in the Centre-Nord, Sahel, Est and Boucle du Mouhoun regions[2][2].

2. Burkina Faso?s population of 19.7 million[3][3] (growing at an average rate of 2.9% per annum) is highly dependent on natural resource-based sectors, namely mining, agriculture and livestock. Agriculture represents about 60% of employment and just over one-third of Gross Domestic Product (GDP). It is dominated by subsistence farming and operates below capacity, with a productivity of USD 290 per hectare compared with about USD 650 in the whole Sub-Saharan Africa[4][4]. Besides cotton ? its most important culture in value, and an important export product ? other traditional crops include sorghum, small millet and maize, which account for 60% of agricultural output. Burkinabes working in the agricultural sector are characterised by a higher poverty index than the national average[5][5], and a higher dependence to climatic conditions and vulnerability to climate change[6][6]. The combined socio-economic importance and increasing climate vulnerability of the agro-sylvo-pastoral sector lead the Government of Burkina Faso (GBF) to identify it as a top adaptation priority[7][7].

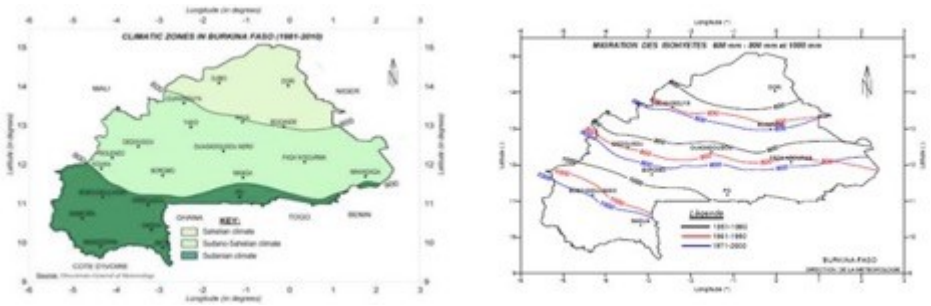
3. In the context of increasing climate change vulnerability, women living in rural areas are one of the most vulnerable groups. Particularly in rural areas, women work longer hours than men and have the responsibility to collect water and wood for family needs, the availability of

which tends to be reduced because of the combined effects of climate change impacts and anthropogenic pressure on natural resources. In addition, rural women do not often participate in decision-making processes at community levels, which limits the inclusiveness and gender responsiveness of climate adaptation planning efforts.

Burkina Faso is a climate change hot spot

4. Burkina Faso has three climate zones (Sahelian, Sudano-Sahelian and Sudanian), as illustrated on Figure 1 (left).

Figure 1. Left: climatic zones of Burkina Faso (source: Burkina Faso National Adaptation Plan, 2015); right: southward migration of isohyets in Burkina Faso between 1951 and 2000 (source: Directorate General for Meteorology).



5. Between 1960 and 2011, a downward trend in rainfall in all three climate zones was recorded at the reference weather stations in Dori (Sahelian zone), Ouagadougou (Sudano-Sahelian zone) and Bobo-Dioulasso (Sudanian zone). Moreover, cumulative rainfall data analysis for a thirty-year period indicates that the 600 and 900 mm isohyets migrated about 100 to 150 km southward between 1930 and 2010 (Figure 1, right). However, a more detailed analysis for the 2001-2010 period indicates that the isohyets moved 50 km northward in the southern, central/southern and north-western regions of the country. Long-term data on extreme temperatures indicates an overall upward trend in the number of hot days and hot nights, except in the south-western regions, where there has been a downward trend in the number of hot nights. Detailed analysis shows that there is generally an upward trend in extreme annual temperatures (minimum annual temperatures and maximum annual temperatures) in both the Sudanian and the Sahelian zones[8][8].

6. Climate projections conducted under the A2, B1 and A1B emission scenarios[9][9] and reported in the 2015 National Adaptation Plan (NAP) conclude on the following:

? the overall level of annual rainfall is likely to remain stable;

? there is a risk of the rainy season (June to October) starting earlier and ending later, with less rain in July and August and more rain in September and October;

? there is a risk increased rainfall variability across years (a trend that has already been experienced in the last decade);

? more frequent downpours and increased variability in pockets of drought can be expected at the start and end of the rainy season;

? increases in maximum and minimum temperatures of 2.5?C to 5?C can be anticipated; and

? there is a risk of significant increase in monthly potential evapotranspiration (PET) by 2 to 10 mm.

7. The anticipated second-order consequences are as follows:

? risks to the uninterrupted growth cycle of rain-fed crops because of the significant variation in rainfall from one year to the next and the increase in PET;

? more frequent and more serious flooding, with a destructive impact on infrastructure and makeshift housing, loss of crops and destruction of biodiversity in the bottomlands and increase in waterborne diseases such as cholera and other parasitic diseases;

? faster degradation of ground vegetation leading to a reduction in infiltration to replenish aquifers because of increased PET combined with anthropogenic activities. Surface water will also evaporate faster, and permanent water courses will tend to disappear with gallery forests;

? insufficient regeneration capacity of forest formations to compensate for timber felled for energy; and

? dwindling pastureland and water-holes, forcing pastoral activities further south.

8. During the PPG phase, analyses of climate risks and resilience were conducted to inform the project design (Annexes U & X). This analysis will be complemented during project implementation by a more detailed Climate Vulnerability Study to identify the most vulnerable communities in the target landscapes and particularly focus on strengthening the climate resilience of these populations (Activity 1.4.1).

NB: throughout the document, the term ?resilience? is used in the sense defined by the IPCC[1], namely ?the capacity of social, economic and ecosystems to cope with a hazardous event or trend or disturbance, responding or reorganising in ways that maintain their essential function, identity and structure as well as biodiversity in case of ecosystems while also maintaining the capacity for adaptation, learning and transformation. Resilience is a positive attribute when it maintains such a capacity for adaptation, learning, and/or transformation.?

[1] IPCC. 2022. Climate Change 2022. Impacts, Adaptation and Vulnerability. Summary for Policymakers.

9. The impacts of climate change will compound and exacerbate existing non-climate threats to agro-sylvo-pastoral production systems and rural livelihoods. Land degradation is one of the main threats to the sustainability of agro-sylvo-pastoral systems, and is intrinsically linked to climate change. In 2010, 9% of the rural population of Burkina Faso was living on degrading agricultural land, which amounts to approximately 1.1 million people[10][10]. This corresponds to an increase of 53% from 2000. The main non-climate drivers of land degradation are: i) extensive agriculture, requiring the clearing of additional arable land to compensate for the limited intensity of production; ii) deforestation from fuelwood harvesting; iii) inadequate agricultural practices; and iv) overgrazing.

10. The annual cost of land degradation in Burkina Faso is estimated at USD 1.8 billion (approx. 26% of GDP)[11][11]. A considerable share of the costs of land degradation (48%) is due to the decline in provisioning ecosystem services (e.g. food availability, wood production), which has a significant impact on the population of the country. The remaining share refers to regulating ecosystem services (e.g. carbon sequestration, water regulation flows), which have an impact not only at the country level, but also on the regional and global scale due to the transboundary nature of these services. Climate change is anticipated to aggravate land degradation through: i) more intense and more frequent floods ; ii) the degradation of ground vegetation and forest galleries ; and iii) increased anthropic pressure on natural resources (pastures, forests) from displaced people fleeing areas where climatic conditions can no longer sustain agro-sylvo-pastoral livelihoods (e.g. lack of forage in the Sahelian zone).

11. Across the Sahelian and Sudano-Sahelian zones in particular, the practices and organisation of agricultural systems do not take full advantage of the possibilities of local agroecosystems ? e.g. by combining crop-trees-animals adequately, using locally adapted varieties and breeds, putting systems in place for nutrient recycling at farm and community level. One consequence is that **agro-sylvo-pastoral systems do not yield their full productive potential**. Amongst several reasons, this is because of the limited dissemination of locally adapted, successful agricultural practices (including the use of selected crops, land preparation techniques and water management practices). This situation is predicted to worsen with climate change, which will pose additional challenges to farmers, pastoralists and rural populations relying on Non-Timber Forest Products (NTFPs). For example, declining rainfall, combined with rising temperatures, will reduce the yield of millet on land with low water reserves in the Sahelian zone. In the Sudano-Sahelian zone, the yield from millet, sorghum and maize crops grown in deep soil will tend to increase due to the slight improvement in rainfall forecast for June, which is likely to help the seeds to germinate. However, the yields from maize crops grown in soil with low useful water reserves will decline significantly in the same region due to the lack of water in the months of the July, August and September[12][12].

12. **Conflicts over the use of natural resources** are also predicted to be further exacerbated by climate change and population increase. Between 2013 and 2018, 2,394 conflicts over natural resources (excluding mining resources) were recorded by the General Directorate for Territorial Administration, with 60% of them concentrated in only five of the 13 regions (namely Hauts-Bassins, Centre-Nord, Est, Centre-Est and Boucle du Mouhoun). In particular, approximately half of the community conflicts[13][13] were between farmers and pastoralists. Conflicts are typically over crop damage caused by cattle, access to water resources (cattle vs. irrigation and other uses), illegal pasture in protected forests and the use of agricultural residues. Oftentimes, community conflicts in regions where terrorist groups are active are instrumented as a means to destabilise local communities and weaken social cohesion.

13. The main structural causes of conflicts over natural resources in Burkina Faso[14][14] are described in the root causes section. Climate change is likely to exacerbate some of these

structural causes of conflicts, in particular: i) demographic pressure through internal displacements; ii) inadequate governance and landscape management plans; iii) shifting transhumance routes to reach more abundant resources for the cattle; and iv) degradation and scarcity of natural resources. These will particularly endanger vulnerable and marginalised social groups, such as women, youth and persons with disabilities.

Anticipating the dynamics of anthropic pressure: a focus on the Sudanian and Sudano-Sahelian regions of Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins

14. The dynamics described above are anticipated to put significant pressure on agro-sylvo-pastoral (ASP) productive systems in the Sudanian and Sudano-Sahelian zone. Not only will ASP systems in these areas face the direct impacts of climate change, but they will also be confronted with added anthropic pressure from populations relocating from the Sahelian zone. In the absence of adequate adaptation mechanisms, this will exacerbate the ongoing degradation processes compounded by the impacts of climate change, eventually potentially leading to the collapse of the ecosystem services that sustain the agro-sylvo-pastoral productive systems, with consequences for food security of both local and recently migrated human populations.

15. An example of such a phenomenon is ongoing changes in transhumance habits. Transhumance has been quoted as an efficient adaptation and natural resource management practice[15][15]. However, traditional transhumance practices need to adapt to remain an adequate response to the challenges posed by climate change, both for pastoralists and for hosting areas and communities, with an emphasis on women, children, youth and persons with disabilities. Transhumant pastoralists from the Sahel region are going farther south to find the forage and water resources required to sustain their cattle, and stay longer in hosting areas. As a result, pastures can no longer regenerate well enough, leading to a degradation of transhumance corridors and the multiplication of invasive and undesirable species[16][16] (e.g. *Zornia glochidiata Reichb*, *Cenchrus biflorus Roxb*., *Loudetia togoensis*, *Cassia obtusifolia L.*), at the expense of the diversity of palatable forage species (e.g. *Andropogon gayanus Kunth*, *Brachiaria lata (Schumach.) C. E. Hubbard*, *Alysicarpus ovalifolius (Schum. Et Thonn.) L?onard*, *Echinochloa stagnina*). The exhaustion of water sources has also been documented as a consequence of changes in transhumance habits[17][17]. Changes in transhumance and agricultural calendars that no longer coincide to generate synergies between transhumant pastoralists and agricultural farmers are an additional issue, adding to the risks of conflicts over the use of natural resources[18][18].

16. The detrimental impacts of unsustainable changes in transhumance habits described above are but one example of the threats Sudanian and Sudano-Sahelian regions will be facing in the near future. Overall, ASP systems in Sudanian and Sudano-Sahelian regions where ASP resources are currently relatively more abundant and the safety context is satisfactory, will suffer from : i) the direct impacts of climate change ; and ii) additional anthropic pressure from non-local populations, either as a result of maladaptive solutions (unsustainable transhumance

patterns, immigration from areas where climate impacts on ASP systems can no longer sustain rural livelihoods) or internal displacement to avoid insecurity. Anticipating these threats, the proposed project will intervene in three regions of the Sudanian and Sudano-Sahelian zones, namely: i) Centre-Ouest; ii) Boucle du Mouhoun; and iii) Hauts-Bassins.

	Centre-Ouest	Boucle du Mouhoun	Hauts-Bassins
Population[19][19]	1,737,197	2,086,333	2,297,496
Area	21 891 km?	34 333 km?	25 573 Km2
Number of communes	35 rural communes 4 urban communes	41 rural communes 6 urban communes	30 rural communes 2 urban communes 1 urban commune with special status[20][20]
Climate	North & South-Sudanian	South-Sahelian, North & South-Sudanian	South-Sudanian
Environmental characteristics	Guinean species : dominant families are Combretaceae, Leguminosae-Caesalpinioideae, Leguminosae-Mimosoideae and Leguminosae-Papilionoideae Agroforestry landscapes are dominated by *Vittelaria paradoxa, Parkia biglobosa, Borassus akeassii, Borassus aethiopium, Lannea microcarpa, Bombax Costatum* and *Faidherbia albida*. The northernmost part of the regions is characterised by the abundance of acacia species.	The northernmost parts of the region are characterised by shrub steppes and savannas. Families like Combretaceae, Leguminosae-Mimosoideae and Capparaceae can be found. Agroforestry landscapes are dominated by *Faidherbia albida, Vittelaria paradoxa, Lannea microcarpa* and *Sclerocarya birrea*.	Guinean species : dominant families are Combretaceae, Leguminosae-Caesalpinioideae, Leguminosae-Mimosoideae and Leguminosae-Papilionoideae Agroforestry landscapes are dominated by *Vittelaria paradoxa, Parkia biglobosa, Borassus akeassii, Borassus aethiopium, Lannea microcarpa, Bombax Costatum* and *Faidherbia albida*.
Landscape & land-use changes[21][21]	Savannas and gallery forests 6 registered forests (5.7% of the region) Existence of conservation spaces (communal forests, sacred groves, cynegetic reserves) protected and managed by local populations The region lost 29% of its forest cover between 2002 and 2013.	13 registered forests (5.6% of the region) Existence of conservation spaces (communal forests, sacred groves, cynegetic reserves) protected and managed by local populations The region lost 17% of its forest cover between 2002 and 2013.	Savannas, gallery forests, dense herbaceous 16 registered forests (16.7% of the region) The region lost 22% of its forest cover between 2002 and 2013.

Agriculture[22][22]	Cotton: Sangui? & Sissili provinces: 1-10% of cultivated land (c.l.) Ziro: 21-50% of c.l. Corn : Sangui? & Boulkiemd?: 1-10% of c.l. Sissili & Ziro: 11-20% of c.l.	Cotton: Nayala & Sourou provinces: 1-10% of cultivated land Kossi & Banwa: 11-20% of c.l. Mouhoun & Bal?: 21-50% of c.l. Corn : Kossi, Nayala, Sourou, Mouhoun: 1-10% of c.l. Banwa & Bal?: 11-20% of c.l.	Cotton: Houet, Kenedougou & Tuy provinces: 21-50% of c.l. Corn: Houet, Kenedougou & Tuy: 21-31% of c.l.
Transhumance statistics[23][23]	Cattle in 2016: 7,976 departures; 2,126 receptions	Cattle in 2016: 2,293 departures; 270 receptions	Cattle in 2016: 60,889 departures; 25,723 receptions

17. The three target regions are the most forested of Burkina Faso, and the most vulnerable to deforestation induced by migratory pressure, large-scale agribusiness (e.g. plantations of cashew and citrus trees), overgrazing, wildfires and fuelwood harvesting. It is estimated that 60% of land-use changes occur in the greater west of Burkina Faso (regions of Boucle du Mouhoun, Cascades, Hauts-Bassins and Sud-Ouest). Land use and land-use change maps for the three regions are included in Annex.

b) National framework for the management of productive landscapes

Institutional context

18. The overall strategy of the project is to build on past and existing initiatives, working in partnership with the most appropriate and performing partners in the field though partnerships and collaborations. A brief description of the institutional context at the national and local level is provided below.

At the national level

19. The **Ministry of Ecological Transition and Environment** (Minist?re de la Transition Ecologique et de l?Environnement, MTEE) is in charge overseeing environmental initiatives at the national level. It is also responsible for the projects and programmes related to climate mitigation and adaptation, including through the provision of technical support to rural areas. Within the MTEE, key offices relevant to the proposed project are: i) the Permanent Secretary of the National Council for Environment and Sustainable Development[24][24]; ii) the General Directorate for Sectoral Studies and Statistics (Direction G?n?rale des Etudes Sectorielles et des Statistiques, DGESS), responsible for the coordination and planning of environmental and climate projects; iii) the General Directorate of Water and Forests (Direction G?n?rale des

Eaux et For?ts, DGEF); iv) the General Directorate of Green Economy and Climate Change (Direction G?n?rale de l?Economie Verte et du Changement Climatique, DGEVCC); and v)the National Agency for the Promotion of Non-Timber Forest Products (NTFP) Agency (Agence de Promotion des Produits Forestiers Non Ligneux, APFNL). The MTEE operates deconcentrated services at the regional (DRTEE[25][25]), provincial (DPTEE[26][26]) and departmental (SDTEEC[27][27]) levels.

20. The **Environmental Intervention Fund** (Fonds d?Intervention pour l?Environnement, FIE) was established in 2015 under the technical trusteeship of the MTEE and the financial trusteeship of the Ministry of Economy, Finances and Development (MEFD). The four main missions of the FIE are to: i) combat land degradation; ii) coordinate climate adaptation action; iii) foster economic development in environmental and natural resource sectors; and iv) fight against poverty. The FIE?s core activities are:

? mobilising and managing national and international financing for the environment in Burkina Faso;

? allocating financing (subsidies) or financial incentives (interest rate subsidies, loan guarantees) to the different groups of national actors according to their competences in terms of environmental management and protection; and

? monitoring and reporting on the use of funds received and financial support allocated.

Regional representations of the FIE relevant to the proposed project are based in Bobo-Dioulasso (for Hauts-Bassins) and Koudougou (for Boucle du Mouhoun and Centre-Ouest).

21. The **Ministry of Agriculture, Hydro-Agricultural Development, Animal Resources and Fisheries** (Minist?re de l?Agriculture, des Am?nagements Hydro-Agricoles et des Ressources Animales et Halieutiques MAAHRAH)[28][28] is responsible for providing policy and technical support to rural areas on agriculture in Burkina Faso, including through the national extension system that implements Farmer Field Schools. The MAAHRAH is tasked to formulate appropriate agricultural policies, as well as with planning and monitoring of agricultural development activities. Key technical departments include the:

? General Directorate for Sectoral Studies and Statistics (Direction G?n?rale des Etudes Sectorielles et des Statistiques, DGESS), responsible for the coordination and planning of projects pertaining to agriculture and food security;

? General Directorate for Promoting the Rural Economy (Direction G?n?rale de la Promotion de l?Economie Rurale, DGPER);

? General Directorate for Plant Production (Direction G?n?rale des Productions V?g?tales, DGPV) ; and

? General Directorate for Training and Rural Organisations (Direction G?n?rale du Foncier, de la Formation et de l?Organisation du Monde Rural, DGFOMR).

It should be noted that, although agroecology is by nature a transversal theme, the MAAHRAH did develop a draft National Agroecology Strategy.

22. At the decentralised level, the MAAHRAH is represented by:

? Regional Directorates (DRAAHRAH), in charge of operationalising national strategies and policies;
? Provincial Directorates (DPAAHRAH), in charge of supporting rural people and providing technical assistance;
? Technical Support Zones (Zones d?Appui Technique, ZAT), tasked to provide technical support at levels below the province; and
? Agricultural Technical Support Units (Unit?s d?Animation Technique, UAT), the most local level for providing technical support to communities (i.e. villages).

23. The **Rural Promotion Centres** (Centres de Promotion Rurale, CPR) are structures in charge of training and promoting agricultural entrepreneurship among young people. CPRs ? of which three are based in Koudougou (Boucle du Mouhoun), Goundi (Centre-Ouest) and Dionk?l? (Hauts-Bassins) ? provide basic training to young, rural people in the fields of plant, animal and craft production. These institutions collaborate to operate the national agricultural extension service system (Syst?me National de Vulgarisation et d?Appui Conseil Agricoles, SNVACA), placed under the trusteeship of the DGPV[29][29]. Other deconcentrated units include seed production units and regional laboratories for seed quality control.

24. The **Ministry of Water and Sanitation** (Minist?re de l?Eau et de l?Assainissement, MEA) is in charge of managing all matters pertaining to drinkable water and sanitation. Some key technical departments in MEA are:
    ? General Directorate for Sectoral Studies and Statistics (DGESS), responsible for the coordination and planning of all projects in drinkable water and sanitations sectors; and
    ? General Directorate for Water Resources (Direction G?n?rale des Ressources en Eau, DGRE).

    Regional Directions for Water and Sanitation (Directions R?gionales de l?Eau et de l?Assainissement, DREA) are deconcentrated representations of the MEA.

25. Under the **Ministry of Higher Education, Scientific Research and Innovation** (Minist?re de l?Enseignement Sup?rieur, de la Recherche Scientifique et de l?Innovation, MESRSI), the National Agency for the Valorisation of Scientific Research and Innovation Results (Agence Nationale de Valorisation des R?sultats de la recherche et des innovations, ANVAR) is in charge of: i) promoting the results of scientific research and innovation, including in the field of agronomy; ii) monitoring and evaluation of the state of valorisation of research and innovation results; and ii) establishing national and international cooperation connections for the exchange of experience in the field of the valorisation of research results and innovations. Scientific institutions whose fields of research are relevant to the proposed project include the National Institute for Environmental and Agricultural Research (Institut National de l?Environnement et de Recherches Agricoles, INERA) and the National Institute for Social Sciences (Institut National de Sciences des Socie?te?s, INSS).

26. Established under the **Ministry of Transport and Urban Mobility**, Burkina Faso?s National Meteorological Agency (Agence Nationale de la M?t?orologie, ANAM) operates a country-wide network of meteorological stations ? including 264 automatic stations, 144 of them being

dedicated to agro-meteorological data[30][30] ? and delivers a range of meteorological information services, including for early-warning and agricultural information.

27. Within the process of securing land tenure in rural areas, a **National Committee for Securing Land Tenure in Rural Areas** (Comit? National de S?curisation Fonci?re en milieu Rural, CONA-SFR) has been set up[31][31] at the national level, with the mission to encourage reflection on policy issues and strategies in the area of land tenure security through consultation between stakeholders. The final objective is to create synergies of action. These are important frameworks in land tenure security.

At the decentralised level

28. In terms of territorial collectivities, Burkina Faso is comprised of 13 regions and 351 communes. Both regions and communes have their own territorial jurisdiction enabling them to undertake any action to promote economic, social, cultural and environmental development and to participate in development planning. The main legal instrument to guide the decentralisation process, the **General Code of Territorial Collectivities** (Code G?n?ral des Collectiviti?s Territoriales, 2004) determines the competences, means of action and administrative organisation of territorial collectivities.

29. In terms of deliberative structures, regions and communes both have elected councils, with specific commissions dedicated to environmental and local development matters (region & commune) and land use and land tenure (commune only). Heads of executive are the president of the regional council and the mayor, respectively. The executive bodies are responsible for the execution of the decisions of the local government councils. Their mandates include authorising the budgets of municipal and regional authorities, promoting development, ensuring the implementation of development programmes, protecting the environment, as well as conserving and sustainably managing natural resources within their territorial jurisdiction[32][32].

30. In addition to the CONA-SFR, **Regional Committees for Land Tenure Security in Rural Areas** (Comit? R?gional de S?curisation fonci?re en milieu Rural, CORE-SFR) were created in 2008 with the role of listing the actions already carried out in the area of land tenure security, promoting dialogue between actors, and making proposals for orientations considering the specificities of the regions in the area of land tenure security.

31. At the local level, **Village Development Councils** (Conseils Villageois de D?veloppement, CVD) have a mission to contribute to the promotion of grassroot development by acting as an interface between communities and municipalities.

32. In addition, specific decrees[33][33] define the local mechanisms in charge of land tenure management, namely: i) the Services Fonciers Ruraux (SFR), in charge of tenure inventory

and registration; ii) the Commissions Fonci?res Villageoises[34][34] (CFV), in charge of the participatory management of natural resources, information-sharing on land tenure as well as conflict prevention; and iii) the Commissions de Conciliation Fonci?re Villageoises, in charge of conflict resolution. Depending on the specific management needs of a resource, local land consultation bodies can also be created at the inter-municipal level. Local land tenure consultation bodies have a purely consultative role. However, they can, on their own initiative, make proposals to the municipal or regional council, particularly in the area of drawing up local land charters, preventing rural land conflicts or spatial planning. Additional details on the institutional setting of conflict resolution are provided in Annex.

The links between the decision-making powers of the regions and the municipalities are governed by texts including the National Decentralisation Policy in Burkina Faso. Thus, the territory of Burkina Faso is organised into territorial authorities. At the operational level, there is a division of powers and responsibilities between the State (central government) and territorial authorities or collectivities (communes, villages). At present, most State services are not decentralised but deconcentrated, so that the deconcentrated technical services provide technical assistance to the local authorities. Deconcentrated technical structures (including regional directorates and extension services) have functional links with local authorities (communes) and do not need to refer to the central government (ministries) for this purpose. Collaboration between the deconcentrated services of the State and the collectivities is consolidated through various consultation bodies at both regional and communal levels. One of the challenges to date is the capacity of the communes to ensure project management, as they generally have insufficient capacity to execute the transferred competences. This is why the proposed project provides for interventions to strengthen the capacities of decentralised bodies (e.g. Services Fonciers Ruraux) at the communal and village levels so that they can assume control of interventions, strengthen their decision-making capacities and integrate the issue of climate resilience (cf. barrier analyses below).

Policy framework

National level

33. Three main documents set the overall development path for Burking Faso. The National Prospective Study Burkina 2025 (ENP[35][35]) has an objective of ?strengthening the national capacity to anticipate and manage a collaboratively-elaborated vision for development?. The Strategy for Fostered Growth and Sustainable Development (SCADD[36][36]) is the common framework for development policies and strategies aimed at achieving the Burkina 2025 vision through the definition of mid-term development objectives. The National Scheme for Territorial Management and Development (SNADDT[37][37]) puts the development vision in a territorial perspective.

34. The National Plan for Economic and Social Development-II (PNDES-II[38]) is the five-year plan for the development of Burkina Faso, for the period 2021-2025. In particular, it sets quantitative targets for sector-specific objectives.

35. Relevant sector-specific programmes and strategies include: i) the Agricultural National Investment Programme (PNIA[39]) articulated with the ECOWAS[40] Agricultural Policy; ii) the Rural Development Strategy (PNSR[41]); iii) the Environmental Plan for Sustainable Development (PEDD[42]); iv) the National Policy for Sustainable Livestock Development (PNDEL[43]); and v) the National Strategy and Action Plan for the Promotion of Non-Timber Forest Products (SNVPFNL[44]). These guiding documents are briefly described in the following.

36. The PNIA (2009) is a framework for making national agricultural policy interventions consistent with those of common agricultural policies at the West-African level (ECOWAS). It is thus the implementation tool for the Detailed Programme for the Development of African Agriculture (PDDAA[45]) in Burkina Faso. The proposed project is relevant to the following Expected Results of the PNIA:

? Expected Result 1: improved land management and adaptation to climate change;

? Expected Result 2: improved water management: both for irrigation and for livestock and other agricultural activities;

? Expected Result 3: economically and technically viable and sustainable farms using the achievements of technical progress; and

? Expected Result 4: improved management of shared resources based on community of interest both within the country and with neighbouring countries with a view to reducing conflicts.

37. The PNSR II (2016-2020) was developed as an implementation tool for the SCADD. It includes a focus on the following strategic orientations: i) the improvement of food and nutrition security and sovereignty in a context of climate change, desertification and demographic growth; ii) the increase of the income of rural populations based on facilitated access to markets, modernisation of family-run estates, professionalisation of actors, product transformation, diversification and promotion of agro-sylvo-pastoral activities; iii) sustainable development and natural resources management; and iv) the development of partnerships between actors of the rural sector and the strengthening of their capacities. In addition, Action 3 of the PNSR II aims to ?improve the level of adoption by agricultural producers of the techniques and technologies popularised through the promotion of good agricultural practices, including agro-ecology, and support for the technical and economic management of agricultural holdings. It will also consist of capacity building of actors, strengthening the

research-development linkage and coordination of research-development linkage and coordination of interventions.? The proposed project is thus aligned with the strategic orientations of PNSR II.

38. The PNDEL (2010-2025) is Burkina Faso?s key strategic policy for the livestock sector. The overall objective of the PNDEL is to enhance the contribution of the livestock sector to national economic growth, as well as to food and nutrition security, and, in doing so, improve the living conditions of the Burkinabe population. PNDEL?s implementation is organised around four strategic axes, namely: i) capacity building of sector stakeholders; ii) security and sustainable management of pastoral resources; iii) enhanced animal productivity and production; and iv) improved competitiveness and marketing of animal products. The PNDEL is complemented by the Action Plan and Investment Program for the Livestock Sector (PAPISE[46][46], 2010-2015) and the National Plan for Adaptation to Climate Change in the Livestock Sector (2013).

39. In 2010, Burkina Faso elaborated the Strat?gie Nationale de Valorisation et de Promotion des Produits Forestiers Non Ligneux based on the following principles: i) involvement and development of partnerships; ii) market analysis and development approach; iii) national leadership and coherence of actions; iv) regional specialisation; and v) gender responsiveness. The overall objective of the SNVPFNL is to contribute to food security, the increase of the population?s income and therefore the national economy, through sustainable management and development of Non-Timber Forest Products. Strategic axes with which the proposed project is aligned include Axes 1 and 3.

40. The National Strategy for Administrative Devolution 2014-2023 (SNDA[47][47]) describes the conditions and the modalities for the devolution of authority towards sub-national levels in the Burkinab? public administration.

41. The National Policy for Rural Tenure Security (Politique Nationale de S?curisation Fonci?re en Milieu Rural, PNSFMR[48][48]) dates from 2007, and constitutes the key policy document planning the process leading to land tenure security in rural areas. At the time, the GoBF emphasised that it wanted to ?provide all public and private actors with a coherent policy reference framework and an effective tool for action?, in particular by setting up ?a land administration capable of managing land and regulating land conflicts by providing the various State services concerned with a clear reference framework for all actions undertaken by the public authorities in the field of rural land management and development.?

42. Other strategies and laws are particularly relevant to the proposed project. They include:
? Animal Health Code (1989);
•Law on Pastoralism (2002);

•Law on Agricultural Land and Tenure Reorganization in Burkina Faso Law (2012), a follow-up to the landmark Agrarian and Land Tenure Reorganisation[49][49] of 1984; and the

•Forest Code (2011).

43. In addition to the laws and policies described above, Burkina Faso has produced a number of national strategies and plans in accordance with its obligations under the Rio Conventions. Alignment between the proposed project and these strategies is presented in Section 7.

44. Burkina Faso is in the process of developing a national policy framework to guide the development of agroecology. As of early 2022, a draft national agroecology policy had been prepared by the MAAHRAH but not reviewed nor endorsed formally. A baseline analysis of the degree of mainstreaming of agroecology into key sectoral policies and strategies will be prepared under Component 4 of the proposed project (cf. Output 4.2) and, as relevant, recommendations will be issued to foster this mainstreaming. Given the history of agroecology in Burkina Faso ? the country being a pioneer in this domain since the political push from President T. Sankara in the1980s[50][50] ? the ecosystem of stakeholders and initiatives active in the field of agroecology is rich and has been well mapped in the literature[51][51]. Where relevant, the proposed project will actively coordinate with existing actors to capitalise on the wealth of experience, knowledge and lessons learned gathered by these stakeholders.

Sub-national level

45. Regional Development Plans are the main guiding documents for development planning at the sub-national/regional levels. Current plans cover the periods 2018-2022, 2017-2021 and 2018-2022 for Boucle du Mouhoun, Centre-Ouest and Hauts-Bassins respectively.

Table 1. Contribution of the proposed LDCF project to key regional development objectives.

Objectives	Expected Results	Contributing outputs from proposed LDCF project
Boucle du Mouhoun[52][52]		
Objective 2: Intensify agro-sylvo-pastoral and fisheries production	Agro-sylvo-pastoral and fisheries production are intensified	2.2, 2.3, 3.3
Objective 3: Develop income-generating activities	Income-generating activities are developed	3.4
Objective 4: Strengthen the support sectors for production	Production support sectors are strengthened	2.2, 2.3, 3.5, 3.6
Objective 5: Improve the rational management of natural resources	Rational management of natural resources is improved	1.1-1.5, 2.1
Objective 6: Strengthen local governance	Local governance is strengthened	1.1-1.5, 2.1

Objectives	Expected Results	Contributing outputs from proposed LDCF project
Centre-Ouest[53]		
Objective 1: Promote good governance in the region	Local actors are encouraged to participate in the development of the region	1.3
Objective 4: Promote decent employment and social protection for youth and women	Employment of youth and women is promoted	2.4
Objective 7: Sustainable development of the agro-sylvo-pastoral sector	Agricultural production is increased	2.2, 2.3, 3.3
	Productivity of animal resources is improved	3.3
	NTFPs are better valued	3.5
Objective 10: Reverse environmental degradation and ensure sustainable management of natural and environmental resources	Forest ecosystems are improved	2.2
Hauts-Bassins[54]		
Objective 1: Strengthen the participation of all actors in regional development	Synergy between actors and stakeholders is strengthened	1.1-1.5, 2.1, 4.1, 4.2
	Local development is promoted	1.1-1.5, 2.1-2.3, 3.1-3.6, 4.1, 4.2
	The steering of the development is ensured	1.1-1.5
Objective 5: Ensure optimal implementation and monitoring and evaluation of the RDP	The steering of the implementation and monitoring-evaluation of the Regional Development Plan is ensured	4.3
Objective 7: Sustainably increase agricultural production	Agricultural production is increased	2.2, 2.3, 3.3
	Technical capabilities of producers are strengthened	2.3
	The productivity of agricultural production is improved	2.2, 2.3, 3.3
	The marketing of ASP and fishery products is improved	3.5
Objective 8: Increase animal and fish production	Livestock is increased and diversified	3.3

46. At the municipal level, development priorities are laid out in Communal Development Plans (Plans Communaux de D?veloppement, PCD) overseen by the Village Development Councils and Municipal Councils. These plans are featured with annual investment plans.

47. The main local planning documents that constitute the reference for institutions in charge of land tenure are the Chartes Fonci?res. These documents describe the local rules related to: i) the use of rural land; ii) the conservation of plant and animal species in dedicated areas; iii) access to natural resources in communal areas as well as their fair and equitable use; iv) land

lease; v) actions in favour of vulnerable groups, including youths, women and pastoralists; and vi) the resolution of conflicts over land use. Chartes fonci?res are implemented by the local institutions in charge of land-use planning mentioned above.

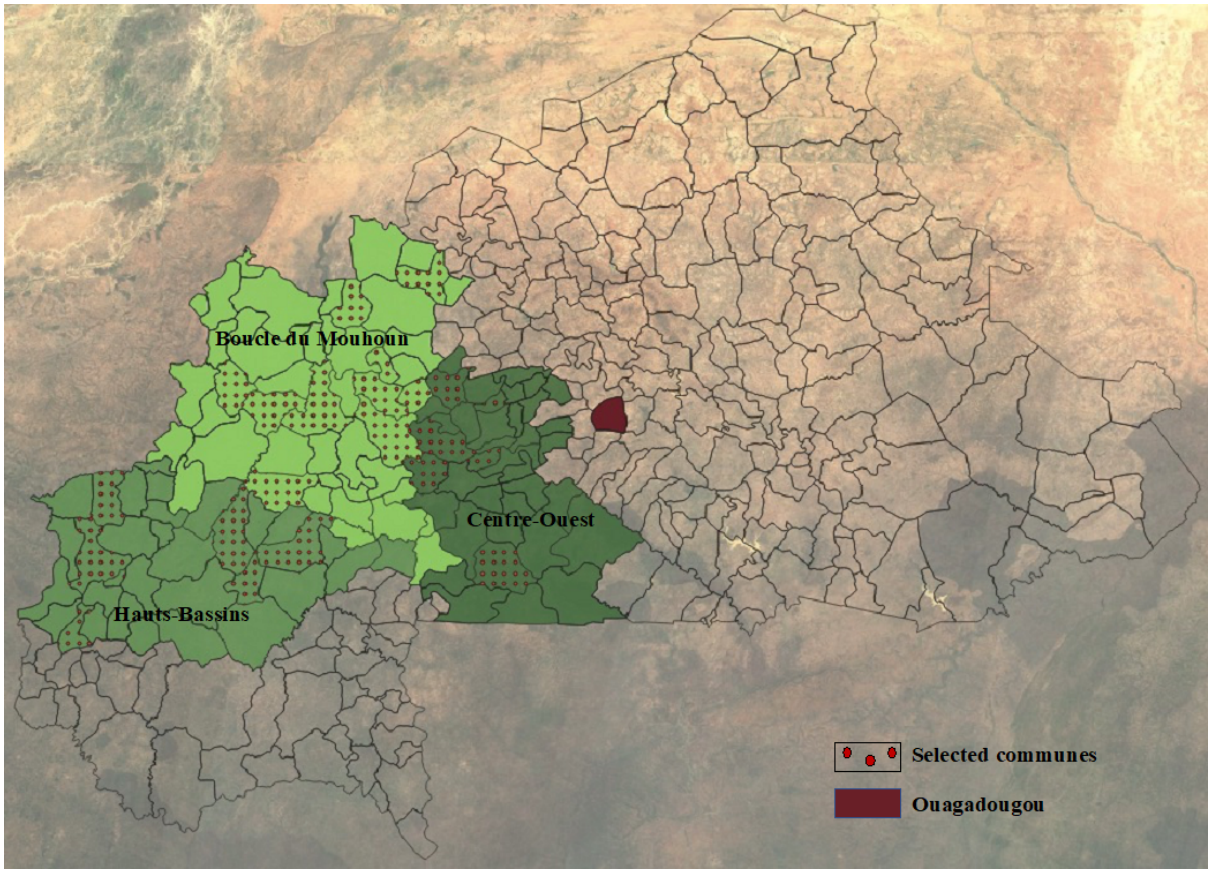
c) Baseline analyses

48. The sections below provide the results of several baseline analyses done to help identify the barriers to be overcome to achieve the project objective, namely to increase the climate resilience of agro-sylvo-pastoral family farming communities in the Sudanian and Sudano-Sahelian zones of Burkina Faso. After a brief presentation of the target landscapes, the baseline analyses provide an overview of: i) the level of the agroecological transition at the household level; ii) land tenure security; iii) climate-exacerbated conflicts over natural resources and existing conflict resolution mechanisms; and iv) Agro-pastoral field schools (APFS) present in the target regions. This section is complemented by a gender assessment (cf. Section 3) and a presentation of relevant baseline projects.

Presentation of target landscapes

49. The proposed LDCF project will intervene in 23 communes from the Boucle du Mouhoun, the Centre-Ouest and the Hauts-Bassins regions (Figure 2). These communes were selected by the PPG experts by combining a number of criteria, including: i) representativeness of different agroclimatic conditions; ii) specific climate adaptation challenges; iii) contiguity to facilitate implementation; iv) safety conditions; v) local demand; vi) existence of relevant baseline initiatives and investments; vii) existence of Services Fonciers Ruraux (SFR) ; and viii) frequency of conflicts over natural resources. The number of selected communes was deemed sufficient to have a significant impact on the target regions and not too high to facilitate project implementation.

Figure 2. Location of target regions and communes. Shades of green show the extent of the three target regions.



50. Overall, the Boucle du Mouhoun, Centre-Ouest and Hauts-Bassins regions are predominantly populated by agricultural households (Table 2). Few households (3 to 10%) are headed by women, who nevertheless constitute the majority (49.7% to 53.8%) of the agricultural population. Overall, cropland represents five times the area set aside for grazing, and more than twice the area under permanent vegetation (forests & shrubland). In addition, 50% of households surveyed during the PPG phase (cf. Annex P) have no privately-owned space for grazing. Only 25% of households have at least 2 ha for permanent grazing. Only 25% of households have at least 2 ha for permanent grazing. Private land under permanent natural vegetation is also limited, and even absent for 25% of households surveyed. Generally, forests that provide Non-Timber Forest Products (NTFP) of social and economic value and traditional therapeutic plant products, as well as grazing areas, have been annexed by crops. Beyond the potential ecosystem imbalance, this predominant trend of cultivation can fuel social tensions related to competition for space between different user groups. This pressure on resources differs between regions and production systems.

51. The sections below present baseline information on the target regions, typologies of agricultural and animal production systems as well as a characterisation of the level of agroecological transition within agricultural households, defined as the transition towards an integrated approach that simultaneously applies ecological and social principles to the design and management of sustainable agriculture and food systems, seeking to optimise the interactions between plants, animals, humans and the environment while also addressing the need for socially equitable food systems. Indeed, the project will especially work with the farms most exposed to climate change because of the type of farming systems (cf. typologies below), as the proposed investment intends to increase their adaptive capacity, using a

transformational climate change adaptation approach (changing production system from ?conventional? to integrated agro-ecological systems more adaptive to climate changes).

Table 2. Key socio-demographic characteristics of rural households in the Boucle du Mouhoun, Hauts-Bassins and Centre-Ouest regions[55][55].

	Boucle du Mouhoun	Centre-Ouest	Hauts-Bassins
Number of agricultural economic households	202,000	144,000	138,000
Female-headed farm households (%)	4	10	3
Average number of farm workers per household	9	8	11
% of women in the agricultural workforce	49.7	53.8	50.8
Proportion of horticulturalists (%)	8.6	4.9	2.6
Female market gardeners (%)	49.9	55.9	44.5
Literate population over 7 (%)	37	38	38

Table 3. Population in the selected communes of the target regions[56][56].

	Total population in target communes	Women	Men
Boucle du Mouhoun	481,169	230,374	250,795
Centre-Ouest	245,648	133,100	112,548
Hauts-Bassins	322,624	165,137	157,487
Total	**1,049,441**	**528,611**	**520,830**

Boucle du Mouhoun

52. The Boucle du Mouhoun region is made up of six provinces (Bale, Banwa, Kossi, Mouhoun, Nayala and Sourou), with six urban communes and 41 rural communes. It covers approx. 12% of the national territory, with an estimated population of 1,898,133 inhabitants[57][57].

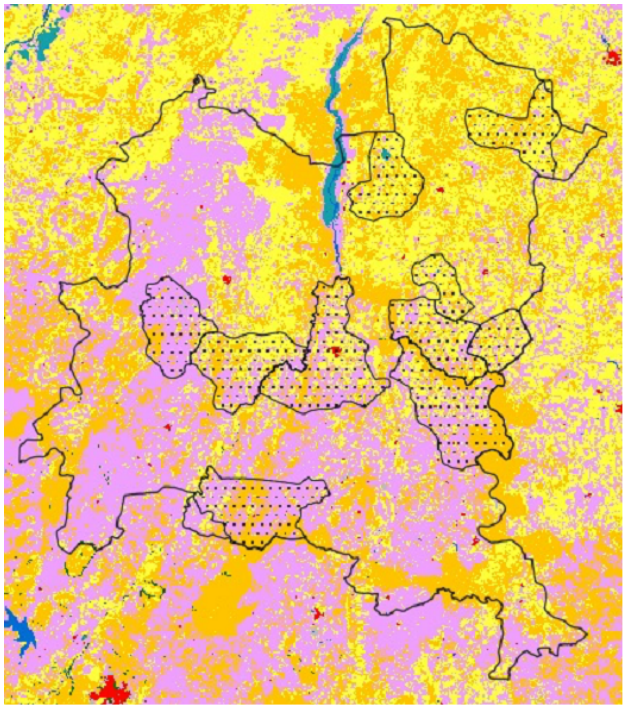
53. Located in the Sudano-Sahelian zone, its climate has three variants: i) in the north, the South-Sahelian sector with an average annual rainfall of 500 to 700 mm covering the Sourou province and part of the Kossi province; ii) in the centre, the northern Sudanese sector with an average annual rainfall of 700 to 900 mm covering the southern part of Kossi province, the whole of Nayala province and the northern parts of Mouhoun, Bale and Banwa provinces; and iii) in the south, the southern Sudanese sector with an average annual rainfall of 1,000 to 1,400

mm[58][58]. In terms of hydrography, the region has a fairly dense network woven around the Mouhoun River watershed, which crosses the region over 280 km.

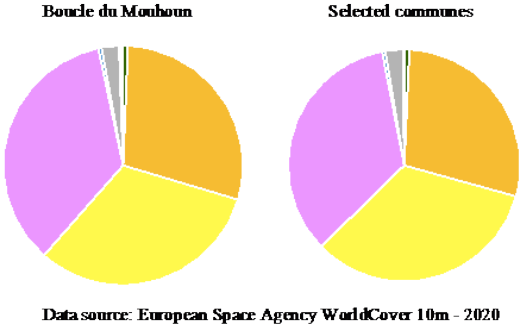
54. In the northern, Sahelian sector, the vegetation consists of shrubs and tree steppe as well as savannah. In central areas (northern Sudanian sector), shrub and tree savannahs dominate, along with mixed cropland landscapes. Finally, in southern areas (southern Sudanian sector), wooded savannah is present with gallery forests along the river courses. These plant formations serve as a shelter for a fairly rich and varied fauna. There are at least 13 classified forests with a total area of 212,743 ha located along the Mouhoun River, village forests and sacred woods protected by local populations[59][59].

55. The economy of the region is essentially based on agriculture and livestock, which about 90% of the population is involved in. Agricultural production is mainly dominated by cereal crops (maize, sorghum), with the addition of cotton, sesame and soybean. Cereal production in the region is dominated by an extensive family farming systems with little crop diversification (generally two to three crops); however, a few farms are the exception. These are large-scale cereal and cotton producers who use significant agricultural inputs (high-performance agricultural equipment, organic and chemical fertilisers) and an abundant and paid workforce. The trend towards the adoption of agricultural intensification techniques ? especially for cotton cultivation ?, has led the region to have a level of mechanical agricultural equipment (varying depending on provinces) higher than the national average[60][60]. Secondary sectors in the region include mining, crafts, industry and services[61][61].

Figure 3. Land cover in Boucle du Mouhoun and preselected communes**[62]**[62].



	Region		Selected communes	
	Area (ha)	Area (%)	Area (ha)	Area (%)
Trees	22,207	1	5,887	1
Shrubland	998,930	29	239,220	29
Grassland	1,099,222	32	279,218	33
Cropland	1,214,060	35	286,400	34
Built-up	15,779	0	3,730	0
Barren / sparse vegetation	81,203	2	20,547	2
Open water	4,113	0	50	0
Total	3,449,213	100	836,389	100



Centre-Ouest

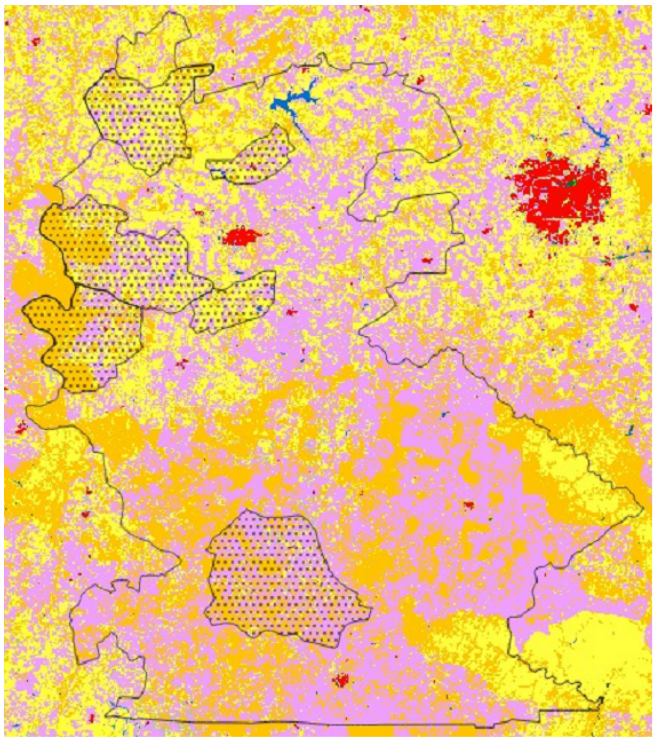
56. The Centre-Ouest region has four provinces, namely Boulkiemd?, Sangui?, Sissili and Ziro, and is subdivided into four urban communes and 35 rural communes. It covers approx. 8% of the national territory, with a resident population[63][63] of 1,737,197, of which 53.70% are women.

57. The climate is of the Sudano-Sahelian type with a rainfall ranging from 700 mm to 1,200 annually. Depending on the area, sandy-clay soils, ferruginous soils and thick, loose ferralitic soils are found. The vegetation is essentially composed of savannah and forests. Centre-Ouest has a significant potential in terms of natural resources (forests, agricultural and pastoral land, water and fishery resources). This potential attracts many actors in the region, thus generating particularly strong pressure on these resources and crowding out some parts of the local population (e.g. youth) who cannot access land.

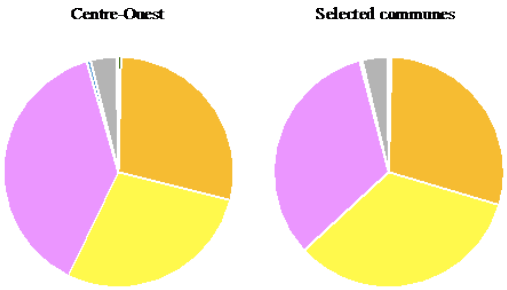
58. Agriculture is the main economic sector. Sorghum (white and red), maize, millet and rice are the main crops. In addition to cereals, other food crops (yams, cowpeas, potatoes and voandzou) and cash crops (mainly cotton, groundnuts, soya and sesame) are produced. As in the rest of the country, agriculture in the region is highly dependent on rainfall, the quantity and distribution of which in space and time cause significant variations in production from one year to the next. The southern provinces (Ziro and Sissili), which benefit from relatively more rainfall and more fertile land than the rest of the region, are increasingly experiencing an influx of a new category of migrants, namely agro-businessmen who acquire large farms ranging from 50 to 100 hectares[64][64], further exacerbating pressure on land in these areas. Livestock is the second most important economic activity of the population after agriculture.

59. The Centre-Ouest region has relatively large forests, including six classified forests and 37 community forests. The region also produces an average of about 900,000 seedlings each year (both exotic and local species) for reforestation purposes. Centre-Ouest forests supply wood energy to cover the needs of the region as well as 40% of those of the city of Ouagadougou. Forests also provide non-timber forest products (NTFP), which are either consumed by the local population or sold. These constitute an important source of additional income. Most of the regional industries are based in Boulkiemd? and half of these are in the food sector. Processing units remain small-scale and are not matched to the potential of the region.

Figure 4. Land cover in Centre-Ouest and preselected communes[65][65].



	Region		Selected communes	
	Area (ha)	Area (%)	Area (ha)	Area (%)
Trees	7,579	0	1,484	0
Shrubland	619,256	29	113,116	29
Grassland	612,826	28	129,895	34
Cropland	831,349	38	127,004	33
Built-up	12,189	1	1,428	0
Barren / sparse vegetation	78,263	4	13,520	3
Open water	4,643	0	544	0
Total	2,167,832	100	387,277	100



Data source: European Space Agency WorldCover 10m - 2020

Hauts-Bassins

60. The region is subdivided into three provinces (Houet, K?n?dougou and Tuy) and covers approx. 9.4% of the national territory. It has a population of 2,238,375 inhabitants[66][66], 51.15% of whom are women, spread over three urban communes and 30 rural communes.

61. The climate is of the North-Sudanese and South-Sudanese type. It is marked by two main seasons: a wet season which lasts for six to seven months (May to October/November) and a dry season which extends from November/December to April. The relatively abundant rainfall ranges between 800 and 1,200 mm annually. The main soil types are tropical ferruginous with little to no leaching and hydromorphic. The specificity of the topography (plateaus, plains, hills and valleys ? e.g. Kari and Hound? hills in Tuy) and the local climate make Hauts-Bassins the water tower of Burkina Faso. Important rivers (Mouhoun, Tuy, Banifing, Comos? and L?raba) of the country have their source in the region[67][67].

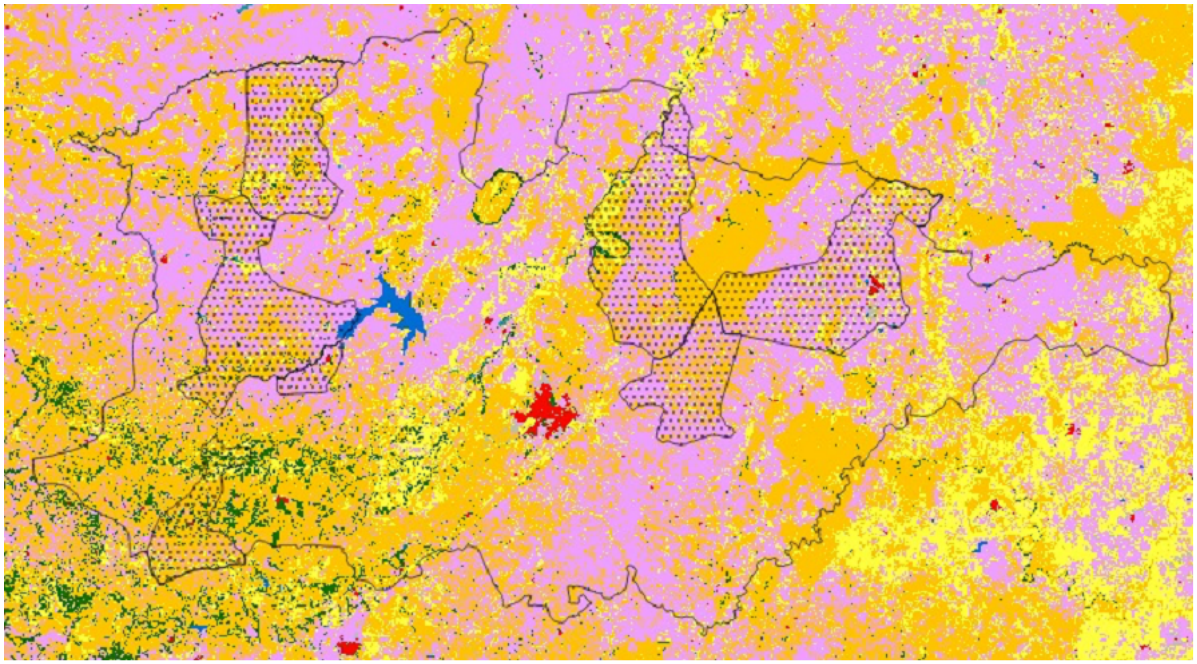
62. The region is characterised by the density of its natural vegetation composed essentially of savannah with all subtypes from wooded savannah to grassy savannah. Hauts-Bassins also has 16 classified forests with a fairly rich biodiversity compared to the rest of the country. This environment with strong productive potential is changing rapidly. The main causes of this change are, among others, demographic pressure, inappropriate cultivation practices and bush fires.

63. The economy of Hauts-Bassins is strongly dominated by agro-sylvo-pastoral activities. Most of the best soils are found in the provinces of K?n?dougou and Houet. Agriculture in the region remains a rain-fed and essentially focused on cereal crops. The main crops grown in the region are millet, sorghum, maize and rice. Cash crops include cotton, groundnuts, sesame and soybeans; and the region has higher horticultural production than the other two target regions, with crops including green beans, onions, eggplant, tomatoes, potatoes, cabbage, watermelon, chilli, okra, carrots, garlic, peppers and lettuce.

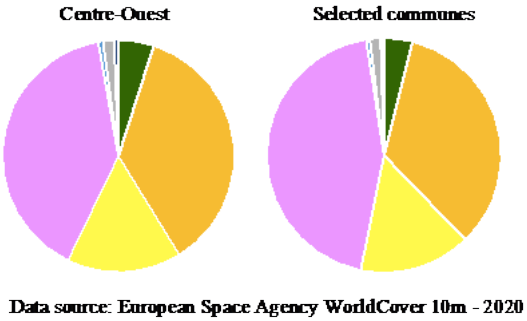
64. Livestock breeding is an essential activity in the region and is one of the main sources of income for the population. The dominant production systems have remained traditional, with low animal productivity. The types of livestock farming practiced include transhumance, extensive sedentary, semi-intensive sedentary and intensive sedentary. In all systems, livestock also plays the role of savings instrument. Nowadays, livestock farming faces difficulties due to the lack of grazing areas and passageways leading to vaccination parks, the high cost of Agro-Industrial By-Products (AIBP), the lack of suitable watering points and the absence of a well-organised marketing circuit.

65. Because of its position as a crossroads in West Africa, the Hauts-Bassins region is an important commercial area. The opening up of the region by national roads favours the development of trade flows, which are largely based on national products. A large number of national and foreign trading houses also have their headquarters in Hauts-Bassins. Commercial activities in the region are mostly organised around markets located in the three provincial capitals. The region exports agricultural and market garden products (maize, sorghum, sesame, onions, tomatoes, cabbage, etc.) to other regions of Burkina Faso and to neighbouring countries ? C?te d?Ivoire, Ghana, Togo and Mali.

Figure 5. Land cover in Hauts-Bassins and preselected communes[**[68]**][68].



	Region		Selected communes	
	Area (ha)	Area (%)	Area (ha)	Area (%)
Trees	126,378	5	22,007	4
Shrubland	928,192	36	189,846	34
Grassland	408,689	16	86,365	15
Cropland	1,024,839	40	248,877	44
Built-up	17,011	1	2,836	1
Barren / sparse vegetation	39,391	2	8,288	1
Open water	12,649	0	1,686	0
Total	2,559,729	100	560,849	100



Typologies of farms in the target landscapes

66. Across landscapes of interest in project sites, the **cereal-dominated subsistence system** is the predominant system, combining traditional cereals (sorghum and millet), rice and increasingly maize. Production is primarily intended for family consumption. These farms depend on family labour and are poorly equipped. Mineral fertiliser is not widely used, while organic manure is not widely available due to a lack of production capacity (technical capacity & availability of raw material).

67. **Rainfed production systems with a semi-commercial option** corresponds to larger family farms than the previous ones, thanks to the integration of animal traction. They produce cereals partly for self-consumption and cash crops for monetary needs. The main cash crop is cotton, with groundnuts, sesame and soybeans as secondary cash crops. This production system covers mainly the Boucle du Mouhoun, the Hauts-Bassins and the provinces of Ziro and Sissili in the Centre-Ouest. Thanks to the income from cotton, these farms are better equipped with animal traction and have better access to mineral fertilisers. They also have better availability of organic manure, nevertheless, the organic cotton sector is developing but remains marginal in terms of production. A specialised ginning plant is available in the Centre-Ouest.

68. **Irrigated and agro-forestry systems for commercial purposes** involves vegetable, fruit and rice production in the dry season. These productions are mainly located in Sourou, Sangui?, K?n?dougou and Houet. Production is intended for the market and supplies the major urban centres. Agro-forestry systems are agricultural fields that are gradually converted into orchards. These systems are quite diversified; citrus and mangoes are mainly produced in K?n?dougou while cashew nuts are fairly widespread in the three regions.

69. **Emerging systems with both agriculture and livestock** are driven by agro-businessmen. They are equipped with tractors that allow them to manage large areas, between 50 ha and 150 ha in areas with a high availability of land such as Ziro and Sissili.

Typologies of animal production systems in the target landscapes

-

70. **Traditional extensive systems** are dominant and provide the bulk of available livestock, i.e. 80 to 93% of the cattle herds in Hauts-Bassins and Boucle du Mouhoun, respectively[69][69]. Extensive systems use few inputs except for obligatory vaccinations or in case of fodder crises.

71. **Sedentary agropastoral systems** are the most widespread traditional extensive systems used and concern 85% of cattle-raising households nationwide. These households are traditionally farmers, and practice livestock keeping for its economic and especially socio-cultural functions. It is generally integrated into the agricultural production systems described above ? with the exception of agribusiness farms. These farms sometimes have cattle for ploughing, and more often small ruminants and local poultry.

72. **Transhumant pastoral systems** are practiced by Fulani pastoralists. This type of breeding can be mono-specific or mixed, associating cattle and small ruminants. This system is characterized by seasonal migrations organized around water and pasture needs. This transhumance reflects the adaptive evolution of livestock farming in response to ecological changes, with the corollary of the restriction of pastoral areas and a seasonal crisis in food resources that is more severe in the Sahelian zone. All three target regions are departure areas for national cattle transhumance. Based on 2009-2018 statistics, the average ratio between the number of cattle receiving and departing for national transhumance is 0.10 for Boucle du Mouhoun, 0.31 for Centre-Ouest and 0.38 for Hauts-Bassins[70][70].

73. These traditional extensive systems coexist with emerging **semi-intensive and intensive systems**. These are still marginal and are developing preferentially in peri-urban areas. The semi-intensive system focuses on fattening (cattle, sheep and pigs). The intensive system, which is even more receptive to technological innovations, involves intensive poultry farming, pig farming and peri-urban dairy farmers run by agricultural entrepreneurs.

74. The cattle population is twice as large in Hauts-Bassins compared to the other two regions. The resources of this region make it a destination for transhumants. Centre-Ouest is distinguished by the relatively stronger presence of small ruminants, pigs and poultry. This region is also the leading region in the country for poultry breeding. Women are particularly

involved in pig farming. True integration between livestock and agriculture, in order to enhance synergies and strengthen household resilience, remains a challenge for both grassroots actors and policy makers.

Characterisation of the agroecological transition

75. The PPG phase was built around the need to gather relevant information about the various dimensions of agroecology across households in the project area, with a view to describe the baseline situation, inform the project design and lay the bases to measure progress of key impact indicators during the implementation phase. This assessment was used to define the best strategy for the project as to strengthen the adaptive capacity of beneficiary farmers by promoting key agroecology elements as a transformative approach towards improved resilience. The choice of tools was therefore guided by these objectives. As a result, it was decided to use the innovative Tool for Agroecology Performance Evaluation (TAPE) and Mapping of Territorial Markets (MTM) to provide adequate analyses on, respectively, the status of the agroecological transition in the target landscapes, and the role of territorial markets to support such transition (see boxes and analyses below).

Tool for Agroecology Performance Evaluation (TAPE)[71][71]

Capitalising on various existing assessment frameworks, TAPE is a comprehensive tool developed by FAO and a large number of partners, which aims to measure the multi-dimensional performance of agroecological systems across the different dimensions of sustainability (summarised through the Characterisation of Agroecological Transition indicator, CAET). It applies a stepwise approach at the household/farm level but also collects information and provides results at a community and territorial scale. As part of the TAPE process, ten dimensions of agroecology are assessed, namely recycling, responsible governance, synergies, diversity, co-creation & sharing of knowledge, resilience, human & social values, culture & food tradition, efficiency, circular & solidarity economy[72][72].

In addition, ten dimensions of multidimensional performance (CAET) are evaluated, namely secure land tenure (or secure mobility for pastoralists), productivity, income, added value, exposure to pesticides, dietary diversity, women?s empowerment, youth employment opportunities, agricultural biodiversity and soil health.

For each of these dimensions of performance, assessed based on the practices and characteristics of the household and farm assessed, the TAPE assessment provides a score from low to high performance. This score allows to identify areas of focus of intervention for different types of farm systems and areas as well as tracking average scores obtained as a result of interventions. Given the project objective to promote resilient livelihoods by mobilising farmers in the agroecological transition and improved soil processes, the TAPE tool constitutes a source of information both for identifying key relevant areas of work and for tracking the impact of the project on the sustainability of farms involved.

During the PPG phase, 375 households were surveyed that were representative of populations living in identified intervention areas. Detailed methodological information can be found here; the TAPE report developed by ARFA (Association pour la Recherche et la Formation en Agro?cologie) and FAO during the PPG phase is presented in Annex P.

Level of agroecological transition according to farm typology: agropastoralists do better than agricultural households in key CCA-relevant categories

76. Overall CAET scores show that non-agroecological (CAET<50) households represent 69% of the overall sample (Figure 6).

Figure 6. CAET scores per region and type of exploitation.

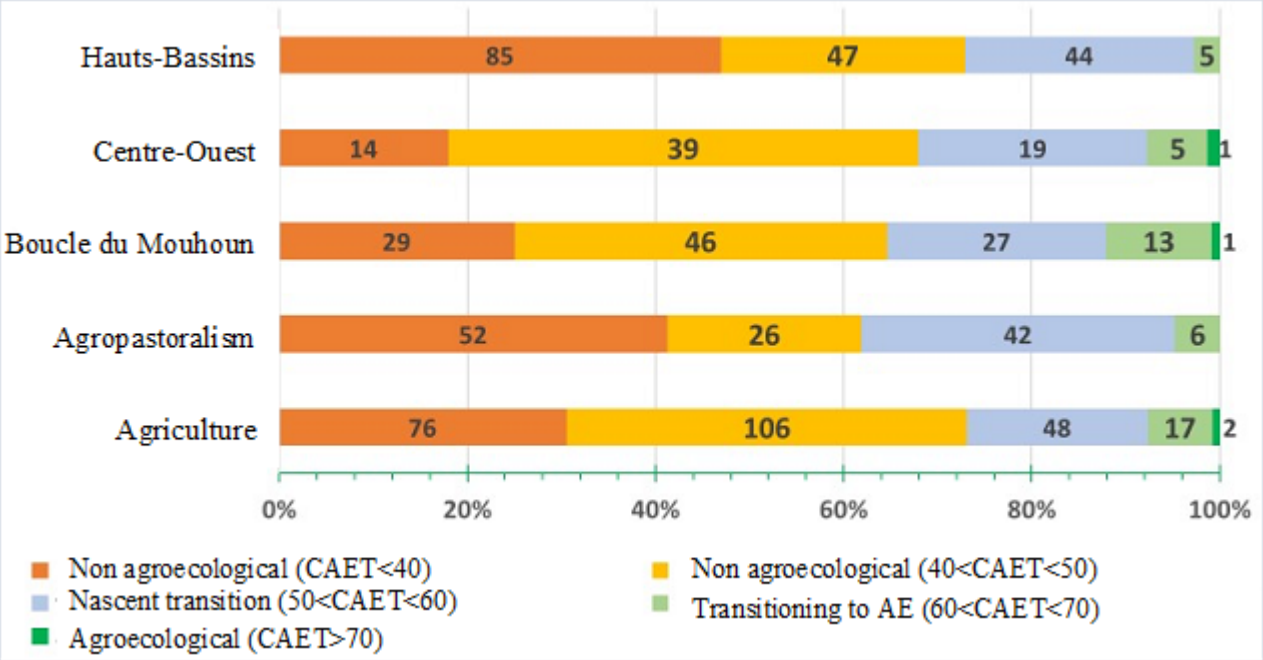
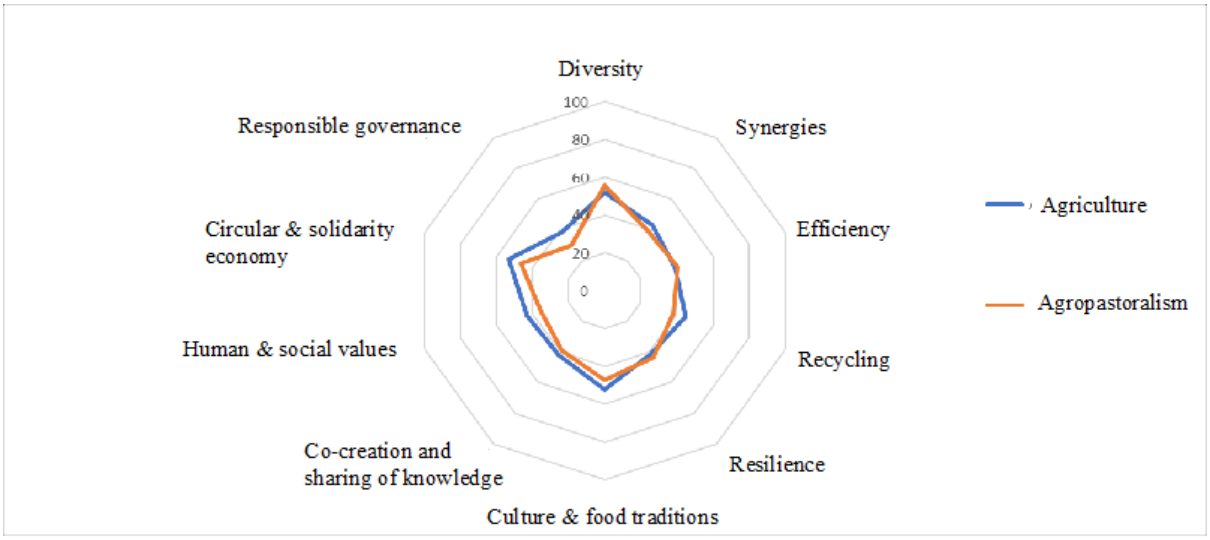


Figure 7. Scores in the ten agroecological elements[73][73] for agricultural & agropastoralist households.



77. The proportion of non-agroecological households is higher in agricultural households (73%) than in agropastoral households (62%). The higher prevalence of agroecological households among agropastoralists is particularly linked to **better performance in diversity and resilience**, as these dimensions are intrinsically linked to better integration between agriculture and livestock among agropastoralists. Consequently, farms in nascent agroecological transition (50<CAET<60) are also more numerous in agropastoral households (33%) than in agricultural households (19%). At this level of transition, TAPE shows that agropastoral households are clearly **more efficient and resilient**, and to a lesser extent, **more diverse and synergistic.** The agropastoral system is more successful in terms of diversity due to the presence of cattle used for animal traction. This system integrates a variety of cash crops, depending on the zone (cotton, sesame, legumes, etc.) with food crops such as cereals. This diversification of production gives them a relatively better efficiency and, above all, greater resilience. Indeed, because of cash crops, these households have more resources and are also better connected to credit services.

78. It should be noted that agropastoral households are **more focused on commercial production and income** than agricultural households, as shown by scores for inclination to sell. Soil health undoubtedly contributes to the improved productivity (per hectare) observed in agro-pastoral households across all regions. These households have better value-added and better incomes, with a higher contribution from livestock. While crops remain the main source of income (73% to 83%) for both types of system, farm households state that their incomes are declining, unlike agropastoralists. This perception reflects a higher vulnerability of agricultural yields to the adverse effects of rainfall disturbances when farmers have no control over water inputs[74][74] (also noting that healthier soils are better at retaining water) and reinforces the need to promote agropastoral systems adapted to the environment and in line with territorial market opportunities.

79. Agricultural households score worse overall in terms of the CAET, mainly because these households mostly produce food crops, which are not very diversified and are mainly for self-consumption. Unlike agropastoralists, they have few or no animals. As a result, the integration between agriculture and livestock is still weak, which leads to low synergy and recycling

scores. Indeed, plant residues are not or only partially recycled due to various constraints: insufficient technical mastery of composting, temporary availability of water, lack of means of transporting residues, insufficient manpower. Moreover, the widespread practice of grazing animals away from cropland limits the availability of manure on the farm. These non-optimal practices of restitution of agro-pastoral residues within the farm lead to a strong decrease in the fertility of the land. This context also explains the low efficiency score**,** which implies a strong dependence of crop production on external inputs. Indeed, mineral fertilisers as well as pesticides are mostly used for cotton cultivation and, to a lesser extent, market gardening. In addition, seeds for these crops are entirely supplied or purchased. The low diversification of production combined with the sub-optimal practices of synergies, recycling and efficiency result in low resilience. Climatic hazards negatively impacting agricultural yields, due to lack of irrigation, and limited access to credit further weaken resilience, especially of farming households.

80. A complementary summary of TAPE results is provided in Annex P bis.

Baseline situation with respect to land tenure security

81. Secured land tenure rights has been found to have a strong correlation with the level of agroecological transition, and, more broadly, is a key condition to increase the sustainability of rural livelihoods, foster investment in rural development and attract youth. Consequently, this section briefly describes the baseline situation with respect to land tenure security in the target landscapes.

82. Experiences on strengthening land tenure rights have taken place in the project area as part of the application of Law 034/2009/AN of 16 June 2009 on rural land tenure. Law 034/2009 makes key provisions that will facilitate the implementation of the proposed project. In contrast to many pieces of legislation, whether in the land sector or not, Law 034-009 shows a real concern to take local land realities and their diversity into account. The law authorises the populations to draw up, through Chartes fonci?res (land charters), texts for the application of the law by giving them the possibility of setting the principles, rules, practices and prohibitions that must govern the use of their natural resources in their specific environment. Another important feature of the law is that it obliges the parties involved in a land dispute to proceed to a preliminary conciliation before any litigation phase before the competent court. This prior conciliation takes place before the conciliation commissions. The objective is to preserve social peace. The law therefore recognises the legal authority of customary conflict management structures. Problems can be settled in the village where, in general, the resolution is better accepted. Four projects, three of which were implemented between 2009 and 2020 and one of which is ongoing, are particularly relevant.

? The Land Tenure Security Project of the Millennium Challenge Account (Projet S?curisation Fonci?re du Millenium Challenge Account, PSF/MCA-BF) had the overall objective of improving land governance in order to reduce obstacles to economic growth and contribute to safeguarding the environment and preserving social peace. The PSF/MCA-BF was implemented from June 2009 to July 2014 in the three target regions and was a pioneer in supporting communes in the application of Law 034/2009.

? The ?Reform of the Rural Land Tenure System? component of the Second National Programme for Landscape Management (Deuxi?me Programme National de Gestion des Terroirs Phase III 2013-2018, PNGT2) aimed at establishing a legal and institutional framework, as well as implementation conditions for effective rural land management in Burkina Faso. This component provided specific support to the General Directorate of Land Tenure, Training and Organisation of the Rural World (Direction G?n?rale du Foncier, de la Formation et de l?Organisation du Monde Rural, DGFOMR) to achieve results of national scope.

? The Support Project for the Communes of Western Burkina Faso in Rural Land and Natural Resource Management (Projet d?Appui aux Communes de l?Ouest du Burkina Faso en mati?re de Gestion du Foncier rural et des Ressources Naturelles 2011-2019, PACOF/GRN) covered 15 communes in the Boucle du Mouhoun and Hauts-Bassins regions. Its main objective is to operationalise law N?034-2009/AN of 16 June 2009 on rural land tenure and to articulate it with the dynamics of sustainable communal economic development through the technical and financial strengthening of the local actors involved.

? The Regional Support Project for the Irrigation Initiative in Sahel (Projet d?Appui R?gional de l?Initiative ? l?Irrigation au Sahel, PARIIS) which supports 15 communes, including 12 communes in the Boucle du Mouhoun and Centre-Ouest regions, in: i) the diagnosis of the situation of local land management structures with a view to developing an action plan for the establishment and revitalisation of Rural Land Services (SFR), Village Land Commissions (CFV) and Village Land Conciliation Commissions (CCFV); ii) the organisation of training sessions on land conflict management for local actors and deconcentrated rural development services of the communes; and iii) the reinforcement of IT equipment for rural land services. Overall, past and ongoing efforts above have brought support to 47 rural communes in the project area, as summarised in Table 4 below.

Table 4. Provinces and communes that have benefited from recent project support for land tenure security[75][75]. Communes in bold are among target communes for the proposed LDCF project.

	Boucle du Mouhoun	**Centre-Ouest**	**Hauts Bassins**
	Beneficiary provinces & communes		
Projet S?curisation Fonci?re du Millenium Challenge Account (PSF/MCA-BF)	? Kossi (Sono and Bourasso) ? Nayala (Gassan) ? Sourou (Di, **Kassoum** and Lanfi?ra)	? Boulkiemd? (Kokologo, Poa and Sabou) ? Sangui? (**Didyr** and **T?nado**) ? Sissili (Leo) ? Ziro (Cassou and Sapuy)	? Houet (Bama) ? K?n?dougou (Padema, Toussiana, **Banzon** and **Samoroguan**)

Projet d?Appui aux Communes de l?Ouest du Burkina Faso en mati?re de Gestion du Foncier rural et des Ressources Naturelles (PACOF/GRN)	? Bal? (Ouri, Pa, Pompo? and Sibi) ? Banwa (Balav?, **Sanaba** and Solenzo) ? Mouhoun (**Bondoukuy**, Ouarkoye and Safan?)		? Houet (Dand? and Koundougou) ? Tuy (Boni, Fouzan and Koumbia)
Projet d?Appui R?gional ? l?Initiative de l?Irrigation au Sahel (PARIIS)	? Bal? (Boromo Bagassi, Sibi, Poura, Fara) ? Mouhoun (Kona, **Tch?riba**) ? Nayala (Kougny) ? Sourou (Yaba)	? Sangui? (Dassa Boura, Kordi?, **Zamo**)	
Total involved communes	*25*	*12*	*10*

83. Detailed support brought through these projects in each target region is summarised in Table 5 below. The lessons learned and implications arising from this baseline situation are outlined in the Barriers section below.

Table 5. Summary of past support brought to land tenure security in the target regions.

	Boucle du Mouhoun	**Centre-Ouest**	**Hauts Bassins**
Regional Councils for land tenure security in rural areas	Established and operationalised		
SFRs, CFVs, CCFVs[76][76]	Establishment of 39 SFRs, 187 CFVs, 187 CCFVs and recruitment and training of 78 SFR agents	Establishment of 30 SFRs, 119 CFVs, 148 CCFVs and recruitment and training of 24 SFR agents	Establishment of 10 SFRs, 79 CFVs, 108 CCFVs and recruitment and training of 97 SFR agents
Capacity building	Training of agents of deconcentrated and decentralised technical services, local elected officials		
Communication	Design of communication and awareness-raising materials (radio and television broadcasts, forum theatres, films, discussion forums, etc.)		

APFRs & land tenure security acts	Issuance of 576 APFRs and land tenure security acts for the benefit of rural populations out of 806 requests	Issuance of 403 APFRs and land tenure security acts for the benefit of rural populations out of 1,312 requests	Issuance of 403 APFRs and land tenure security acts for the benefit of rural populations
Chartes fonci?res	Validation by municipal councils of land charters for the benefit of 17 communes	Validation by municipal councils of 17 land charters for the benefit of 17 communes	NC
Other	? Securing sites (lowlands, forests, warrantage shops, town hall estates and vaccination parks) for the benefit of communes ? Methodological and technical support to 25 communes for the conduct of a land tenure consultation process on their territory.	N/A	? Technical support to 15 communes for the conduct of a land tenure consultation process on their territory ? Implementation of a Land Information System (LIS) and a Geographic Information System (GIS)

Baseline situation with respect to climate-exacerbated conflicts over natural resources and conflict resolution mechanisms

84. Burkina Faso is witnessing an increase in competition and conflict over natural resources in the face of climate change. While the causes and drivers of these conflicts are further analysed in the dedicated section, the following provides an overview of the baseline scenario in this respect.

85. Despite a limited availability of statistics, a recent analysis of conflicts related to the exploitation of natural resources in Burkina Faso[77][77] revealed that out of 2,500 conflicts related to natural resources recorded on the national territory between 2013 and 2018, about 96% are rural land conflicts. Table 6 below shows that the target regions are among those that have recorded the highest number of conflicts over rural land and mining ? which was one of the criteria leading to the selection of these regions.

Table 6. Regional statistics on rural land and mining conflicts between 2013 and 2018.**[78]**[78]

	Rural land conflicts	Mining conflicts	Total
Hauts-Bassins	**358**	**12**	**370**
Centre-Nord	322	17	339
Est	297	23	320
Centre-Est	280	1	281
Boucle du Mouhoun	**267**	**13**	**280**
Nord	182	5	187
Cascades	170	4	174
Centre-Ouest	**118**	**8**	**126**
Centre-sud	109	3	112
Centre	85	0	85
Plateau central	80	2	82
Sud-Ouest	65	11	76
Sahel	61	7	68
Total	**2,394**	**106**	**2,500**

86. Conflicts characterised by a dispute related to the access and/or exploitation of rural land and natural resources fall in the category of rural land conflicts. The parties to conflicts in this category may include farmers, agro-pastoralists, herders, agricultural settlers, village chiefs, land chiefs, customary authorities, administrative authorities, landowners, woodland product operators, market gardeners and fishermen. In the case of mining conflicts, the stakeholders are the mining companies, gold miners, herders, farmers, land chiefs and the population. These two categories of conflict are observed in the Boucle du Mouhoun, the Centre-West and the Hauts-Bassins, as shown in Table 7 below.

Table 7. Typology and relative frequency of conflicts over natural resources in the target regions[79][79].

#	Object of conflict	Triggering act	Parties	Frequency in the target regions		
				Boucle du Mouhoun	Centre-Ouest	Hauts-Bassins
1	Destruction of goods (fields, cattle)	Field damage	Farmers and herders	Quite frequent	Quite frequent	Quite frequent
2	Field boundaries	Dispute over limits of agricultural land Dispute over limits of land for communal use	Farmers and herders	Frequent	Frequent	Frequent
3	Access right to land	Dispute over the right of use and property rights of land	Landowners, land users	Infrequent	Infrequent	Infrequent

4	Access right to a natural resource (water point, pasture, trees sources of NTFP)	Refusal of landowners to provide rights of way	Farmers and herders, landowners	Quite frequent	Quite frequent	Quite frequent
5	Protected forests of general interest (village, communal, national)	Encroachment by individuals (grazing, search for wood, gold panning)	Farmers, herders, administration, miners	Quite frequent	Quite frequent	Quite frequent
6	Developed areas	Local occupation of developed plots allocated to settlers	Native, settlers, administration	Infrequent	Infrequent	Infrequent
7	Land scarcity	Untitled occupation/encroachment of land used by migrants	Locals and migrants	Infrequent	Infrequent	Infrequent
8	Land use	Establishment of agricultural activities on land used/scheduled for pastoral activities Establishment of pastoral activities on land used/planned for agricultural activities	Farmers, herders	Frequent	Frequent	Frequent
9	Land transactions/ delegated rights	Questioning of deeds of gift, loan or lease of land	Descendants of land transaction actors	Infrequent	Infrequent	Infrequent
10	Inheritance	Discrimination in inheritance sharing.	Legitimate heirs, other parents of the deceased	Infrequent	Infrequent	Infrequent

87. The most frequent conflicts in the target regions are between farmers and herders. Disputes between farmers and herders are often observed in the event of damage caused to crop fields or crops by domestic animals. In addition, there are: i) conflicts over the use of crop residues, which are often marketed by farmers; ii) conflicts between market gardeners and livestock breeders over damage to market garden produce and the crossing of fields to access water for watering; and iii) conflicts over water resources (rivers, lakes and watering holes).

88. In the baseline scenario, the frequency of conflicts over natural resources is likely to increase in the target regions since their root causes (see previous section) are being exacerbated by the adverse effects of climate change. Table 8 identifies the likely compounding impact of climate change on the key structural causes of conflicts over natural resources.

Table 8. Structural causes of conflicts over natural resources and likely impact of climate change.

Structural, non-climate cause of conflict	Cause likely to be exacerbated by climate change	Explanation
Demographic pressure	Yes	Internal migration of populations fleeing areas where agro-sylvo-pastoral livelihoods can no longer be sustained, for climate and non-climate (e.g. insecurity) reasons.
Non-compliance with and / or inadequacy of agricultural calendars	Yes	Transhumance corridors and rules ? where they exist ? depend on established agricultural calendars, e.g. so that cattle-induced damages on cultures and competition for the use of water can be avoided. These calendars will evolve with the change in rainfall patterns, which may cause conflicts with pastoralists.
Human and cattle movements, especially in transhumance periods	Yes	These movements ? either locally from sedentary cattle keepers or across regions for transhuming pastoralists ? constitute an immediate response to the increased scarcity of water and forage resources.
Degradation and resulting scarcity of natural resources	Yes	See above.
Impoverishment	Yes	In the absence of adequate adaptation strategies, climate change will threaten agro-sylvo-pastoral livelihoods and impoverish those who are the most vulnerable, i.e. rural populations[80].
Non-compliance with and /or inadequacy of laws, regulations and landscape management plans	Potentially	Legal texts and other landscape management plans may no longer provide adequate conditions for the sustainable management of natural resources if they do not take climate adaptation into account.
Feeling of injustice	Potentially	Remote areas ? where extension services to improve the adaptive capacity of rural communities are limited ? may develop a growing feeling of injustice. Such a feeling of ?abandonment? from the State has already been spurred by terrorist groups in Northern and Eastern regions.
Political opposition	Potentially	See above. The risk of politicisation of the injustice feeling, potentially fostered by the increased climate vulnerability of remote communities and food insecurity, has already materialised in areas where terrorist groups are active.

Baseline situation with respect to Agro-Pastoral Field Schools (APFSs) in the target regions

89. The familiarity with and exposure to the APFS approach is highly contrasted across the target regions, as revealed during a specific study conducted during the PPG phase (cf. Annex Q). APFS consist in informal education for adults to showcase and experiment improved farming practices through field observation, experiments and hands-on training. Participatory methods

are used to create an environment conducive to learning, in which participants can exchange knowledge and experience in a risk-free setting. Practical field exercises and experimentation throughout the production cycle using direct observation, discussion and collective decision-making encourage learning-by-doing and discovery of basic science of agroecosystems. Technical topics that can be addressed through APFS include soil, crop and water management, seeds multiplication and varietal testing, agropastoralism, aquaculture, agroforestry and nutrition. The APFS process enhances individual, household and community empowerment and cohesion. Indeed, well-implemented APFS have proved to strengthen not only technical skills and decision-making capacities of farmers, but also to significantly influence the community as well as intra-household dynamics. APFS strengthen community relations and the capacity of listening to others? opinion, to formulate and express personal points of view and to find together a common solution through the process of communication and learning.

90. FAO first introduced the Farmer Field School (FFS) approach in Burkina Faso in the early 1990s, and has since then expanded the Field School approach to cover agro-pastoral communities, i.e. with Agro-Pastoral Field Schools (APFS)[81][81]. APFS were first developed in Uganda in the early 2000s, as an adaptation of FFS focusing on agro-pastoralists, and are now ongoing in over 30 countries.

91. **Boucle du Mouhoun**: in this region, the APFS approach was only tested by FAO and the MRAH through the FAO-funded project ?Operationalisation of the National System of Extension and Support/Counselling in Livestock? in 2019. Nine facilitators from the Bagassi commune were trained on the basic principles of the APFS approach. This training led to the implementation of nine pilot APFSs in villages of the commune[82][82]. Because of the short training session provided to facilitators, only basic elements on APFS facilitation were taught. The activities carried out were focused on livestock. Agricultural and environmental issues were not considered. Field interviews conducted during the PPG phase revealed that regional actors were generally not aware of the existence of the APFS approach.

92. **Centre-Ouest**: through the GEF-FAO project ?Integrating Climate Resilience into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas through the Farmer Field School Approach? (2015-2020), 44 APFSs were set up in the region. This involved developing a strategy for the implementation of APFS, training master trainers, training of facilitators and training of endogenous facilitators. The setting up and running of the AFPSs was done through five steps: i) identification of beneficiary villages; ii) information and awareness-raising of beneficiary communities; iii) survey of beneficiary communities; iv) actual setting up of the APFSs; and v) organisation of APFS sessions. Acknowledging the multi-sectoral nature of the APFS approach as well as climate resilience, the project opted for the co-facilitation of each APFS by three facilitators specialised in agriculture, livestock and water and forestry, respectively. The lead of each APFS was entrusted either to an agricultural officer or a livestock officer. The facilitators benefited from the permanent coaching of the master trainers, the project coordination unit and their hierarchical superiors, notably the focal points, the provincial directors and regional directors of the partner technical services.

93. The APFS approach was implemented in the four provinces (Boulkiemd?, Sangui?, Sissili and Ziro) of the region. Twenty master trainers from technical services (agriculture, livestock and environment) and FAO were trained for 45 days in a center based in Kaya. Afterwards, the master trainers from the region trained 25 facilitators from the technical services of agriculture, livestock, environment and NGOs. Overall, a total of 44 AFPFs were set up in the region to train 1,233 agropastoralists, including 710 women. At the end of the 18-month training cycle, 44 participants were selected as endogenous facilitators and trained. Three of the target communes for the proposed project already benefited from APFSs during the above-mentioned project (namely Sourgou, Tenado and To); within these communes, different villages will be selected so as not to duplicate efforts. The outcome of the implementation of APFSs was largely positive, as summarised in the terminal evaluation of this project[83]: participating farmers? adaptation and resilience capacities were strengthened and progress towards institutionalising the APFS approach was achieved.

94. **Hauts-Bassins**: in this region, only the Farmer Field Schools (FFS) approach is known through the Programme National de Vulgarisation et d?Appui Conseil Agricole (PNVACA) and FAO?s Integrated Production and Pest Management (IPPM) programme. The APFS approach has never been implemented in Hauts-Bassins.

Baseline projects

95. Over a dozen projects and programmes intervene in the target regions to improve the resilience of communities and landscapes. These projects are implemented in partnership with deconcentrated services (agriculture, environment and animal resources), regional chambers of agriculture and producers? organisations. Some of these projects will provide co-financing to the proposed LDCF investment (see below), while others are mentioned for reference. (Non-co-financing baseline projects that are not closed at the time of project implementation will be involved in coordinated activities using the same processes as co-financing baseline projects (quarterly contacts and, as relevant, invitations to Project Steering Committee meetings). Closed projects have been and will be capitalised upon by building on lessons learned and improved capacity to support project implementation. See table 9).

96. Coordination will be sought with both co-financing and non-co-financing projects with compatible objectives to this project to maximise synergies. In addition to ad-hoc meeting based on a needs-basis, collaboration will be facilitated by quarterly meetings of project focal points either in Ouagadougou or at the regional level, as relevant. The General Directorates for Sectoral Statistics and Studies of the three line ministries (agriculture, environment and animal resources) which are in charge of coordinating project portfolios at the ministries? level and ensuring synergies between projects will also be represented at the Project Steering Committee.

Baseline projects contributing co-financing

97. The following baseline projects will provide co-financing and complement the proposed LDCF investment.

98. **Projet d?appui ? la promotion des fili?res agricoles (Agricultural Value Chains Promotion Project, PAPFA)**. This project (2018-2023) is co-funded by IFAD[84], the OPEC[85] Fund for International Development, the Government of Burkina Faso (GoBF) as well as beneficiaries, for a total of USD 71.7 million. PAPFA is directly executed by IFAD, and benefits from technical oversight from MAAH. It intervenes in the Boucle du Mouhoun region (provinces of Mouhoun, Kossi, Sourou, Banwa, Bal?, Nayala), the Hauts-Bassins region (provinces of Houet, Tuy, K?n?dougou) and the Cascades region to support four value chains, namely rice, vegetables, sesame and ni?b?. The objective is to increase the productivity of small agricultural businesses, strengthen the creation of value-added on agricultural products and foster entrepreneurship. Under Components 1 and 2 of PAPFA, several investments will contribute as co-financing towards the proposed project. Component 1 of PAPFA will: i) facilitate access to quality inputs and materials, and adapted agricultural advice; and ii) install hydro-agricultural improvements and storage and roads infrastructure at production sites. Component 2 will: i) strengthen value chain organisations (grassroots producers? organisations, federations and interprofessions); and ii) professionalise rural microenterprises. Synergies with Components 2 and 3 of the proposed LDCF project will be sought in the Boucle du Mouhoun and Hauts-Bassins regions. In particular, the proposed project will build on PAPFA?s work to strengthen value chains organisations (structuring of collaboration platforms for specific value chains), to establish quality control processes and to facilitate market access by restoring dirt roads.

99. **Programme Am?lioration des moyens d?existence durables en milieu rural dans les r?gions de la Boucle du Mouhoun et du Centre Ouest, au Burkina Faso** (Programme to Increase sustainable, rural livelihoods in the Boucle du Mouhoun and Centre-Ouest regions of Burkina Faso, PAMED). The PAMED (2019-2023) intervenes in Boucle du Mouhoun and Centre-Ouest with a total budget of USD 6,024,279. This UNDP-funded, MTEE-implemented project focuses on food safety and livelihood strengthening with four expected outcomes: i) restoration and sustainable management of natural resources; ii) facilitated access to clean energy; iii) strengthened natural resource-based livelihoods; and iv) improved governance of natural resources. Baseline investments realised under the PAMED and contributing as co-financing towards the proposed project include the development of financial training modules and ASP business plans, as well as support to community I for land management. Specific coordination will be sought with the proposed project to avoid duplication of activities (especially through the selection of different target communities).

100. **Projet d?appui au d?veloppement de l?anacarde dans le bassin de la Como? pour la REDD+** (Project to strengthen the cashew nut sector in the Como? basin for REDD+, PADA/REDD+). This project, overseen by the NGO Wouol, is part of the Forest Investment Programme. It focuses both on poverty reduction and carbon sequestration by supporting the development of the cashew nut sector in the Como? river basin, namely in the Hauts-Bassins, Cascades and Sud-Ouest regions of Burkina Faso. Resources provided by the Climate

Investment Fund (for a total of USD 5,845,435) are dedicated to two technical components: i) agricultural productivity strengthening in the cashew nut sector; and ii) development of the transformation and marketing capacities of producers. Synergies will be sought with the proposed project in the Hauts-Bassins region. Co-financing for the proposed project will be provided by PADA/REDD+ through investments in the cashew nut sector (development of business plans, production of technical guidelines, lessons learned).

101. **Projet de D?veloppement d?Infrastructures Agricoles Post R?coltes** (Project for the Development of Post-Harvest Infrastructures, PDIAP). Implemented by the MAAHRAH between 2019 and 2023, the PDIAP directs its resources (USD 28,541,609) towards the development of post-harvest facilities, with a view to limit post-harvest losses, increase the value added of agricultural products and facilitate market access. The PDIAP is active across all regions of Burkina Faso; co-financing will be provided to the proposed project in the form of the development of post-harvest storage facilities in target regions that will amplify the results of efforts to improve the productivity of agricultural products. In addition, the PDIAP will increase the capacity of the MAAHRAH to control the quality of agricultural products by upgrading laboratory facilities; this will contribute to improve market access for producers and cooperatives supported under the proposed project.

102. **Projet de D?veloppement d?Incubateur d?Entrepreneurs dans les Fili?res Agricoles Porteuses** (Project for the Development of an Entrepreneurs Incubator for High-Potential Agricultural Value Chains, PDIEFAP). The PDIEFAP is implemented by the MAAHRAH between 2019 and 2023. Its budget of USD 14,444,822 ? funded by the Government of Burkina Faso ? is dedicated to the establishment of an incubator for entrepreneurs in the agricultural sector to provide financial and business training, with a focus on women and youths. In addition, activities to strengthen the productivity and value-added of agricultural value chains will be implemented, such as the creation of a database on high-potential agricultural value chains and the production of technical and financial studies on these value chains. Synergies between PDIEFAP and the proposed project will be built upon. In particular, baseline investments from PDIEFAP considered for co-financing include the value chain studies and the database. In addition, champion farmers identified by the proposed project through the FFS ? including the Farming Business School modules ? may be accompanied to enrol in the incubator set up by PDIEFAP. Knowledge and best practice exchanges in terms of training on business skills will also be fostered between the two projects.

103. **Projet de D?veloppement de la Valeur Ajout?e des Fili?res Agricoles du Burkina Faso** (Project for the Improvement of Value Added of Agricultural Value Chains in Burkina Faso, VAFA). This project, funded by the Government of Burkina Faso, the European Union, the French Development Agency and the Danish cooperation (Danida) for a total of USD 30,783,765, intervenes in the three target regions of the proposed project to support the development of agricultural value chains. In particular, VAFA (2018-2022) aims to establish an enabling environment for these value chains, by developing technical and economic capacities, improving business law enforcement, enhancing public health standards for food products and developing the use of certifications. In addition, contractual frameworks for agricultural activities are promoted. VAFA is considered for co-financing as the proposed project will directly benefit from groundwork conducted by this project in the three regions for

the development of commodity-based value chains, and will capitalise on these activities to bring support to target communities, producers and cooperatives.

104. **Projet Agriculture Contractuelle et Transition Ecologique (Project Contractual Agriculture and Ecological Transition, PACTE)**. Implemented between 2019 and 2024 by the MAAHRAH, this project is funded by the Government of Burkina Faso, the European Union and the French Development Agency for a total of USD 39,517,080. It intervenes in all three target regions of the proposed project to facilitate institutional market access for cooperatives, build on the development of contractual agriculture to organise value chains and intensify productivity of agroecological agriculture, and accompany the Government of Burkina Faso in the design of a contractual agriculture policy. The PACTE will contribute co-financing to the proposed project, as the latter will explore options to support cooperatives in signing agricultural contracts with a view to secure demand and increase financial visibility. Best agroecological practices to sustainably intensify agricultural production will also be shared between the two projects.

105. **Programme r?gional conjoint Sahel en r?ponse aux D?fis COVID-19, Conflits et Changements climatiques** (Joint Sahel programme in response to Covid-19, conflicts and climate change challenges, SD3C) ? Burkina Faso; 2021-2024; USD 1,624,595. Funded by IFAD, the World Food Programme and FAO, the SD3C programme aims to build the resilience of the most vulnerable rural populations in the Sahel region in a sustainable manner in order to mitigate the effects of the COVID-19 crisis, conflict and climate change. Its development objective is to strengthen the livelihoods of small producers, especially women and youth living in cross-border areas. It focuses on the adoption of sustainable production practices and social cohesion approaches. SD3C includes two components:

? Component 1 focuses on improving the productive capital of the most vulnerable households and capacity building to enhance resilience to climate change and the participation of communities in the decision-making and mediation processes that support their initiatives.

? Component 2 aims to strengthen market integration and cooperation between populations in cross-border areas. Investments in infrastructure will be prioritised on the basis of a diagnosis of needs to support the dynamics of border markets and their knock-on effects on agropastoral areas and livestock mobility.

106. **Facilitation de l?acc?s ? la terre et participation des jeunes ? la pr?vention et la gestion des conflits fonciers dans les r?gions de la Boucle du Mouhoun et des Hauts-Bassins** (Facilitation of access to land and participation of young people in the prevention and management of land conflicts in the Boucle du Mouhoun and Hauts-Bassins regions) ; 2021-2023 ; USD 900,00. This project aims to make young people vectors for the prevention of land conflicts and for peace building; this will enable them to play a more active role in conflict prevention and management bodies and structures, while improving their sustainable and legal access to areas for ASP production, exploitation and various transformations related to natural resources in rural and peri-urban areas. This project will also work on the prevention and management of land conflicts, solutions for mitigating environmental risks linked to climate change, overexploitation and bad practices in the use of natural resources, and socio-economic development in areas with high population growth, including areas affected by internal displacement.

107. **Renforcement de la r?silience des m?nages par les actions d?adaptation et de mitigation aux effets du changement climatique et du COVID-19, dans la r?gion de la Boucle du Mouhoun au Burkina Faso** (Strengthening household resilience through adaptation and mitigation actions to the effects of climate change and COVID-19) ; 2020-2022. Funded by Canada (USD 2,221,613) and executed by FAO, this project contributes to the improvement of food and nutritional security for 1,250 beneficiaries, 80% of whom are women and youth (girls and boys). The project strengthens the promotion of climate change adaptation and mitigation practices in the agro-sylvo-pastoral production sector underpinned by good environmental governance and sustainable land management in the Boucle du Mouhoun region.

Baseline projects not considered for co-financing but providing lessons to inform project design

108. Non-co-financing baseline projects that are not closed at the time of project implementation will be involved in coordinated activities using the same processes as co-financing baseline projects (quarterly contacts and, as relevant, invitations to Project Steering Committee meetings). Closed projects have been and will be capitalised upon by building on lessons learned and improved capacity to support project implementation.

Table 9. Non-co-financing projects intervening on themes relevant to climate change adaptation in the target regions.

Projects/programmes	Execution partners	Interventions	Target area
Regional support project for the Sahel irrigation initiative (Projet d?appui r?gional ? l?initiative pour l?irrigation au Sahel, PARIIS) 2018-2024 USD 30 m	DRAAHRAH, DRTEE	Lowland development: ? irrigation ? run-off water collection basins ? support to local land authorities	Boucle du Mouhoun (Kona, Fara, Poura, Sibi, Boromo, Tch?riba, Kougny), Centre-Ouest (Boura, Zamo, Kordi? et Dassa) and Hauts Bassins
Agricultural Resilience and Competitiveness Project (Projet de r?silience et de Comp?titivit? agricole, PreCA) 2020-2025 USD 209 m	DRAAHRAH, DRTEE	? Support for land tenure security ? Support for agricultural extension	Boucle du Mouhoun, Hauts-Bassins
Project to Support the Development of the Livestock Sector in Burkina Faso (Projet d?Appui au D?veloppement du Secteur de l??levage au Burkina Faso, PADEL-B) 2016-2022 USD 60 m	DRAAHRAH	? Support to the development of non-pastoral livestock productivity in six targeted value chains ? Vulnerability management in the livestock sector	Country-wide

Project to strengthen the resilience of rural populations to the effects of climate change by improving agricultural productivity (Projet de renforcement de la r?silience des populations rurales aux effets des changements climatiques par l?am?lioration de la productivit? agricole, PRAPA) 2017-2021	DRAAHRAH	? Increase the area of developed agricultural land by supporting the construction of mechanical and biological water and soil conservation works ? Increase the area of exploitable land by supporting the recovery of degraded land ? Improve soil fertility by monitoring and implementing integrated soil fertility management techniques ? Strengthen the capacities of actors through training and equipping producers with small-scale equipment	Country-wide
National programme of agricultural extension and advisory support (Programme national de vulgarisation et appui conseil agricoles, PNVACA) 2016-2022 USD 13.5 m	DRAAHRAH	? Promotion of good agricultural practices ? Strengthening the capacities of agricultural extension actors ? Strengthening research-development linkages and promoting consultation frameworks	Country-wide
Small-scale village irrigation development programme (Programme de d?veloppement de la petite irrigation villageoise, PPIV) 2015-2020 USD 53.3 m	DRAAHRAH	? Promote the mobilisation and efficient use of water resources ? Promote sustainable management of agricultural land ? Strengthen the capacity of producers and their organisations	Country-wide
Small-scale irrigation project in the Great West (Projet petite irrigation dans le Grand-Ouest, PIGO) 2015-2021 USD 27.3 m	DRAAHRAH	Lowland development	Centre-Ouest (Silly, Bi?ha), Hauts-Bassins (P?ni, Faramana Hound?)

Support for the sustainable management of forest resources Support for the sustainable management of forest resources (Appui ? la gestion durable des ressources foresti?res, AGREF) 2018-2021 USD 18.7 m	DRTEE	? Sustainable and participatory management of forest production ? Environmental governance and promotion of sustainable development by strengthening capacities for adaptation to climate change in relation to forest resource management ? Capacity building of the MTEE?s decentralised structures to ensure the effectiveness and efficiency of public intervention in the forestry sector	Hauts Bassins, Centre-Ouest, Est
Project to reduce the vulnerability of natural resource-based livelihoods in two landscapes threatened by the effects of climate change in Burkina Faso (Projet de R?duction de la vuln?rabilit? des moyens d?existence d?pendant des ressources naturelles dans deux paysages menac?s par les effets des changements climatiques au Burkina Faso, EBA-FEM) 2015-2020 USD 7 m	DRTEE	? Scaling up climate change adaptation and mitigation measures ? Developing solutions for the sustainable management of natural resources, ecosystem services, chemicals and waste ? Operationalisation of legal and regulatory frameworks, policies and institutions to ensure the conservation of natural resources, biodiversity and ecosystems and their sustainable use	Centre-Ouest (Dassa, Kyon, Tenado, Zamo), Boucle du Mouhoun (D?dougou, Tch?riba, Douroula, Y?, Gassan, Boromo, Siby, Oury, Son)
Regional Support Project for Sahel Pastoralism (Projet R?gional d?Appui au Pastoralisme au Sahel, PRAPS) Phase 1: 2016-2021; USD 248 m (regionally) Phase 2: 2022-2027; USD 375 m (regionally)	DRAAHRAH	Support to pastoral livestock development and management of crises and vulnerabilities in pastoralism	Country-wide

109. While many actors and initiatives are involved in relevant initiative in Burkina Faso as described above, these investments usually propose incremental changes, with a partial or no consideration of projected changes, especially climate change. The proposed project will go further by considering climate change as a systemic factor that should systematically be taken into account when tackling any of the rural development challenges faced by the target

communities. The proposed investment will thus focus on supporting a transformation that is not only more resilient, but also delivers multiple co-benefits. The proposed project will apply transformative approaches not only in terms of agroecology, but also by being community-driven and centered. This rationale is based on an analysis of the specific barriers described below.

NB: Two additional baseline projects relevant to land tenure are described in Annex W.

Barriers

110. In light of the baseline situation presented above and given the information collected during data collection, a number of barriers have been identified that need to be addressed to achieve the project objective. These barriers are described below and pertain to: i) governance and planning at the landscape level; ii) the agroecological transition as a climate adaptation strategy; and iii) the strengthening of ASP baskets of products, market linkages and sustainable financing.

Barriers related to governance and planning at the landscape level

Barrier 1: Limited land tenure security

111. The efforts described in the baseline section above denote a strong willingness from the GoBF to advance land tenure security in the target regions, with a view to provide adequate conditions for resilience building of rural communities ? especially for women. Despite these initiatives however, land tenure security ? or lack thereof ? remains a barrier to the resilience of rural livelihoods in many areas. A detailed analysis of this barrier has been conducted during the PPG phase (cf. Annex R). The main dimensions of this barrier are described below.

? The status of land as a community or family bond. Its fragmentation among community or family members is perceived as a fragmentation of the family heritage. This is reflected in the relative weakness of the demand for land tenure security acts by rural populations. As a result, there is often little appetite to participate to the land tenure securing process.

? Illiteracy, which limits the appropriation of texts on land tenure security and the lack of knowledge of these texts. The knowledge of these texts in rural areas is mainly the result of interpretation by third parties who are often under-informed, do not belong to the technical services and are not empowered to inform local communities.

? The limited effectiveness of the awareness-raising approach adopted by the administration, which often excludes certain opinion leaders.

? The high cost of the land tenure security process, which is about USD 865/ha, including application fees. The decree on fees seems to favour wealthy actors who are able to mobilise large sums of money compared to farmers? income.

? Inadequacies of the policy and the law on rural land tenure itself. Indeed, with only 11 decrees promulgated out of the 22 initially planned, the law remains unfinished. As a result, many measures that are essential to the smooth running of the reform have not yet been implemented. These include the functioning of the National Rural Land Agency, the National Land Security Fund and the National Land Observatory, as well as village land conciliations, registers of local land charters etc.

? The limited capacity of some deconcentrated technical services in the field to respond to the requests of SFR agents, and generally the constrained capacity of relevant institutions (deconcentrated and local).

112. In the context of the proposed GEF project, a key aspect of the land security barrier will be addressed, namely the weaknesses of institutions in charge of the implementation of Law 034/2009, as detailed in Table 10 below. As this is a large endeavour, the proposed project will only contribute to tackle these aspects.

Table 10. Weaknesses of the key institutions in charge of land tenure security.

Structures	Key weaknesses
Regional Directorates for Hydro-Agricultural Development, Animal Resources and Fisheries (DRAAHRAH), and the Ecological Transition and Environment (DRTEE)	? Insufficient training of agents on land use planning approaches ? Insufficient training of agents on land tenure security in rural areas ? Insufficient training of agents on GIS and Land Information System (LIS) software ? Lack of statistics on rural land conflicts ? Insufficient computer equipment ? Means of transportation in poor condition and insufficient in number ? Insufficient financial means for monitoring land tenure activities ? The DRAAHRAHs and DRTEEs are cited as actors in the process of securing land in rural areas but do not have a service in charge of the issue at the deconcentrated level
Regional Councils	? Insufficient training of members on the National policy for land tenure security in rural areas (Politique nationale de s?curisation fonci?re en milieu rural, PNSFMR) and the Rural Land Tenure Act ? Insufficient allocation of financial means
Regional Chambers of Agriculture	? Lack of knowledge about the Rural Land Tenure Act ? Means of transportation in poor condition and insufficient in number ? Insufficient financial means for the monitoring of field activities ? Insufficient technical staff
Rural Land Services (SFR)	? Insufficient initial training of the SFR agents ? Insufficient collaboration between SFRs and decentralised technical services, particularly those of rural development and the Receiver of Lands and Land Registration (Receveur des Domaines et de la Publicit? Fonci?re, RDPF) ? Limited deconcentration of some services (e.g. land registry) ? Absence of reliable and functional databases on rural land tenure ? Limited budget allocated to the functioning of the SFRs ? Limited coordination and organisation of the actions of the ministries involved in rural land management (more than ten) ? Lack of equipment, unstable energy supply and internet connection
CVDs, CFVs and CCFVs	? Low level of schooling of some members of village authorities (notably some secretaries of the CFVs and CCFVs) ? Insufficient awareness of actors involved in land tenure management ? Poor knowledge of legislative and regulatory texts

113. A practical barrier to the knowledge-building of local bodies in terms of the policy and legislative framework for land tenure security is the fact that the PNSFMR ? the key policy document planning for the process leading to land tenure security in rural areas ? is not available in many local languages. Although a version of the PNSFMR in ?simplified French? was produced, many local stakeholders in the target regions would benefit from translations in Moor? and Doula[86][86].

Barrier 2: Insufficient prevention and resolution mechanisms for climate-driven conflicts

114. Several barriers the avoidance or efficient solving of climate-exacerbated conflicts. In terms of conflict prevention, addressing the underlying causes of natural resource degradation remains the main solution. This involves taking climate change into account during land-use planning. To date, less than 20 Chartes fonci?res have been drawn up, including eight in Hauts-Bassins, (communes of Dand?, Koundougou, Boni, Fouzan and Koumbia), 12 in Boucle du Mouhoun (communes of Balav?, Sanaba, Solenzo, Barani, Bourasso, Djibasso, Sono, Nouna, Oury, Siby, Bondoukuy and Gassan) and six in Centre-Ouest (communes of Poa, Kokologho, Didyr, T?nado and Bi?ha Cassou). A key barrier to conflict prevention is thus the insufficient implementation of the Burkinabe legislation requiring all communes to develop and adopt Chartes fonci?res. These plans need to integrate the current and anticipated impacts of climate change, so that their dispositions do not become obsolete when such impacts materialize. Establishing and implementing land-use plans requires that the stakeholders in charge actually have the capacity to do so. This is not always the case in the target regions, as previously analysed above.

115. The second type of barriers pertains to lack of capacity of parties tasked with conflict prevention and resolution: stakeholders and institutions vested with this mandate are not necessarily equipped to fulfil their role. Land tenure laws provide for two methods of resolving rural land conflicts: prior conciliation or alternative dispute resolution and judicial dispute resolution. Law 034 on rural land tenure of 16 June 2009 instituted a compulsory stage prior to referral to the courts, namely that of prior conciliation. Article 96 of said law states that the conciliation attempt in matters of rural land conflicts is ensured by the local bodies usually in charge of managing land conflicts. These bodies are the CCFVs[87][87]; and the Chartes fonci?res constitute the main reference tool for them to assess a conflict situation.

116. Surveys conducted during the PPG phase (cf. Annex R) indicate the involvement of other structures in the settlement of rural land conflicts. These include: i) deconcentrated technical services of the State for the management of natural resources (agriculture, environment, livestock); ii) the defense and security forces; and iii) civil society organisations. The methods used by these structures encompass awareness raising, mediation, dialogue, negotiation and conciliation.

117. Table 11 below summarises the strengths and weaknesses of the main bodies in charge of land conflict prevention and resolution in the target regions. Overall, the weaknesses of the

various structures are threefold: i) operational for lack of material and resources; ii) technical for lack of training; and iii) structural. With respect to the latter, the non-implementation of local land management structures and authorities throughout the national territory (including in the target regions) as well as the poor dissemination and appropriation of the texts by the parties are a key barrier to the prevention and resolution of climate-exacerbated rural conflicts.

Table 11. Main strengths and weaknesses of actors involved in the prevention and resolution of climate-exacerbated rural conflicts.

Actors	Strengths	Weaknesses
First-order actors: DRAAHRAH, DRTEE, CRA and central administration	? Represented up to provincial, communal and village level ? Key players in the dissemination and extension of sectoral policies, training of producers ? Key players in the process of securing land in rural areas through the DGFOMR and deconcentrated structures	? Limited knowledge of the law on rural land tenure ? Insufficient training of agents on conflict resolution ? Insufficient knowledge of mediation techniques ? Insufficient financial means for monitoring land tenure activities ? Means of transport in poor condition and insufficient in number ? Lack of statistics on rural land conflicts ? Insufficient technical staff at the level of CRAs
Second-order actors: SFR, customary authorities, CVD, CFV, CCFV	? Community mediators respected by local communities ? Good knowledge of customs and local practices in general ? Knowledge of local or traditional rules governing access to or control of natural resources ? SFRs are the key actors in the management and security of land	? Insufficient knowledge of mediation techniques ? Weak knowledge of legislative and regulatory texts, including the law on rural land tenure ? Low level of recruitment of SFR agents ? Insufficient initial training of SFR agent ? Low level of schooling of some members of village authorities (notably some secretaries of the CFV, CCFV) ? Low budget allocated to the functioning of the SFR services

Barrier 3: Insufficient mainstreaming of climate change into land-use planning and management

118. The two main barriers to the mainstreaming of climate change into land-use planning and management are: i) the limited capacity of many of these bodies, including extension services; and ii) the limited coordination between these actors and bodies. These barriers pertain to both planning (i.e. mainstreaming of climate change adaptation into development

and land-use planning documents) and implementation (i.e. on-the-ground implementation of the various techniques that can contribute to the realisation of planning documents).

119. Limited capacity of these bodies, including extension services: the weaknesses of most relevant bodies are described in Table 11. In terms of implementation, the capacity of relevant agents, especially extensions officers, has been strengthened through a diversity of projects. Most extension officers report that they have received some degree of training on the different climate adaptation technologies recognized as efficient in strategies endorsed by the GoBF. However, agents surveyed during the PPG phase expressed a need for additional training on certain technologies so that they can reach a sufficient level of confidence to transmit their knowledge and know-how to rural communities; in addition, not all extension officers may have been trained on how to access and interpret climate data and scenarios, and translate this information into actionable strategies in the field.

120. The mainstreaming of climate change into land-use planning requires that relevant stakeholders have a sufficient command of some technical tools. This includes GIS tools that allow to inform and document practical land-use planning and associated Land Information System (LIS). While the GoBF has provided adequate IT equipment to a number of SFRs and other local offices, many agents have reported a lack of mastery of these tools. In addition, some institutions at the local and regional scales (e.g. Regional Councils) do not have a sufficient familiarity with the specific challenges posed by current and anticipated climate change in their territories to efficiently support the process of mainstreaming climate change into development and land-use planning.

121. Lack of coordination between stakeholders, especially extension services of the three ministries of rural development: historically, institutional and operational benchmarks of agricultural extension in Burkina Faso have shown that it has always been compartmentalized between agriculture and livestock, and with little consideration for and coordination with the environment and forestry.

122. In 2010, fully aware of this issue and conscious that agricultural extension is a key link in the development of agriculture through the dissemination and adoption of technologies resulting from research, the GoBF prompted the creation of a new national system of agricultural extension and advisory support that is supposed to take into account the concerns of all actors such as producers and their umbrella organisations, state services (MTEE, MAAHRAH), NGOs, consultancies, etc. However, the resulting National Agricultural Extension and Support System (Syst?me National de Vulgarisation et d?Appui Conseil Agricole, SNVACA) adopted in 2010 and implemented through the National Agricultural Extension and Support Programme (Programme National de Vulgarisation et d?Appui-Conseil Agricoles, PNVACA) from 2016 to 2020 has not sufficiently integrated the MRAH and the MTEE ? according to these two institutions. In fact, the extension approach adopted by the Ministry of Agriculture in 2010 is the farmer field school approach (FFS), developed by FAO since 1989. In practice, the FFS, which deals almost exclusively with issues related to crop production, has its limitations in the heightened context of climate change, which is impacting all areas of farming[88][88].

123. For example, a participatory diagnosis of livestock extension and advisory support[89][89], carried out with different groups of stakeholders in the sub-sector in 2016, showed that the implementation of the SNVACA did not sufficiently consider the specificities related to the livestock sub-sector. With financial support from FAO, the MAAHRAH thus developed a national livestock extension system built around five strategic axes. Its network is structured on the basis of the institutional framework of the MAAHRAH, from the national (central) level down to the village level. A five-year action plan (2017-2021) has been developed but, due to lack of financial resources, it is not being implemented.

124. For the environment sub-sector, forestry extension has long had an authoritarian and repressive character, based on dissuasion rather than persuasion. It was only in the 1980s that the first attempts were made to apply a more participatory approach. Currently, forestry extension is marked by the implementation of the land management approach, based on the participation and increased responsibility of rural populations as actors in the development of their land. However, this approach still needs to be further disseminated, in particular by strengthening the linkages with the agricultural and livestock sectors.

125. In practice, limited coordination between sectoral ministries complicates the implementation of an integrated, agroecological approach to the resilience building of rural livelihood. This issue was already identified in the preparation and implementation of the GEF-FAO project #054: significant coordination efforts from the project team had to be made so that APFS could be jointly facilitated by representatives of the MTEE, MAAH and MRAH. This proved successful ? as recognised by the same ministries during the PPG phase of this proposed project ? but challenging. In the context of this project, there is thus a need to continue pushing for concrete, on-the-ground joint efforts from the extension officers of the three ministries of rural development, so that climate change adaptation practices that encompass all relevant aspects of his multifaceted issue can be adequately disseminated.

126. Finally, landscape planning requires that relevant bodies coordinate their action across geographical scales, namely at the village, commune, inter-commune and region levels. This is currently not ? or not enough ? the case in the target regions.

Barriers related to smallholders engaging with an agroecological transition as a climate adaptation strategy

127. Research shows that farms that are agroecological tend to be more resilient to shocks, in particular climate-related ones, as well as more sustainable from environmental, social and economic points of view[90][90]. For example, farm diversification appears to be pivotal for climate change adaptation, which includes positive impacts of diversification on crop yield, pollination, pest control, nutrient cycling, water regulation and soil fertility. Other key elements for regenerative farming systems include reducing soil disturbance and use of biocides, maintaining soil cover, and using organic amendments. As such, promoting the transitions of households towards agroecological systems (at farm but also landscape level) is

key to ensure that smallholders adapt to climate change while contributing to the restoration of degraded natural resources such as soil. Evidence also suggests that agroecology provides more climate change adaptation (and mitigation) benefits than conventional agriculture by emphasising locally-relevant solutions, participatory processes and co-creation of knowledge. In addition, engaging with local knowledge through participatory and educational approaches have been proven effective to tailor technologies to local contexts, thereby delivering improved adaptation benefits. A number of barriers that prevent local households to advance in the agroecological transition and, consequently, climate change adaptation, are described below.

Barrier 4: Insufficient integration of agro-sylvo-pastoral systems

128. Based on the results of the TAPE assessment within the proposed areas of intervention, the proportion of non-agroecological households is lower in agropastoralist households than in agriculture, which indicates a strong potential in combining agriculture and livestock, along with the integration of multi-purpose tree species on farmland. Despite significant regional differences ? cattle heads are twice as numerous in Hauts-Bassins as in the two other regions and Centre-Ouest is distinguished by the relatively greater presence of small ruminants, pigs and poultry ? the integration of agro-sylvo-pastoral production systems remains a challenge in the target areas.

129. The many missed opportunities of integrated ASP systems include the use of draught animals to ease labour-intensive tasks, improved synergy with animals feeding on fodder and crop residues and producing organic fertiliser (manure), income diversification (through animal products as well as NTFPs and polycropping), improved soil conservation practices (with permanent soil cover, minimal tillage, the use of organic rather than mineral fertilisers, erosion control and nitrogen fixation techniques with adequate tree species and limiting the use of biocides) etc. Agro-pastoralists generally report higher incomes, are more likely to have saving habits and are more resilient to climate shocks as their dependence on increasingly erratic rainfall is diminished. Fostering the integration of ASP systems in the target areas is thus needed to improve key determinants of agroecology that are directly related to climate adaptation: diversity, synergy, efficiency, resilience and circular economy.

Barrier 5: Lack and inadequate use of non-chemical inputs

130. Inputs (fertilisers, seeds, pesticides, veterinary products etc.) impact at least four determinants of agroecology, namely synergies, efficiency, circular economy, co-creation of knowledge. Their availability and adequate use are thus key to support the agroecological transition. Nevertheless, both their availability and use have been found to be problematic in the target areas.

131. In terms of availability, improved seed is used more in Hauts-Bassins (69%) than in Boucle du Mouhoun (49%) and Centre-Ouest (33%). These levels may reflect both limitations in access to seed and local preferences for traditional varieties. Access to fertilisers follows the same trend. However, access to inputs is very contrasted between women?s and men?s farms; indeed, women are twice less likely than men to have access to fertilisers in Boucle du Mouhoun, and about three times less likely in Centre-Ouest and Hauts-Bassins. This is largely

because of women?s more constrained access to credit, which is often primarily used to purchase farming inputs (see below).

132. Fertiliser availability is limited for both synthetic fertilisers and organic manure. In fact, the average quantity of fertilisers used per area sown is extremely low. This is why inputs are directed towards priority cash crops such as cotton, market gardening, rice and maize. These crops are thus often the gateway to synthetic inputs in the production system. The use of organic manure is even more limited, which reveals gaps in the management and recycling of plant residues and, beyond that, about the technical capacity of households to reuse these materials in the form of fertilisers.

133. In terms of the adequate use of inputs, other issues have also been identified. For example, the use of herbicides is following an overall increasing trend in the target areas: more than half of the sown area is treated with herbicides in Centre-Ouest and Boucle du Mouhoun, while the proportion reaches 90% in Hauts-Bassins. While the widespread use of herbicides reduces the labour intensiveness of crop maintenance, it also raises questions on the effects of these products on environmental, human and animal health, including detrimental effects on soil health triggering vicious circles of degradation of soil, plant and ecosystem health. A case in point is the unrestrained use of synthetic pesticides and fertilizers in cotton and vegetable production[91][91] leading to high risks of nitrate pollution of water resources and unbalances in local insect, bird and fish populations. The misuse of pesticides can be even more harmful as over half of these products are not registered[92][92]. These findings suggest that the challenge of agroecological transition must go beyond the mastery of techniques by producers[93][93] and also focus on the strengthening of regulatory systems and the enforcement of texts and associated best practices regulating the use of pesticides. Overall, regenerative, integrated systems with soil health as a starting point are key. Shifting the focus away from input-based systems towards plant, animal and community health-based systems require learning more about agroecosystem processes ? e.g. starting from a healthy soil with micro-organisms and varied plants/crops/trees and managing the interaction between the different elements of farm system at farm and landscape level ? to allow for healthier crops, animals, households, communities and ecosystems. This is all the more necessary as agricultural inputs consume up to 69% of the credit contracted by households in the target regions; as low soil fertility and disembalanced ecosystems trigger a low fertiliser response by plants and pest and disease outbreaks, this misleads farmers to use more and more inputs to try to secure a minimum yield of cash crops; instead there is a need to promote transitions to regenerative forms of agriculture, to restore soil and ecosystem healthy, improve resilience and reduce production costs and the need for chemical inputs.

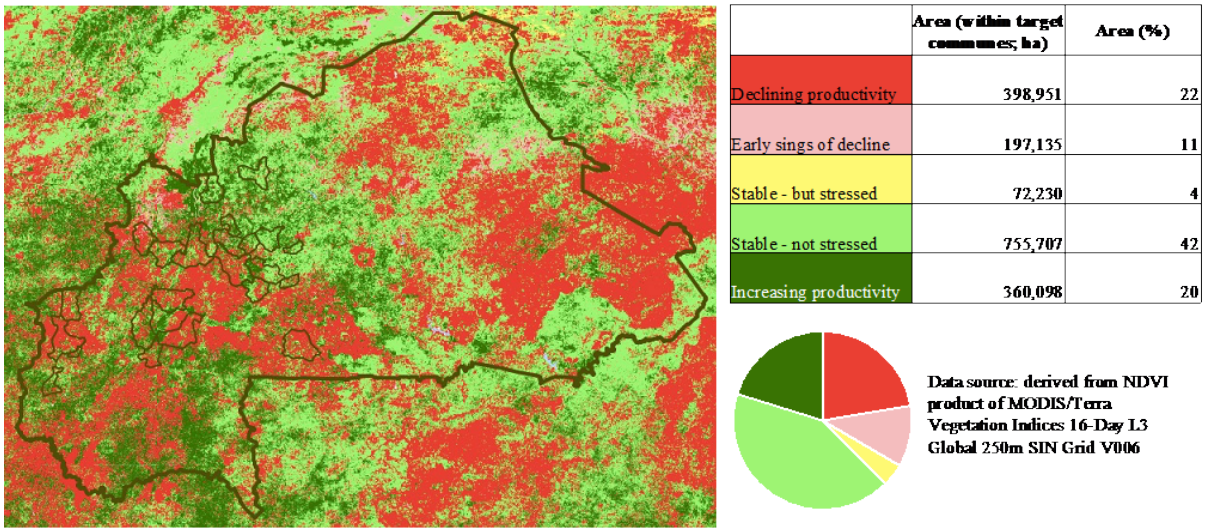
Barrier 6: Difficulty to ?reconceptualise? farm systems to be more agroecological, leading to low appropriation of soil and water conservation practices

134. Past experience with agricultural development projects has shown that in the transition towards agroecology, changes implemented by producers often focus on increasing efficiency

or substituting chemical inputs with bio-inputs? whereas a real challenge is ?redesigning?[94][94] farm systems so that they become more agroecological and regenerative. One avenue to achieve this in the context of small-scale producers in the global South is to implement Farmer Field Schools and APFS collaboratively (i.e. involving farmers from the design stage of learning and throughout), as this has been proven[95][95] to result in reconceptualisation of farm systems even when that was not necessarily the focus of the FFS.

135. More specifically, soil and water conservation practices are used only on a marginal share of cultivated areas in Hauts-Bassins (13%), Boucle du Mouhoun (16%) and Centre-Ouest (18%). The rate of area covered by these good practices is even lower than the national average. This needs to be put in perspective with the dynamics of land degradation and associated land productivity decline that are more severe in the western part of the country, reflecting the low use of soil and water conservation practices. Overall, this data may reflect the insufficient mastery of conservation techniques by producers or the need for further adaptation and innovation around these practices so that they fit the needs and characteristics of the areas. Moreover, re-organising farms so that they do not deplete water and soil also needs further support. Re-organisation may be needed at a farm level, e.g. by designing systems so that water-intensive activities are closer to water systems, or by integrating trees with crops to increase shade and reduce water uses. However, it might also have a landscape dimension as community initiatives such re-organisation of transhumance passages to improve crop fertilisation, institution of no-pesticide areas, building of common composting areas etc.

Figure 8. Land productivity dynamics[96][96] (2001-2017).



136. One example of the lack of such measures is the anarchic use of herbicides mentioned above. This trend can be explained by the lack of ecological literacy of farmers and lack of awareness (or high cost, or unavailability) of alternatives, marketing by herbicide companies, already unbalanced systems that need to be restored and inadequate extension advisory. The lack of equipment and manpower for sowing fields at the first rains and weeding operations is

one reason for herbicide use[97]. The abundant weed growth that occurs then leads these under-equipped households to carry out prior herbicide treatment in order to facilitate ploughing, by means of services. In addition, the delay in soil preparation leads to delays in sowing, which makes the plants more vulnerable to pest attacks and requires additional phytosanitary treatments that can eventually lead to a degradation of soil and water resources.

137. It should also be mentioned that agroecological practices are often considered too labour-intensive and cumbersome by farmers, who, especially when manpower is scarce, would rather use chemical methods (e.g. herbicides). There is thus a need to, inter alia: i) increase farmer?s knowledge on the basic science and application of regenerative principles and co-develop with them locally-adapted agroecological practices that do not create an additional burden on the workforce ? especially as arduous tasks such as weeding are quite often taken up by women; and ii) provide small affordable equipment to alleviate the constraints associated with some agroecological practices.

Barrier 7: Lack of collective producer organisation, especially for women

138. For the context-related elements of the agroecological transition, co-creation and knowledge sharing scores particularly low. Indeed, only 32% and 58% of households in Centre-Ouest and Hauts-Bassins, respectively, belong to farmers? organisations, which are relays for the dissemination of technological innovations, initiated either by the State?s technical structures or by NGOs and associations. This insufficient organisation of producers, even more accentuated among women, further contributes to limiting the scores on the elements of agroecology internal to the farm. Indeed, only 15% of surveyed women in Hauts-Bassins and Boucle du Mouhoun are registered members to producers? organisations. This rate is further reduced to 8.5% in the Centre-Ouest. This hinders knowledge sharing and capacity building opportunities, access to economic opportunities, peer support when changing practices (once again especially important for women) etc.

139. Furthermore, it was observed that responsible governance of land and natural resources is the element with the lowest score of all, despite the existence of farmers? umbrella organisations that defend farmers? interests. In reality, their impact on resource management at the grassroots level remains limited, while the legislative texts on rural land management are still not well known by farmers. Consequently, umbrella organisations are more prone to refer to and promote traditional management approaches. However, these do not always guarantee permanent land tenure rights (esp. for women, youths and non-natives). This compromises sustainable investments that require long-term commitments such as agro-forestry, mechanisation, storage facilities, which is considered very beneficial for the agroecological transition (see Barrier 1).

Barrier 8: Lack of attractiveness of agriculture to young people

140. Agriculture is not perceived as offering opportunities to young people, who represent nearly 70% of the active population of rural households in the three target regions. The reasons for this lack of attractiveness are manifold and vary marginally across regions. In Boucle du Mouhoun, the agricultural production system, which shows a low level of equipment and is

more inclined to self-consumption, does not provide enticing perspectives for local youths. This perspective can be expected to be aggravated by the detrimental impacts of climate change on agricultural productivity, as youths may not see agriculture as a promising sector for economic and social empowerment. In Hauts-Bassins, the strong pressure on land leaves few possibilities for empowerment through secure access to land resources by young people. Across all three regions, financing for young people?s agricultural entrepreneurship, and more broadly, access to agricultural credit, is still limited because of the ?classic? conditionalities imposed and limited existence of adequate credit modalities. In addition, the weak diversification of agricultural activities seems to deter youths from entering and investing in a sector that remains largely associated with labour-intensive, arduous and traditional work.

141. Several negative consequences of this lack of attractiveness can be identified. In a context of climate change and land degradation that affect yields and incomes, traditional gold panning, which is spreading throughout the country, has become a refuge activity for many young people ? often with detrimental environmental consequences. As a result, agricultural labour is becoming scarcer. A side-effect to workforce rarefaction is an increasing and unsustainable use of pesticides and mineral fertilisers (see above), with adverse environmental and health impacts.

Barrier 9: Limited knowledge generation on agroecological transition and climate adaptation

142. There is a clear need for high-quality, long-term, action-research on farms and at landscape scales that compare agroecology against alternatives like conventional or climate-smart agriculture. The long-term impact of some of the key project results need to be studied through methodologies and in timeframes that extend beyond typical project monitoring frameworks. For example, the impact of APFS on the adoption and implementation of agroecological practices need to be assessed based on updated monitoring protocols that ?unpack? the transformational effects of APFSs by taking into account farmers? perspectives, and not only externally-designed indicators[98][98]. Likewise, the restoration of natural resources (forests, rangeland, arable land) and its impacts on ecosystem services in general and land productivity in particular should be envisaged as a medium to long-term process (even though some early benefits can also be identified), and be monitored within adequate timeframes. Only then can rigorous evidence on the beneficial impacts, but also challenges, of the proposed approaches be documented and, as required, replicated or amended.

Barriers related to market linkages for baskets of locally-adapted, agro-sylvo-pastoral products and sustainable financing

143. As shown in the table and map below, two types of territorial markets[99][99] have been assessed during the PPG phase:

? primary collection markets: run mostly by producers who deal with wholesalers and collectors, these markets are located in rural areas and in surplus production zones; and

? intermediate markets or assembly markets: these markets are supplied by the primary collection markets. In this type of market, there are fewer producer-sellers and the traders are the most important intermediaries. Intermediate markets are most often considered as transit markets for cereals between rural markets in surplus areas and those in urban consumption centres.

Table 12. Characteristics of the territorial markets studied during the PPG phase.

Region	Province	Market	Distance to province capital	Market type	Vendor capacity	ASP products
Hauts-Bassin	K?n?dougou	N?Dorola	190 km	Collection	190	Maize, rice, sesame, cashew, NTFPs
	Tuy	Hound?	0 km	Assembly & retail	105	Maize, rice
Boucle du Mouhoun	Mouhoun	D?dougou	0 km	Assembly	500	Maize, white sorghum, millet
	Mouhoun	Tcheriba	50 km	Collection	300	Sorghum, maize, onion
Centre-Ouest	Sangui?	Zamo	57 km	Collection	25	Maize, sorghum
	Sangui?	Tenado	25 km	Collection	25	Maize, sorghum

Figure 9. Location of territorial markets studied during the PPG phase.

144. In total, a sample of 420 market stakeholders across six markets was selected, including 210 retailers and 210 consumers. The Mapping of Territorial Market tool (see box below) was used to gain a broad understanding of territorial markets? role and potential in terms of climate adaptation. Increasing the knowledge about territorial markets is key to understand how best to support their positive role in resilience building and catalyzing the agroecological transition of farms in the region. A number of associated barriers were thus identified.

Mapping of Territorial Markets (MTM)

Territorial markets are defined by the fact that they cater food that is produced, processed, sold or distributed and consumed within a given ?territory?. These markets are usually supplied by local producers ? most often smallholders ? and serve local customers. As such, they show a diversity of valuable characteristics, in particular in the context of resilience building:

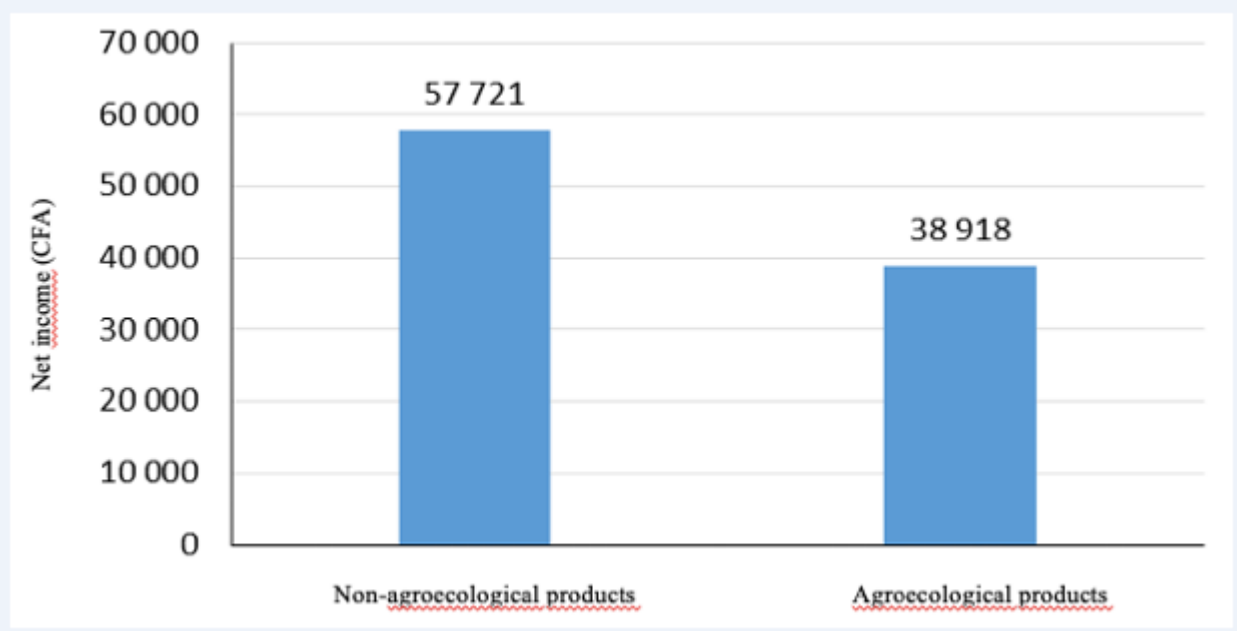
? they are inclusive and diversified;
? they perform multiple economic, social, cultural and ecological functions;
? they are most remunerative for smallholders since they provide them with more control over conditions of access and prices;
? they provide incentives to transition towards sustainable and agroecological agricultural systems;
? they contribute to structuring the territorial economy; and
? they are places where political, social and cultural relations play out, with a set of governance rules and organisational structures.

Increasing the knowledge about territorial markets is key to understand how best to support their positive role in resilience building and driving the agroecological transition of farms in the region. The MTM data collection tool provides crucial information on territorial markets within a set sample, such as status of the markets and their geographical scope (formal, informal, local, national, transboundary, daily, weekly, etc.), product supply, product demand, infrastructures and basic services supporting the markets, as well as the role of women and youth in the market. The MTM tool was implemented on six local markets (two per target region) in synergy with the TAPE tool by ARFA and FAO during the PPG phase; the associated report is presented in Annex P.

Barrier 10: Limited market incentives to engage in a climate-resilient, agroecological transition

145. A key barrier to tap in the climate adaptation potential of the agroecological transition is the lack of current price premium for agroecological products, as observed in the sample markets. In all studied markets, agroecological products generate lower incomes than non-agroecological products (Figure 10). This suggests that a strategy to support farmer transition to agroecological production systems must necessarily aim to enhance the value of agroecological products in markets and with consumers.

Figure 10. Net income derived from agroecological vs. non-agroecological products.



146. Surveyed markets also sell foodstuff produced in a variety of ways, from conventional to agroecological (including organic products). However, these markets offer prices that are often not attractive for organic or agroecological products, which require a greater effort in production. In other words, **there are currently limited to no market incentives for producers to engage in the agroecological transition**. In order to catalyse this transition, the project will need to create market conditions that generate such incentives by: i) increasing the value-added derived from transformed agroecological products; ii) encouraging the implementation of low-cost certification systems, such as participatory guarantee standards (PGSs) that allow consumers to recognise agroecological products; iii) facilitating the adoption of best marketing techniques, such as the use of cold storage units that limit post-harvest losses and other improved post-harvest storage practices; and iv) creating market conditions to support the development of diversified baskets of products.

Barrier 11: Lower income for women traders

147. In studied markets, women earn on average less than half than men (approx. 45%). This is explained by the fact that women are generally engaged in small-scale trading activities while men run larger shops selling manufactured goods. In addition, men are more likely to be wholesalers than women, who are mostly active in the retail business with lower economic margins.

Table 13. Gender gap in net income on surveyed markets.

Market	Average net income (CFA)	Net income women (CFA)	Net income men (CFA)	Ratio of net income of women to men
D?dougou	93,625	75,788	140,000	54%
Hound?	66,875	47,596	117,000	41%
Tcheriba	59,403	33,048	78,571	42%
N?Dorola	51,257	47,543	80,385	59%
Tenado	28,359	20,426	46,208	44%
Zamo	19,279	11,490	41,778	28%

Total	**53,133**	**39,315**	**83,990**	**45%**

Barrier 12: Limited access to finance leading to, *inter alia*, poor product processing capacity exacerbating food insecurity

148. Despite the efforts of the GoBF and its partners, food and nutritional insecurity continues to be a major concern in Burkina Faso. This is partly due to the low marketing rate of agricultural production (26.5% on average between 2016 and 2020, because of self-consumption[100][100]), which explains the low supply rate of the agro-industry, and, consequently, the low processing of the country?s agricultural products. Processing is essential not only to create added value, but also to improve the conservation capacity of food products and thus their availability between two agricultural production campaigns.

149. At the local level, the limited processing capacities also impede producers? ability to extract as much value-added from their production as they could. This is due to both a lack of technical capacity and limited availability of credit to fund processing equipment. In Boucle du Mouhoun and Hauts-Bassins, credits are preferably granted in the form of production inputs and very marginally for equipment. Even when credit is granted in cash, it is still used primarily for agricultural inputs. In Centre-Ouest, the use of credit is more diversified, with substantial shares going to income-generating activities (29%) and other agricultural activities (21%). Nevertheless, adequate mechanisms to facilitate the development of income-generating, commodity-processing activities needs to be set up in the target landscapes to boost economic development as a climate adaptation strategy.

2) The proposed alternative scenario with a brief description of expected outcomes and components of the project and the project?s Theory of Change.

150. The **problem** that the proposed project seeks to address is the increasing climate vulnerability of communities relying on agro-sylvo-pastoral production systems in the Sudano-Sahelian regions of Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins. A situation map, as well as land cover and land use change maps are provided in the sections above.

151. The **objective** of the proposed project is to strengthen the resilience of agro-sylvo-pastoral communities and mitigate the risks of land-use conflicts in three regions of the Sudano-Sahelian zone of Burkina Faso, in a context of climate change.

152. Climate change poses a direct and significant risk on agricultural production and livelihoods, potentially causing major food production systems to collapse and therefore significantly influencing climate migration patterns. The project will address these climate-induced dynamics, and anticipate potential future scenarios by adopting a large-scale landscape approach, in which the landscape is a transect throughout the Sudano-Sahelian region. The integrated **project approach** considers the complexity of interactions between humans and ecosystems within agro-sylvo-pastoral systems, in which: i) ecosystems need to be sustainably managed so that they can provide the ecosystem services supporting rural

livelihoods in the long term, as well as climate mitigation co-benefits; ii) different uses of ASP resources (land, water, forest resources etc.) often compete, and the modalities of this competition are evolving; and iii) both the human and the ecosystem components are directly and indirectly impacted by the effects of climate change. The worst-case scenario in selected target areas is one where rural livelihood are disrupted not only by climate change, but also by increasing anthropic pressure from: i) internal migrations to flee insecurity; and ii) adaptation strategies from other populations, e.g. transhuming pastoralists seeking more favourable condition for their cattle. In this worst-case scenario, the degradation of natural resources is compounded by direct and indirect climate impacts, leading to more frequent conflicts over the use of these resources and ultimately to the weakening of social cohesion and spread of insecurity.

153. To avoid the scenario described above and avert to resort to emergency responses in the mid-run, the development of income-generating activities around specific baskets of products (from financing to marketing) will accompany the uptake of sustainable agroecological practices and the collective development of landscape management plans. Together with the strengthening of relevant governance bodies, this will help respond to the land-use planning challenges, preserve well-functioning ecosystems, and ultimately support rural communities in adapting their livelihoods to climate change.

154. The proposed project embraces an **agroecology approach**, a concrete expression of FAO?s Sustainable Food and Agriculture vision for transitioning food systems to more productive and sustainable systems. Agroecology applies ecological concepts and principles to optimise interactions between plants, animals, humans and the environment while taking into consideration the social aspects that need to be addressed for a sustainable and fair food system. By building synergies and supporting forms of agriculture that are not simply sustainable but actually regenerative of human and natural ecosystems, agroecology can support food production, food security and nutrition while restoring the ecosystem services and biodiversity that are essential to life. By helping restore water and carbon cycles, agroecology can be a **transformational climate change adaptation** and mitigation strategy. Agroecological measures ? such as diversification of agroecosytems in the form of polycultures, agroforestry systems and crop-livestock mixed systems accompanied by organic soil management, water and moisture conservation and harvesting, and general enhancement of agrobiodiversity ? are expected to strengthen the climate resilience of farmers and rural communities, and also to restore water and carbon cycles. The agroecological approach to resilience building recognises that traditional integrated farming systems are a source of practices and measures that can help agricultural systems become more resilient to climatic extremes. Some of the strategies that reduce vulnerabilities to climate variability include restoring the soil carbon sponge, avoiding tillage and biocides, maintaining soil cover throughout the year, provide organic amendments, crop diversification, agro-forestry, maintaining local genetic diversity, animal integration, water conservation and harvesting etc. Field surveys and results reported in the literature[101][101] suggest that agroecosystems are more resilient when inserted in a complex mosaic landscape.

155. In light of the need to promote the agroecological transition as a vehicle to foster climate change adaptation and enhance the adaptive capacity of local population, studies were commissioned during the PPG phase to: i) characterise the baseline level of uptake of agroecological principles in the target landscapes; ii) identify gaps and barriers to the agroecological transition, focusing on potential specificities of population categories (women, youths etc.), types of exploitation, regions and market contexts as relevant ; iii) design an adequate intervention strategy to address these barriers, foster the agroecological transition and, ultimately, contribute to climate change adaptation.

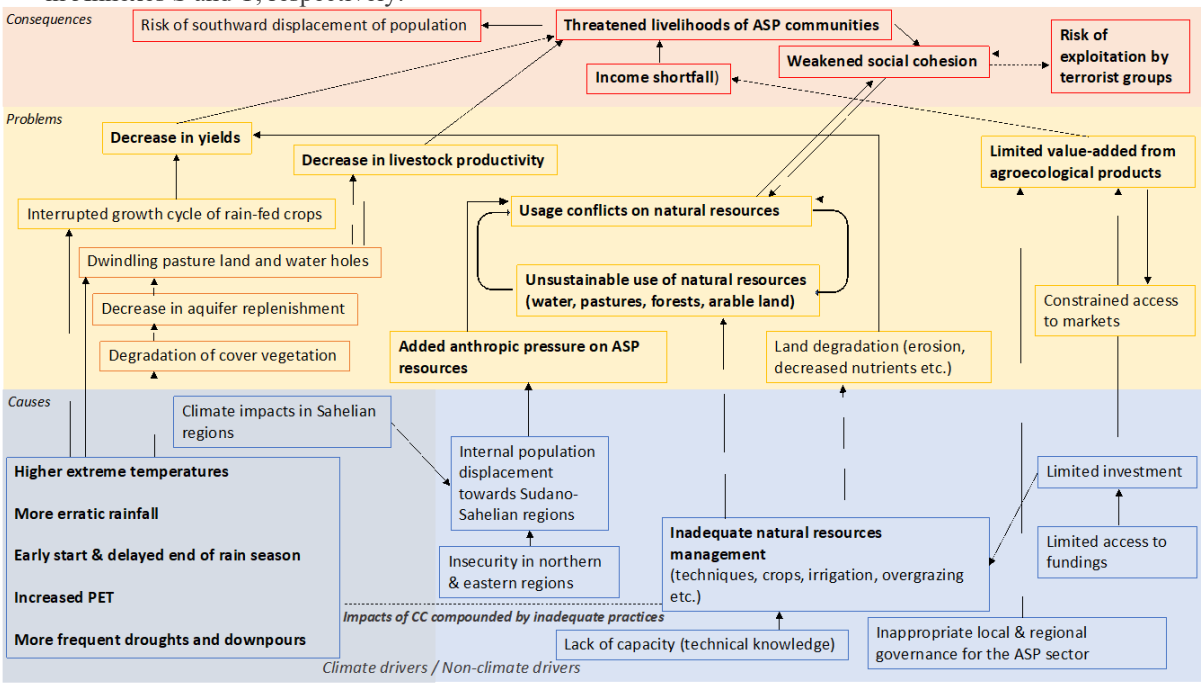
Table 14. Relationship between selected agroecological elements[102] and climate change adaptation.

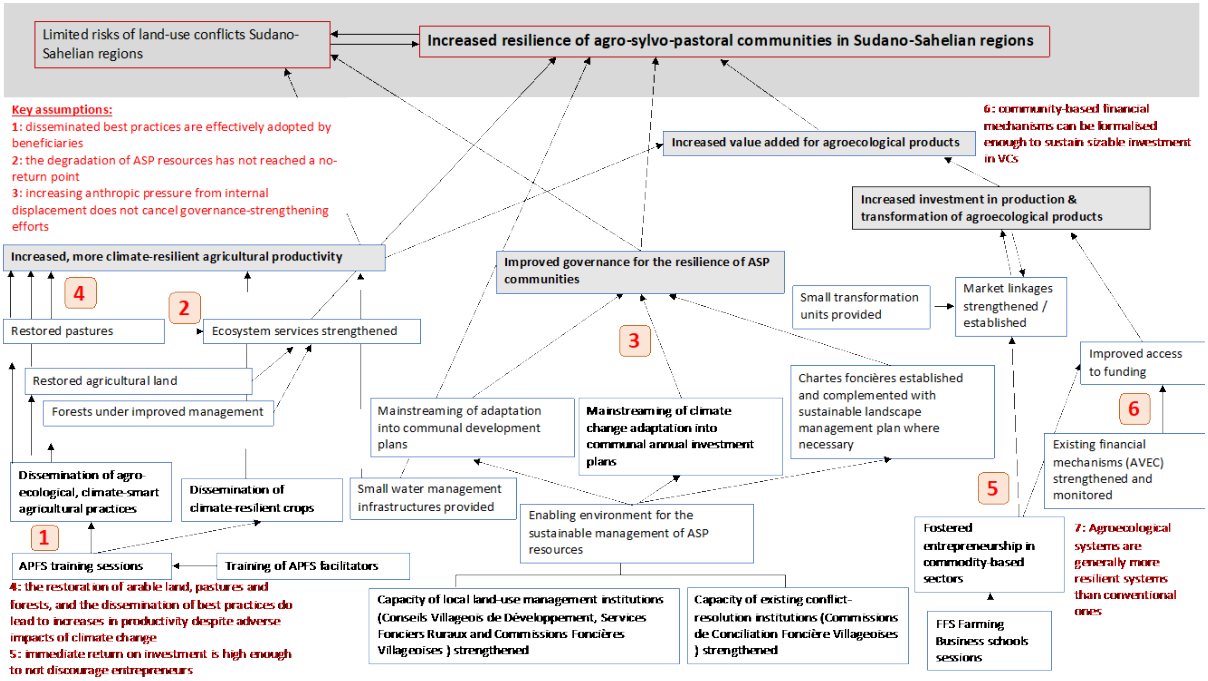
Key agroecology elements	Adaptation potential[103]
Resilience	Enhances generalised adaptative capacity
Diversity	Enhances generalised adaptation, decreasing spreading risk and buffering impacts across different elements of the agroecosystem and livelihoods
Efficiency	Generates surplus for generalised adaptation and resilience Efficient water use supports adaptation in places facing water stress
Synergy	Ecological synergies between species (e.g. nitrogen fixation by legumes for subsequent crops, shade/windbreaks/fodder from trees, trap crops against pests, flowers attracting beneficial insects) can generate production surplus or ecosystem services for generalised adaptation and resilience
Circular economy and recycling	Generates surplus or decreases production costs for generalised adaptation and resilience
Co-creation of knowledge	Can enhance farmers? adaptive capacity and relevance of options by bringing together multiple sources of knowledge and enabling technical options best suited to local conditions

156. This agroecological approach is adopted in all components of the project, from enhancing governance at the landscape level (Component 1), to developing and testing packages of innovative production, restoration and management practices (Component 2), to developing and diversifying livelihoods (Component 3), and co-creation of knowledge and knowledge management (Component 4). **Behavioural change** will be one of the main expected outcomes from the project interventions, through which target farming communities will understand the benefits of agroecological systems and be put in a position to gradually adopt agroecological practices. The tools and approaches envisioned to trigger this behavioural change are informed by the latest evidence in this field[104], with: i) APFSs (paired with approaches like Community Dimitra Clubs, participatory videos and farmer-to-farmer learning) working as a contextual tool to frame farming choices and elicit social influences to upscale the adoption of the agroecological vision through informal experience sharing among farmers; and ii) support to diversified remunerative markets for a basket of agroecological products. Likewise, the three more ?traditional? levers for behavioural change ? namely material incentives, rules and regulations, and information ? will be capitalised upon across the

four project components. The project approach will be transformative not only in terms of agroecology, but also by being community-driven and community-centered.

157. A Problem tree and a Theory of Change diagram for the proposed project are presented in Annexes S and T, respectively.





3.b) Expected outcomes and components of the project

Component 1: Governance for climate resilient development of agro-sylvo-pastoral communities in the Sudano-Sahelian zone

Outcome 1: strengthened governance and institutional capacity for climate resilient and conflict-free agro-sylvo-pastoral (ASP) community development in three pilot landscapes

158. The target regions of Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins currently have limited governance structures, processes and capacity to ensure that ASP systems can be resilient to the impacts of climate change. As described in the barrier and baseline sections above, while the legislative framework describes the institutions ? in particular, at the local level, the Services Fonciers Ruraux, Commissions Fonci?res Villageoises and Commissions de Conciliation Fonci?re Villageoises ? that should be in charge of land-use management, these institutions are often not capacitated to fulfil their mandates. The core land-use planning documents at the local level, namely the Chartes fonci?res, are usually either non-existent or incomplete, and thus do not provide the conditions for the sustainable use and collective management of natural resources. What is more, their elaboration did not take into account the challenges posed by climate change and the resulting anticipated alterations in the availability and use of natural resources. What is more, the geographical perimeter of Chartes fonci?res is not necessarily relevant for the management of natural resources, and Chartes fonci?res may need to be consolidated into sustainable landscape management plans (e.g. at the micro-catchment or forest level).

159. Tenure-responsive land-use planning encompasses: i) improving access to information for individuals and communities who could be affected by land use planning decisions (including capacity development when needed); ii) providing for meaningful participation allowing potentially affected individuals and communities to be active decision-makers; and iii) integrating tenure aspects into land-use planning to ensure that all legitimate tenure rights are recognised, respected and safeguarded against threats and infringements. In this context, Component 1 of the proposed project will work to strengthen and / or establish the relevant bodies and plans to set up an enabling environment for the resilience of ASP communities. This will allow to: i) facilitate the resolution of land-use conflicts (Output 1.1); ii) improve land-use planning at the landscape level (Outputs 1.2, 1.4, 1.5); and iii) strengthen the implementation of land-use plans (Outputs 1.2, 1.3, 1.6).

<u>Output 1.1: At least 100 staff from extension services are trained and coached on the resolution of climate-driven conflicts, community mobilisation and facilitation skills in pilot landscapes, and adequate mechanisms (e.g. CCFVs) are strengthened</u>

160. A number of regional and local bodies need to have their capacities strengthened to fully exercise their mandate with respect to the prevention and resolution of climate-driven conflicts. For deconcentrated structures in charge of agriculture, environment and animal resources to better manage rural land conflicts and support the process of securing land in rural areas in accordance with their responsibilities, it is necessary to train provincial, communal and village agents on legislative and regulatory texts on rural land tenure, management of rural land conflicts and mediation techniques.

161. Regional Councils and Chambers of Agriculture: these regional bodies have a role to play in preventing rural land conflicts, drawing up land charters and in spatial planning in general. To this end, it is important to strengthen their capacities by training advisors on the national land tenure security policy and the various legislative and regulatory texts on rural

land tenure as well as their roles in the management (prevention and resolution) of land tenure conflicts. As part of the process of securing land in rural areas, Regional Chambers of Agriculture will contribute to identifying, delimiting and specifically securing local areas of common use natural resources within their territories.

162. Rural land services (Service Fonciers Ruraux, SFR): communes are the central actors in land tenure management and rural land services are their technical arms. Indeed, the PNSFMR has provided for the creation of a rural land service in each rural commune responsible, on the one hand, for all the activities pertaining to the management and securing of communal land, including natural resources for common use, and, on the other hand, for activities of securing the rural land holdings of private individuals within the commune?s territory.

163. Local bodies: Village Development Committees (CVDs), Village Land Commissions (CFVs) and Village Land Conciliation Commissions (CCFVs) are the village bodies involved in the land tenure process. Training needs include awareness raising on legislative and regulatory texts on rural land tenure management, resolution processes of rural land conflicts and mediation techniques, specifically relating to: i) the occupation and exploitation of family plots of land in hydro-agricultural developments; ii) the occupation and exploitation of land developed for rain-fed crops; and iii) the development, occupation and exploitation of business-operated land developed or to be developed by the State, local and customary authorities.

Activity	Description
1.1.1	Train extension workers (at least 50% women) and, as relevant, customary authorities and CSOs on regulatory texts and legislation on rural land management.
1.1.2	Train extension workers (at least 50% women) and, as relevant, customary authorities and CSOs on rural land conflict management, conflict mediation techniques, facilitation skills and community mobilisation
1.1.3	Train members of the CVDs, CFVs and CCFVs on regulatory texts and legislation on rural land management.
1.1.4	Train members of CVDs, CFVs and CCFVs on the management of rural land conflicts and conflict mediation techniques.

Output 1.2: climate change adaptation is mainstreamed into the practical governance of land-use management in pilot landscapes through the strengthening of Village Development Councils, including securing land tenure, mobility of pastoralists and access to natural resources

164. While fully-functioning local bodies are key to the local governance of sustainable resources in the face of climate change, several barriers described in the previous section prevent them from playing their role as custodians of climate-resilient land planning development and enforcement. To improve this situation, a series of activities will be implemented, with a view to develop the capacity of relevant institutions in the target regions to fulfil their mandate

165. An on-the-job approach to capacity development will be taken, whereby CVDs, CCFVs and CFVs will be accompanied to mainstream climate change adaptation and vulnerability considerations into development planning and sustainable landscape management plans ? in synergy with Outputs 1.4 and 1.5. This is as opposed to an expert-led approach, in which land-use and development plans would be reviewed and revised by external parties.

Activity	Description
1.2.1	Develop tailored capacity needs assessment for relevant local bodies (CVDs, CCFVs, CFVs). The capacity needs assessment shall be partly based on self-declared needs and be specific to the context of each commune in terms of land degradation status and climate vulnerability.
1.2.2	On the basis of the capacity needs assessment, develop tailored training programmes for each commune and local body. This may include training on the specifications relating to: i) the occupation and exploitation of family plots of land in hydro-agricultural developments; ii) the occupation and exploitation of land developed for rain-fed crops; and iii) the development, occupation and exploitation of business-operated land developed or to be developed by the State and local authorities.
1.2.3	Conduct training activities in accordance with the tailored training programmes, in conjunction with the revision / development of PCD and Chartes fonci?res under Outputs 1.4 and 1.5.

Output 1.3: the capacity of 23 municipal councils, 3 regional councils, 23 local multistakeholder platforms, 3 regional and 1 national platform for land-use management and relevant coordinating organisations is strengthened to integrate climate change and regenerative agroecological approaches into the management of land tenure and land use issues

166. The process of integrating climate change adaptation into local development planning requires that efforts be made to: i) ensure the strengthening of institutional linkages between the different structures involved with land-use planning; and ii) elicit the active participation of local communities. In terms of institutional coordination, fostered linkages are required between the competent municipal departments responsible for planning and development (local planning and development department) and for environmental issues (environment and sustainable development commission), relevant deconcentrated state departments and the local Civil Society Organisations (CSO).

167. In order to involve all relevant institutional scales in the mainstreaming of climate change into landscape management, communication and awareness-raising efforts will be deployed to inform about the process at work, namely the mainstreaming of climate resilience into landscape management. This will involve national, regional and local stakeholders, as relevant. The ?multistakeholder platforms? that will be created at the village and communal levels will allow for a wide participation of communities, firstly in the context of surveys to specify the situation of land tenure in the target communes, then to discuss and decide on options to foster the land tenure security process. Throughout these steps, the proposed project will support SFRs, which will help establish them as the key local actors of land tenure management, in full accordance with their official mandate.

Activity	Description

1.3.1	Hold information/communication workshops on land policy, Law 034 and the objectives and actions envisaged by the project for 23 municipal councils. As relevant, this may involve referring to / training on the Voluntary Guidelines on the responsible governance of tenure for land, forests and fisheries in the context of national food security[105][105]
1.3.2	Carry out participatory diagnoses of natural resources and their use/allocation in terms of land for 23 municipal councils
1.3.3	Carry out socio-tenure surveys involving participation at village level to validate this resource mapping and explicitly document the legitimate tenure rights (State, communes, villages, lineages, individuals) exercised on the communal territory for the benefit of 23 municipal councils
1.3.4	Create frameworks for consultation and reflection (?multistakeholder platforms?), as provided for by the Burkinabe law, at village and communal levels to establish or strengthen social dialogue between the various land tenure actors at local level.
1.3.5	Organise workshops to validate proposals on land tenure security options, tools and approaches ? including regeneration and agroecology
1.3.6	Create and consolidate Geographic Information Systems/GIS leading to Land Information Systems/LIS at the level of the commune SFRs. Organise a training on tenure software solutions identified jointly with an international tenure expert[106][106].
1.3.7	Organise information/communication workshops on land policy, Law 034 and the objectives and process of integrating climate change adaptation into regional development plans for the benefit of the three Regional Councils
1.3.8	Capitalise and feed the reflection on the integration of climate change in the management of land tenure and land-use issues through the three Regional Committees for Land Tenure Security in Rural Areas[107][107] and the National Committee for Land Tenure Security in Rural Areas[108][108] (CORE/CONA SFR).
1.3.9	Translate the Politique Nationale de S?curisation Fonci?re en Milieu Rural (PNSFMR) in Moor? and Dioula and disseminate the translations (in electronic and paper versions) in the target regions.

Output 1.4: climate change resilience is mainstreamed into the annual investment plans of communal development plans in target landscapes through a participatory process

168. Law 008/2014/AN on the orientation of sustainable development links local governance to the notion of sustainable development. Accordingly, the GoBF has transferred a number of environmental competences to local authorities, including the protection and development of natural resources, the improvement of the living environment, land use planning, land management and urban development. In particular, Decree n?2007-032/PRES/PM/MATD of 22 January 2007 stipulates that in villages in rural communes and in villages attached to urban communes, CVDs shall be responsible for drawing up annual

investment programmes for the villages, which are submitted to the municipal councils for approval on the basis of the orientations of the communal development plan and contributing to the mobilisation of the human and financial resources necessary for the implementation of the actions selected in the annual investment programmes. This is thus a key role to effect the mainstreaming of climate change adaptation into practical development planning at the local level.

169. The integration of climate change adaptation into local development planning is not effective in all communes. In fact, through certain projects, some communes have benefited from financial and technical support to review their development plan and take into account climate change adaptation actions. On average, only one commune out of five has reviewed its development plan and mainstreamed climate change adaptation actions into it. In addition, existing CDPs do not all have adequate annual investment plans annexed to them, with relevant cost estimates of identified actions with associated funding options.

170. Through the activities to be conducted under Output 1.4, climate change adaptation will be integrated into development planning at the local level, thereby providing a collectively-elaborated and legitimate basis for investment into CCA technologies, especially in the ASP sector.

Activity	Description
1.4.1	Undertake participatory Climate Change Vulnerability Impact Assessments in target landscapes using guidelines for Vulnerability Impact Assessment under PROVIA[109] or other relevant methodologies and identify recommended adaptation actions.
1.4.2	Support the CVDs to develop and/or revise at least 15 Communal Development Plans to further mainstream climate change resilience.
1.4.3	For each of the PCDs targeted under Activity 1.4.2, support CVDs to develop and/or revise annual investment plans that adequately reflect financial provisions for the climate change resilience provisions integrated into the PDCs.

Output 1.5: climate change adaptation is mainstreamed into landscape management plans and/or local Chartes fonci?res to be developed through participatory processes for the pilot landscapes

171. Capacity-building of stakeholders under Outputs 1.2 and 1.3 will pave the way for the revision and/or development of landscape management plans and Chartes fonci?res that fully incorporate climate resilience priorities.

172. In the baseline situation, a number of communes in the target regions have already benefited from support to develop their Chartes fonci?res. However, many communes are still lacking this key planning document that is supposed to be at the core of land tenure and land-use management as per Burkinabe law[110]. There is thus a need to support local bodies to

develop missing Chartes fonci?res, in accordance with the dispositions planned for in Decree 2010-400.

173. In addition to the Chartes fonci?res ? established at the communal level ?, there is a need to develop landscape management plans. Indeed, the proposed project adopts a landscape approach, which, depending on the specific characteristics of a given landscape (e.g. a watershed), may require to consolidate land-use plans into one landscape management plan across several communes. Further to the matter of geographic scale, there is also a need to mainstream aspects of natural resource management that extend beyond the mere scope of Chartes fonci?res. This includes forest and water management.

174. Throughout the implementation of activities under this output, special attention will be paid to coordinate with the development and / or revision of CDPs and associated annual investment plans (Output 1.4), as landscape management plans, Chartes fonci?res and CDPs need to be consistent with each other.

Activity	Description
1.5.1	Select three pilot landscapes (one per region) and conduct a baseline analysis of existing land-use plans for each landscape.
1.5.2	Based on the baseline analyses to be produced under Activity 1.5.2, conduct participatory workshops with relevant stakeholders, including relevant local village bodies, to identify gaps in land-use plans (either geographic or in terms of thematic coverage).
1.5.3	Support SFRs, CFVs and other relevant bodies to develop landscape management plans and/or local Chartes fonci?res through participatory processes for the 3 pilot landscapes, with a view to address the gaps identified under Activity 1.5.2.

Component 2: Climate-resilient productive landscapes

Outcome 2: In the pilot landscapes, the implementation of landscape management plans strengthens the resilience of ASP production systems, as they become more productive, soil health improves and agricultural biodiversity increases

175. Under Component 2, the proposed project will facilitate the implementation of Chartes Fonci?res and sustainable landscape management plans. This will be done by establishing Dimitra Clubs at the very beginning of the project to provide spaces for community to discuss their issues and priorities, prevent conflicts on natural resources and jointly identify joint priorities (Output 2.1), supporting the restoration of grasslands and forests (Output 2.2) and locally disseminating adapted sustainable water management practices and small-scale infrastructure (Output 2.3).

176. Promoted landscape management measures will be tailored to the biophysical and socio-economic specificities of each local context, and have been primarily selected among those identified in the scientific literature but will also be drawn from amongst innovative lead agroecological farmers and initiatives in the area (?*traque aux innovations*?) based on their land restoration, adaptation, biodiversity conservation and climate mitigation

co-benefits[111][111],[112][112],[113][113] and alignment with the ten elements of agroecology. While the ecosystem services in terms of resilience of forests and rangelands will be strengthened through restoration activities under Component 2, complementary soil conservation measures to restore arable land will be tested and spread through the Agro-Pastoral Field Schools (APFS) established under Component 3. These APFSs will be integrated platforms to achieve several of the project?s expected results, in terms of the uptake and adaptation of agroecological practices (Output 3.3), improved participatory governance and reduction of conflicts jointly with Dimitra Clubs (Output 2.1), improved access to finance through the savings and loans associations (Output 3.6) and transformation of agricultural products (Output 3.4). Pastures and forested land will be restored through the implementation of adequate, locally tailored practices such as: i) zai; ii) Delfino ploughing; iii) assisted regeneration of indigenous woody species; iv) afforestation; and v) controlled access among others. These techniques will help reduce rural communities? vulnerability to the impacts of climate change, while improving and intensifying agricultural productivity and fighting land degradation.

177. Finally, water availability at landscape level will be supported through the testing and dissemination of locally-adapted sustainable water management practices[114][114], and the implementation of small water infrastructures such as contour bunds, stone lines, planting pits or three-sided basins.

Output 2.1: Establish and support Dimitra Clubs in 8 communes to facilitate the self-mobilisation of communities, women?s leadership, the definition and implementation of land-use management plans and to improve conflict resolution

178. Dimitra Clubs are voluntary, informal separate groups for women, men and youth who discuss common problems and determine ways to address them by acting together and using local resources. Agriculture is a common theme but is not exclusive; other topics may include climate change, education, health, infrastructure, nutrition, peace and women?s status. To date, over 7,000 Dimitra Clubs[115][115] have been established and supported by FAO across sub-Saharan Africa. Although the FAO methodology entails an initial support to facilitate the setting up of the clubs and provides them with training and coaching, the clubs themselves are self-managed. Dimitra Clubs create a space to discuss and act in relation with community social norms and behaviours affecting women ? enabling women?s leadership and encouraging men?s engagement. Nearly all clubs own a solar-powered radio which allows to improve their access to information and a cell phone to maintain contacts with others clubs from other villages but also with technical partners. By fostering partnerships with local radio stations, Dimitra Clubs learn from one another, broadcast their initiatives and spark dialogue in the wider community and beyond.

179. Past experiences with women-only Dimitra Clubs have successfully proven their capacity to enable women to contribute to all the public matters of community life[116], and therefore to engage in decision-making. As required, Dimitra Clubs will be established and supported in the target communes at the very beginning of the project, to create local platforms to discuss priorities and assess how the project can contribute to solving issues of concerns, as well as to exchanges ideas on project results.

From a functional perspective, Dimitra Clubs have been found to be highly complementary with APFSs. They multiply the impact of APFS outcomes and make it possible to reach a larger rural population. In particular, implementing Dimitra Clubs ahead of APFSs allows to mobilise community groups, esp. women and youths, and create broader engagement that then translates into higher participation enrolment to APFSs. In addition, Dimitra Clubs act as drivers for change in multiple dimensions, in line with the all-around approach to resilience building envisioned through this project. Topics to be discussed in Dimitra Clubs may include climate adaptation strategy, land-use planning, conflict prevention and resolution etc. ? all themes that will be further supported through the project components. Complementarities between Dimitra Clubs and APFSs have been documented through a number of initiatives, including a GEF-financed project in Senegal. More information can be found here.

Activity	Description
2.1.1	Conduct a participatory diagnostic of existing community listening groups and community-based organisations and gender aspects in the target communes and identify capacity gaps.
2.1.2	Train facilitators (women and men) on the methodology of Dimitra Clubs
2.1.3	Create and support Dimitra Clubs in the 8 target communes (5 villages per commune; 5 Dimitra Clubs per village) for 18 months. This may include the following actions: ? raising awareness among targeted communities on the advantages of the Dimitra Clubs; ? identifying potential partners; ? organising launching workshops; ? conducting training of the Dimitra Club leaders (2 leaders per club); ? conducting technical training for CECs/Dimitra Clubs according to their needs; ? identifying and training radio partners; ? producing and disseminating interactive gender-sensitive radio broadcasts; and ? using video and other means to share experiences.
2.1.4	Promote linkages and partnerships between Dimitra Clubs and other components of the projects (in particular with FFS) in a win-win alliance, including with the AVEC so that community actions endorsed by the clubs following their discussions can be funded through the solidarity funds the community level[117].

Output 2.2: climate-smart, locally-adopted practices (e.g. zai, Delfino ploughing, assisted regeneration of indigenous woody species, afforestation, controlled access) are introduced on 15,000 hectares of pasture and forested land to support the climate resilience of ASP production systems by sustainably intensifying production

180. Based on the Chartes fonci?res and other land-use plans to be developed under Component 1, the proposed project will support the strengthening of system resilience by enhancing ecosystem services provided by 15,000 ha of pasture and forested land in the target landscapes. In line with the overall participatory approach of the project that aims at empowering local authorities with the sustainable management of their productive natural resources, technical and financial support will be provided under this output to implement the most adequate measures based on local demand. This is as opposed to an external assistance that would intervene to ?solve? degradation issues without putting local stakeholders in the pilot seat, and then leave with little to no capacity building outcome and sustainability potential.

181. Given the chosen approach, it is only once land-use plans are established under Component 1 that the exact definition and extension of restoration measures to be implemented will be defined. However, the main activities to be undertaken to achieve the expected output can be described. Firstly, an assessment of priority climate-affected ecosystem services will be conducted in the target landscapes. This assessment will identify which ecosystems are considered most important for resilience by local communities and bodies and to what extent these services are and will be threatened by climate change. Restoration maps will then be elaborated based on this assessment, the Chartes fonci?res and other land-use plans validated by local authorities. These maps will be produced through a collective process involving local authorities and legitimate tenure right holders supported by technical experts and facilitators hired under the project. Such facilitators will receive specific training on facilitation and managing power dynamics in communities (for instance, through FAO?s Participatory Negotiated Territorial Development Approach or Green Negotiated Territorial Development[118][118]), to avoid most vulnerable or disadvantaged members or groups being further marginalised.

182. Once these maps are produced and validated with communities, restoration options will be designed by restoration experts together with local communities as it is fully acknowledged that local community members communities may have an in-depth knowledge of the right species for the area, challenges and characteristics of that area, history (i.e. which species used to be there and why they are present anymore) etc. This involvement of local experts will increase local acceptance of restoration activities by local communities. These options will specify, *inter alia*: i) the techniques to be used (see below); ii) adequate species to be selected; iii) restoration workplans; and iv) maintenance plans. Species used for the restoration of forests and rangeland will systematically exclude invasive species and focus on multi-use species with demonstrated adaptedness to changing climate conditions, in particular drought-tolerant and fire-resistant species. For forests, such species may include *Azadiracta indica*, *Eucalyptus camaldulensis*, *Prosopis juliflora*, *Acacia senegal*, *Acacia nilotica* and *Acacia radiana*. For rangeland, examples include *Faidherbia albida* (Delile) A. Chev., *Leptadenia*

pyrotechnica (Forskk.) Decne, *Panicum laetum* etc. In rangelands, fodder grass species (e.g. *Alysicarpus ovalifolius*, *Andropogon gayanus*, *Pennisetum pedicellatum*) will also be sown.

183. For forest-dominated landscapes, reforestation approaches will be twofold: assisted natural regeneration (ANR) and ANR with enrichment planting. Both approaches are bottom-up in nature and relatively low-cost compared with a mono-plantation approach. Another demonstrated advantage is increased biodiversity within fenced perimeters[119][119]. The choice between the two techniques will be decentralised and result from the discussions between local communities and restoration experts. The project will provide financial support for fencing costs and initial provision of seedlings for enrichment planting, while community members will bear labour costs associated with planting, maintenance of fences etc. Community training on the choice of local species, best plantation practices and soil preparation (half-moon, zai etc.) will be provided by the project. The effectiveness of soil preparation techniques for rangeland restoration have been well documented in the Sahel[120][120] and will be fully capitalised upon. The Vallerani system (Delfino plough) will be used as required to optimise the efficiency of soil preparation for rangeland rehabilitation. To optimise cost efficiency and avoid high maintenance costs, the project will rent one of the three Delfino ploughs available in Burkina Faso[121][121] to implement mechanical zai, rather than purchase the equipment.

184. The restoration protocols will also indicate plans to establish community nurseries. Technical training will be provided to voluntary community members ? with a focus on youths and women ? to operate these nurseries and produce seedlings that will be used for restoration work. It is anticipated that a total of 23 nurseries will be established. These nurseries will also produce fruit trees and other species used for agroforestry, as this practice will be promoted through the APFS curricula under Component 3. The use and exchange of local seeds will be promoted. Nursery managers will also benefit from business financial literacy training to establish sustainable business plans, with a view to promote the sustainability of the nurseries beyond the project?s lifetime.

Activity	Description
2.2.1	Develop tools and approach for participatory diagnostic with simple indicators of climate-change affected agro-ecosystems, based on recognised methodologies for assessing ecosystem services, adapting tools from the Participatory Negotiated Territorial Development Approach and diagnostic/design tools used in agroecological/regenerative approaches (permaculture food forests, analog forestry, synthropic agriculture etc.)
2.2.2	Once facilitators in charge of the participatory design of restoration plans are selected (e.g. local NGOs with demonstrated capacity in terms of facilitation/power dynamics management as well as technical skills), train these facilitators on the methodology developed under Activity 2.2.1.
2.2.3	Based on Chartes fonci?res, other land-use plans and the assessment of climate-change affected ecosystem services, support the participatory design of restoration plans for degraded forests and rangelands

2.2.4	Establish restoration options based on the latest scientific evidence and local traditional or innovative knowledge to guide the restoration of approx. 15,000 of degraded forests and rangelands
2.2.5	Establish 23 community nurseries to provide seedlings for the restoration activities and beyond.
2.2.6	Provide technical and business training to community members (esp. women and youths) for the sustainable management of nurseries following FAO?s Agroforestry Field School methodology
2.2.7	Conduct community training sessions/ Agroforestry Field Schools on: i) soil health and soil preparation techniques; ii) tree health and planting techniques; and iii) maintenance of restoration plots, iv) establishment of seed banks and grafting techniques.
2.2.8	Support fencing operations for the assisted natural regeneration of designated plots.
2.2.9	Set up community seed banks, provide seedlings as required as well as small planting equipment for enrichment planting.

Output 2.3: the climate threats to water availability for ASP communities is reduced through the uptake of sustainable water management practices and establishment of small-scale infrastructure

185. The target landscapes are mostly situated in the basin of the Mouhoun river? and its tributary the Sourou river. Specific impacts of climate change on water resource management in the Mouhoun basin have been identified. While surface water resources produced in the Mouhoun basin (the volumes of water flowing in the basin?s rivers) are not expected to change significantly in terms of total annual volume, the seasonal distribution of flows is likely to show a decreasing trend in the dry season between January and July (estimated reduction of between 23 and 46 Mm^3 , i.e. of the order of magnitude of 1%) which would be compensated by an equivalent or greater increase in the rainy season (August-September-October). The increase in temperatures would lead to an increase in evapotranspiration and thus an increase in water demand for agriculture; the resulting total impact on water demand and losses to uses (through evaporation) would be between 0% and 3.5% by 2030.

186. Generally, water resources in the target landscapes are under strong anthropic pressure in a context of unfavourable climatic evolution. Increasing difficulties in accessing water are the main consequence, which can lead to conflicts over use. The Mouhoun basin is the one where the percentage of water demand over water availability is the highest in 2030 projections[122][122] as demand for irrigation water is projected to increase by 51% between 2017 and 2030. Water demand as a share of water availability would then reach between 54 and 64%, well beyond the threshold of 30% which corresponds to a level of moderate water stress where water availability becomes a limiting factor for development. It must be noted that these projections correspond to a normal year, whereas in a dry year (1 year out of 10 on average, but with a risk of increased frequency due to climate change), available resources would be divided by two on average and demand would thus exceed resources.

187. Further to the direct and indirect consequences in terms of water availability, the anticipated impacts of climate change in the target catchments include a decrease in land fertility resulting in lower agricultural productivity and decreased fodder availability, leading to lower animal productivity. The disappearance of biodiversity ? including plant species that

are used in the composition of pharmacopoeia products ? is also foreseen as a by-effect of ecosystem degradation fostered by climate change.

188. To reduce the vulnerability of target communities to the threatened productivity of rainfall agriculture, water availability will be supported through the implementation of irrigation systems. To ensure that this does not contribute to exacerbate future tensions on water availability because of increased water demand, water management techniques[123][123] (such as contour bunds, stone lines, planting pits and three-sided basins) will also be implemented to optimise the efficiency of water uses. This is in line with the national strategy on irrigation.

Activity	Description
2.3.1	Conduct community training sessions on low-cost water management techniques such as contour bunds, stone lines, planting pits and three-sided basins[124][124],[125][125].
2.3.2	Together with relevant local and regional partners (incl. Agence de l?Eau du Mouhoun and Regional Directorates for Agriculture and Hydraulics), conduct a participatory assessment of irrigation needs in the target landscapes to identify the areas most suited for irrigation investment.
2.3.3	Based on the participatory assessment, produce costed feasibility studies for the equipment of 20 ha with sustainable irrigation infrastructure (boreholes with solar exhaures, wells etc.)
2.3.4	Based on the feasibility studies, install irrigation infrastructures to benefit 20 ha of arable land.
2.3.5	Support local communities to establish water management committees for the sustainable management of irrigation infrastructures.
2.3.6	Train local youths on the maintenance of irrigation equipment.

Component 3: Climate resilient agro-sylvo-pastoral livelihoods

Outcome 3: Agro-sylvo-pastoral livelihoods are diversified and made more resilient, through upstream upscaling of the Agro-Pastoral Field Schools approach, and downstream support to transformation and market linkages

189. Under Component 3, an integrated approach to resilience building based on support to locally adapted agroecological practices ? from production to market ? will be implemented. The objective will be to both foster agroecological production and ensure that the agroecological transition can be conducive to economic development for rural communities. Only then can a climate adaptation strategy based on the agroecological recommendations formulated during the PPG phase (cf. Annex P and baseline sections) be effective and sustainable. While the development of curricula for the dissemination of best agroecological practices will be a collective exercise to be performed during project implementation (cf. Outputs 3.1 & 3.2), some of the key aspects emerging from the TAPE assessment (Annex P) that will be taken into account, are summarised in the box below.

Key aspects to be promoted under Component 3 based on the 10 elements of agroecology

Diversity: households will be sensitised to further diversify production, including by integrating animals and trees on the farm. Given the importance of Non-Timber Forest Products and the need to restore land and provide fodder for animals, tree species of proven interest will be suggested (fertilisers, fodder, living hedges, cover crops associated with crops). This will be linked to capacity building on nursery keeping and assisted natural regeneration to be promoted under Component 2. In addition, income-generating activities will be diversified ? especially for women ? by developing the capacity to process agroecological products locally.
Synergies: the performance of ASP systems requires promoting synergies between farming sectors. To this end, it is necessary to diversify the sources of livestock feed by cultivating fodder crops. These can be produced in association with crops, as some species can also be used as cover trees and serve to protect the soil against erosion. In addition, the use of crop residues like mulch or recyclable material for composting and livestock feed will be promoted.
Efficiency: in order to reduce dependence on synthetic fertilisers, the promotion of agroecological practices for land restoration and water saving at the plot level will be a priority. The production and distribution of organic fertilisers and biopesticides are economic opportunities in rural areas for young people and women. Moreover, improving efficiency also suggests promoting integrated pest and disease management, including capacity building for producers on the recognition of crop pests, and the development of local knowledge related to pest control by plants.
Recycling: in view of land degradation and the lack of manpower, it is important to promote innovative composting methods that are less time-consuming and save water. In addition, techniques for collecting and saving water in the field will be disseminated.
Resilience: household resilience calls for diversification of production and increase in the value-added derived from agricultural production. It will thus be necessary to facilitate the local processing of agricultural products at the local level.
Food crops and traditions: local peasant seeds, which are threatened by the sometimes-uncontrolled introduction of seeds for production purposes, will be promoted.
Co-creation and sharing of knowledge: the identification and co-creation of agroecological innovations and the sharing of experiences will be supported with farmers as the driving force (in order to guarantee their sustainability and local anchoring). Knowledge exchange (including between APFS groups), open field days, participatory videos, participation to regional platforms will be required (cf. also Component 4). These exchanges must associate local platforms and NGO/CSOs promoting agroecology, bio-input suppliers, agricultural product processors, buyers of agricultural products, technical support structures, microfinance institutions, etc. It will thus be a question of developing synergies between relevant actors at the territorial level.
Human and social values: promoting women?s leadership and reducing social inequalities, through advocacy with the authorities, community awareness and the education of the targeted beneficiaries will be key. This emancipation must also be economic. To this end, it is necessary to support female and youth entrepreneurship and facilitate market access by focusing on baskets of agroecological products.
Circular and solidarity economy: promising baskets of products in terms of agroecology and market potential at the scale of the territory must be developed. To this end, the production and distribution of inputs, processing of products and marketing must be supported through the training of beneficiaries and their support in an entrepreneurial dynamic.
Responsible governance: it is necessary to reduce the reluctance to make sustainable investments due to land insecurity. To this end, land tenure security needs to be promoted in line with national laws (cf. Component 1).

190. The Farmer Field School (FFS) approach is a pillar of this proposed project. FAO has significant experience and a comparative advantage on supporting Field Schools approaches in the region and in Burkina Faso ? where FAO first introduced it in the early 1990s. Both in Burkina Faso and in the region, FAO is implementing several projects with significant Field School components, and will thus be able to draw on a large pool of expertise and experience. FAO has also expanded the Farmer Field School approach to cover agro-pastoral communities, i.e. with Agro-Pastoral Field Schools (APFS). In Africa, this was first implemented in Uganda in the early 2000s, and is now ongoing in over 30 countries.

191. APFS consist in informal education for adults to experiment with and disseminate improved farming practices through field observation and hands-on training. Participatory methods are used to create an environment conducive to learning, in which participants can exchange knowledge and experience in a risk-free setting. Practical field exercises using direct observation, discussion and decision making encourage learning-by-doing. Technical topics that can be addressed through APFS include soil, crop and water management, seeds multiplication and varietal testing, agropastoralism, aquaculture, agroforestry and nutrition. The APFS process enhances individual, household and community empowerment and cohesion. Indeed, APFS have proven to strengthen not only technical skills and decision-making capacities of farmers, but also to significantly influence the community as well as intra-household dynamics. APFS strengthen community relations and the capacity to listening to others? opinions, to formulate and express personal points of view and to find together a common solution through the process of communication and learning. It will thus be a useful steppingstone towards the reduction of conflicts over natural resources.

192. The GEF project #5014 ?Integrating Climate Resilience into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas Through the Farmers Field School Approach? supported the successful development of over 100 APFS across four regions of Burkina Faso. This approach will be upscaled by the proposed project through the training of master trainers and facilitators (Outputs 3.1 & 3.2) under the MTEE, MAAHRAH and MRAH, and the equipment of APFS with small transformation units and Farmer Field and Business Schools (FFBS model developed by CARE) or Farmer Marketing Schools modules (Output 3.4). This will facilitate the testing and dissemination of best agroecological practices, including in the livestock sector.

193. Financial support piloted under GEF project #5014 will also be continued and upscaled, through the training of endogenous facilitators (Output 3.2), strengthening of the functioning of Associations Villageoises d?Epargne et de Cr?dit (AVEC; Output 3.6) and facilitation of market access for producers engaged in the agroecological transition (Outputs 3.4 & 3.6).

Output 3.1: the capacity of 50 APFS master trainers from the MTEE and MAAHRAH is strengthened

194. The global strategy for the implementation of the APFSs will include four steps: i) the training of master trainers which will be conducted by existing senior master trainers and specialists in the target themes; ii) the training of facilitators which will be conducted by newly-trained master trainers and senior master trainers (including both existing facilitators and newly trained ones) ; the iii) the training of ASP communities which will be conducted by facilitators; and iv) the training of endogenous facilitators, i.e. voluntary community members who will continue the facilitation of APFSs after the end of the first 12-month training cycle.

195. Under Output 3.1, 50 master trainers (50% women) will benefit from initial training. This is more than the number of master trainers that will actually be required to train facilitators for the APFS to be established under the proposed project (namely, 25 master trainers), as the objective will be to facilitate the widespread implementation of the APFS

approach throughout Burkina Faso beyond the scope of the LDCF investment. Having a critical mass of 100 trained master trainers available will allow the rural development ministries to follow up on the institutionalisation of the APFS approach (cf. Output 4.3).

196. To kick off the implementation of the APFS sequence, a stakeholder workshop will be held to discuss and validate the APFS implementation strategy to be developed based on the draft strategy prepared during the PPG phase (Annex Q). This meeting will be used to inform/train the various stakeholders on the climate-sensitive agropastoral school fields approach. A technical workshop will then be held to develop a training curriculum for master trainers. Climate-resilient ASP practices cover a vast field of expertise that requires a multi-stakeholder approach in identifying priority technical topics for the training curriculum of master trainers. This meeting will thus bring together senior master trainers, specialists in the fields of ASP and climate change from the ministries in charge of agriculture, livestock, environment and research as well as international experts in agroecology, as required. It will be based on the results of assessment such as TAPE, ?innovation tracking? (?*traque aux innovations*?) done in the target areas[126][126] and latest scientific evidence. Terms of reference for the selection of future master trainers will then be drafted; these will mostly be selected from deconcentrated technical services in charge of agriculture, livestock, the environment, research and vocational education in the field of ASP. Executives from central technical services and NGOs will also be involved.

Activity	Description
3.1.1	Organise a stakeholder workshop to discuss and validate the APFS implementation strategy
3.1.2	Conduct a survey of agroecological innovations and practices already used in the target area and that can be seen as ?pre-tested? by local innovators (?*traque aux innovations*?).
3.1.3	Organise at least two technical workshops to develop a training curriculum for master trainers and facilitators, including expertise on agroecology (permaculture design principles, soil health, synthropic farming, analog forestry etc.)
3.1.4	Select future master trainers (50% women)
3.1.5	Organise initial training sessions for master trainers on the APFS approach and climate-resilient regenerative ASP practices (at least 60 days of training over at least 5 months)
3.1.6	Organise training sessions for master trainers on Farmer Field and Business Schools (FFBS)/ Farmer Marketing Schools[127][127] and Village Savings and Credit Associations (Associations Villageoises d?Epargne et de Cr?dit; cf. Output 3.6)
3.1.7	Organise refresher training sessions for master trainers, ? la carte

Output 3.2: the capacity of 200 new technical facilitators from the MTEE and MAAHRAH, local NGOs and CSOs and 300 endogenous facilitators is strengthened

197. A training plan for APFS facilitators? training will be elaborated based on existing material. This document will be reviewed and validated by a team of senior master trainers. As with the selection of master trainers, terms of reference will be drafted to guide the selection of facilitators. The ToRs will specify the profile of facilitators required and their role in the implementation of the project. The facilitators will be identified within the technical services and local NGOs of the project beneficiary communes.

198. The initial training of facilitators on the APFS approach and climate-resilient ASP practices, as well as the gender component, will cover 30 days divided into several sessions. This will be complemented by an initial refresher training of existing facilitators. The organisation and facilitation of the training-of-facilitators (ToF) sessions will be based on the methodological guide. A facilitators? field school will be set up for the practical work. Also, in parallel to the learning process, the facilitators will set up their first APFSs (associated APFSs) in their commune of intervention. Each ToF will be under the technical responsibility of three master trainers with complementary background profiles (agronomists, zoologists, climate change specialists)[128]. If necessary, they will identify additional resource persons to cover specific technical topics and guide their interventions.

199. The training of facilitators on relevant business and marketing-related modules (depending on needs and interests assessed) and AVECs will span over six days, i.e. three days per module. These modules aim at reinforcing the capacities of the learners in the marketing of the ASP products and the process of setting up, running and monitoring & evaluation of the village savings and credit associations.

200. Refresher training sessions for facilitators will be organised on the basis of a needs assessment, through an analysis of their performance and the state of the APFSs. These training sessions will be part of a perspective of continuous improvement of the implementation of APFSs in the field. Such refresher sessions will be conducted at the start of the project for the APFS facilitators already trained by previous projects, particularly in the Centre-Ouest region, with a view to build on past investments as much as possible and avoid duplication of efforts. Training sessions may also be organised remotely, as to allow international experts to contribute and transport considerations to be overcome. Participants to refreshers can include MTs and facilitators, participants will be provided with funding to acquire phone credit to connect virtually.

201. During the learning cycle in the APFSs, the facilitators and trainees will identify one or two group participants interested in becoming endogenous facilitators. These members should be motivated and able to develop new skills in future trainings. After a few months, these identified members shall be involved in helping the facilitator so that they can learn the basics of facilitation[129]. At the end of the first cycle of learning in the APFSs (12 months), a complementary training, lasting at least 15 days, will be conducted for the benefit of the endogenous facilitators. This training will cover modules related to the APFS methodology and climate-resilient ASP practices. The endogenous facilitators will ensure the continuity of the facilitation of the APFSs by replacing the technical facilitators after the first cycle. However, the technical facilitators will continue to provide regular coaching and technical support as needed, as well as be in charge of monitoring and reporting the performance of APFS.

Activity	Description

3.2.1	Conduct a rapid survey of needs and interests of farmers in target communities to be carried out before the training of facilitators with a view to inform the organisation and content of facilitators? training.
3.2.2	Develop training plans for the training of facilitators based on existing curricula. The modules will include complementary models for capacity development, in particular video dissemination (e.g. Video entrepreneur model of Access Agriculture experimented by FAO in Uganda).
3.2.3	Select future facilitators (at least 50% women)
3.2.4	Organise initial training sessions for new facilitators as well as initial refresher training for existing facilitators on the APFS approach, climate-resilient ASP practices and gender-sensitive development
3.2.5	Develop market and business-oriented modules based on assessed needs, using existing modules such as FFBS, Farmer Marketing School, COQUA[130][130] and other. Organise training sessions for facilitators on these custom modules as well as AVECs.
3.2.6	Organise at least two refresher training sessions for facilitators
3.2.7	Train endogenous facilitators from the APFS groups to ensure continuity of the learning process

Output 3.3: the capacity of target communities to implement climate-resilient agro-sylvo-pastoral practices is improved through the creation of 500 APFSs

202. Before the creation of the APFSs, the facilitators ? under the supervision of the master trainers ? will carry out participatory diagnoses in the beneficiary villages. These diagnoses will focus on: i) the description and analysis of the context and production systems; ii) the identification and characterisation of ASP problems related to climate change; and iii) the identification and analysis of local resilience solutions (practices). The results of this diagnosis will serve as a basis for the finalisation of training curricula by facilitators, with support from master trainers, to be used in ASP communities.

203. APFSs will be created in the project?s beneficiary villages. The learning cycle of an APFS will cover a period of twelve months, giving members the opportunity to explore a range of solutions to address adaptation challenges. In Year 1, newly-trained facilitators will jointly facilitate an APFS ? then facilitate one or two APFSs alone in Year 2, while also supporting the endogenous facilitator from Year 1. Existing facilitators who will benefit from the initial refresher training will be able to facilitate one or two APFSs on their own from Year 1. Some of the practices tested include soil conservation measures to restore degraded arable land and sustainably increase land productivity, thereby complementing the restoration of forests and rangelands under Component 2.

204. The members of the APFS groups will be sensitised and trained in the management of the AVEC around four months after the start of the technical learning cycle on the ASP activities. The integration of APFSs and AVECs aims to accumulate and diversify the productive assets and knowledge of vulnerable smallholder farmers in order to improve their livelihoods and strengthen their resilience to recurrent shocks and crises. Voluntary APFS members will structure themselves into AVECs with the technical support of facilitators.

Activity	Description

3.3.1	Carry out participatory diagnoses in target communities to identify farmers? priorities, characterise farm systems and jointly identify climate-resilient ASP practices to be tested
3.3.2	Set up and facilitate APFS training sessions
3.3.3	Ensure the follow-up and advice of the implementation of the APFSs
3.3.4	At the end of each APFS, organise open days to share results of experimentation and learning with the rest of the community.
3.3.5	Organise regional open days in Y3 to which local/regional decision-makers can participate to understand the results of activities and potential of practices tested.

Output 3.4: 500 APFSs are supported with Farming Business/Marketing School modules to improve the capacity to organise and manage production as well as access and develop markets (including supply-demand matching), and 200 APFSs are equipped with small processing units and post-harvest storage solutions to facilitate market access (including for the reduction of post-harvest losses)

205. To increase the resilience of producers and support the agroecological transition, market access will need to be facilitated. Modules adapted from Farmer Field and Business Schools (FFBS) and Farmer Marketing Schools (FMS) will be used by the facilitators trained on this approach under Activity 3.2.4 to build APFS members? market capacities. As in the APFSs, learning using these modules will happen in the farm and cover the production cycle from planning to marketing with practical exercises based on available resources. These modules will be complementary with the production side of on-site training (APFS) and financial instruments developed to increase access to micro-funding (AVECs). As needed, facilitators will benefit from external support to implement these modules (e.g. by FairMatch Support).

206. One of the avenues to facilitate market access will be to equip selected APFSs will the equipment and capacity to process raw products. The expected benefits are manifold: i) increase the value-added and, consequently, market value of agroecological products to generate a greater income for producers; ii) reduce post-harvest losses that affect unprocessed products; iii) increase the diversity of products available on local markets; and iv) crowd in private finance from local producers and initiate a positive dynamic of investment at the local level. The processing units will be financed on a co-financing basis. The details of the financing mechanism will be defined by the in collaboration with the stakeholders. Likewise, investments to decrease post-harvest losses and facilitate market access for fresh products will be promoted (e.g. cold storage units), as recommended by the MTM study (Annex P).

207. A study of the agroecological and market potential of selected products will be carried out in order to assist the APFSs in making judicious choices. The study will propose models of micro-processing units for the processing of ASP products adapted to the context of the different intervention communes. To ward off the risk of imposing irrelevant investment onto communities, the selection process will be both demand-driven and guided by market experts. A number of solutions have already been pre-identified that will form the basis of the discussions at the APFS level; such solutions include investment in cold storage, equipment to produce food for young children[131][131] etc.

208. The APFS groups that will benefit from the micro-processing and post-harvest storage units will be selected by selection committees in each region. To this end, consensual selection criteria will be defined. These criteria will include the dynamism of the APFS groups and the relevance of their micro-project ideas in a perspective of increase resilience to climate change. Once beneficiary APFSs are selected, the facilitators will accompany them to structure themselves into cooperatives when the nature of the planned micro-project requires so. Training sessions on the governance of cooperatives ? including on financial literacy ? will be then organised for the cooperative leaders, and cooperatives will be supported to develop their business plans.

209. An assessment of the cooperatives? needs for specific technical training will be carried out. This assessment will serve as a basis to organise thematic training sessions for cooperatives with similar needs. The monitoring of the functioning of the processing units will be ensured by the technical and operational partners. The assistance of the partners will cover the technical aspect of production but also the support to financial and accounting management. To complement the project support to access to local finance through provisions for the micro-investments (Activity 3.4.8) and through AVECs (Output 3.6), contacts between local business developers (APFS groups / cooperatives) and existing micro-finance institutions will be facilitated (Activity 3.4.9).

Activity	Description
3.4.1	Carry out market studies of ASP products
3.4.2	Implement Business and Marketing modules within 500 APFSs (at least 50% of women beneficiaries)
3.4.3	Select the APFS groups to benefit from the micro processing units, post-harvest storage units and other small-scale investments for ASP products
3.4.4	Support selected APFS groups to formalise a management plan for their investments. As required, support the formalisation into cooperatives.
3.4.5	Organise training sessions on cooperative governance and financial literacy
3.4.6	Support cooperatives and business groups for the development of micro-projects to facilitate market access of and increase value-added from ASP products
3.4.7	Organise specific technical training, coaching and support to increase the technical capacity of beneficiaries to conduct the target activities
3.4.8	Finance the creation and operation of micro-processing units and post-harvest storage solutions for ASP products
3.4.9	Facilitate linkages between demand for micro-finance (among trained groups / cooperatives with established business plans) and supply (established micro-finance institutions) at the regional level.

Output 3.5: Participatory certification systems elaborated in partnership with the private sector, civil society and international sustainability certification initiatives to facilitate access to markets

210. Facilitating market access for farmers who engage in agroecological and organic production is a necessary condition to encourage this transition, increase the value that farmers can extract from their work and ultimately foster the resilience of rural livelihoods. Given the importance of territorial markets for product diversity, the proposed project will focus on national-level market access[132][132].

211. The Participatory Guarantee System (PGS) is the preferred certification modality in the context of this project, as it combines the flexibility and low-transaction cost of self-declared systems with the transparency and visibility of second-party certification. PGS are ?essentially locally focused quality assurance systems that certify producers based on the active participation of farmers, consumers and other local actors. Farmers pledge to follow organic standards, and a group of actors (usually made up of farmers only, or a mix of farmers, consumers and an agronomist) conduct field visits at regular time intervals ? they can be monthly, bi-yearly or yearly. A PGS committee is set up with representatives from all stakeholder groups that reviews the report and determines if certification should be granted or not.?[133][133]

212. Among the three target regions, Hauts-Bassins has the greatest diversity of products (including maize, sorghum, millet, rice, green beans, onions, eggplant, tomatoes, potatoes, cabbage, watermelon, chili, okra, carrots, garlic, peppers and lettuce, citrus, mango, cotton, groundnuts, sesame, soy, cashews) and is also home to the city of Bobo-Dioulasso ? which offers the easiest trial of PGS systems for territorial markets. However, PGS will also be experimented with in the other two regions around the more commercial crops ? like sesame, cotton, rice ?, including, when relevant, as a means to build greater responsibility among the farmers and prepare them for international certification schemes.

213. In Burkina Faso, a PGS for organic products has been developed and implemented by the Conseil National de l?Agriculture Biologique (CNABIO). Since 2013, the PGS, dubbed ?BioSPG?, was developed in accordance with the international standards for organic agricultural commodities set out in the Codex Alimentarius[134][134]. CNABIO has been piloting the implementation of the BioSPG label in 27 communes spread over seven regions of Burkina Faso, working with 344 producers. The BioSPG experience has shown that PGSs in Burkina offer three major advantages: i) the construction of a common culture, as the PGS provides a framework for exchange, reflection, sharing of experiences and knowledge that go beyond the GSP itself; ii) the collective improvement of practices; iii) the emergence of local dynamics (e.g. group marketing). Some challenges have also been experienced[135][135], related to: i) the lack of monitoring of PGS results, with little data being collected to understand the impacts of the label on local agricultural practices; ii) the limited capacity of local producers to implement required agroecological practices to abide by the certification requirements. While the latter challenge will be addressed through the APFSs, the former needs to be coped with by developing an adequate monitoring plan.

Activity	Description
3.5.1	Conduct a participatory audit of the BioSPG label and identify entry points to improve its definition and mode of implementation ? including on monitoring. Conduct a cross-checking exercise with CNABIO to identify any discrepancies between practices promoted through the APFSs and BioSPG local specifications
3.5.2	Based on the results of the audit, collectively propose and validate improved BioSPG specifications and implementation guidelines, along with a monitoring plan.

3.5.3	Develop terms of references for the implementation of certification in partnership with CNABIO in the target communes.
3.5.4	Sign agreements with CNABIO members and other partners ? as needed ? to implement the terms of references developed under Activity 3.5.3.

Output 3.6: 500 Village Savings and Credit Associations (Associations Villageoises d?Epargne et de Cr?dit, AVEC) are supported to formalise their financial management

214. Agroecology does not require a lot of external inputs or heavy machinery but rather relies on natural synergies and use of local resources. Nevertheless, while shifting toward an agroecological production model does not imply massive investments, it still bears fixed costs (seeds, wells, fencings, small-scale equipment or storage facilities) that many farmers ? especially women and youth ? cannot afford. This is because of a lack of funding and constrained access thereof.

215. In response, Output 3.6 follows the ?Caisse de R?silience? approach that has been successfully implemented by FAO in several countries, including in Burkina Faso[136]. This integrated approach consists in combining the productive and social components of resilience building with a financial component, that may typically include the establishment of community contingency funds and improved access to local credit systems, with a focus on the most vulnerable populations (esp. women and youth). The implementation of locally-adapted climate-resilient agriculture practices, agroforestry and disaster risk management (productive component), as well as the assistance received to improve production, help increase the productivity of vulnerable agricultural or agro-pastoral households. The increased levels of production obtained can thus improve incomes. Combined with a community-based saving and loan system or warrantee schemes (financial component), the additional income enables to increase the available capital and to improve the reimbursement of loans. The communities can decide to use this increased capital to integrate within the most vulnerable and marginalised households, in order to enable them to better protect their livelihoods and access the benefits linked to the membership of a formalised group. It should be noted that both APFS and Dimitra Clubs will build the groups capacity to work together and trust each other ? which is essential for the AVEC to bear its fruits. Although AVECs will typically fund small investments (USD 20 on average in the previous project), this will come on top of other supporting activities (e.g. Output 3.4). Through the combination of supporting activities under Component 3, the overall purpose is to help vulnerable households break the vicious circle of poverty and dependence, that repeated assistance interventions often fail to address in a sustainable way, for a virtuous cycle of investment, savings and resilience.

216. The activities to be conducted under this output will be informed by lessons learned and recommendations from the evaluation of the previous LDCF-FAO project in Burkina Faso[137] as well as other relevant initiatives in the Sahel[138]. In the previous LDCF-FAO project, AVECs were established in 153 APFSs, benefiting 3,908 people (58% women). As of 2020, approx. USD 80,000 were mobilised by the beneficiaries in the form of social shares and approx. USD 65,000 were granted in the form of credit to the members to carry out

income-generating activities such as the preparation and sale of dolo (traditional millet-based drink), the processing and sale of agricultural products (cakes, taro, etc.) and small-scale livestock farming (poultry, cattle, etc.). One important lesson learned is that AVECs can work as a strong women empowerment tool: in the previous LDCF-FAO project, over half of the AVECs had a woman as leader, as AVEC members recognised that women were better at managing finances than men[139][139]. Some of the key recommendations from evaluations of AVEC initiatives include: i) establishing partnerships with microfinance institutions to upscale the financing of AVECs after the projects? termination; ii) working on advocacy with key stakeholders; iii) developing an exit strategy for AVECs; and iv) providing training in basic bookkeeping and financial literacy to AVEC Management Committee members ? including women.

217. Under Output 3.6, the proposed project will upscale the Caisse de R?silience approach by supporting the creation of AVECs in all APFSs established under Output 3.3 where there is a demand from community members. The establishment of AVECs will be supported by the APFS facilitators trained on the creation of AVEC under Activity 3.2.4.

Activity	Description
3.6.1	Present the advantages and principles of AVECs to APFS trainees
3.6.2	Support the establishment of AVECs within interested APFSs
3.6.3	Provide support for the operations of AVECs through a learning-by-doing approach

Component 4: Monitoring, evaluation, capitalisation and knowledge building

Outcome 4: The results of the project are evaluated, and lessons learned are documented and disseminated

218. Under this component, the proposed project will identify and disseminate lessons learned and best practices, across Components 1, 2 and 3, but also with thematic focuses on the implementation of the Agro-Pastoral Field School (APFS) and agroecological approaches (Output 4.1), with the perspective of fostering their institutionalisation in Burkina Faso (Output 4.2).

Output 4.1: Gaps in the evaluation of the mid- to long-term transformational impacts of APFSs are addressed through a sustainable research programme

219. Existing evaluations allow to quantify evidence of the impact of APFSs, generally focusing only on limited agronomic indicators. However, these assessments often provide an incomplete picture of the situation on the farms and in the village communities benefiting from APFSs[140][140]. Indeed, using only indicators such as the rate of adoption (obtained by questionnaire survey) or the degree of knowledge acquisition (obtained by testing the farmers concerned) of agricultural practices entails that APFSs remain ?black boxes? to a large extent, and the processes through which they deliver their impact is usually only approached through

anecdotal, piecemeal examples. Moreover, these evaluations often only take the context of the interventions into account to a limited extent.

220. In addition, indicators only tend to enquire about a practice or knowledge chosen a priori by the evaluator and do not explore what actually happened for participating farmers (whether positive or negative) at the level of their farms and families. These evaluation methods do not consider the experimentation and adaptation of practices by the farmers themselves, even though the field school approach is designed to strengthen farmers? adaptation skills ? thereby differentiating the APFS from a technical demonstration plot, for example.

221. Finally, indicators often measure short-term effects as they are typically studied within the timeframe of a given project (between two and five years). However, this hardly allows to understand the extent to which the APFSs have had transformational effects after they have stopped being supported, even though some of the most crucial impacts ?in terms of adapting capacity, restoration of soil properties, changes in social dynamics around women and youths etc. ? would need to be monitored over the mid-run. This also means evaluations tend to focus on easily measurable changes, such as changes in yield, rather than significant ones, such as empowerment of women, changes in farming systems, evolution of collective action in the community.

222. Evidence shows that farmers rarely adopt a technical package as a whole, nor in a single phase of change, as this would be very risky and quite complex for them. Generally, the adoption and often the adaptation of agroecological practices require time to understand their effects and master their use. In most cases, this thus happens through several successive changes of practices for the same cropping or production system. For example, for the first season of introduction of a new practice, the farmer will test it on a small portion of one of his plots, then the following year the practice would be generalised to an entire plot after which, in the third year, the farmer may adapt the practice and modify it to better fit his expectations or needs.

223. To try and unpack the impact of APFSs as instruments to support climate adaptation and the agroecological transition, a twofold approach will be followed under the proposed project. Firstly, as per standard practice, project-level indicators that can be monitored in the timeframe of the project will be studied (cf. Annex A1 and Output 4.4), making sure environmental, social and economic indicators are included. In addition, a research programme with the ambition to remedy some of the shortcomings of APFS evaluations will be established under Output 4.2. This will entail working with national and, as required, international research institutions to set up a sustainable workplan that should extend beyond the project timeframe, with a view to provide insights on the mid- to long-term transformational impact of APFSs in terms of climate adaptation and support to the agroecological transition. Alternative evaluation methods will be employed, such as relying on the reconstitution of transformation trajectories based on the farmers? ?stories? collected during interviews.

Activity	Description

4.1.1	Convene an international stocktaking workshop on challenges and research perspectives for the evaluation of APFS?s impact to support climate adaptation and the agroecological transition.
4.1.2	Together with national and, as relevant, international research institutions, develop a pilot research programme to study the mid- to long-term impact (10 years) of APFSs established under Component 3.
4.1.3	Sign an LoA with selected research institutions to implement the research programme with practitioners as action research. In line the with the research programme, support methodological and field studies.
4.1.4	Support the identification of and help secure funding sources for the research programme to continue after the project termination and complete the mid- to long-term research objectives.

Output 4.2: Relevant national sector development strategies and university curricula mainstream the Agro-Pastoral Field Schools (APFS) and agroecology approaches in order to upscale and outscale climate change adaptation practices and approaches

224. The institutionalisation of the APFS and agroecology approaches will be supported by identifying avenues to mainstream it into key strategic plans and policy documents for the main relevant ministries, namely MAAHRAH and MTEE. These policies and strategies will be further identified during project implementation with the relevant ministries, with a view to maximise ownership. Mainstreaming options will then be supported by the proposed project, based on evidence gathered in Burkina Faso as well as regionally.

225. This will be complemented by the mainstreaming of APFS into the relevant curricula of universities and vocational training centers. To kick-start the process of mainstreaming APFS in university curricula, a workshop will be held to share information on APFS and agroecology with a selection of interested training institutions, in partnership with the Direction des Ecoles et Centres de Formation Agricole[141][141]. This initiative will be open to universities and vocational training centers countrywide, with a particular focus on training institutions from the target regions[142][142]. This will also be an opportunity to learn about the experience of East African countries, particularly Kenya, which have successfully introduced APFS in some university curricula.

226. A study will then be conducted to propose options for the introduction of APFS and agroecology in the training curricula of universities and vocational training schools. The Terms of Reference of the study will be discussed during the workshop so that the needs of interested training institutions are well captured in terms of levels, types of training modules etc. Based on the recommendations from the study, technical support will then be provided to at least one university and one ASP vocational training school for the revision of curricula to include the APFS agroecology approaches. The results of this pilot phase will be monitored, and a stocktaking study will be produced and discussed during a dedicated workshop to identify lessons learned and encourage other training institutions to embed APFS into their own curricula.

Activity	Description

4.2.1	Conduct consultation workshops with the MTEE, MAAHRAH and relevant stakeholders at national and local levels (including members of the PSC) to identify entry points for the mainstreaming of APFS and agroecology into strategies and policies. This will include options to foster agroecology from the demand side, e.g. by considering how the State could support demand for agroecological products through public procurement.
4.2.2	As required from the relevant ministries, develop and submit amendments to mainstream APFS and agroecology into relevant strategies and policies, for validation by policy makers
4.2.3	Organise information/sensitisation workshops for universities and ASP vocational training schools, with knowledge-sharing on international experience (East Africa) related to the mainstreaming of APFS into curricula
4.2.4	Develop a strategy to propose avenues for the mainstreaming of APFSs and agroecology into university & vocational training curricula
4.2.5	Support at least one pilot university and one pilot vocational training center to mainstream APFS and agroecology into their curricula.
4.2.6	After two academic years, conduct a stocktaking study on the results of the mainstreaming of APFS and agroecology into the curricula of the two pilot institutions. Convene an experience-sharing workshop to present the results of the study and encourage other training institutions to mainstream APFS and agroecology into their curricula.

Output 4.3: Effective and participatory Monitoring, Evaluation and Learning (MEL) implemented, including tools adapted to/with communities for them to define, monitor and visualise progress

227. Project activity will be comprehensively monitored and evaluated to help guide adaptive management and promote the uptake of knowledge, good practices and successful approaches, including gender mainstreaming. This will be achieved in part through the project?s Monitoring, Evaluation and Learning (MEL) efforts.

228. The proposed project will ensure that decisions made, and interventions proposed for implementation, consider the potential impacts and outcomes for different groups within society, with particular focus on the roles played by men, women and youth. In line with the principles of integrated natural resource management, the proposed project will promote a participatory approach to monitoring, evaluation and learning, involving all relevant stakeholders, including local communities. The focus will include project level monitoring, to feed into FAO?s global monitoring of its GEF and LDCF portfolio, and to contribute to GEF/LDCF?s global monitoring system.

229. Partnerships with national (e.g. Nazi Boni University, Ouagadougou University) and, as relevant, international scientific institutions will be established in the first year of project implementation to ensure that a sound scientific monitoring of the restoration processes can be undertaken. Indeed, although such restoration processes are increasingly being documented ? especially through ecosystem-based adaptation initiatives ?, there is a still a lack of scientific evidence (including cost assessments) to support the widespread implementation of such solutions in drylands. The scientific monitoring to be set up under the proposed project shall result in both publications in the grey literature and in peer-reviewed, scientific journals.

Hand-in-Hand initiative

The Hand-in-Hand (HIH) initiative is an evidence-based, country-led and country-owned initiative of FAO to accelerate agricultural transformation and sustainable rural development to eradicate poverty (SDG 1) and end hunger and all forms of malnutrition (SDG 2). It aims to facilitate the identification of investment opportunities (and matching investors with these opportunities) that would be the most effective and efficient to contribute to the above-mentioned objectives. One of the tools of the HIH initiative is the Geospatial Platform[143], which includes advanced geo-spatial modelling and analytics to identify the biggest opportunities to raise the incomes and reduce the inequities and vulnerabilities of rural populations. The Platform brings together over 20 technical units from multiple domains across FAO, from Animal Health to Trade and Markets, integrating data from across FAO on Soil, Land, Water, Climate, Fisheries, Livestock, Crops, Forestry, Trade, Social and Economics, among others. Burkina Faso being one of the 27 initial countries that took an engagement with the HIH initiative, the proposed project will contribute to feed the HIH initiative (including the Geospatial Platform) with information gathered through MEL. This will help upscale the impacts of the project beyond the scope of its target geography and timeline.

Activity	Description
4.3.1	Co-develop and implement the participatory MEL plan, identifying indicators, tools and the monitoring strategy for the project?s activities, including roles and responsibilities as well as a timeline and budget, including a mix of quantitative and qualitative approaches. In addition, some tools will be included to assess unexpected changes ? for instance through storytelling, photos, video and drawings, most significant impact by local community members, or evaluation using change trajectories[144]. Some of the MEL will be carried out digitally, using platforms such as KoboCollect to track basic indicators of performance at field level, e.g. to ensure the quality of APFS in the field and to track results. The MEL of APFS/AE initiatives at field level will involve extension agents so as to constitute evidence for buy-in by institutional actors (Output 4.2).
4.3.2	Organise workshops to review the project?s MEL system at project inception and at regular intervals; and mainstream training on the participatory MEL system in every training of master trainers and facilitators.
4.3.3	Hold annual review and planning workshops.
4.3.4	Conduct a terminal TAPE assessment to assess relevant project indicators from the results-based framework.
4.3.5	Produce at least three grey literature publications and three scientific papers for publication in peer-reviewed, scientific journals, the Hand-in-Hand Geospatial Platform for ecological monitoring etc.
4.3.6	Upload relevant project information and data (incl. GIS) on the Hand-in-Hand Geospatial Platform and the WOCAT[145] database (incl. actual intervention costs).
4.3.7	Conduct an Environmental & Social Risk assessment in accordance with national & FAO guidelines once exact project sites are selected

Output 4.4: Communication materials are designed and disseminated from the onset and throughout the project, including video and social media Communication materials are designed and disseminated

230. Applying an innovative communications strategy, best practices and lessons learned from project implementation will be translated into knowledge products and communication

outputs. Several national initiatives exist which may be able to support replication and sustainability of the project?s impact. At the inception stage of the implementation phase, a project communication strategy will be developed. This strategy will aim at capturing and sharing best practices generated throughout the project. The effort will focus upon target communities as well as making certain lessons learned are captured for upscale across a larger geographic region incorporating a wider group of private producers.

231. Stakeholders will be presented with a series of communication methodologies scaled to local producers, extension workers, government decision-makers and other key stakeholders. The aim will be to make certain lessons gleaned from project activities are fully-scalable by a larger audience across larger geographic areas. Communication approaches will include development of awareness-building materials, generation of electronic and print media publications, and awareness-building workshops. Topics to be covered by knowledge products will include, but not be limited to: i) lessons learned from the operationalisation of landscape-level governance of natural resources; and ii) ecological restoration processes of arable land, rangelands and forests.

232. Furthermore, opportunities for knowledge exchange with partners involved in relevant initiatives nationally and regionally will be seized. As of now, development partners involved in supporting the agroecological transition in Burkina Faso only meet on an ad-hoc basis, for example at project steering committee meetings. Although these are useful events to share knowledge and lessons learned, there is a need for a more structured partnership to exchange experiences and share updates about relevant initiatives ? ongoing or in development partners? pipelines. This is all the more relevant at the level of cofinancing partners for the proposed GEF project. Indeed, the intention behind cofinancing commitments is also to strengthen institutional collaboration at the technical level. Many relevant partner initiatives aiming to foster the agroecological transition in West Africa exist; such relevant national or regional initiatives include the FAO-GEF projects ?Resilient, productive and sustainable landscapes in Mali?s Kayes Region?and ?Restoration of degraded landscapes for sustainable food systems in the Peanut Basin and Eastern Senegal? under development ? among others. Exchange visits and seminars will be organised, collaborations with academia will be developed with a view to contribute the national and regional partnership in favour of the agroecological transition.

Activity	Description
4.4.1	Prepare and publish annual briefs and case studies, including at least one that is gender-focused on the project?s accomplishments, experiences and lessons learned
4.4.2	Organise information and knowledge exchange on APFS, including with/through the Central Africa Field School Network, African Forum For Agricultural Advisory Services, Global FFS Platform, etc. Participate to the regional agroecology seminars to be organised under the GEF-LDCF project ?Resilient, productive and sustainable landscapes in Mali?s Kayes Region?.
4.4.3	Organise biannual meetings of the cofinancing partners to exchange lessons learned and share knowledge, co-chaired by the GEF national Focal Point.
4.4.4	Train farmers and facilitators on producing short videos and uploading them online/sharing them with others for further sharing.
4.4.5	Produce two to three short practical videos in partnership with Access Agriculture to document some innovative promising practices that emerge from APFS. Translate these videos in local languages for greater dissemination.

Output 4.5: An exit strategy is formulated

233. To maximise the sustainability of project outcomes, an exit strategy will be produced through a participatory process involving all stakeholders that will be responsible for the continuation of activities. The preparation of the exit strategy will be initiated at least six months prior to project termination; the document will specify roles and responsibilities for each action as well as costs and pre-identified funding sources. The exit strategy will be formally endorsed during an end-of-project workshop.

Activity	Description
4.5.1	Conduct consultations to produce an exit strategy for all identified activities requiring further actions after project termination.
4.5.2	Based on the consultations, develop an exit strategy specifying roles and responsibilities, action costs and pre-identified funding sources
4.5.3	Convene an end-of-project workshop to present the main project accomplishments as well as challenges, and formally endorse the exit strategy. This workshop will also be attended by international stakeholders; it will also be an opportunity to present TAPE results, outcome of regenerative efforts, APFS results etc.

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

234. The proposed project adopts a landscape and agroecology approach to tackle climate change adaptation and vulnerability issues, with a focus on restoration of productive landscapes, improved agricultural practices and the strengthening of market access for agroecological products. It is fully aligned with the LDCF programming strategy[146][146], as described in the table below.

Table 15. Alignment between project outputs and LDCF objectives & outputs.

LDCF objectives	LDCF outputs	Proposed LDCF project outputs contributing to LDCF outputs
1: Reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation	1.1.2: Livelihoods and sources of income of vulnerable populations diversified and strengthened	2.2, 2.3, 3.3, 3.4, 3.5, 3.6
	1.1.4: Vulnerable ecosystems and natural resource assets strengthened in response to climate change impacts	2.2, 2.3
	1.2.2: Investment models developed and tested	3.4, 3.6
2: Mainstream climate change adaptation and resilience for systemic impact	2.1.1: Development/sector policies and plans integrate adaptation consideration	1.4, 1.5

	2.2.2: Adaptation and resilience relevant financing coordinated for synergistic programming including with the private sector	3.6
3: Foster enabling conditions for effective and integrated climate change adaptation	3.1.1: Systems and frameworks established for the continuous monitoring, reporting and review of adaptation	4.1, 4.2, 4.3

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

235. Indicative total co-financing for the proposed project amounts to USD 42,424,707. It stems from three sources:

MAAHRAH investments for a total of USD 35,811,497 through the projects:

? Projet d?appui ? la promotion des fili?res agricoles (Agricultural Value Chains Promotion Project, PAPFA) : USD 22,429,881 ;

? Projet de D?veloppement d?Infrastructures Agricoles Post R?coltes (Project for the Development of Post-Harvest Infrastructures, PDIAP): USD 3,951,915;

? Projet de D?veloppement d?Incubateur d?Entrepreneurs dans les Fili?res Agricoles Porteuses (Project for the Development of an Entrepreneurs Incubator for High-Potential Agricultural Value Chains, PDIEFAP): USD 666,684;

? Projet de D?veloppement de la Valeur Ajout?e des Fili?res Agricoles du Burkina Faso (Project for the Improvement of Value Added of Agricultural Value Chains in Burkina Faso, VAFA): USD 3,551,973; and

? Projet Agriculture Contractuelle et Transition Ecologique (Project Contractual Agriculture and Ecological Transition, PACTE): USD 5,211,044.

MTEE investments for a total of USD 4,358,190, through the projects:

? Programme Am?lioration des moyens d?existence durables en milieu rural dans les r?gions de la Boucle du Mouhoun et du Centre Ouest, au Burkina Faso (Programme to Increase sustainable, rural livelihoods in the Boucle du Mouhoun and Centre-Ouest regions of Burkina Faso, PAMED) : USD 2,409,712 ; and

? Projet d?appui au d?veloppement de l?anacarde dans le bassin de la Como? pour la REDD+ (Project to strengthen the cashew nut sector in the Como? basin for REDD+, PADA/REDD+): USD 1,948,478.

FAO investments for a total of USD 2,225,020, through the projects:

? Programme r?gional conjoint Sahel en r?ponse aux D?fis COVID-19, Conflits et Changements climatiques (Joint Sahel programme in response to Covid-19, conflicts and climate change challenges, SD3C) ? Burkina Faso component: USD 1,981,213;

? Facilitation de l?acc?s ? la terre et participation des jeunes ? la pr?vention et la gestion des conflits fonciers dans les r?gions de la Boucle du Mouhoun et des Hauts-Bassins (Facilitation of access to land and participation of young people in the prevention and management of land conflicts in the Boucle du Mouhoun and Hauts-Bassins regions): USD 900,00; and

? Renforcement de la r?silience des m?nages par les actions d?adaptation et de mitigation aux effets du changement climatique et du COVID-19, dans la r?gion de la Boucle du Mouhoun au

Burkina Faso (Strengthening household resilience through adaptation and mitigation actions to the effects of climate change and COVID-19): USD 2,221,613.

236. These projects are described in the previous section. The following outlines the additional cost reasoning for each of the four components.

237. Component 1. Baseline and co-financing: the baseline consists mostly in existing governance structures at the local, regional and national levels, as well as existing landscape development plans, Chartes Fonci?res and Plans de D?veloppement Communaux. Examples of baseline investments include: i) financial training modules and ASP business plans developed under the PAMED project, that will be reviewed built upon in the proposed project; ii) the design of a contractual agriculture policy under PACTE; and iii) certifications and public health standards strengthened by the VAFA project that participate to the enabling environment for the proposed project. Total co-financing will be USD 3,101,973 structured as follows:

? MAAH: USD 1,701,973
o VAFA: USD 1,001,973; and
o PACTE: USD 700,000.
? MTEE: USD 500,000
o PAMED: USD 500,000.
? FAO: USD 900,000
o Facilitation of access to land and participation of young people in the prevention and management of land conflicts in the Boucle du Mouhoun and Hauts-Bassins regions: USD 900,000

238. GEF support and financing: GEF LDCF support will be sought under Component 1 to mainstream climate resilience into sustainable planning and management of ASP resources in the three target regions. GEF LDCF resources will be used to ensure that resilience is being introduced at the system level, in planning processes that consider fragile landscapes. Therefore, the project will address some barriers to effective climate change adaptation, through coordination and capacity development of stakeholders at the national, regional and local levels to integrate climate adaptation into land-use planning.

239. Component 2: Baseline and co-financing: the baseline consists mostly in the application and large-scale use of documented best agroecological practices in the target regions, as well as ongoing efforts to further promote and disseminate these practices in order to facilitate increases in agricultural productivity. However, climate resilience has not been systematically mainstreamed into baseline interventions, which are thus at risk of losing their benefits because of the impacts of climate change. LDCF funds will thus be used to climate-proof such practices by implementing them in the context of climate-resilient land-use planning. Examples of baseline investments include: i) agroecological practices developed and strandardised under the PAPFA and PACTE projects; and ii) the restoration of dirt roads under the PAPFA project, which will facilitate access to target sites[147][147]. Total co-financing will be USD 12,838,064 structured as follows:

? MAAH: USD 11,511,044
o PAPFA: USD 10,000,000; and

o PACTE: USD 1,511,044.
? MTEE: USD 1,002,000
o PAMED: 1,002,000.
? FAO: USD 325,020
o Strengthening household resilience through adaptation and mitigation actions to the effects of climate change and COVID-19: USD 325,000.

240. GEF support and financing: GEF LDCF support will be sought under Component 2 use to climate-proof ASP systems through the use of existing best agro-ecological and water management practices. Such practices be instrumental to implement climate-resilient landscape management plans, thereby strengthening the capacity of ASP production systems to withstand the adverse impacts of climate change, increase the productivity of these systems, improve soil health and enhance agricultural biodiversity. Three types of systems will be targeted: i) arable land; ii) pastures; and iii) forests. In addition, locally-adapted sustainable water management practices and small-scale infrastructure will be disseminated to directly benefit climate-vulnerable ASP producers.

241. Component 3. Baseline and co-financing: the baseline consists mostly in ongoing efforts to provide equipment and training for the transformation, storage and transportation of commodities, as well as initiatives to foster the business and entrepreneurial skills of ASP communities. Examples of baseline investments include: i) hydro-agricultural, storage and road investments (restoration of dirst roads) in the Boucle du Mouhoun and Hauts-Bassins regions under the PAPFA project; ii) the construction of post-harvest facilities under the PDIAP projects; iii) the strengthening of quality certification capacities of the MAAHRAH (laboratory equipment) for commodity-based products; and iv) the creation of an incubator for agricultural entrepreneurs under the PDIEFAP project. Total co-financing will be USD 22,876,186 structured as follows:
? MAAH: USD 20,998,480;
o PAPFA: USD 11,429,881;
o PDIAP: USD 3,951,915;
o PDIEFAP: USD 466,684;
o VAFA: USD 2,550,000; and
o PACTE: USD 2,600,000.
? MTEE: USD 2,856,190
o PAMED: USD 907,712; and
o PADA/REDD+: USD 1,948,478.
? FAO: USD 1,030,000
o SD3C: USD 690,000; and
o Strengthening household resilience through adaptation and mitigation actions to the effects of climate change and COVID-19: USD 340,000.

242. GEF support and financing: GEF LDCF support will be sought under Component 3 to strengthen those ASP products that can diversify and improve livelihoods of agro-sylvo-pastoralists vulnerable to climate change, thereby increasing the climate resilience of rural livelihoods and income streams. This will be undertaken upstream through the upscaling of the Agro-Pastoral Field Schools approach ? encompassing climate-smart ASP production practices

?, and downstream through support to transformation, post-harvest storage and market linkages.

243. Component 4. Baseline and co-financing: the baseline consists mostly in ongoing efforts to foster M&E practices and build the knowledge base on agroecology practices in the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions. One example of baseline investment is the creation of a national database on commodity-based value chains under the PDIEFAP project. Total co-financing will be USD 1,600,000 structured as follows:

- ? MAAH: USD 1,600,000
- ? PAPFA: USD 1,000,000;
- ? PDIEFAP: USD 200,000; and
- ? PACTE: USD 400,000.

244. GEF support and financing: GEF LDCF support will be sought under Component 4 to evaluate the project results, and document and disseminate lessons learned. Specific areas to be covered by knowledge management efforts will include the monitoring of AVEC and the APFS approach. Under this component, the APFS approach will also be mainstreamed into relevant relevant national sectoral development strategies.

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

245. Climate change in the Sudanian and Sudano-Sahelian landscapes of Burkina Faso will *inter alia* increase potential evapotranspiration, reduce average water availability, agricultural and pastoral productivity and ecosystem functioning unless adaptation interventions are implemented. The proposed project will increase the climate resilience of rural communities in the target regions of Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins. By improving the management of arable land, pastures, forests and natural resources (including water and fodder), the climate resilience of nature-based livelihoods in the target regions will be enhanced. As a result, it is estimated that 100,000 people 50% women) will benefit from the project interventions (LDCF Core Indicator 1), and that 250,000 ha of landscapes in production systems will be placed under sustainable management (LDCF Core Indicator 2).

246. The specific adaptation benefits of the proposed project will include: i) increasing the resilience of agricultural production against climate-induced hazards; ii) reducing soil erosion; iii) improving water availability by promoting sustainable water management; iv) improving food security through the introduction of sustainable, intensification farming techniques; and v) diversifying livelihoods and generating new economic opportunities by facilitating market access for agroecological products.

247. Further to the above-mentioned tangible adaptation benefits, the project will build local, regional and national capacity to plan, implement and monitor sustainable landscape management incorporating key climate change adaptation, land tenure and conservation priorities. Such institutional capacity building will improve the success of climate change adaptation and land conservation responses, and stimulate additional investments the target regions. In terms of local communities, training, demonstrations and the dissemination of

climate-smart practices in these areas will promote the autonomous uptake and replication of interventions (including through the mainstreaming of climate change adaptation into annual investment plans of their communal development plans).

248. The project is intended to demonstrate approaches and build an enabling environment in support of climate resilient agro-sylvo-pastoral communities in rural Burkina Faso. Approximately 100,000 women and men will benefit directly from the LDCF investment and an estimated 250,000 hectares of productive landscapes will be managed in such a way to withstand climate stressors.

249. In parallel, the project will create the conditions to maximise the potential for up-scaling and out-scaling of the approaches, practices and technologies. Therefore, the potential impact expected from this project is a multiplication of the direct adaptation benefits reported in the core indicators worksheet. It should be noted that estimates for the direct benefits are rooted in a challenging context, one of extreme poverty (extreme poverty headcount of 40% and an annual GDP per capita of just USD 650), poor infrastructure and electrification (less than 1% of the rural Burkinab? population have access to electricity and 75% of the rural population live further than 2 km from a road in good or fair condition), extreme vulnerability to climate change risks, and one that is further challenged by conflict. Furthermore, private investment is very low and investment decisions must factor in some of the highest energy and transport costs in West Africa, with low reliability coupled with acute skills shortages in certain competencies. These factors explain in part the ambition of the project, and the directly achieved benefits in terms of number of people and number of hectares targeted.

250. However, the project intervention logic and approaches maximise the upscaling potential. Here are some important elements that were considered to quantify the medium to long-term potential impact of the project:

? Land governance and management will be strengthened, building upon and valuing existing decentralised structures. A landscape approach is adopted, while the connectivity between landscapes is also being addressed (climate-induced migrations from drier and conflict-affected landscapes/areas of the country to areas that are still less affected, but extremely vulnerable). Considering the landscape and not the single plots helps achieving greater resilience of the agro-sylvo-pastoral ecosystems, maximising their production potential in the face of climate change and the multiple climate-induced, land-based conflicts. The strengthening of land governance can also contribute to a sustainable uptake of good agro-sylvo-pastoral practices by smallholders. There are an estimated 9,000,000 ha of degraded and vulnerable agro-sylvo-pastoral land in Burkina Faso, and successful replication of project demonstration (complemented by its baseline investments) can significantly contribute to the resilient and sustainable management of this vulnerable production land. An estimated 596,000 hectares are located in[148][148].

? Specific approaches will be adopted to facilitate a large-scale uptake of climate-adapted practices and technologies by ASP communities. Indeed, the tried and tested farmer field school approach (and its various forms, including agro-pastoral field schools, business field schools) involves participating producers in decision-making, testing, demonstration, and learning of selected practices and technologies for extended periods of time. While an average of 30 people

participate in the field school on a weekly basis, regular ?open door? sessions invite non-participating producers from the community. The approach facilitates a very high adoption rate by participating producers and a very high multiplication rate from participating to non-participating producers. During the course of the ongoing LDCF #5014 project a quadruplication of beneficiaries has been observed. Supported by considerable work with AVEC and producer organisations, this multiplication rate is conservative, but would translate into an estimated 320,000 agro-sylvo-pastoralists benefitting from more resilient production systems, and increased productivity. This further translates into greater food security and nutritious diets for the vulnerable family farmers and communities, which represent an average 20% of the population in Burkina Faso, or roughly 3.5 million people. This approach will be further upscaled through by mainstreaming APFS into selected policies and strategies with relevant ministries; the human capacity to implement this upscaling will also be increased by training 100 master trainers (Output 3.1) and facilitating the mainstreaming of APFS into the curricula of universities and vocational training centers (Output 4.2).

? Burkina Faso is piloting the FAO flagship Hand-in-Hand Initiative, which helps identify critical areas of policy intervention and public investment to unlock the potential for ending poverty and hunger. It helps accelerate the achievement of the SDGs 1 and 2, and focuses particularly on complementing existing information and bolstering existing coordination mechanisms, providing data analysis and visualisations that help decision?makers understand better where investments, technology and innovation, and policy change can be most efficient and effective. The LDCF is fully embedded in this HiH Initiative, and will therefore contribute to and benefit from it. The HiH Initiatve has the potential to act as a great vehicle to guarantee rapid and effective in-scaling, up-scaling, and out-scaling of lessons and approaches, focusing on areas where investments are more needed and potentially most effective (cf. Output 4.4).

6) Innovativeness, sustainability, potential for scaling up and capacity development. ?

251. The agroecological transition that will eventually contribute to sustainable and productive landscapes will be facilitated by priority actions in a number of agroecological dimensions for which the target production systems underperform. These actions will be both innovative and traditional, including: i) increase integration of agro-pastoral systems; ii) the use of climate-resilient crop varieties; iii) reduced tillage; iv) alternatives to chemical fertilisers (use of compost) and pesticides (biological control, intercropping); v) fascines; vi) mechanised za? with the Delfino plow; vii) the use of leguminous plants; and vii) crop rotation.

252. In terms of interventions, the project will thus innovate through:

? the dissemination of agroecological approaches and sustainable agricultural intensification technologies tackling the degradation of productive landscapes;
? support to multistakeholder platforms to coordinate the support to land tenure security;
? the development of a participatory certification for agricultural commodities; and
? support to AVECs through the training of endogenous facilitators.

253. In terms of tools and methodologies, innovative approaches have already been used during the PPG phase. They include the use of the TAPE tool to characterise the status of the

agroecological transition and refine the project?s intervention strategy and the Mapping of Territorial Markets tool to identify entry points for activities to support the role of territorial markets in the agroecological transition with a gender focus. The TAPE tool will be used to monitor indicators that are seldom included in the results-based frameworks of projects, including the CAET, increase in soil health as measured by SOCLA (Latin American Society for Agroecology) indicators, increase in women?s empowerment as measured by the Abbreviated version of the Women?s Empowerment in Agriculture Index and Level of agricultural biodiversity measured according to the TAPE methodology (average between the Gini-Simpson indices of diversity for crops and animals[149][149] and the ?Natural vegetation, trees and pollinators? index). These synthetic indicators are strongly results-based and will thus allow to measure actual contribution of the project towards expected outcomes. Finally, the development of a research programme on the impact of APFS (Output 4.1) as well as the mainstreaming of APFS into the curricula of universities and vocational training centers are innovative avenues to support the project?s upscaling potential.

254. Sustainability of the project outcomes will be achieved via:

- ? capacity building of a wide range of actors and institutions, including national, regional and local authorities, Dimitra Clubs and farmers (through APFSs);
- ? the participatory development and updating of Chartes fonci?res and land-use plans that will provide for the long-term, sustainable management of natural resources;
- ? the dissemination of climate-smart agricultural techniques, that will help farmers cope with the adverse impacts of climate change on agricultural productivity;
- ? the demonstration and self-learning approach underpinning the APFS, whereby farmers get to discuss, experiment and suggest solutions as opposed to receiving them from external expertise;
- ? the development and demonstration of the feasibility of profitable business plans for local agri-enterprises;
- ? the mainstreaming of APFS into policies and strategies of relevant ministries;
- ? the design of a research programme that will be supported to identify funding sources to continue beyond the project timeframe; and
- ? the participatory development of a costed exit strategy.

255. Sustainability of the project?s interventions to enhance the governance of landscapes and natural resources is rooted in the legislative framework that underpins the decentralisation process in Burkina Faso. As such, the project will avoid setting up new bodies or committees that may not have significant chances to continue after the project termination; on the contrary, the project will support local bodies that have been / need to be set up to comply with the Burkinab? law. This is notably the case of Services Fonciers Ruraux (SFR) and the Chartes fonci?res, which are at the basis of the local governance of natural resources. Similarly, the proposed project will not establish management plans that would duplicate plans required by the Burkinab? law; instead, the Chartes fonci?res that will be supported by the project are the basic governance instruments in terms of landscape & natural resource management planned for by the Burkinab? decentralisation framework (as required by Law 034-2009/AN).

256. In addition, whenever possible, implementation of the project activities will rely on permanent human resources (i.e. NGOs, extension offices etc.) rather than on independent consultants. This will notably be the case for Outputs 3.1, 3.2 and 3.3 (extension officers and NGO members will form the bulk of APFS trainers) as well as 3. (with CNABio).

257. The project will set conditions for large-scale change through:

? decentralised and integrated governance (multi-stakeholder platforms, strengthened capacity of SFRs, CCFVs, CFVs, CVDs, and management plans) that will allow large-scale environmental and adaptation benefits;

? the training of staff on the resolution of climate driven-conflicts;

? strengthened capacity of local actors to generate multiple benefits through enhanced practices and increased market access for agroecological products that will be replicated locally and regionally;

? the systematic dissemination of lessons learned and relevant knowledge to the widest possible audience;

? the mainstreaming of APFS into policies and strategies of relevant ministries; and

? the design of a research programme that will be supported to identify funding sources to continue beyond the project timeframe.

7) Summary of changes in alignment with the project design with the original PIF

258. Throughout the PPG phase, the Theory of Change laid out in the PIF was confirmed. However, a number of small adjustments to the intervention strategy have been made, reflecting the updated and more detailed information brought by studies conducted during the PPG phase:

? Output 1.3: the targets have been adjusted to reflect the selection of 23 communes;

? Outcome 3 has been rephrased to better reflect its scope;

? the output structure of Component 3 was adjusted with the creation of Output 3.3 to clarify the sequence of APFS training: master trainers, facilitators, APFS implementation;

? Output 2.1 from the PIF was integrated within APFSs under Component 3, as it is through APFSs that soil conservation techniques and, more generally, best practices to restore degraded arable land will be disseminated;

? the number of APFSs was adjusted to maximise the impact on target communes and avoid spreading resources over too many communes (500 APFSs instead of 1,500);

? the original Output 3.7 was removed in light of conclusions from the Terminal Evaluation of the project #054, which stated that the Local Investment Fund for Adaptation to Climate Change (FILA) was not an effective nor an efficient way to support private investment in climate-resilient,

income-generating activities[150][150]. In addition, it was realised that the FILA would be redundant with Output 3.4 (procurement of small transformation units);

? Output 4.2 (Gaps in the evaluation of the mid- to long-term transformational impacts of APFSs are addressed through a sustainable research programme) was reworded to better reflect its innovative scope; and

? Output 4.3: activities to mainstream APFS and AE into curricula of universities and vocational training centers have been added to increase the upscaling potential of the LDCF investment.

259. Accordingly, some adjustments have been made to the LDCF Core Indicators, as well as project results framework, to adapt them to the current national circumstances and updated intervention strategy, as summarised in the tables below.

Table 16. Changes from the PIF in terms of LDCF Core Indicators.

Expected at PIF	Expected at CEO Endorsement	Justification
GEF LDCF Core Indicator 1: Total number of direct beneficiaries		
80,000 (50% women)	100,000 (50% women)	Given the estimated number of APFS trainees (approx. 15,000), multiplication factor (at least quadruple) observed in other APFS projects from direct trainees to people actually exposed to improved practices, and estimated beneficiaries of landscape restoration, the target was revised upwards. This will amount to approx. 12% of the agricultural population in the target communes.
GEF LDCF Core Indicator 2: Area of land managed for climate resilience		
100,000 ha	250,000 ha	This target is based on the average area of land per farming household (4.2 ha), considering only the 60,000 direct APFS trainees. Although some APFS trainees may be from the same households and thus work the same land, this would be an overestimation. However, as significant land will also be placed under improved management plans, this would more than compensate for the initial overestimation.
GEF LDCF Core Indicator 3: Total number of policies/plans that will mainstream climate resilience		
3	23	This indicator has been added, as it captures expected results from Component 1, with 23 communes benefitting from the mainstreaming of climate change adaptation into their communal development plans and associated investment plans.
GEF LDCF Core Indicator 4: Total number of people trained		
45,000 (50% women)	60,400	This target has been revised to reflect the number of APFS trainees, as well as trainees under Outputs 1.1, 3.1 and 3.2.

Table 17. Changes from the PIF in terms of project results-based framework.

PIF Results Framework	Project Results Framework	Justification
Objective-level indicators		
(i) Indicator: Hectares of land under climate-resilient, agro-ecological management Target: 100,000 ha of agro-sylvo-pastoral production land	(i) Characterisation of Agroecological Transition (CAET) score Target: Median CAET score of a least 60% over the target circles, as areas with a CAET score of 50% and above are deemed to be in transition in the agroecological transition (ii) Area of production land under improved and climate-resilient management Target: 250,000 ha (iii) Number of direct beneficiaries disaggregated by gender Target: 100,000 (50% women)	Indicator (i) was selected based on the TAPE assessment conducted during the PPG phase. The CAET is a synthetic indicator that fully captures the multi-dimensional characteristic of the agroecological transition that the project wishes to promote (see Annex A1 for further detail). Indicators (ii) and (iii) were added to complement the CAET as synthetic results-based indicators.
Outcome 1		

(i) Number of investment plans of communal development plans that mainstream climate resilience Target: 3 plans, covering a total area of at least 100,000 ha (ii) Level of land tenure securisation, i.e. existence of legal recognition of access to land and mobility for pastoralists, existence of formal document and presence of name on it, perception of security of access to land and existence of right to sell, bequeath and inherit land ? disaggregated by gender (TAPE indicator, linked to SDG indicators 1.4.2, 2.4.1 and 5.a.1) Target: Desirable for women and men (i.e. female and male respondents of survey have formal document with the name of holder on it, and have perception of secure access to land, and have at least one right to sell/bequeath/inherit any of the parcels of the holding)	(i) Number of investment plans of Communal Development Plans (CDP) that mainstream climate resilience Target: At least 15 investment plans of communal development plans that mainstream climate resilience (ii) Number of institutions capacitated to foster land tenure security at the local, regional and national levels Target: Strengthened capacity of: ? 23 municipal councils ? 23 Services Fonciers Ruraux ? 3 Comit?s R?gionaux pour la S?curisation Fonci?re en milieu Rural ? 1 Comit? National pour la S?curisation Fonci?re en milieu Rural strengthened	The targets and indicators have been revised based on PPG studies.
Outcome 2		

(i) % increase of farm output value per hectare (link to SDG indicator 2.3.1) Target: TBC during PPG (ii) Increase of the Gini-Simpson indices of diversity for crops and animals (link to SDG indicator 2.4.1) Target: Final average score exceeds 70% (i.e. desirable agricultural biodiversity) (iii) Increase in soil health (using SOCLA 10 indicators, linking to SDG indicators 2.4.1 and 15.3.1) Target: final average score above 5% (acceptable to desirable levels)	(i) Hectares of forests and rangelands restored to become more productive and demonstrating an enhanced resilience to climate change Target: At least 15,000 ha of forests and rangelands restored following science-based protocols for increased productivity and resilience to climate change, and based on land-use plans validated by local authorities (ii) Number of beneficiaries of improved water management and number of hectares benefitting from irrigation Target: At least 1,000 community members (50% women) trained on water conservation measures and 20 hectares benefitting from irrigation systems (iii) Increase in soil health as measured by SOCLA indicators[151][151] (linking to SDG indicators 2.4.1 and 15.3.1) Target: Increase of average score by 20% (4.1) i.e. above 3.5 corresponding to a desirable level	The targets and indicators have been revised and complemented based on PPG studies.
Outcome 3		

(i) % increase in youth and women employment opportunities in ASP sectors (linking to SDG indicator 8.6.1) Target: TBC during PPG (ii) % increase in women?s empowerment in Agriculture Index A-WEAI (linking to SDG indicator 5.a.1 and 5.a.2) Target: TBC during PPG	(i) Number of agro-sylvo-pastoral producers trained on innovative climate change adaptation and SLM practices Target: 15,000 (50% women) (ii) Increase in women?s empowerment as measured by the Abbreviated version of the Women?s Empowerment in Agriculture Index (A-WEAI)[152][152] ? linking to SDG indicator 5.a.1 and 5.a.2 Target: Final average score exceeds 60% among farms in the TAPE sample, i.e. an acceptable level (iii) Level of agricultural biodiversity measured according to the TAPE methodology (average between the Gini-Simpson indices of diversity for crops and animals and the ?Natural vegetation, trees and pollinators? index) Target: Final average score exceeds 70% among farms in the TAPE sample, i.e. a level of desirable agricultural biodiversity (iv) Number of processing units established, operational and effectively used by local stakeholders to transform agricultural products and put them on the market Target: At least 300 processing units established, operational and effectively used by local stakeholders to transform agricultural products and put them on the market (v) Presence of locally-produced, agroecological products on territorial markets Target: Locally-produced agroecological products make up at least 30% of products exchanged in territorial markets	The targets and indicators have been revised and complemented based on PPG studies.
Outcome 4		

(i) A knowledge management strategy and plan support a sustainable upscaling, outscaling and inscaling approach of lessons learnt Target: N/A	(i) A Monitoring, Evaluation and Learning plan supports a sustainable upscaling, outscaling and inscaling approach of lessons learnt Target: 1 MEL plan developed and implemented (ii) Number of line ministries and universities mainstreaming APFSs into policy plans, strategies and curricula Target: The MTEE and MAAHRAH have mainstreamed APFS into policy plans/ strategies. APFS is mainstreamed into the curricula of at least one university and one vocational training center	The original indicator (i) has been reworded to better emphasise learning. Indicator (ii) has been added to capture the greater ambition of the project under Component 4 in terms of upscaling potential.

[1] In terms of GDP per capita. Source: World Bank, 2018.

[2] As of 2 October 2019. Source: Minist?re de la Femme, de la Solidarit? nationale, de la Famille et de l'Action humanitaire ? Ministry of Women, National Solidarity, Family and Humanitarian Action

[3] Source: World Bank, 2018.

[4] Source: International Finance Corporation. 2019. Creating markets in Burkina Faso.

[5] In 2015, the poverty index in rural areas was 52.3, compared to the national average of 46.4. Poverty was also worse among women (indicator of 47.1, compared to 45.7 for men). Source: Institut National de la Statistique et de la D?mographie, 2008. ?

[6] Source: Burkina Faso?s National Adaptation Plan, 2015.

[7] Ibid.

[8] Barry A. et al. 2018. West Africa climate extremes and climate change indices. In *International Journal Of Climatology* (38)

[9] Scenario A1B: projections from five regional climate models from the African Monsoon Multidisciplinary Analysis programme. Scenarios A2 & B1: projections from nine global climate models by the University of Cape Town. Time horizons are 2046 to 2065 and 2081 to 2100 for scenarios A2 and B1, and 2021 to 2050 for scenario A1B.

[10] Global Mechanism of the United Nations Convention to Combat Desertification (UNCCD). 2018. Country Profile of Burkina Faso.

[11] Ibid.

[12] Source: Burkina Faso National Adaptation Plan, 2015.

[13] Community conflicts ? i.e. where parties involve more than one individual ? are distinguished from individual conflicts, insofar as they bear more structural risks in terms of social consequences than individual ones. Source: Minist?re de la Justice, des Droits Humains et de la Promotion Civique (Ministry of Justice, Human Rights and Civic Promotion). 2015. Study on community conflicts in Burkina Faso.

[14] Sources:

- Deutscher Entwicklungsdienst (DED). 2006. Les conflits li?s ? la transhumance transfrontali?re entre le Niger, le Burkina Faso et le B?nin ; and

- Conseil Ouest Africain pour la Recherche et le Developpement Agricole (West African Council for Research and Agricultural Development, CORAF). 2015. Transhumance transfrontali?re et conflits li?s ? l?utilisation de ressources naturelles en Afrique de l?Ouest.

[15] FAO. 2012. La transhumance transfrontali?re en Afrique de l?Ouest : proposition de plan d?action.

[16] A. Kiema, A.J. Nianogo, O.A. Sanou and S. Sanou. 2007, Caract?ristiques des ressources fourrag?res dans les terroirs de Lelly (Zone Agro ? pastorale) et N?Diahoye (Zone pastorale) au nord du Burkina Faso, in : *Revue Science et Technique, s?rie Science Naturelle et Agronomie,* 29 (1&2)

[17] A. Kiema, G.B. Tontibomma and N. Zampaligr?. 2014. Transhumance et gestion des ressources naturelles au Sahel : contraintes et perspectives face aux mutations des syst?mes de productions pastorales. In : *VertigO, La revue ?lectronique en sciences de l?environnement*, 14 (3).

[18] Ibid.

[19] 2020 projection from the National Institute of Statistics and Demography

[20] Commune of Bobo-Dioulasso

[21] Source: Land Degradation Neutrality Report 2020

[22] Source: Vall. E. Zonage Agropastoral & Proposition d?Options d?Intensification Ecologique : Cas du Burkina Faso. CIRAD

[23] Source: MRAH. 2016. Statistical bulletin.

[24] Host of the GEF and United Nations Framework Convention on Climate Change (UNFCCC) focal points.

[25] Regional Directorates of Ecological Transition and Environment (Directions R?gionales de la Transition Ecologique et de l?Environnement)

[26] Provincial Directorates of Ecological Transition and Environment (Directions Provinciales de la Transition Ecologique et de l?Environnement)

[27] Departmental Services of Ecological Transition and Environment (Services D?partementaux de la Transition Ecologique et de l?Environnement)

[28] NB: the ministry changed from Ministry of Agriculture and Hydro-Agricultural Development (Minist?re de l?Agriculture et des Am?nagements Hydro-Agricoles MAAH) at PIF time to Ministry of Agriculture, Hydro-Agricultural Development, Animal Resources and Fisheries (Minist?re de l?Agriculture, des Am?nagements Hydro-Agricoles et des Ressources Animales et Halieutiques MAAHRAH) as of February 2022.

[29] GoBF. 2010. Le Syst?me National de Vulgarisation et d?Appui Conseil Agricoles (SNVACA). Available here.

[30] Source: ANAM, 2018.

[31] Decree N?2008-704

[32] Ouedraogo M. 2016. D?centralisation et dynamiques locales de d?veloppement durable au Burkina Faso: ?tude de cas dans les communes rurales dans la r?gion de la Boucle du Mouhoun dans la partie nord-ouest du pays. Universit? du Maine.

[33] Decrees N?2010-404/PRES/PM/MAHRH/MRA/MECV/MEF/MATD and N? 2012 263/PRES/PM/MATDS/MJ/MAH/MRA/ MEDD/MEF from 2010 and 2012, respectively.

[34] The Commissions Fonci?res Villageoises are technically sub-commissions of the Village Development Councils.

[35] Etude Nationale Prospective Burkina 2025

[36] Strat?gie de Croissance Acc?l?r?e et de D?veloppement Durable

[37] Sch?ma National d?Am?nagement et de D?veloppement Durable du Territoire

[38] Plan National de D?veloppement Economique et Social

[39] Programme National d?Investissement Agricole

[40] Economic Community of West African States

[41] Programme national du secteur rural

[42] Plan d?Environnement pour le D?veloppement Durable

[43] Politique Nationale de D?veloppement durable de l'Elevage

[44] Strat?gie Nationale de Valorisation et de Promotion des Produits Forestiers Non Ligneux

[45] Programme D?taill? pour le D?veloppement de l?Agriculture Africaine

[46] Plan d'Actions et Programme d'Investissements du sous- Secteur de l'Elevage

[47] Strat?gie Nationale de D?concentration Administrative

[48] Available here.

[49] Reorganisation Agraire et Fonci?re

[50] Cf. for example: Lepidi P. 2020. Thomas Sankara, l??cologiste *in* Le Monde, accessible here.

[51] References include :

- Toillier A, Banc? S, Faure G. 2021. Emergence et cloisonnement de sous-syst?mes de conseil pour l'intensification ?cologique de l'agriculture au Burkina Faso *In* : Gasselin P(ed.), Lardon S (ed.), Cerdan C (ed.), Loudiyi S (ed.), Sautier D (ed.). *Coexistence et confrontation des mod?les agricoles et alimentaires. Un nouveau paradigme du d?veloppement territorial ?* Accessible here.

- Afdi & Conf?d?ration Paysanne du Faso. Vers une transition agro?cologique au Burkina Faso. Exp?riences d?organisations paysannes. Accessible here.

- Mil?Ecole. Des structures agro?cologiques au Burkina Faso Agriculture et ?levage. Accessible here.

[52] Source: Plan R?gional de D?veloppement Boucle du Mouhoun 2018-2020

[53] Source: Plan R?gional de D?veloppement Centre-Ouest 2017-2021

[54] Source: Plan R?gional de D?veloppement Hauts-Bassins 2018-2022

[55] Source: Agriculture Statistical Yearbook 2020

[56] Source: preliminary results of the Fifth general census, 2019. Available here.

[57] Ibid.

[58] Source: Project d?Appui au Secteur de l??lectricit?, 2013

[59] Boucle du Mouhoun Region, 2017. Profile of the region
[60] Source: Plan R?gional de D?veloppement 2016-2020

[61] Source: Project d?Appui au Secteur de l??lectricit?, 2013

[62] Dotted areas are target communes.

[63] Source: preliminary results of the Fifth general census, 2019

[64] Programme National de Gestions des Terroirs, 2017

[65] Dotted areas are target communes.

[66] Source: preliminary results of the Fifth general census, 2019

[67] Source: Ministry of Mines and Energy, 2013

[68] Dotted areas are target communes.

[69] Source: Africa Sustainable Livestock 2050

[70] Source: MRAH

1. [71] Alongside other, more conventional approaches, two innovative tools developed by FAO ? namely TAPE and MTM ? were used during the PPG phase to establish the baseline situation pertaining to agroecology and territorial markets, respectively.

[72] The ten elements of agroecology are further described here.

[73] The ten elements of agroecology are further described here.

[74] The ten elements of agroecology are further described here.

[75] Source: PPG study, cf. Annex R.

[76] Services Fonciers Ruraux, Commissions Fonci?res Villageoises, Comit?s de Conciliation Fonci?re Villageoise

[77] FAO. 2020. Rapport d??tudes - Analyse des conflits li?s ? l?exploitation des ressources naturelles au Burkina Faso.

[78] Source: Regional Directorate for Administration of the Territory.

[79] Based on FAO. 2020. Rapport d??tudes - Analyse des conflits li?s ? l?exploitation des ressources naturelles au Burkina Faso.

[80] Source: Institut National de la Statistique et de la D?mographie, 2008.

[81] More information can be found here.

[82] Namely, Kaho, Sipohin, Doussi, Mana, Niankango, Moko, Pahin, Sayaro and Vy.

[83] FAO. 2020. ?valuation finale du projet Int?grer la R?silience Climatique ? la production Agricole et pastorale pour la S?curit? Alimentaire dans les Zones Rurales vuln?rables ? travers l?Approche Champ Ecole des Producteurs GCP/BKF/054/LDF. Rapport final.

[84] International Fund for Agricultural Development

[85] Organisation of the Petroleum Exporting Countries

[86] Moor? and Dioula are spoken by approx. 51% and 9% of the Burkinab? population, respectively. Source: 2006 national survey.

[87] As per Decree N?2012-263/PRES/PM/MATDS/MJ/MAH/MEDD/MEF on the attributions, composition, organisation and functioning of the CCFVs of 03 April 2012.

[88] To remedy this situation, Burkina Faso has tried a new field school approach (initially implemented in Uganda then elsewhere in East Africa) integrating crops, animals and trees: this is the agropastoral field school (APFS) approach, which was implemented on a pilot basis from 2015 to 2020. Centre-Ouest is one of the regions that benefited from this project, as described in the baseline section.

[89] MRAH. 2016. Le syst?me national de vulgarisation et d?appui conseil en ?levage.

[90] See for example:

- Snapp S, Kebede Y, Wollenberg E, Dittmer KM, Brickman S, Egler C, Shelton S. 2021. Agroecology and climate change rapid evidence review: Performance of agroecological approaches in low- and middle- income countries. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). Available here.

- Leippert F, Darmaun M, Bernoux M, Mpheshea M. 2020. The potential of agroecology to build climate-resilient livelihoods and food systems. Rome. FAO and Biovision. Available here.

[91] Ou?draogo F, Ahouangninou C, Kestemont MP, Konkobo MK. 2020. ?valuation de la durabilit? des exploitations mara?ch?res du Burkina Faso suivant une approche socio-?cosyst?mique (cas de la province du Houet). *In* Tropicultura.

[92] Son D. 2018. Analyse des risques li?s ? l?emploi des pesticides et mesure de la performance de la lutte int?gr?e en culture de tomate au Burkina Faso. Doctoral dissertation. Universit? de Li?ge,? Li?ge,?? Belgique.

[93] Since 2002, the Integrated Production and Pest Management (IPPM) programme in Burkina Faso has worked with farmers to increase their adoption of good agronomic practices and sustainably enhance crop yields and diversify their farming systems. One way of doing this has been by reducing farmers' use of pesticides and raising awareness of the associated environmental and health risks while also promoting balanced fertilisation for healthy crop growth. Thanks to IPPM training, farmers have learned new cropping methods to boost yields. The programme has trained a total of 27 000 farmers (14 % women), through its network of farmer field schools in the country's 13 regions. Training has focused mainly on rice, vegetable, cowpea, fruit and cotton production.

[94] See Estevez B, Domon G, Lucas E. 2000. Le mod?le ESR (efficacit?-substitution-reconceptualisation), un mod?le d'analyse pour l'?valuation de l'agriculture durable applicable ? l'?valuation de la strat?gie phytosanitaire au Qu?bec. *In* Le Courrier de l'environnement de l'INRA, (41), 97-104. Accessible here.

[95] Bakker T, Dugu? P, De Tourdonnet S. 2021. Assessing the effects of Farmer Field Schools on farmers? trajectories of change in practices. *In* Agronomy for Sustainable Development, *41*(2), 1-15. Accessible here.

[96] Land productivity dynamics map persistent decline/stress, stability and gain of land productivity during the observation period from 2001 to 2018 generated through the interaction of three NDVI-based indicators: steadiness, initial standing biomass and standing biomass at change.

[97] Other factors include marketing by herbicide companies, lack of ecological literacy of farmers, already unbalanced systems that need to be restored and inadequate extension advisory.

[98] See Bakker T, Dugu? P, Roesch K, Philips S. 2021. Recommandations m?thodologiques pour mieux ?valuer les effets de champs-?coles mobilis?s pour accompagner la transition agro?cologique. Working document.

[99] Typology according to the Soci?t? Nationale de Gestion du Stock de S?curit? Alimentaire (SONAGESS).

[100] Source: Plan National de D?veloppement ?conomique et Social 2021.

[101] Altieri MA, Nicholls CI, Henao A, Lana MA. 2015. Agroecology and the design of climate change-resilient farming systems. *In* Agronomy for Sustainable Development. Available here.
[102] Among the ten elements of agroecology described by FAO, these are the most often cited in the literature as contributing to climate change adaptation.

[103] Adapted from Snapp S, Kebede Y, Wollenberg E, Dittmer KM, Brickman S, Egler C, Shelton S. 2021. Agroecology and climate change rapid evidence review: Performance of agroecological approaches in low- and middle- income countries. Wageningen, the Netherlands: CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS).

[104] Cf. Metternicht G, Carr E, Stafford Smith M. 2020. Why behavioral change matters to the GEF and what
to do about it. A STAP Advisory Document. Scientific and Technical Advisory Panel to the Global Environ-
ment Facility. Washington, D.C.

[105] More information can be found here.
[106] Security of private information stored in such an activity is critical and ownership of data should be clear and carefully assesed, in line with relevant legal framework. Free softwares available include Open Tenure (FAO) and MAST (USAID). An International Tenure expert will be hired to advise on the options available and train relevant personnel on selected softwares.
[107] Comit?s R?gionaux pour la S?curisation Fonci?re en milieu Rural

[108] Comit? National pour la S?curisation Fonci?re en milieu Rural

[109] The Global Programme of Research on Climate Change Vulnerability, Impacts and Adaptation (PROVIA) is a global initiative which provides direction and coherence at the international level for research on vulnerability, impacts and adaptation (VIA) and acts as an interface between the international research community, decision makers, and practitioners. The assessment guidance document is available here.

[110] For example, only 17 of the 47 communes of Boucle-du-Mouhoun have received support to establish their Chartes fonci?res.

[111] Koutou M. 2012. Analyse des cha?nes de valeur des produits animaux. Preliminary report.

[112] Barbier B. et al. 2013. Diversification and adaptation strategies to climate variability: A farm typology for the Sahel. In *Agricultural Systems* (116, 7-15)

[113] Demb?l?, F. 1996. Influence du feu et du p?turage sur la v?g?tation et la biodiversit? dans les jach?res en zone soudanienne-nord. Cas des jeunes jach?res du terroir de Missira (Cercle de Kolokani), Mali. Institut d'Economie Rurale, Bamako, Mali.

[114] Bunclark L., Gowing J., Oughton E., Ouattara K., Ouoba S., Benao D. 2018. Understanding farmers? decisions on adaptation to climate change: Exploring adoption of water harvesting technologies in Burkina Faso. In *Global Environmental Change* (48, 243-254)

[115] Additional information can be found here.

[116] FAO. 2020. E?valuation finale du projet ? Re?duire la vulne?rabilite? des moyens d?existence agricoles a? travers l?approche ?Caisses de re?silience? au Sahel ?. Se?rie e?valuation de projet. Available here.

[117] As above.

[118] More information can be found here.

[119] See Belem B., Kaguembega-Mueller F, Bellefontaine R. et al. 2017. Assisted natural regeneration with fencing central and northern zones of Burkina Faso. *In* Tropicultura. 35. 73-86.

[120] Sacande M, Berrahmouni N. 2016. Community participation and ecological criteria for selecting species and restoring natural capital with native species in the Sahel. *In* Restoration Ecology. 24-4

[121] Two NGOs, namely Rich/Italia and Hommes&Terre, offer to loan and operate Delfino ploughs in Burkina Faso. The approximate unit cost is USD 340 per ha all included. FAO resorted to these services in the past, with satisfactory results. A third Delfino plough, acquired by FAO through the European Union-funded project Action Contre la D?sertification, is currently being handed over to a third NGO and may become available to rent as well.

[122] Source: Pieyns SA. 2017. Am?lioration de la connaissance et de la gestion des eaux au Burkina Faso. Annexe 2 : ?valuation des ressources en eau et des demandes sectorielles. Bilan besoins-ressources

[123] Bunclark L., Gowing J., Oughton E., Ouattara K., Ouoba S., Benao D. 2018. Understanding farmers? decisions on adaptation to climate change: Exploring adoption of water harvesting technologies in Burkina Faso. In *Global Environmental Change* (48, 243-254)

[124] These have been tested by a number of projects in Burkina Faso. See for example:

- Roose E, Kabore V, Guenat C. 1999. Zai Practice: A West African Traditional Rehabilitation System for Semiarid Degraded Lands, a Case Study in Burkina Faso, Arid Soil Research and Rehabilitation, 13:4, 343-355

- Barry B, Olaleye AO, Zougmor? R, Fatondji D. 2008. Rainwater harvesting technologies in the Sahelian zone of West Africa and the potential for outscaling. Colombo, Sri Lanka: International Water Management Institute.

[125] NB: these measures will be complementary with farm-level water conservation practices (e.g. tree shading, mulching etc.) that will be disseminated through APFSs under Component 3.

[126] More information is available here.

[127] Training of trainers on market and business-related modules can be conducted by specialised partners with local branches such as Fair Match Support.

[128] Alternatively, if three good master trainers with such profiles are not available, one qualified master trainer with either agronomy or zoology background will be hired and remaining profiles will be filled by good trainers who will be coordinated by the master trainer.

[129] Endogenous facilitators shall be selected during the first APFS cycle, after a few months. Ther will act as support after a while, then be trained as endogenous facilitators before setting up their own APFS with support from external facilitators.

[130] Commercialisation et Qualit?

[131] The MTM study (Annex P) showed that child malnutrition is a stark issue in the target landscapes. The diet of children under two years old is often poor in protein elements and vitamin A that are essential for proper growth. This situation can be explained by parents' ignorance of child nutrition, but also by the unavailability of ready-to-use products suited for young children, such as porridge with high-protein legumes and fruit compote.

[132] Note: this is also motivated by lessons learned from the Covid-19 pandemic, which has emphasised the importance of local resilience when global trade and exchanges are jeopardised.

[133] More information can be found in:

- FAO & Institut National de Recherche pour l'Agriculture, l'Alimentation et l'Environnement. 2020. Syst?mes alimentaires durables : Un manuel pour s?y retrouver. Rome. Available here.

- IFOAM ? Organics International. PGS Guidelines. How to Develop and Manage Participatory Guarantee Systems for Organic Agriculture Germany, 2019. Available here.

[134] CNABIO is also a member of the International Federation of Organic Agriculture Movements (IFOAM).

[135] Leclercq JB. 2020. Un label SPG (Syst?me Participatif de Garantie) comme facteur favorable ? la transition agro?cologique. Le cas du label BioSPG au Burkina Faso. Louvain School of Management, Universit? catholique de Louvain.

[136] LDCF-FAO project ?Integrating Climate Resilience Into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas Through the Farmers Field School Approach.?

[137] As above.

[138] See for example: FAO. 2020. ?valuation finale du projet ?R?duire la vuln?rabilit? des moyens d?existence agricoles ? travers l?approche "Caisses de r?silience" au Sahel?. S?rie ?valuation de projet. Available here.

[139] FAO. 2020. ?valuation finale du projet ? Int?grer la R?silience Climatique ? la production Agricole et pastorale pour la S?curit? Alimentaire dans les Zones Rurales vuln?rables ? travers l?Approche Champ Ecole des Producteurs ?. GCP/BKF/054/LDF Rapport final. S?rie ?valuation de projet.

[140] Bakker T, Dugu? P, Roesch K, Philips S. 2021. Recommandations m?thodologiques pour mieux ?valuer les effets de champs-?coles mobilis?s pour accompagner la transition agro?cologique. Working document.

[141] Under the Direction G?n?rale du Foncier et de la Formation et de l?Organisation du Monde Rural (DGFOMER) of the Ministry of Agriculture.

[142] E.g. Centre de Promotion Rurale of Kodougou (Boucle du Mouhoun), Centre Agricole Polyvalent de Matourkou (Hauts-Bassins).

[143] Accessible here.

[144] See Bakker T, Dugu? P, de Tourdonnet, S. 2021. Correction to: Assessing the effects of Farmer Field Schools on farmers? trajectories of change in practices. Agronomy for Sustainable Development, 41, 28

[145] The World Overview of Conservation Approaches and Technologies (WOCAT) is a global network that was established in 1992. The vision of WOCAT is to improve land resources and ecosystems (including soils, water, flora, and fauna) and people?s livelihoods by sharing, enhancing, and using knowledge on sustainable land management (SLM). WOCAT was recognised as a ?Primary recommended database? by UNCCD in 2014; in particular, it maintains a useful database that documents real-life, costed SLM interventions. NB: FAO and WOCAT are in the process of designing a standardised tool to report on the land degradation neutrality - tenure nexus, which could be useful under this activity.

[146] Source: GEF. 2018. Updated results architecture for adaptation to climate change under the Least Developed Countries Fund and the Special Climate Change Fund (2018-2022).

[147] This will be a criterion for the site selection process to be undertaken in the PPG phase.

[148] Land Productivity Dynamics data is derived from NDVI product of MODIS/Terra Vegetation Indices 16-Day L3 Global 250m SIN Grid V006, data collated over the 2001-2017 period.

[149] The Gini-Simpson index represents the probability that the two randomly taken individuals correspond to different units of measurement (i.e. species, varieties or food groups). The methodology to compute the agrobiodiversity index is presented on page 44 of FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application. Accessible here.

See also: Arslan A, Asfaw S et al. 2018. Diversification as Part of a CSA Strategy: The Cases of Zambia and Malawi. In Climate Smart Agriculture - Building Resilience to Climate Change (pp.527-563). Springer.

[150] ? (?) the microprojects have had a difficult start and are experiencing a considerable delay in implementation which is mainly due to the late and/or incomplete supply of inputs and materials for the construction of animal shelters. In view of all these shortcomings, the functioning of the micro-projects is considered unsatisfactory.?

[151] The Latin American Society for Agroecology (SOCLA) developed 10 soil health indicators. These are presented in Nicholls C., Altieri M et al. 2004. A Rapid, Farmer-Friendly Agroecological Method to Estimate Soil Quality and Crop Health in Vineyard Systems. Biodynamics. 2004. These indicators are applied and interpreted jointly by farmers and researchers, and include soil structure, degree of compaction, soil depth, status of residues, color, odor, and organic matter, water retention, soil cover, signs of soil erosion, presence of invertebrates and microbiological activity.

[152] The Women?s Empowerment in Agriculture Index (WEAI) is a survey-based index designed to measure the empowerment, agency, and inclusion of women in the agricultural sector. The WEAI has been used extensively since 2012 by a variety of organizations to assess the state of empowerment and gender parity in agriculture, to identify key areas in which empowerment needs to be strengthened, and to track progress over time. It measures the roles and extent of women?s engagement in the agriculture sector in five domains of empowerment: i) decisions about agricultural production; ii) access to and decision-making power over productive resources; iii) control over use of income; iv) leadership in the community; and v) time use. See IFPRI. 2015. Instructional guide on the abbreviated Women?s Empowerment in Agriculture Index (A-WEAI). Washington, D.C. The methodology to compute the index is presented on page 38 of FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application. Accessible here.

1b. Project Map and Coordinates

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

1. See Figure 2. Coordinates of the target communes are provided below.

Table 18. Geographical coordinates of target communes.

Commune	Province	Latitude	Longitude
Boucle du Mouhoun			

Sanaba	Banwa	12? 24? 24? N	3? 48? 46? W
Dokuy	Kossi	12? 33? 02? N	4? 06? 31? W
Bondokuy	Mouhoun	11? 50? 59? N	3? 45? 50? W
Dedougou	Mouhoun	12? 27? 47? N	3? 27? 36? W
Tcheriba	Mouhoun	12? 15? 44? N	3? 05? 09? W
Gossina	Nayala	12? 31? 23? N	2? 52? 27? W
Kougny	Nayala	12? 47? 03? N	3? 07? 07? W
Ye	Nayala	12? 41? 25? N	3? 06? 38? W
Kassoum	Sourou	13? 04? 29? N	3? 17? 50? W
Kiembara	Sourou	13? 14? 23? N	2? 43? 38? W
Centre-Ouest			
Imasgo	Boulkiemde	12? 26? 22? N	2? 19? 59? W
Sourgou	Boulkiemde	12? 07? 52? N	2? 17? 33? W
Didyr	Sanguie	12? 33? 37? N	2? 37? 27? W
Tenado	Sanguie	12? 11? 31? N	2? 36? 07? W
Zamo	Sanguie	12? 01? 13? N	2? 42? 45? W
To	Sissili	11? 26? 49? N	2? 13? 28? W
Hauts-Bassins			
Lena	Houet	11? 18? 10? N	3? 53? 55? W
Satiri	Houet	11? 26? 03? N	4? 02? 10? W
Banzon	Kenedougou	11? 18? 45? N	4? 48? 06? W
N'Dorola	Kenedougou	11? 45? 53? N	4? 49? 04? W
Samogohiri	Kenedougou	10? 55? 51? N	5? 07? 08? W
Samorogouan	Kenedougou	11? 23? 39? N	4? 56? 13? W
Hounde	Tuy	11? 48?78" N	3? 51?67" W

1c. Child Project?

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

NA

2. Stakeholders

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

Civil Society Organizations Yes

Indigenous Peoples and Local Communities

Private Sector Entities Yes

If none of the above, please explain why:

1. Several stakeholder consultations were conducted during the project identification and PPG phase with representatives of local communities, governmental institutions (central and decentralised), local government, non-governmental partners (multilateral UN agencies, NGOs, parastatals), research institutions, local and national Community-Based Organisations as well the private sector. A full list of consultations conducted in the project design phase is presented in Annex I2. Focus groups were conducted with local communities (women and men) to gain an in-depth understanding of the social, economic and environmental dynamics

in the target landscapes. The Stakeholder Engagement Matrix in Annex I2 includes information on how stakeholders will be involved and consulted in the project execution, including any disadvantaged or vulnerable groups/individuals.

2. As part of the process of implementing the TAPE and CMT tools, surveys were conducted in the target landscapes with 375 (41% women) and 420 (approx. 50% women) people, respectively. The PPG studies conducted on APFS, institutional capacity-building, the monitoring framework and the climate risk assessment involved the organisation of over 10 field missions in the target regions. The detail of consultations is included in Annex I2.

3. Despite the pandemic context, a workshop was organised in Ouagadougou in November 2021 with the presence of FAO international experts, which made it possible to consult with producers' organisations, State technical services, administrative and local authorities and civil society (cf. Annex O).

4. Under Component 4, the project will develop a MEL strategy and a communication plan to ensure information dissemination and sharing of knowledge and lessons with project stakeholders and interested parties beyond project partners.

Please provide the Stakeholder Engagement Plan or equivalent assessment.

See attachment

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

Stakeholder Engagement Matrix[1]

The table below summarizes the main stakeholders that were consulted during project preparation (PPG) and/or who will play a role in the project implementation. It also indicates the methodology for consultation or engagement.

Types of stakeholders

? Key Stakeholders: Have skills, knowledge or position of power to significantly influence the project

? Primary Stakeholders: Directly affected by the project / direct beneficiaries

? Secondary Stakeholders: Only indirectly or temporarily involved / indirect beneficiaries

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
a) National and local government					
Ministry of Ecological Transition and Environment (Minist?re de la Transition Ecologique et de l?Environnement, MTEE) Including directorates at the regional (DRTEE) and departmental levels	Key Member of the PSC Co-executing partner Cofinancing partner	The MTEE is in charge overseeing environmental initiatives at the national level. It is also responsible for the projects and programmes related to climate mitigation and adaptation, including through the provision of technical support to rural areas. The MTEE operates deconcentrated services at the regional, provincial and departmental levels.	Services at the central level (Directorate General, Direction G?n?rale des Etudes et Statistiques Sectorielles) consulted during PIF preparation and in 12/21 DRTEE of the three target regions consulted in 12/20 & 01/21 The MTEE was represented at the 11/21 workshop.	Active participation in the execution of the project at the level of the deconcentrated structures (regional, provincial and departmental directorates) through - Participation in the frameworks of Participation in consultation frameworks in the implementation of the project at regional and national levels - Support for the implementation of some of the project's themes: (i) integration of climate change adaptation in landscape management plans and globally in communal development plans, (ii) restoration of degraded forest landscapes. - APFS facilitators for environmental components. - Capitalisation of project results in the framework of the NDC	The ministry changed from Ministry of the Environment, Green Economy and Climate Change (Minist?re de l?Environnement, de l??conomie Verte et du Changement Climatique, MTEE) at PIF time to Ministry of Ecological Transition and Environment (Minist?re de la Transition Ecologique et de l?Environnement, MTEE) as of February 2022.

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Ministry of Agriculture, Hydro-Agricultural Development, Animal Resources and Fisheries (Minist?re de l?Agriculture, des Am?nagements Hydro-Agricoles et des Ressources Animales et Halieutiques MAAHRAH) Including directorates at the regional (DRAAHRAH) and provincial (DPAAHRAH) levels and extension services (Unit? d?Appui Technique, UAT) at the local level	Key Member of the PSC Main executing partner Cofinancing partner	The MAAHRAH is responsible for providing policy and technical support to rural areas on agriculture in Burkina Faso, including through the national extension system. The MAAHRAH is tasked to formulate appropriate agricultural policies, as well as with planning and monitoring of agricultural development activities. The MAAHRAH operates deconcentrated services at the regional, provincial and departmental levels, as well as at the local level through the Technical Support Zones (Zones d?Appui Technique, ZAT) and Agricultural Technical Support Units (Unit?s d?Animation Technique, UAT), the most local level for providing technical support to communities (i.e. villages).	Services at the central level (Secretary General, Directorate General, Direction G?n?rale des Etudes et Statistiques Sectorielles, Direction G?n?rale du Foncier, de la Formation et de l'Organisation du Monde Rural, Direction G?n?rale de des Productions V?g?tales, Direction g?n?rale des am?nagements hydrauliques et du D?veloppement de l'irrigation) consulted during PIF preparation and in 12/20. DRAAHRAH of the three target regions consulted in 12/20& 01/21 UATs were consulted in several communes in 12/20& 01/21 The MAAHRAH was represented at the 11/21 workshop.	- Execution of the main components of the project. - The regional directorates also provide institutional leadership at regional level in synergy with the project teams. - Close supervision of implementation of activities through provincial directorates, departmental services, ZATs and UATs - Support to the implementation of the APFSs	The ministry changed from Ministry of Agriculture and Hydro-Agricultural Development (Minist?re de l?Agriculture et des Am?nagements Hydro-Agricoles MAAH) at PIF time to Ministry of Agriculture, Hydro-Agricultural Development, Animal Resources and Fisheries (Minist?re de l?Agriculture, des Am?nagements Hydro-Agricoles et des Ressources Animales et Halieutiques MAAHRAH) as of February 2022.

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
National Meteorological Agency (Agence Nationale de la M?t?orologie, ANAM)	Secondary	Established under the under the Ministry of Transport and Urban Mobility, Burkina Faso?s ANAM operates a country-wide network of meteorological stations ? including 264 automatic stations, 144 of them being dedicated to agro-meteorological data ? and delivers a range of meteorological information services, including for early-warning and agricultural information.	N/A	The ANAM will provide weather and climate information that will be used for APFS training.	
National Committee for Securing Land Tenure in Rural Areas (Comit? National de S?curisation Fonci?re en milieu Rural, CONA-SFR) and Regional Committees for Land Tenure Security in Rural Areas (Comit? R?gional de S?curisation fonci?re en milieu Rural, CORE-SFR)	Secondary	1. The CONA-SFR and CORE-SFRs were set up[2] with the mission to encourage reflection on policy issues and strategies in the area of land tenure security through consultation between stakeholders. Their final objective is to create synergies of action. These are important frameworks in land tenure security.	N/A	The CONA-SFR and CORE-SFRs will benefit from support under Output 1.3.	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
National & Regional Chambers of Agriculture (CNA & CRA)	Secondary	The CNA and CRAs were established as per Decree N? 2001-770 bis/PRES/PM/Agri of 31 December 2001. They have a role of representation of stakeholders from the agriculture sector and a mission to promote the emergence and realisation of development projects, promote and support the organisation of producers and enable farmers to develop their knowledge and know-how and to adapt to changes in the technical and economic contexts.	Consulted in the three regions in 12/20 and 01/21 and present in the 11/21 workshop The CNA was evaluated as a potential evaluation partner.	The CNA and the CRAs in the three target regions will be consulted on the implementation of APFSs and mainstreaming of APFS in policies and strategies. These institutions will also be approached to disseminate relevant knowledge material produced under Component 4 of the project. Additional roles in the implementation phase may include: - Identification of beneficiaries - Training of extension officers on the APFS approach - Implementation of APFSs in the villages	
Rural Tenure Services (Services Fonciers Ruraux, SFR)	Primary	By mandate, SFRs are the key actors in the management and security of land at the commune level. See Baseline section for a detailed assessment of SFRs in the target regions.	Several SFRs were consulted in 12/20 and 01/21	SFRs will be one of the primary beneficiaries of capacity-building under Component 1 (Output 1.3).	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Village Development Council (Conseil Villageois de D?veloppement, CVD)	Primary	2. CVDs have a mission to contribute to the promotion of grassroot development by acting as an interface between communities and municipalities. They are in charge of developing Communal Development Plans.	Several CVDs were consulted in 12/20 and 01/21021 In addition, several mayors were consulted (e.g. Tenado).	CVDs will be one of the primary beneficiaries under Component 1 (Outputs 1.1, 1.2 and 1.4).	
b) Local communities and community groups					
Local communities including women and youth groups	Primary	The population of target sites is approximately 1,049,000. The estimated number of beneficiaries is approximately 100,000 people.	Field visits, focus groups (12/20, 01/21)	Local communities will be the main beneficiaries of the project?s on-the-ground interventions.	Extensive consultations with local communities (including through targeted groups such as women and youth) will be undertaken at project inception to ensure the full support of the community groups on each aspect of the project.

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Local producers? organisations E.g.: - organisations of horticulture producers in Tenada, Centre-Ouest - cooperatives of producers of moringa and karit? (Koudougou), Centre-Ouest - Union Provinciale des Professionnels Agricoles (UPPA) in Houet, Centre-Ouest - women?s cooperatives in Centre-Ouest (e.g. in Nariou)	Primary	? Producers? organisations are active in the target landscapes and focus on improving the livelihoods of their members. Some of them are structured around specific products (e.g. moringa) or members (e.g. women).	Field visits (12/20, 01/21)	Producers? organisations will be primary partners for the implementation of livelihood support interventions. Their role will include: ? participatory identification of their capacity and interests, and related training needs; ? experience sharing and support in identifying and accessing all community groups including minority groups; ? participatory refinement of the identification of weaknesses and preferred approach to strengthen their processing capacities; and ? participation in business plans development.	The project approach under Output 3.4 is strongly based on community organisations, associations and cooperatives. The project will build as much as possible on existing groups that will be strengthened. The involvement of existing groups in the project implementation phase will therefore be central as they will be selecting their livelihoods of interest to take ownership of the sustainable management of the corresponding resources.

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Traditional leaders (Chiefs, Headman, and Village heads)	Secondary	Traditional leaders (chiefs, headman, and village heads) are customary authorities involved in land management as well community life at the local level.	No direct consultations	Customary authorities will be engaged with especially under Components 1 (Outputs 1.1 & 1.2) and 2 (Output 2.2) to benefit from training on land-use management and conflict resolution, as well as to assist with the mainstreaming of climate adaptation into land-use management and conflict resolution.	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
c) Civil society					

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Conf?d?ration Paysanne du Faso (CPF)	Secondary	The CPF was created in 2002. It is a platform of 15 umbrella organisations, governed by Law 14/99/AN on the regulation of cooperative societies and groups in Burkina Faso. Its missions include: i) promoting solidarity between the Confederation's member organisations; ii) advocacy and lobbying; iii) consultation and cooperation between the Confederation and other umbrella organisations at national, sub-regional and international levels; iv) negotiation with the State and development partners on issues of common interest to member organisations at national and international levels (orientation of agricultural policy, land issues, code of investment in agriculture and livestock, etc.); and v) collecting, processing and disseminating information of a general nature. The CPF is a member of the R?seau des Organisations Paysannes et des Producteurs Agricoles (ROPPA), an organisation that brings together farmers' organisations in the West African sub-region, headquartered in Ouagadougou.	The CPF was evaluated as a potential execution partner (date). It was also consulted in the three target regions (12/20 & 01/21) and in the 11/21 workshop.	Roles during project implementation may include: - Training of extension officers on the APFS approach. - Implementation of APFS in villages	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Conseil National de l?Agriculture Biologique (CNABIO)	Secondary	The absence of an organised framework of actors involved in organic and ecological agriculture coupled with the absence of a national reference system for organic production and processing led to the creation of the CNABIO in 2011 as an umbrella organisation that brings together some sixty actors, including institutions and individuals (individual producers, NGOs, groups, companies, etc.). Since 2013, CNABIO has been supporting the implementation of a Participatory Guarantee System dubbed ?BioSPG? developed in accordance with the international standards for organic agricultural commodities set out in the Codex Alimentarius[3]. CNABIO has been piloting the implementation of the BioSPG label in 27 communes spread over seven regions of Burkina Faso, working with 344 producers.	N/A	CNABIO will be associated with the implementation of a Participatory Guarantee System to support market access for agroecological products under Output 3.5. This system will capitalise on CNABIO?s BioSPG label by reviewing its standards to ensure compliance with agroecological principles and building on lessons learned from the implementation of BioSPG since 2013.	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Organisation Catholique pour le D?veloppement et la Solidarit? (OCADES)	Secondary	Funded in 1956, the objective of OCADES is to promote the integral development of people and communities. OCADES works in the areas of human development and promotion, solidarity and sharing, capacity building, women, youth and family. Programmes in these areas cover several sectors, from agriculture to emergency relief, including access to basic social services, microfinance, humanitarian aid, reintegration and rehabilitation of vulnerable people, food security, and the promotion of women in a Sahelian context affected by extreme climate variability and change. OCADES is present in all the target regions.	Consulted in D?dougou in 12/20	No direct implication foreseen.	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Association pour la Recherche et la Formation en Agro?cologie (ARFA)	Secondary	ARFA is a Burkinab? NGO created in 1995. Its main focus is the promotion of agroecology, a field in which it is one of the leading organisations in Burkina Faso and in the West African sub-region.	ARFA was the main service provider for the implementation of the TAPE and CMT tools. As such, many interactions between FAO and ARFA took place during the PPG phase for training, joint data analysis and quality control.	ARFA may be among the partners involved in the elaboration and implementation of APFS curricula, as well in charge of the terminal TAPE assessment to monitor project indicators.	
Media outlets (including online and print newspapers, radio and TV)	Secondary	Production and broadcasting of communication products using various communication channels to reach the general public.	N/A	The project will work with the media on an *ad-hoc* basis to publish project stories, share lessons learned and generally reach out to external stakeholders.	Media will be informed about project activities on an *ad hoc* basis. Opportunities to communicate on project results will be systematically seized.
d) Regional and international organisations, development partners					
Food and Agriculture Organisation (FAO)	Key GEF Lead Implementing Agency Member of the PSC Cofinancing partner	FAO is a specialised agency of the United Nations that leads international efforts to defeat hunger. Its goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives. With over 194 member states, FAO works in over 130 countries worldwide.	Workshops, meetings with FAO Burkina Faso and FAO Rome experts	FAO is the GEF agency in charge of project design and implementation. The specific role of the FAO in project implementation is further described in Annexes K and L. FAO will be represented at PSC meetings.	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
International Fund for Agricultural Development (IFAD)	Secondary	IFAD is a development bank that provides financial support, as a donor and organiser, for agricultural and rural development in developing countries. Its mission is to combat hunger, malnutrition and poverty in these countries by improving agricultural inputs and techniques and by creating and modernising agricultural or commercial activities in rural areas, in particular through locally managed microfinance projects. In Burkina Faso, IFAD funds several relevant projects, including PAPFA and the Programme conjoint Sahel en r?ponse aux d?fis COVID-19, conflits et changements climatiques (SD3C).	Team of the IFAD-funded Projet d?appui ? la promotion des fili?res agricoles (PAPFA) project consulted in D?dougou in 12/20	Dissemination of information about the main project workshops (steering committees, evaluation reports, knowledge products) Coordination with relevant initiatives Provider of cofinancing through the MAAHRAH (PAPFA)	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
United Nations Development Fund (UNDP	Secondary	UNDP works in about 170 countries and territories, helping to achieve the eradication of poverty, and the reduction of inequalities and exclusion. In Burkina Faso, UNDP funds and implements several relevant projects, including the PAMED, Programme d'Appui au D?veloppement des ?conomies Locales (PADEL) and the Projet de Renforcement des Capacit?s Nationales de R?silience	Team of the UNDP-funded Programme d?Am?lioration des Moyens d?Existence Durables (PAMED) project consulted in D?dougou in 12/20	Dissemination of information about the main project workshops (steering committees, evaluation reports, knowledge products) Coordination with relevant initiatives Provider of cofinancing through the MTEE (PAMED)	
World Bank	Secondary	The World Bank is an international financial institution that provides leveraged loans to developing countries for investment projects. In Burkina Faso, the World Bank funds several relevant projects, including the PreCA and PARIIS.	Teams of the World Bank-supported projects Projet de R?silience et de Comp?titivit? Agricole (PreCA) and Projet d'Appui R?gional ? l'Initiative pour l'Irrigation au Sahel (PARIIS) were consulted in 12/20.	Dissemination of information about the main project workshops (steering committees, evaluation reports, knowledge products) Coordination with relevant initiatives	

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
e) Academia/research institutions					
Institut de l'Environnement et de Recherches Agricoles (INERA)	Secondary	Funded in 1960, INERA is one of the four specialised institutes of the Centre National de la Recherche Scientifique et Technologique. It is responsible for agricultural and environmental studies and research. INERA has one regional direction for western Burkina Faso based in Bobo-Dioulasso with two secondary stations (Niangoloko and Banfora) and eight branches (Balla, Dind?resso, Vall?e du Kou, Sindou, Djigu?ra, Hound?, Dano).	INERA was consulted in Centre-Ouest in 12/20.	INERA will be associated with the development of a research programme on the impact of APFSs, the development of APFS curricula as well as monitoring of the results of agricultural best practices.	INERA is under the Ministry of Higher Education, Scientific Research and Innovation (Ministre de l'Enseignement sup?rieur, de la Recherche scientifique et de l?Innovation, MESRSI)

Stakeholder Name	Stakeholder Type	Key function within mandate/activity related to the project	Consultation methodology & date of consultations (PPG)	Expected role in project implementation (Implementation)	Comments
Universities (e.g. Nazi Boni University) and vocational training centers (e.g. Centre de Promotion Rurale of Kodougou (Boucle du Mouhoun), Centre Agricole Polyvalent de Matourkou (Hauts-Bassins)	Secondary	Nazi Boni University, based in Bobo-Dioulasso, was funded in 1995. Among its research institutes is the Institut du d?veloppement rural, which would be the primary institution to engage with Outputs 4.1 and 4.2. The Centre de Promotion Rurale of Kodougou (created in 1992) and the Centre Agricole Polyvalent de Matourkou (funded in 1963) are two examples of well-regarded vocational training centers based in the target regions (Boucle du Mouhoun and Hauts-Bassins, respectively).	Universities and vocational training centers will be invited to the inception workshop.	Universities will be associated with the execution of Output 4.1 as they will be the primary institutions in charge of the research programme on APFS. They will also be supported with the identification of funding sources to continue the research programme after the project termination. Both universities and vocational training centers will be associated with the execution of Output 4.2, as this output will include the mainstreaming of APFS into the curricula of voluntary training institutions.	Universities and vocational training centers have not been directly consulted during the PPG phase, but will be engaged with at project inception and upon implementation of activities under Outputs 4.1 and 4.2. Other institutions than the ones cited here will be engaged as well.
f) Private sector					
Agro-sylvo-pastoral producers	Primary	Micro private enterprises responsible for agriculture and livestock production.	Focus groups, field visits (12/20, 01/21)	As direct beneficiaries of project activities, they will be involved in all project interventions	
Commercial Enterprises	Primary	Small and medium level enterprises responsible for selling and provisioning materials required to support private sector agriculture and livestock enterprises	N/A	They will be engaged throughout the project with their inputs secured to help make certain project activities are fundamentally supportive of long-term, stable economic development	

[1] See FAO Operational Guidelines for Stakeholder Engagement. Please include identification and consultations of disadvantage and vulnerable groups/individuals in line with the GEF policy on Stakeholder Engagement and GEF Environmental and Social Safeguards.

[2] Decree N?2008-704

[3] CNABIO is also a member of the International Federation of Organic Agriculture Movements (IFOAM).

Select what role civil society will play in the project:

Consulted only;

Member of Advisory Body; Contractor; Yes

Co-financier;

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

Executor or co-executor; Yes

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Introduction

1. Due to cultural, historic and power imbalances, men and women have different assigned roles and opportunities in most societies. Regarding environmental issues, men and women relate to natural resources in different ways, and environmental changes have different impacts on their lives. But women?s needs, roles and capabilities are too often under-recognised or undervalued. Women are also disproportionately affected by climate change impacts such as droughts, floods and other extreme weather events. Yet, they tend to benefit less than men from development aid and investments: just 10% of total aid provided for agriculture, forestry and fishing goes to women[1], who receive just 7% of total investment in agriculture[2]. Adopting a gender lens in development projects is a way to recognise these differences and act accordingly to get better project results.

2. The GEF[3] and the FAO[4] recognise that more systematic inclusion of gender aspects in projects can create positive synergies between positive environmental impact and greater gender equality. In this perspective, the proposed project adopts a gender-responsive approach,

by mainstreaming gender considerations both in the theory of change and the results framework,s and promoting Dimitra Clubs as a gender-transformative approach. The gender analysis, the gender action plan and the Dimitra Clubs brief presented below highlight the key dimensions of this approach.

3. Practical guidelines were first developed to provide the PPG team with a flexible framework for a better integration of gender dimensions into the project. Sex-disaggregated data at the national and regional levels were gathered through a review of academic literature, grey literature and secondary data sources. Additional data was collected at the local scale through FAO's Tool for Agroecology Performance Evaluation (TAPE) and Market territorial approach methodology. In addition, the evaluation of the FAO-GEF project ?Strengthening Resilience to Climate Change through Integrated Agricultural and Pastoral Management in the Sahelian zone in the Framework of the Sustainable Land Management Approach?[5] was capitalised upon. According to the conclusion of this former FAO-GEF project, relations between men and women are improving in the area and the project?s beneficiaries are aware of the key role of both men and women in development activities.

Gender analysis

4. Burkina Faso is one of the poorest countries in the world and ranks 182nd out of 189 countries and territories in the 2019 Human Development Index[6]. At the same time, Burkina Faso counts as one of the countries with the highest degree of inequality between women and men, with a Gender Inequality Index (GII) value of 0.594, ranking it 147 out of 162 countries as of the 2019[7].

5. Gender disparities in terms of development are multifaceted. For example, women suffer more from poverty than men, with a rate of 45% of employed women below the poverty line (vs. 38% for men)[8]. Because of gender disparity and educational infrastructure issues, girls in Burkina Faso do not receive equal educational opportunities[9]. As a result, women face a higher rate of illiteracy (67%) than men (50%)[10]. Gender-based violence is also a tenacious problem in Burkina Faso; furthermore, although female genital mutilation (FGM) is prohibited by law, the practice remains significant in the country: in 2019, 76% of women and girls aged 15-49 had been submitted to FGM[11].

6. The 2009 National Gender Policy underlines the fact that inequalities and disparities between men and women occur in all areas of political, economic, social and cultural life in Burkina Faso. In this strategic document, the lack of equality and equity between men and women in the country is recognised as an obstacle to national development and a barrier to fight poverty[12].

Women and public life

7. The Constitution of Burkina Faso states that men and women are equal. In 1997, the GoBF established a dedicated ministry for the promotion of women and gender issues (now Ministry of Women, National Solidarity and Family). Moreover, Gender Groups have been established in each ministry in order to promote gender mainstreaming into sectoral policies. As a result,

several national policies such as the Poverty Reduction Strategy Paper (2004) or the National Adaptation Plan (NAP) to climate change (2015) underline the importance of gender in development.

8. Within this institutional framework, a large number of gender action plans and programmes have been promoted during the past decades. In 2009, the government of Burkina Faso adopted the National Gender Policy to ?promote equitable and participatory development of men and women, as well as ensure access, equal control, equal access to resources, and equal access to the decision-making process, in respect to fundamental rights?[13]. Examples of initiatives undertaken in accordance with the National Gender Policy include a national strategy for the promotion of women?s entrepreneurship[14], [15]. A new Gender Policy was released in 2021, the Strat?gie Nationale Genre (SNG) 2020-2024, coming along with an operational plan for the 2020-2022 period. The SNG 2020-2024 focuses on five strategic areas: (i) promotion of women?s access to basic social services and social protection; (ii) equal access between men and women to justice and legal protection; (iii) economic empowerment of women and girls, (iv) equal participation, representation and political influence for men and women; and (iv) steering and support.

9. Despite this general will to bridge the gender gap in the country, a number of technical obstacles stand in the way such as budgetary constraints and the limited visibility of women in statistical surveys. In addition, discriminatory social norms and informal laws challenge the implementation and efficiency of government?s actions to promote an equal participation of women in men in public life.

10. A striking illustration of the limited progress achieved is that, despite Law N? 010-2009 /AN requiring that 30% of the candidates listed in local and legislative election be women, women?s political opportunities in the country remain scarce. For example, in 2019 only 13.4% of Parliament seats were held by women[16]. Burkinabe women also remain largely under-represented in the local political sphere, with 13% elected seats held by women in deliberative bodies of local government[17].

Women and climate change

11. Burkina Faso is one of the most vulnerable countries to climate change. The consequences of drought, desertification or rainfall variations pose serious threats to rural livelihoods. Within the Burkinabe population, women are even more vulnerable to climate change because they rely more than men on natural resources to survive. For example, in a drought year, men have the opportunity to look for a paid job (seasonal work in the cities, road-repair work or gold-mining work) which is much more complicated for women since they have the responsibility to feed their families[18]. The task of providing water for households falls also generally to women. Because of climate change and its effects on water resources (salinisation, wells running dry, water getting spoiled), this responsibility is becoming increasingly time-consuming for women and ends up being an ?exhausting chore?[19].

12. To tackle the issue of women?s vulnerability to climate change, the National Adaptation Plan (NAP) adopted in 2015 underlines the need of gender-sensitive policies and women-targeted actions[20]. The NAP also explicitly considers women as key agent of change to advance

towards climate resilience. Gender equality is asserted to be a condition for the successful uptake of climate change adaptation actions in rural communities.

Women and forest resources

13. Forests? resources are crucial for a majority of Burkinabe women both in terms of means of subsistence (food, firewood, medicinal products) and production of goods for sale (handicrafts products, shea, n?r?, honey, soumbala, baobab leaves)[21]. However, a study in southern Burkina Faso highlights the fact that women and men do not have equal access to forest products: even in their own households' fields, Burkinabe women may not always have secure access to the trees[22]. It should be noted that, despite this situation, women are the main actors in the processing and marketing of non-timber forest products (NTFP).

14. Wood-based fuels remain the dominant source of energy for Burkinabe households. Wood gathering is generally assigned to women[23]. With climate change, agriculture expansion and illegal production of both ?rewood and charcoal, finding wood has become extremely difficult in many areas where forest resources have been degraded ? women are often forced to travel longer distances to collect firewood, which tends to expose them to more fatigue and insecurity. Women are therefore forced to use non-conventional fuels (cow dung, plastic or crop residues), a source of recurrent diseases and illnesses for them, as they tend to be significantly more exposed to indoor pollution[24].

15. Securing the participation of women has become widely recognised as a condition[25] for success in initiatives to foster sustainable forest management practices. Consequently, FAO advocates that ?efforts to enhance women?s participation in forest?related institutions should be strengthened because women can help to maximise synergies between the forest sector and food security for the benefit of all.?[26]. Nevertheless, women?s participation in forest management program remains variable in Burkina Faso. For example, whereas a 2011 research study in two provinces of the Centre-Ouest region points out that women are frequently excluded from meaningful participation in forest management processes[27], in Boucle du Mouhoun all farmers' organisations in charge of forest management have women members. The proposed project will ensure that women?s role in such organisations is strengthened, as participatory management in forested areas can be enhanced by empowering women in decision-making processes[28].

Women and agriculture

16. The national economy is largely based on agriculture, the exploitation of natural resources and stockbreeding. Together, these three sectors employ 92% of the population[29] and represent 32% of GDP[30]. The majority of the population lives in rural areas[31] and practices subsistence farming, working small, family-run plots with some livestock. Similarly to other African countries, Burkina Faso experiences a strong division of work between men?s and women in agriculture. Fetching water and other household chores are still widely considered to be a woman?s job. But in predominantly pastoralist households, when men move to better pastures, women may find themselves with insufficient income to meet household needs. Some sectors are also specifically seen as feminine, such as the processing and production of

shea butter or the processing of milk in pastoralist households. In addition, Burkinabe women are often involved in market gardening and subsistence farming to provide for their family.

17. In the agricultural sector, the average income gap between men and women reaches 52%[32]. It might be difficult for women to find a paid job in the rural sector[33]; yet, at a global scale, women are more likely to reinvest their income in their families and communities[34]. Consequently, women's economic empowerment is also seen as a way to reduce poverty in Burkina Faso[35]. Access to formal credit is difficult for all the Burkinabe?s population but particularly for women who do not have assets to back loans and still suffer from discrimination in access to credit based on gender or marital status. According to the 2011 Oxfam report: ?it is easier for women to obtain loans from a credit union if they are part of an organisation than if they apply for credit individually. This money is invested in the productive activity carried out by the group. They can also access credit through projects and programmes run by national or international entities that provide funds to be used to grant microloans to women?[36].

18. Eighty-three percent of women work in the agricultural sector and, through their production, women provide 75% of household food consumption[37]. Nevertheless, women are still struggling to have access to productive resources and extension services such as micro-credits, land rights, as well as access to technology and know-how[38]. Investing in rural women by enhancing their capacities, decision-making power and access to key resources, services and opportunities, is thus considered as ?a winning strategy to accelerate progress towards rural development and food security?[39].

19. In Burkina Faso, women have few opportunities to access to land tenure rights, since land is passed down from fathers to their sons and the owner is usually the male head of the family[40]. Only 8% of women are landowners compared to 46% of men[41] Women cultivate on land allocated to them by their husbands or another male relative. Consequently, they do not invest much in their plots, because they have no property rights hence no guarantee to benefit from their investment. In the early 2000s, the average plot size given to women in Burkina Faso was 0.62 acre, compared with 6.2 acre for the land controlled by men. In addition, women?s plots were generally of less quality or left in fallow[42]. This leaves women with less opportunity to derive a decent income from their agricultural work, and ultimately affects their resilience negatively.

20. Faced with this situation, the GoBF has clearly indicated its desire to promote equal access to land for men and women. The legislation provides conditions to establish equal property rights for men and women[43]. For example, following Law n?034, the first rural land titles were granted to women in 2014 in the irrigated perimeter of the rural community of Di in the Boucle du Mouhoun region. Recently, the 2015 Sylvo-Pastoral Orientation Law established a quota of 30% of public land[44] for vulnerable population such as women or young people. However, it is still difficult for women to acquire land due to financial capacity which prevents women from becoming economically autonomous.

21. Beyond land property, women have less access to assets than men. They often lack inputs and equipment. For example, manure pits or chemical fertilisers are typically used mainly on family-owned land, even though women contribute fairly significantly to creating the pits[45].

Women can benefit from the technical equipment only when their husband or sons are not using it[46]. As for livestock, while women may take care of the animals, the property is most often men?s.

22. Agricultural extension services are aimed at the male head of the family, since they are responsible for growing cereals[47]. According to Oxfam (2011), ?the only way in which women have access to agricultural training is in the context of NGO development programmes, in which women?s groups benefit from training activities? [48]. However, the situation has evolved since then. Thanks to the national gender policy, farming training are becoming more gender inclusive. For example, the Ministry of Water has set up a graduate training program dedicated solely to women. To continue this momentum the project?s farming trainings will consider women specific constraints and opportunities.

Women and natural resources management

23. As described above, Burkinabe women play a key role in the management of the natural resources: they collect water, their gather wood, they provide food for their families. However, they do not have decision-making power over the management of these natural resources[49]. They almost never participate in resource management and conservation plans and programmes[50]. For example, their low participation in forest management programme has been already noted. A study in two provinces of the Centre-Ouest region analyses the underlying causes of this women?s exclusion[51]. Firstly, in rural Burkina Faso, women have a heavy workload that can discourage them from getting involved in local commissions. Secondly, ?in the study area, women are not traditionally allowed to speak in front of men publicly, which prevents them from coming forward in participatory efforts, while men are considered to be responsible for village development and governance?[52]. Finally, ?women may have less interest to participate in the program than men due to the settings of the forest management groups that emphasize the regulation and apportion of rights for ?rewood cutting and marketing? [53]. Since they are scarcely represented in local governing bodies, women thus tend to have no control over forests resources or other natural resources, that generally remain managed by men[54].

24. Regarding the special issue of land management, since a 2007 decree, local council for development in rural villages (Conseil Villageois de d?veloppement, CVD) have to integrate at least two women in their twelve members boards elected[55]. These women are specifically in charge of the promotion of gender equality in the village. It is to be noted that women can hold other positions on these CVDs. The gender representation on CVD board members is estimated by local experts of the PPG team at 40%. Similarly, since 2009[56], Village Land Commissions (Commission Fonci?re Villageoise), which are commissions of the CVD, should include representatives from women?s associations. The slow implementation of these laws should be noted however, due to a lack of financial and human resources[57] in institutions tasked with implementation and effective power sharing between men and women.

25. Generally, women?s organisations are well implemented in communities. They are frequently consulted in the making of decisions that affect them. Still, most decisions remain taken by heads of the community or village councils, namely men only[58].

Women and Farmer Field Schools

26. As per their core definition, ?the Farmer Field Schools (FFS) play an important role in reinforcing the technical and functional capacity of participants and simultaneously contribute to inclusive community development, women?s empowerment and gender equality?[59]. But in West African countries, the participation of women in FFS has lagged far behind male involvement[60].

27. In order to promote gender-integrated FFS through the proposed project, an analysis of the specific needs and vulnerabilities of women regarding FFS activities was conducted, including through a literature review and a compilation of best practices across previous GEF-FAO projects[61],[62]. A review of the previous or ongoing FFS projects in Burkina Faso was also carried out to understand constraints on women?s participation to FFS activities (Table 19).

Table 19. Farmer Field Schools? former or ongoing projects in Burkina Faso.

FFS projects in Burkina Faso	Actors	Dates	Overlap with the proposed project?s target regions
?Strengthening Resilience to Climate Change through Integrated Agricultural and Pastoral Management in the Sahelian zone in the Framework of the Sustainable Land Management Approach?[63]	FAO-GEF	2015-2020	Centre-Ouest
Agro-pastoral and farmer field school?s approach was part of the SNVACE (national system of extension and agricultural advisory support regarding livestock	Ministry in charge of animal resources	NC	Boucle du Mouhoun
The FFS approach was part of the GIPD Programme (Gestion Int?gr?e de la Production et des D?pr?dateurs des cultures)	FAO	2002-2016	Boucle du Mouhoun Centre-Ouest Hauts Bassins
FFS are a key tool of the national system of extension and agricultural advisory support (SNVACA)	Ministry of Agriculture	Since 2010	Boucle du Mouhoun Centre-Ouest Hauts Bassins

28. Following this review, a set of actions to better include women in FFS activities in the context of the project was established. This set of action was discussed among the PPG team and confirmed by local and in-house expertise. It forms the basis of the Gender Action Plan.

Community engagement for empowerment through Dimitra Clubs

29. Community engagement for empowerment can be described as a process whereby rural communities engage as active agents of change in all decisions that concern their lives. Thus, community engagement is central in climate resilience interventions as it can contribute to building trust, improving local governance, ensuring ownership, promoting behavioural changes and social inclusion as well as the empowerment of women and girls.

30. Over the years, FAO has developed an extensive expertise in promoting the Dimitra Clubs as a community engagement and gender transformative approach in rural and remote areas of

low-income countries in Africa. This approach facilitates collective action, rural women?s leadership and agency and community empowerment, while also contributing to improve rural livelihoods and climate resilience.

31. The Dimitra Clubs are informal community-based groups of rural women and men (including young and elderly people) who come together on a voluntary basis to discuss and seek solutions for community problems, making use of local capacities and resources without relying on external aid. The clubs are inclusive and participatory spaces where everyone?s voice and capacities count and are valued regardless of age, ethnicity, socio-economic status, and disability/ability.

32. As an approach led by rural communities and based on dialogue, everyone has the right and opportunity to participate in the approach. In particular, the active engagement of men and customary leaders has been key to fight against gender-based human rights violations such as girls? early marriage, food taboos and domestic violence. Impacts are seen at individual, household, organisation and community levels. The activities carried out by the Dimitra Clubs trigger social transformations that gradually lead to changes in behaviours and social norms that would otherwise prevent women from progressing on an equal basis as men.

33. The Dimitra Clubs are first and foremost a community-led approach as it puts a strong emphasis on the importance of community engagement and collectivisation (coming together) which leads to the breaking of social isolation that perpetuate the injustice suffered by those living in poverty and marginalisation. This takes the process of change beyond the level of individuals to address and challenge commonly taken for granted assumptions and misconceptions that perpetuate gender-based discriminations.

34. Through this approach, rural communities build their individual and collective capacities to reflect, analyse and act. As active members of the clubs, women increase their access to information and gain self-confidence to speak-up in public, voice their opinions and needs, becoming recognised leaders of their communities. Thanks to these changes, many women part of the Dimitra Clubs now actively participate as leaders in decision-making processes of their communities. It has been observed that behavioural changes and more equitable relations between men and women at different levels (organisations, households and communities) have led in many contexts to an important diminution of gender-based discriminatory practices and behaviors within households and communities.

Impact of the Dimitra Clubs

Impact has been assessed in many areas, including food security and nutrition, gender equality and women?s leadership, resilience, peace, climate change adaptation, and more.

It is estimated that over 6.5 million rural people benefit from Dimitra Clubs? initiatives.

Due to its holistic impact, the approach has been integrated as a field component in over 50 FAO and UN joint projects and initiatives, including in GEF programs and in the EU-funded programme ?Gender transformative approaches for enhanced food security, nutrition and agriculture?.

Over 7,000 Dimitra Clubs exist in several countries of sub-Saharan Africa (Burundi, Burkina Faso, Central African Republic, DR Congo, Ghana, Madagascar, Mali, Niger and Senegal), Cambodia and soon in Malawi, Kenya and Ecuador

Women?s condition in the project?s areas (Boucle du Mouhoun, Centre-Ouest, Hauts Bassins)

35. In the three regions targeted by the project (Centre-Ouest, Boucle du Mouhoun, Hauts Bassins), the general figures show that the population is predominantly female. These women experiment strong gender inequalities that are exacerbated by the effects of climate change. The sexual division of labour and the gender roles in accessing and controlling resources are factors that increase women's vulnerability to climate change and often force them into activities that are not environmentally sustainable.

	Boucle du Mouhoun	Centre-Ouest	Hauts Bassins
% of women in the local population[64]	50.28%	53.70%	51.15%
Women?s population[65]	954,381	932,875	1,144,928

36. Gender inequalities are particularly prevalent in the region of Boucle du Mouhoun, even if the three targeted areas have many similarities regarding women?s condition.

	Burkina Faso	Urban areas	Rural areas	Boucle du Mouhoun	Centre-Ouest	Hauts Bassins
Social Institutions and Gender Index[66]	0.229	0.192	0.259	0.294	0.159	0.194

37. Each target area has its own local development plan (Plan R?gional de d?veloppement, PRD). All PRDs underline the crucial role played by women regarding the use and preservation of natural resources and specifically regarding forest resources. Nevertheless, none of these documents have integrated women?s issues in their action plans.

38. The data collected by the local gender expert reveal that the notion of gender is understood by the communities, who see it as a sure way to attract projects and funding from donors. Women were present in all the community structures met by the local expert. However, they were more likely to hold the positions of assistant to the men, than to hold the leadership of these community structures.

39. Women are often the initiators of activities to mobilise local savings through traditional tontine systems. Despite this, women are more affected by precariousness than men. To get out of this situation, they often engage themselves in income-generating activities such as market gardening and the processing of agricultural products and non-timber forest products (NTFP). Access to markets and sources of financing, however, remains constrained by gender inequalities that have been exacerbated by the COVID-19 pandemic.

40. In each of the three regions, the consultation led by the gender expert revealed that women derive their income mainly from the sale of firewood and NTFPs such as shea, tamarind, red

kapok, and baobab leaves and fruit. For a participant of one women's focus group, ?women cannot do without cutting wood because it is what allows them to have money for the family expenses, since their husbands do not give them any?. The women consulted also report that men are increasingly interested in processing activities traditionally led by women (particularly the manufacture of local juices), given the economic opportunity that the sector offers.

41. These income-generating activities are carried out in addition to the tasks traditionally assigned to women. Women spend an average of 6.5 hours per day on unpaid domestic and care work: 3.5 hours on household care activities and 3 hours to maintain the house. They also spend on average 2.5 hours per day to volunteer work on the plots or in family businesses[67]. This situation is reinforced by the fact that 90% of the population declares that household tasks are the responsibility of the woman[68].

Table 20. Gender Action Plan

	Project activities (outputs and activities when relevant)	Gender- sensitive indicators and targets	Entry points for gender mainstreaming
	Creation of the Project Coordination Unit (PCU)	1 M&E & Gender Expert contracted and engaged in work of the project. She/he will assist project activities throughout project implementation and ensure that gender aspects are duly taken into account.	
1.1.1	Train extension workers (at least 50% women) and, as relevant, customary authorities and CSOs on regulatory texts and legislation on rural land management.	At least 50 % of women trained	Other gender transformative actions are planned within these activities: ? Encourage national and local governments to recruit female workers to join public institutions. ? Review the training curricula to make sure that gender aspects are fully taken into consideration at all levels.
1.1.2	Train extension workers (at least 50% women) and, as relevant, customary authorities and CSOs on rural land conflict management and conflict mediation techniques	At least 50 % of women trained	

1.1.3	Train members of the CVDs, CFVs and CCFVs on regulatory texts and legislation on rural land management.	At least 50 % of women trained	Equal participation of men and women to these committee meetings will be sought, even though the demographics of extension services may make reaching this objective difficult. Throughout the project, concrete actions will be taken to achieve participation targets in local landscape committees and trainings, including: ? scheduling the meetings of the decision-making structures at times suitable for women participation ? providing women with an enabling space to express their viewpoints without fears of being confronted ? monitoring participation of women and taking immediate corrective measures if gender indicators and gender targets are not met ? as women play an important role for social cohesion, opportunities to strengthen this role in conflict-resolution mechanisms will be identified within COFOs as a possibility to mitigate the growing number of conflicts over natural resources. ? ensuring the participation of grassroots women living in remote agropastoral communities, including through the use of ICTs to overcome any budget or security-related challenges facing the participation of women in decision making.
1.1.4	Train members of CVDs, CFVs and CCFVs on the management of rural land conflicts and conflict mediation techniques.	At least 50 % of women trained	
1.2.1	Develop tailored capacity needs assessment for relevant local bodies (CVDs, CCFVs, CFVs). The capacity needs assessment shall be partly based on self-declared needs and be specific to the context of each commune in terms of land degradation status and climate vulnerability.		The project will ensure that gender aspects are fully included in the tailored training programmes for each committee, which will provide a basis for the mainstreaming of gender aspects into the agenda of the committees. Examples of activities include: i) raising awareness about

1.2.2	On the basis of the capacity needs assessment, develop tailored training programmes for each commune and local body. This may include training on the specifications relating to: i) the occupation and exploitation of family plots of land in hydro-agricultural developments; ii) the occupation and exploitation of land developed for rain-fed crops; and iii) the development, occupation and exploitation of business-operated land developed or to be developed by the State and local authorities.		women?s land tenure rights; ii) supporting the empowerment of women in claiming their land tenure rights through legal empowerment (including rights literacy), access to justice and knowledge building as well as campaigns and sensitisation both at the household and community level; and iii) adopting a consensual approach that emphasises sensitising men and boys at all levels, from within the household to decision-making authorities. These activities shall be conducted in local languages and through communication means used by the communities (for example radio programmes, flyers) to ensure that information reaches both men and women.
1.2.3	Conduct training activities in accordance with the tailored training programmes, in conjunction with the revision / development of PCD and Chartes fonci?res under Outputs 1.4 and 1.5.	At least 50 % of women trained	
1.3.1	Hold information/communication workshops on land policy, Law 034 and the objectives and actions envisaged by the project for 23 municipal councils	50% of women in attendance	
1.3.2	Carry out participatory diagnoses of natural resources and their use/allocation in terms of land for 23 municipal councils	The specific rights of and challenges for women in accessing tenure rights will be identified.	
1.3.3	Carry out socio-tenure surveys involving participation at village level to validate this resource mapping and explicitly document the legitimate rights (State, communes, villages, lineages, individuals) exercised on the communal territory for the benefit of 23 municipal councils		

1.3.4	Create frameworks for consultation and reflection ('multistakeholder platform?), as provided for by the Burkinabe law, at village and communal levels to establish or strengthen social dialogue between the various land tenure actors at local level.	50% of women?s participation in each platform	? Ensure gender aspects are fully included in the ToRs of the multi-stakeholder platforms, which will provide a basis for gender mainstreaming into the agenda of the frameworks. ? Provide women with an enabling space to express their viewpoints without fears of being confronted.
1.3.5	Organise workshops to validate proposals on land tenure security options, tools and approaches ? including regeneration and agroecology	50% of women?s participation	
1.3.7	Organise information/communication workshops on land policy, Law 034 and the objectives and process of integrating climate change adaptation into regional development plans for the benefit of the three Regional Councils	50% of women?s participation	
1.4.1	Undertake participatory Climate Change Vulnerability Impact Assessments in target landscapes using guidelines for Vulnerability Impact Assessment under PROVIA or other relevant methodologies and identify recommended adaptation actions.		The analysis of climate risks and vulnerabilities will include gender aspects
1.4.2	Support the CVDs to develop and/or revise at least 15 Communal Development Plans to further mainstream climate change resilience.	Women represent at least 50% of stakeholders involved in the revision of relevant plans	
1.4.3	For each of the PCDs targeted under Activity 1.4.2, support CVDs to develop and/or revise annual investment plans that adequately reflect financial provisions for the climate change resilience provisions integrated into the PDCs.	Women represent at least 50% of stakeholders involved in the revision of relevant plans	
1.5.2	Based on the baseline analyses to be produced under Activity 1.5.2, conduct participatory workshops with relevant stakeholders to identify gaps in land-use plans (either geographic or in terms of thematic coverage).	50% of women in attendance	

2.1.1	Conduct a participatory diagnostic of existing community listening groups in the target communes and identify capacity gaps.		The promotion of Dimitra?s Clubs is part of the gender-transformative strategy of the project. Dimitra Clubs, are informal groups mainly composed of women, who discuss common problems and determine ways to address them by acting together and using local resources. Dimitra Clubs create also a space to also take action in relation with community social norms and behaviours affecting women, thereby strengthening women?s leadership. As women play an important role for social cohesion, opportunities to strengthen this role in conflict-resolution mechanisms will be identified within Dimitra Clubs or existing listening clubs. This opportunity to operationalise this peace building - protection of natural resources - women?s empowerment nexus (part of the humanitarian?development?peace nexus) will be assessed by the Gender expert[69].
2.1.2	Train facilitators (women and men chosen among the APFS facilitators trained under Component 3) on the methodology of Dimitra Clubs	At least 50 % of women trained	
2.1.3	Promote the Dimitra approach within existing community listening groups or, where absent, establish Dimitra Clubs in the target communes.	Number of Dimitra Clubs established or community listening groups consolidated Target: 200 At least 70% of participants of Community listening groups or Dimitra Club are women	
2.2.1	Develop tools and approach for participatory diagnostic with simple indicators of climate-change affected agro-ecosystems, based on recognised methodologies for assessing ecosystem services, adapting tools from the Participatory Negotiated Territorial Development Approach and diagnostic/design tools used in agroecological/regenerative approaches (permaculture food forests, analog forestry, synthropic agriculture etc.)	Explicitly identification of ecosystem services that particularly benefit women	
2.2.4	Establish restoration options based on the latest scientific evidence and local traditional or innovative knowledge to guide the restoration of approx. 15,000 of degraded forests and rangelands		Community nurseries may be managed by women, as this is an activity often popular among women.

2.2.6	Provide technical and business training to community members (esp. women and youths) for the sustainable management of nurseries following FAO?s Agroforestry Field School methodology	At least 50 % of women trained	
2.2.7	Conduct community training sessions/ Agroforestry Field Schools on: i) soil health and soil preparation techniques; ii) tree health and planting techniques; and iii) maintenance of restoration plots, iv) establishment of seed banks and grafting techniques.	At least 50 % of women trained	
2.3.1	Conduct community training sessions on low-cost water management techniques such as contour bunds, stone lines, planting pits and three-sided basins.	At least 50 % of women trained	
2.3.3	Based on the participatory assessment, produce costed feasibility studies for the equipment of 20 ha with irrigation infrastructure (boreholes with solar exhaures, wells etc.)		Women will particularly benefit from irrigation as they are often tasked with water collection.
3.1.3	Organise technical workshops to develop a training curriculum for master trainers	Integration of 1 awareness raising on gender aspects module into the recycling training	
3.1.4	Select future master trainers	At least 50 % of women	Whenever possible, the project will target women for training sessions but due to structural reasons explained in the Gender Analysis, it is difficult to train as many women as men as trainers
3.1.5	Organise initial training sessions for master trainers on the APFS approach and climate-resilient ASP practices	Integration of 1 awareness raising on gender aspects module into the recycling training	A first assessment of this module will be led, and the module will be strengthened if necessary.
3.1.6	Organise training sessions for master trainers on Farmer Field and Business Schools (FFBS)/ Farmer Marketing Schools and AVEC	At least 50 % of women trained	
3.1.7	Organise refresher training sessions for master trainers, ? la carte	Integration of 1 module on awareness raising on gender aspects into the recycling training	

3.2.1	Conduct a rapid survey of needs and interests of farmers in target communities to be carried out before the training of facilitators with a view to inform the organisation and content of facilitators? training.		Needs and interests of women will be particularly noted
3.2.2	Develop a training plan for the training of facilitators		To build gender-sensitive APFS approach, the project will make sure to: ? Select attractive learning module for women, such as nutrition and commercialisation modules. ? Schedule all relevant activities (trainings, graduation, surveys, APFS preparation sessions) at times suitable for women participation. ? When possible, hire cooks to prepare local foods to serve during the sessions and to care for children. ? Give priority to women regarding group leadership roles assignment (treasurer, chairwoman, secretary, advisor). ? Provide women with an enabling space to express their viewpoints without fears of being confronted ? Use the ?special session? of the APFS training to mainstream gender issues. ? When possible, hire women to conduct the ?special sessions? of APFS trainings. ? When possible, mobilise women extension agents in order to give more role models for women.
3.2.3	Select future facilitators (at least 50% women)	At least 50 % of women	Whenever possible, the project will target women for training sessions but due to structural reasons explained in the Gender Analysis, it is difficult to train as many women as men as trainers
3.2.4	Organise initial training sessions for facilitators on the APFS approach, climate-resilient ASP practices and gender-sensitive development	Integration of 1 gender awareness module into the training curriculum	

3.2.5	Organise training sessions for facilitators on FFBS, Farmer Marketing School (or other related modules as relevant) and AVEC	At least 50 % of women trained	
3.2.6	Organise refresher training sessions for facilitators	Integration of 1 module on awareness raising on gender aspects into the recycling training	
3.2.7	Train endogenous facilitators from the APFS groups to ensure continuity of the learning process	At least 50 % of women among endogenous facilitators trained	
3.3.2	Facilitate APFS training sessions	At least 50 % of women trained through APFS	In West African countries, the participation of women in APFS has thus far lagged behind male involvement. To address this situation, actions will be taken to better integrate women?s participation to APFSs? activities, including: ? Develop a strategy for the inclusion of women in APFS activities at the beginning of the project. The best practices from past and ongoing projects of APFS in terms of women mobilisation will be gathered, and will inform this strategy. ? Select value chains from a gender perspective in order to guarantee that women are not excluded from the proposed activities of APFS. ? Set gender-specific indicators and targets.
3.4.1	Carry out market studies of ASP products		Gender will be taken into account when selecting products for which the market will be studied.
3.4.2	Implement Business and Marketing modules within 500 APFSs (at least 50% of women beneficiaries)	At least 50% of women beneficiaries	
3.4.3	Select the APFS groups to benefit from the micro processing units, post-harvest storage units and other small-scale investments for ASP products	At lest 50% of projects selected lead by women	
3.4.4	Support selected APFS groups to formalise a management plan for their investments. As required, support the formalisation into cooperatives.	Women make up at least 50% of the members o supported cooperatives	As relevant, women?s cooperatives may be created.

3.4.5	Organise training sessions on cooperative governance and financial literacy	At least 50% of women trained	
3.4.7	Organise specific technical training to increase the technical capacity of beneficiaries to conduct the target activities	At least 50% of women trained	
3.6.1	Present the advantages and principles of AVECs to APFS trainees		AVECs can work as a strong women empowerment tool: in the previous LDCF-FAO project, over half of the AVECs had a woman as leader, as AVEC members recognised that women were better at managing finances than men[70]
3.6.2	Support the establishment of AVECs within interested APFSs	At least 50% of credit beneficiaries are women	
3.6.3	Provide support for the operations of AVECs through a learning-by-doing approach		
4.1.2	Together with national and, as relevant, international research institutions, develop a pilot research programme to study the mid- to long-term impact (10 years) of APFSs established under Component 3.	Gender aspects mainstreamed into the research programme	
4.1.3	Sign an LoA with selected research institutions to implement the research programme. In line the with the research programme, support methodological and field studies.		
4.2.1	Conduct consultation workshops with the MTEE, MAAHRAH and relevant stakeholders at national and local levels (including members of the PSC) to identify entry points for the mainstreaming of APFS and AE into strategies and policies.	Gender aspects mainstreamed into the APFS & AE elements to be included in the strategies and policies	
4.2.2	As required from the relevant ministries, develop and submit amendments to mainstream APFS and AE into relevant strategies and policies, for validation by policy makers		
4.2.3	Organise an information/sensitisation workshop for universities and ASP vocational training schools, with knowledge-sharing on international experience (East Africa) related to the mainstreaming of APFS and AE into curricula	Gender aspects to be mentioned in experience sharing	

4.2.4	Conduct a study to propose avenues for the mainstreaming of APFSs and AE into university & vocational training curricula	Gender aspects of APFS & AE to be mainstreamed into university and vocational training centers curricula	
4.2.5	Support at least one pilot university and one pilot vocational training center to mainstream APFS and AE into their curricula.		
4.2.6	After two academic years, conduct a stocktaking study on the results of the mainstreaming of APFS and AE into the curricula of the two pilot institutions. Convene an experience-sharing workshop to present the results of the study and encourage other training institutions to mainstream APFS into their curricula.		
4.3.1	Co-develop and implement the MEL plan.	Gender aspects integrated to the monitoring and the evaluation of the project The gender sensitivity and gender responsiveness of the project will be evaluated in both the MTR and the TE.	All the project?s gender aspects will be monitored and evaluated including through the indicators of this Gender Action Plan and as foreseen in the MEL plan. A set of gender-responsive indicators was developed in order to facilitate the deployment of gender-sensitive activities. These gender-responsive indicators also allow proper monitoring and evaluation of gender mainstreaming and gender benefits of the projects. The assessment of project?s gender dimension will therefore be an important element of both the mid-term review and the independent terminal evaluation.
4.3.4	Conduct a terminal TAPE assessment to assess relevant project indicators from the results-based framework.	1 TAPE assessment taking gender aspects into consideration	TAPE assessments are gender-sensitive. Gender aspects of TAPE assessment will be particularly analysed in the final study with a view to highlight gender-specific aspects of the agroecological transition facilitated by the project.
4.3.5	Produce at least three grey literature publications and three scientific papers for publication in peer-reviewed, scientific journals, the Hand-in-Hand Geospatial Platform for ecological monitoring etc.	Gender aspects will be reported	

4.3.6	Upload relevant project information and data (incl. GIS) on the Hand-in-Hand Geospatial Platform and the WOCAT database (incl. actual intervention costs).	Gender aspects will be reported	
4.4.1	Prepare and publish annual briefs and case studies, including at least one that is gender-focused on the project?s accomplishments, experiences and lessons learned	Gender aspects are integrated into the outreach & communication strategy	? The knowledge-sharing strategy will include key messages on gender and systematically address gender dimensions of knowledge management topics. ? The communication strategy will include key findings, benefits, opportunities, or remaining constraints regarding gender mainstreaming into the project. ? Gender aspects will be systematically highlighted in the knowledge shared from the project.
4.4.2	Organise information and knowledge exchange on APFS, including with the Central Africa Field School Network, African Forum For Agricultural Advisory Services, Global FFS Platform, etc. Participate to the regional agroecology seminars to be organised under the GEF-LDCF project ?Resilient, productive and sustainable landscapes in Mali?s Kayes Region?.	Gender aspects (successes and challenges) will be presented	
4.4.3	Train farmers and facilitators on producing short videos and uploading them online/sharing them with others for further sharing.	Women trained on video production	
4.4.4	Produce two to three short practical videos in partnership with Access Agriculture to document some innovative promising practices that emerge from APFS. Translate these videos in local languages for greater dissemination.	Women interviewed to testify	

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[69] See also specific work conducted by FAO on this nexus in Yemen (here and here).

[70] FAO. 2020. ?valuation finale du projet ? Int?grer la R?silience Climatique ? la production Agricole et pastorale pour la S?curit? Alimentaire dans les Zones Rurales vuln?rables ? travers l?Approche Champ Ecole des Producteurs ?. GCP/BKF/054/LDF Rapport final. S?rie ?valuation de projet.

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.

1. Private sector involvement will be key to the success of the project?s interventions, and to scale up its impacts. The project will contribute to the generation of income for local communities, in particular through the work on specific baskets of products. This will help secure rural livelihoods, thereby strengthening the resilience of local communities. The proposed project will thus engage with the private sector by: i) eliciting an ?entrepreneurship spirit? with local populations by providing them with training to identify business opportunities and seize them; ii) working with cooperatives and other private organisations to strengthen transformation units, with a view to increase the value-added that producers can extract from ASP products; and iii) facilitating market linkages, i.e. accompanying producers to meet existing demand.

2. The development of local income-generating opportunities is at the core of the intervention strategy of the proposed project. This will be achieved by: i) developing local access to micro-credit through AVECs); ii) assisting local businesses and producers? organisations with the design of commercial plans; iii) facilitating linkages with markets by supporting certification processes; and iv) providing micro-processing units along with technical capacity-building to use them.

3. Beyond the support to economic activities, successful engagement with the private sector is critical to the project achieving desired SLM and SFM impacts. This is why private stakeholders will be engaged with under all other project components:

? under Component 1, private actors will be involved in the participatory mechanisms to establish a renewed governance of natural resources. Private actors will be represented through cooperatives and other professional organisations, as relevant; and

? under Component 2, private producers will benefit from training on SLM, SFM and water-smart practices through APFS sessions; and

? under Component 4, the successes and challenges faced by private actors (as farmers, processors and marketers of ASP products) will be documented.

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):

1. Risk management is a structured, methodical approach to identifying and managing risks for the achievement of project objectives. The risk management plan will allow stakeholders to manage risks by specifying and monitoring mitigation actions throughout implementation. Part A of this

section focuses on external risks to the project and Part B on the identified environmental and social risks from the project.

Section A: Risks to the project

2. The risks identified in relation to the effective execution and sustainability of project activities, including potential social and environmental threats, are related to complexities of implementing landscape approaches, project management and exogenous risks. The main risks identified during the PPG phase are summarised in the table below.

Table 21. Main identified risks to the project.

Description of risk	Impact[1]	Probability of occurrence	Mitigation actions	Responsible party
Insecurity in the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions	**H**	**M**	The target regions have been selected so as to limit the insecurity risk at the time of PIF formulation. The safety situation evolved during the PPG phase and informed the selection of target communes. However, this risk is not under the project control and the situation may deteriorate in the target communes. One of the key measures to address the risk is postponing and stopping all project activities in the project area if the security situation deteriorates. The selection of target communes may also evolve accordingly.	PMU, FAO
Limited national and local capacity for the project effective implementation and limited chances to involve international consultants due to insecurity	**H**	**M**	The risk is only partly under the project control. However, under all components, the proposed project will invest considerable resources in capacity building of regional and local authorities as well as communities to plan, implement and monitor sustainable landscape management. The project implementation will involve a wide range of partners that have significant capacity to ensure achievement and sustainability of the project outcomes.	PMU, FAO, national partners

Ethnic and local tensions over the access to water, pastures, forest and other natural resources in the project areas	**H**	**L**	The intervention rationale of the proposed project is to anticipate the potential increase in conflicts over natural resources in Sudano-Sahelian regions. Latent conflicts other use of natural resources between different ethnicities, farmers and herders, local people and outsiders are exacerbated by climate change, the over-exploitation and resulting scarcity of these resources. To mitigate these conflicts, the proposed project will invest in the strengthening of conflict resolution mechanisms, involve all relevant stakeholders to improve the security of land tenure and development / update of Chartes fonci?res and sustainable management plans. Ultimately, this will reduce the opportunities for conflict over access to and use of natural resources.	PMU
Climate-induced hazards (increased frequency and intensity of flooding, earlier start and delayed end of the rain season, more erratic rainfall, increased extreme temperatures, increased PET) and the secondary impacts: change in cultural cycles, decreased water availability, erosion, changes in pastoral habits (incl. transhumance), increased incidence of cattle diseases	**H**	**H**	The mitigation of secondary impacts of climate threats are a cornerstone of the project intervention logic. In short, a number of practices are foreseen (crop diversification, extension of resilient crops, soil and water conservation, integrated pest management, etc.) at the plot level, while answers to mitigate impacts are also sought at the landscape level (flood management micro-infrastructure, groundwater rehabilitation infrastructure, reforestation etc.). Furthermore, the project will improve access to credit for agricultural activities. Finally, the project will adopt the APFS approach that have proven efficient in Burkina Faso and help upscale this approach, thereby facilitating a transition towards more climate resilient ASP productive systems.	PMU

Land tenure	**H**	**M**	Insecure and unclear tenure can undermine incentives for sustainable landscape management and ultimately the supply for supported transformation activities and landscape restoration. The proposed project will work with all stakeholders ? local, national, governmental, non-governmental ? to identify working landscape management strategies.	PMU, local authorities
National execution partner(s) are assessed to have moderate or high risks on a selection of operational standards, making the operationalisation of the project more costly and complex	M	**L**	Before engaging partners as operational partners in project execution, FAO carries out micro-assessments of the operational capacity of the partner. This is done either at PIF or PPG stage. FAO will engage with the partner only if risks are low or moderate. A detailed risk mitigation plan is developed and is part of the operational partner agreement (OPA) with the national execution partner. Working with national execution partners will help develop operational capacities of the partners.	FAO
Limited mainstreaming of CCA into planning frameworks	**M**	**L**	The proposed project aims to facilitate the mainstreaming of CCA into local-level development frameworks, i.e. Communal Development Plans. In addition, SLAs that take climate change into account will be developed under Component 1. Finally, the capacity of municipal and regional councils, local, regional and national platforms for land-use management and relevant coordinating organisations will be strengthened to improve the governance of natural resources in a context of climate change.	PMU, local authorities

Local, regional and/or global measures to contain impacts from pandemics (such as Covid-19) and their repercussions hampers the availability of technical expertise, engagement of stakeholders, and mobilisation of financing	**M**	**M**	The project intervention logic considers resilience in a comprehensive way, and therefore addresses food sovereignty, rural poverty and livelihood opportunities. It also makes use of approaches, such as the farmer field school approach, that have proven successful over the past few months, providing extension services despite containment restrictions, and easily and promptly addressing health related concerns so they do not become social, economic and environmental crises. To overcome concerns in mobilising the technical expertise to support project design and implementation, the project will work with the excellent technical expertise available nationally, and prioritise work with locally rooted (CSOs, NGOs, government institutes, extension services, ?) organisations and realities in order to minimise the impacts of limitations on mobility at the national and international level. Technological alternatives to face-to-face consultations will be deployed, securing proper participation and engagement of all relevant stakeholder groups, including women and youth. Government priorities have been defined, and agriculture and livestock are key sectors. It is therefore unlikely that re-orientation of financing is going to materialise in the coming biennium. Still, should it become difficult to secure co-financing, the project will deliver evidence and increase its sensitisation, awareness-raising and capacity development efforts under Component 4 in order to advocate for continued support to green and resilient recovery. **Note: an ?epidemic contingency plan? for the proposed project that further identifies risks but also opportunities in terms of resilience building (?Build Back Better? approach), is**	PMU, FAO

[1] H: High; M: Moderate; L: Low.

6. Institutional Arrangement and Coordination

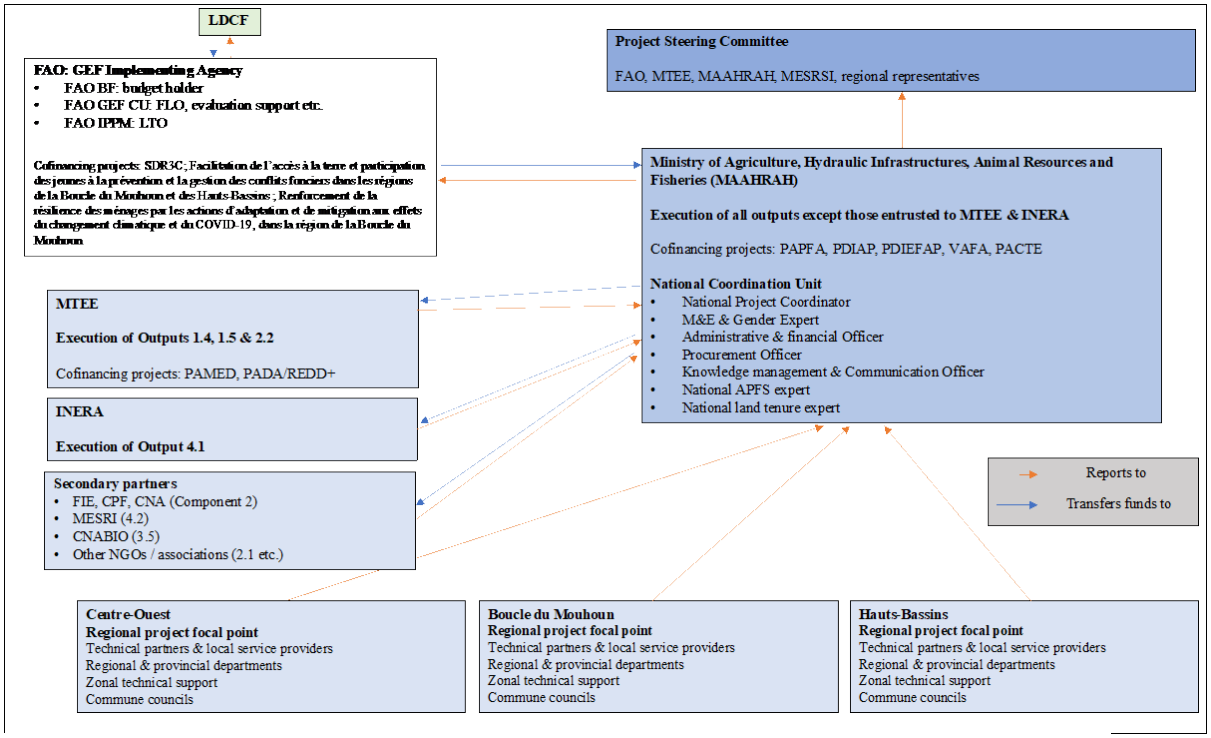
Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

6.a Institutional arrangements for project implementation.

1. The MAAHRAH will have the overall executing and technical responsibility for the project, with FAO providing oversight as GEF Agency as described below. The MAAHRAH will act as the lead executing agency and will be responsible for the day-to-day management of project results entrusted to it in full compliance with all terms and conditions of the Operational Partnership Agreement signed with FAO. As OP of the project, the MAAHRAH is responsible and accountable to FAO for the timely implementation of the agreed project results, operational oversight of implementation activities, timely reporting, and for effective use of GEF resources for the intended purposes and in line with FAO and GEF policy requirements.

2. It should be noted that the identified Operational Partner (OP), the results to be implemented by the OP, and the budgets to be transferred to the OP, are non-binding and may change due to FAO internal partnership and agreement procedures which have not yet been concluded at the time of submission of this funding proposal.

3. The project organisation structure is as follows:



4. The government will designate a National Project Director (NPD). Located in the MAAHRAH, the NPD will be responsible for coordinating the activities with all the national bodies related to the different project components, as well as with the project partners. They will also be responsible for supervising and guiding the Project Coordinator (see below) on the government policies and priorities.

5. The NPD (or designated person from lead national institution) will chair the Project Steering Committee which will be the main governing body of the project. The PSC will approve Annual Work Plans and Budgets on a yearly basis and will provide strategic guidance to the Project Management Team and to all executing partners. The PSC will be comprised of representatives from FAO, MAAHRAH, MTEE, MESRSI, regional representatives etc. (list to be confirmed at project inception). The members of the PSC will each assure the role of a Focal Point for the project in their respective agencies. Hence, the project will have a Focal Point in each concerned institution. As Focal Points in their agency, the concerned PSC members will: i) technically oversee activities in their sector; ii) ensure a fluid two-way exchange of information and knowledge between their agency and the project; iii) facilitate coordination and links between the project activities and the work plan of their agency; and iv) facilitate the provision of co-financing to the project.

6. The National Project Coordinator (see below) will be the Secretary to the PSC. The PSC will meet at least twice per year to ensure: i) oversight and assurance of technical quality of outputs; ii) close linkages between the project and other ongoing projects and programmes relevant to the project; iii) timely availability and effectiveness of co-financing support; iv) sustainability of key project outcomes, including up-scaling and replication; v) effective coordination of government partner work under this project; vi) approval of the six-monthly Project Progress and Financial Reports, the Annual Work Plan and Budget; and vii) making by consensus, management decisions when guidance is required by the National Project Coordinator of the PMU.

7. A Project Management Unit (PMU) will be co-funded by the GEF and established within the MAAH. The main functions of the PMU, following the guidance of the Project Steering Committee, are to ensure overall efficient management, coordination, implementation and monitoring of the project through the effective implementation of the annual work plans and budgets (AWP/Bs). The PMU will be composed of a National Project Coordinator (NPC) who will work full-time for the project lifetime. In addition, the PMU will include:

- ? a M&E & Gender Expert;
- ? an Administrative & financial Officer;
- ? a Procurement Officer;
- ? a Knowledge management & Communication Officer;
- ? a National APFS expert; and
- ? a National land tenure expert.

8. The National Project Coordinator (NPC) will be in charge of daily implementation, management, administration and technical supervision of the project, on behalf of the Operational partner and within the framework delineated by the PSC. S/he will be responsible, among others, for:

i) coordination with relevant initiatives;
ii) ensuring a high level of collaboration among participating institutions and organizations at the national and local levels;
iii) ensuring compliance with all OPA provisions during the implementation, including on timely reporting and financial management;
iv) coordination and close monitoring of the implementation of project activities;
v) tracking the project?s progress and ensuring timely delivery of inputs and outputs;
vi) providing technical support and assessing the outputs of the project national consultants hired with GEF funds, as well as the products generated in the implementation of the project,
vii) approve and manage requests for provision of financial resources using provided format in OPA annexes;
viii) monitoring financial resources and accounting to ensure accuracy and reliability of financial reports;
ix) ensuring timely preparation and submission of requests for funds, financial and progress reports to FAO as per OPA reporting requirements;
x) maintaining documentation and evidence that describes the proper and prudent use of project resources as per OPA provisions, including making available this supporting documentation to FAO and designated auditors when requested;
xi) implementing and managing the project?s monitoring and communications plans;
xii) organizing project workshops and meetings to monitor progress and preparing the Annual Budget and Work Plan;
xiii) submitting the six-monthly Project Progress Reports (PPRs) with the AWP/B to the PSC and FAO;
xiv) preparing the first draft of the Project Implementation Review (PIR);
xv) supporting the organization of the mid-term and final evaluations in close coordination with the FAO Budget Holder and the FAO Independent Office of Evaluation (OED);
xvi) submitting the OP six-monthly technical and financial reports to FAO and facilitate the information exchange between the OP and FAO, if needed;

xvii) inform the PSC and FAO of any delays and difficulties as they arise during the implementation to ensure timely corrective measure and support.

9. The Food and Agriculture Organization (FAO) will be the GEF Implementing Agency (IA) for the Project, providing project cycle management and support services as established in the GEF Policy. As the GEF IA, FAO holds overall accountability and responsibility to the GEF for delivery of the results. In the IA role, FAO will use the GEF fees to deploy three different actors within the organization to support the project (see Annex J for details):

? the Budget Holder, which is usually the most decentralized FAO office, will provide oversight of day-to-day project execution;

? the Lead Technical Officer(s), drawn from across FAO will provide oversight/support to the projects technical work in coordination with government representatives participating in the Project Steering Committee;

? the Funding Liaison Officer(s) within FAO will monitor and support the project cycle to ensure that the project is being carried out and reporting done in accordance with agreed standards and requirements.

10. FAO responsibilities, as GEF agency, will include:

? administrating funds from GEF in accordance with the rules and procedures of FAO;

? overseeing project implementation in accordance with the project document, work plans, budgets, agreements with co-financiers, Operational Partners Agreement(s)and other rules and procedures of FAO;

? providing technical guidance to ensure that appropriate technical quality is applied to all activities concerned;

? conducting at least one supervision mission per year; and

? reporting to the GEF Secretariat and Evaluation Office, through the annual Project Implementation Review, the Mid Term Review, the Terminal Evaluation and the Project Closure Report on project progress; and

? financial reporting to the GEF Trustee.

11. A part-time Operational Partnership Officer (OPO) will be hired with project funds and placed at the FAO Representation. The OPO will:

? advise to the OP with preparation of documents, work plans and reports ensuring compliance with FAO requirements and the signed OPA;

? review the quarterly Request for Funds and Financial Reports that the OP will submit to FAO;

? check that the Request for Funds and Financial Reports are in line with the approved AWP/Bs and the Project Results Framework and the conditions of the signed OP for eligibility of expenditures;

? request further information to the OP, if needed;

? advise the Budget Holder (FAO Representative) on the approval of the Requests for Funds and Financial Reports;

? ensure that the OP maintains records of supporting documents for each financial transaction to be made available to potential Resource Partners? verifications missions;

? review and advise the BH on any proposed revisions of an approved plan and budget of the project component implemented by the OP;

? monitor and implement agreed risk mitigation and assurance plan which will include spot checks and audits;

? based on findings and recommendations from audits, ensure follow up remedial actions by OPs; and

? prepare amendments to the Operational Partners Agreement, as required.

6.b Coordination with other relevant GEF-financed projects and other initiatives.

12. Numerous national projects that focus on land management and adaptation to climate change have been or are currently being implemented in Burkina Faso. These projects will provide information on relevant, cost-effective interventions to strengthen the resilience of ASP systems as well as lessons learned that can guide the planning and implementation process in the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions. The proposed project will focus on collating and synthesising the lessons learned from past and ongoing relevant projects to inform its design during PPG, when first contacts with all the project management teams will be established. This approach will maximise synergies and avoid duplication of activities.

13. The LDCF project particularly learns from and builds upon a recently concluded FAO-executed GCF Readiness project to identify the adaptation and mitigation measures for the Great Green Wall (Strategic Frameworks support for Burkina Faso through FAO). The outputs of the Readiness project have been validated, and include a consolidated report on the mitigation and adaptation potential of the Great Green Wall, as well as a great wealth of information on adaptation (and mitigation) practices, approaches, models, lessons in support of forestry and land use adaptation. These outputs have been guiding the PIF design and will be further orienting the PPG phase, when relevant and locally adopted adaptation practices will be selected in a participatory way. The LDCF project will also coordinate with a regional GGW project that is in its early design phase. A regional full project proposal financed by the GCF is being negotiated with a number of GGW countries. Burkina Faso is planned to take part in this regional project.

14. Furthermore, the project foresees exchange on a continuous basis with relevant GEF projects and programmes through participation in a working group chaired by the GEF OFP. In this working group, all GEF projects under execution will inform the partnership on project progress and lessons. This working group will meet on a semestrial basis. These exchanges can furthermore lead into joint missions and alignment of workplans and activities, particularly with projects GEF LDCF 5003, 4971, 9318 and 8032. Coordination with projects and programmes not financed by the GEF will be assured through participation of the respective project teams (as observers) in the project steering committees. In addition to the baseline projects considered for co-financing described in Section II, coordination will also particularly be sought with the projects below.

15. Five LDCF-funded projects are currently approved and/or being implemented in Burkina Faso:

? Promoting Index-based Weather Insurance for Small Holder Farmers in Burkina Faso. This GEF-LDCF project (USD 4,466,175) has been by implemented by UNDP since 2020. Its main objective is to develop and promote index-based weather insurance systems for climate-induced

damage in agriculture. A focus in placed on maize and groundnut cultures, and the project targets producers in northern Burkina Faso.

? Strengthening Climate Information and Early Warning Systems in Africa for Climate Resilient Development and Adaptation to Climate Change ? Burkina Faso. The main objective of this UNDP-implemented project (USD 4 million) approved for implementation in 2013 is to strengthen the weather, climate and hydrological monitoring capabilities, early-warning systems and available information for responding to extreme weather and planning adaptation to climate change in Burkina Faso. Expected Output 2.3 of this project is agricultural and extreme weather risk advisories that link climate, environmental and socio-economic information on short-term and seasonal timescales. Such advisories could be useful for the implementation of climate-adapted ASP practices to be developed under Component 2 of the proposed project, and their use could be promoted through APFS.

? Adapting Natural Resource Dependent Livelihoods to Climate induced Risks in Selected Landscapes in Burkina Faso: the Boucle du Mouhoun Forest Corridor and the Mare d?Oursi Wetlands Basin. This GEF LDCF-funded project (USD 7 million) has been implemented by UNDP since 2014. The general objective of this project is similar to the proposed project?s, i.e. to increase the resilience of livelihoods based on natural resources. One of the two target regions ? Boucle du Mouhoun ? is common to both projects. To ward off any risks of duplication, the site selection process to be carried out during the PPG phase considered the location of the target sites of this project.

? Climate Resilience in the Nakambe Basin. The concept for this project (USD 4,416,210) was approved in 2018. Some interventions will be shared by two projects, namely the implementation of sustainable forest management, the development of commodity-based businesses, the facilitation of access to finance and the dissemination of climate-adapted agricultural practices.

? Integrating Climate Resilience Into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas Through the Farmers Field School Approach. This GEF-funded project (budget of USD 3.81 million from the LDCF) was implemented by the FAO. This project focused on strengthening the climate resilience of ASP communities in the Est, Centre-Nord, Sahel and Centre-Ouest regions through the FFS approach. It has accumulated valuable lessons learned on the implementation of the FFS approach in Burkina Faso, as well as on the feasibility of agroecological techniques, and financial training and organisation of ASP communities. These lessons learned have been capitalised upon during the preparation of the proposed project.

16. Integrated and Sustainable Management of PONASI Protected Area Landscape. This GEF project was approved in 2021 for implementation by UNDP, for a budget of USD 5.3 million. Its objective is to safeguard critical wildlife habitat, biodiversity and ecosystem services in the PONASI[1] Protected Area Complex through integrated landscape management, generating multiple benefits for sustainable development. Synergies will be sought with the proposed LDCF project for interventions in the Centre-Ouest region, especially with Output 3.2 (?Sustainable land management practices implemented by communities in the PONASI Landscape?).

17. Sustainable management of dryland landscapes in Burkina Faso. This GEF project was approved in 2021 for implementation by IUCN (USD 6.7 million). This project will fight land degradation

in parts of the West Sudanian Savanna Terrestrial and the Volta Freshwater ecoregions. This project and the proposed project will both intervene in the Sangui? province of Centre-Ouest. Specific coordination will be sought at the regional level to leverage synergies in terms of restoration activities (capacity building, provision of seedlings etc.) under Component 2.

18. Programme de D?veloppement durable des exploitations Pastorales du Sahel ? Burkina Faso (Regional Sahel Pastoralism Support Project - Burkina Faso, PDPS-BF). The objectives of PDPS (2017-2021) are to improve access to essential productive assets, services, and markets for pastoralists and agro-pastoralists in selected trans-border areas and along transhumance axes across six Sahelian countries, and to strengthen country capacities to respond promptly and effectively to pastoral crises or emergencies. In Burkina Faso, PDPS is implemented by the Comit? inter-?tat de lutte contre la s?cheresse au Sahel (Permanent Inter-State Committee for Drought Control in the Sahel, CILSS) and executed by the MAAHRAH. Under PDPS-BF, Burkina Faso benefits from a USD 30 million loan from the World Bank. PDPS-BF is comprised of five components : i) animal health improvement to support critical national efforts to build more sustainable and efficient national veterinary services, as well as to conduct surveillance and control campaigns for major diseases affecting large and small ruminants ; ii) natural resource management enhancement to improve pastoral and agro-pastoral communities? sustainable management of and secure access to natural resources ; iii) market access facilitation to increase pastoralists? access to competitive, inclusive markets, and to increase trade in pastoral products ; iv) pastoral crisis management to improve crisis preparedness, prevention and response; and v) project management. Synergies will be sought between the proposed LDCF project and PDPS interventions in the Boucle du Mouhoun and Hauts-Bassins regions. In particular, PDPS-B will support participatory and community-driven approaches to land management along transhumance routes, rehabilitate water facilities and construct or restore livestock markets ? all of which will be capitalised on by Components 1, 2 and 3 of the proposed LDCF investment.

19. Projet R?gional d?Appui au Pastoralisme au Sahel Phase II (Regional Sahel Pastoralism Support Project, PRAPS-II). This regional, World bank-funded project (USD 375 million) intervenes in Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal to support pastoralism through four main avenues: i) animal health improvement; ii) natural resource management enhancement; iii) market access facilitation; and iv) pastoral crisis management. In Burkina Faso, PRAPS-II is active in the regions of Est, Nord, Sahel, Hauts Bassins, Boucle du Mouhoun, Cascades, Centre-Nord, Centre Sud, Centre-Ouest, Sud-Ouest and Centre-Est. Synergies with the proposed project will be sought in particular on the sustainable management of integrated agro-pastoral systems (access to resources, transhumance corridors, co-benefits between the pastoralism and farming) and the strengthening of conflict resolution mechanisms between farmers and pastoralists.

20. In addition to these national initiatives, the proposed project will also coordinate at the local level with a number of stakeholders and projects involved in the dissemination of agroecological principles and approaches, as mentioned in paragraph 44.

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[1] P?, Nazinga and Sissili

[2] This is the most ambitious of the three reduction scenarii presented in the NDC, as it considers the mitigation co-benefits of ambitious adaptation projects. Indeed, a minor contributor of GHG emissions, Burkina Faso intends to focus its efforts on adaptation in the framework of the Paris Agreement (ratified in October 2016).

[3] Source: GoBF. 2018. Programme de D?finition des Cibles de la Neutralit? en Mati?re de D?gradation des Terres. Rapport final.

[4] Source: GoBF. 2019. Rapport National Volontaire de mise en oeuvre des Objectifs De Developpement Durable (2016-2018).

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.

21. In addition to national priorities described in the baseline section, the proposed project will contribute to Burkina Faso?s objectives set out in several strategic documents, as synthesised below.

22. National Adaptation Programme of Action (NAPA) and National Adaptation Plan (NAP) Process. Burkina Faso submitted its NAPA in 2007 and the guiding document for its NAP in 2015. The NAPA recognises the agro-sylvo-pastoral sector as a key adaptation priority, while the management of natural resources, the production of fodder and the security of pastoral areas are ranked respectively third, fourth and eighth amongst the priority adaptation actions. The NAP document has been a constant reference throughout the formulation phase of the proposed project, both as a source of information (e.g. on climate projections) and a guide to select investments and planned interventions as per national priorities. As a result, the four components of the proposed project are articulated with the Specific Objectives of Burkina Faso?s NAP guiding document, namely:

? for agriculture:
- o Specific Objective (SO) 1: recover and restore the fertility of degraded soils
- o SO 2: improve access for farmers to high-quality agricultural production factors (equipment, inputs, land, agricultural research outcomes etc.);
- o SO 3: increase stakeholder resilience to climate change;

? for the environment and natural resource sector:
- o SO 1: increase ecosystem productivity and resilience;
- o SO 2: improve biodiversity conservation;
- o SO 3: improve ecological research and monitoring; and
- o SO 4: mitigate greenhouse gas emissions.

23. In addition, capacity-building activities to be conducted under Component 1 of the proposed project will strengthen an enabling institutional environment for the governance of climate change adaptation in Burkina Faso, thereby facilitating the NAP process. The mainstreaming of climate resilience into land-use and investment plans will also directly contribute to adaptation planning.

24. United Nations Framework Convention on Climate Change (UNFCCC) National Determined Contribution (NDC). Similar priorities are reflected in Burkina Faso?s Nationally Determined Contribution submitted to the UNFCCC (2015). Specific adaptation targets included in the NDC that the proposed project will contribute to include:

? 105,000 ha of land under improved management annually to improve or maintain agricultural productivity;

? 75,000 ha of degraded land rehabilitated annually for sylvo-pastoral purposes, including by using Delfino ploughing;

? 10,000 tons of fodder produced annually; and

? 800,000 ha benefiting from Naturally Assisted Regeneration in 200 rural communes, with the participation of at least five communities each.

25. In addition, the proposed project will have mitigation co-benefits from the Land Use, Land-Use Change ad Forestry (LULUCF) sector that will contribute to the national target set in the NDC of reducing greenhouse gas emissions by 36.95% by 2030 compared to a business-as-usual scenario[2].

26. UNFCCC National Communication (NC). In addition to the objectives set forth in the NDC, a recommendation is made in the Second National Communication to the UNFCCC (2014) to improve the sub-national governance for the agricultural sector, which Component 1 of the proposed project will contribute to. In addition, several best practices for the adaptation of the agricultural sector (e.g. zai, djengo, half-moons, stone barriers) that are described in the NC will be promoted through the APFS approach under Component 2.

27. UNFCCC Technology Needs Assessment (TNA) for adaptation. Burkina Faso?s second TNA for adaptation (2017) focuses on the agriculture and forestry sectors. It contains a thorough assessment of the technical and cost effectiveness of a range of adaptation options for these two sectors. Among the three technologies that ranked highest against several criteria, two technologies will be directly promoted and disseminated by the proposed LDCF project, namely: i) the combination zai + stone barriers + natural assisted regeneration to limit erosion and manage water resources; and ii) the use of the Delfino plough for the rehabilitation of pastures. The technical descriptions as well as efficacy and efficiency analyses of these practices have directly informed the design of Component 2 of the proposed project, and will also be used in the implementation phase to guide the planning of field interventions. Additional recommendations are included in the Barrier Analysis document (2017) that complements the TNA for adaptation. Analyses contained in this document have been updated and revised to fit local contexts in the target regions, and form one of the bases for the barrier analysis in Section II.1.a.1.

28. National Biodiversity Strategy and Action Plan (NBSAP) & Reports to the Convention for Biological Diversity (CBD). Burkina Faso presented its NBSAP in 1999 and submitted its fourth national report to the CBD in 2010. The global objective is ?for Burkina Faso?s population to adopt a sustainable management of biodiversity by 2025?. The ?main option? to reach this global

objective is to ?elicit a reflex of conservation and restoration of species and their environment, as well as a sustainable and dynamic management of natural resources?. The proposed project will contribute to this objective by using a participatory approach to foster agro-ecology, including through the APFS approach. Agricultural biodiversity being one of its core criteria of performance, the TAPE tool implemented at two crucial phases of the project cycle ? namely, at the design and terminal evaluation phases ? will provide valuable information on the status of the agroecological transition in the target regions, and the impact of the proposed project on this transition.

29. United Nations Convention to Combat Desertification (UNCCD) Land Degradation Neutrality (LDN). In 2017, Burkina Faso set a voluntary LDN target to reach land degradation neutrality by 2030 by restoring five million hectares of degraded lands and by preventing degradation of non-degraded lands[3].

30. The proposed project will support the achievement of a number of SDGs including:
    - ? strengthening the climate resilience of vulnerable communities and securing rural livelihoods (SDGs 1, 8 & 13);
    - ? strengthening the climate resilience of rural communities, including through the adoption of climate-adapted agricultural and landscape management practices (contributing to SDG 13);
    - ? adopting holistic approaches, such as agroecology (contributing to SDG 2);
    - ? developing pro-growth strategies in rural areas, focusing on women, family farmers and the people left furthest behind (SDGs 1, 2 & 8); and
    - ? adopting an ecosystem approach, considering the carrying capacity of the ecosystem and restoring and sustainably managing its multiple services (SDGs 6, 12, 13 and 15).

Burkina Faso prioritised 42 SDG targets[4]. The proposed project will contribute towards several of them, including 1.2, 1.a, 2.1, 2.3, 2.a, 5.5, 6.b, 8.2, 9.3, 10.7, 12.2, 12.a, 13.1, 13.b, 15.1, 15.3, 15.b and 16.7.

31. The National Strategy for Soil Restoration, Conservation and Rehabilitation (2020-2024) has the overall objective to reduce/reverse the trend of soil degradation in order to increase agricultural production in a sustainable manner. The vision of the Strategy by 2024 is that "Burkina Faso's soils regain their full productive capacity and allow for modern, sustainable and sustainable and resilient agriculture". Through this vision, the strategy aims to achieve a reversal of the trends of the environment and natural resources for the socioeconomic well-being of the populations. The proposed project will contribute towards several of the targets set forth in the Strategy, including: i) decrease in the share of degraded land (24% to 20%); ii) credit access for soil conservation investment (0% to 5%); iii) share of vocational school including soil conservation measures in their curricula (0 to 100%) etc.

32. National legislation, governance and provisions for Environmental and Social Risk Management. Burkina Faso has a legal and regulatory framework governing the preparation and implementation of Environmental and Social Impact Assessments. The main texts are: i) Act 062/95/ADP of 14 December 1995, on the Investment Code and Formalities in Burkina Faso and its implementing text 96-235/PM/MICIA/MEF; ii) Act 005/97/ADP of 30 January 1997 on the Environment Code in Burkina Faso; iii) Act 006/97/ADP of 31 January 1997 on Burkina Faso?s Forest Code; iv) Decree 98322/PRES/PM/MEE/MCIA/MEM/MS/MATS/ METSS/MEF of 28 July 1998, determining conditions for the set-up and operation of dangerous, unhealthy and inconvenient

establishments; v) Decree 2001-185/PRES/PM/MEE of 7 May 2001, determining standards for the discharge of pollutants in the air, water and on the ground; vi) Decree 2001-42/PRES/PM/MEE of 17 July 2001 defining the scope, content and procedure of environmental impact assessments; and vii) Act 002-2002/AN of 8 February 2001 on the Framework Law relating to Water Management promulgated by Decree 2001-126/PRES of 3 April 2001.

33. The institutional framework relating to the environment is underpinned by the Constitution promulgated on 11 June 1991, which enshrines the principle of environmental protection as a fundamental duty of the State and the entire nation. This institutional framework for environmental governance revolves around three main actors: i) the State and its agencies, especially the MTEE as well as other ministerial departments, administrative divisions (provinces, districts, villages); ii) local communities; and iii) users (private sector, civil society). A detailed Environmental and Social Risk Certification compliant with national requirements is presented in Annex I1.

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.

1. Supervision and monitoring missions will be carried out during project implementation. A framework for gender-sensitive Monitoring & Evaluation (M&E) will be developed before implementation starts to identify relevant indicators and procedure for feedback and reporting. Special emphasis will be laid on targeting the most relevant parameters that can be examined and collected internally. The information collected in the context of M&E will feed into activities for knowledge management, identify and share good practices, identify problems and constraints, and promote the continuous improvement of the project and its contribution to the implementation of national and regional objectives on food security and environmental protection.

2. Internally, the knowledge management approach will focus on information sharing, regular dialogue at all levels and the dissemination of documents. Externally, it will focus on the dissemination of information to partners (government, civil society, etc.) and to beneficiaries. In particular, lessons learned from the implementation of APFS though the proposed project but also through other initiatives in Burkina Faso will be documented and disseminated to elicit similar initiatives nationally and in neighbouring countries (also taking into account international experience, for example from Kenya ? cf. Activity 4.2.3). Appropriate channels of communication (technical guidelines, radio, posters, brochures etc.) will be used to target specific stakeholders. This will include international platforms such as the upcoming FAO Regional Technical Platform for Africa and the Global Farmer Field School Platform. The APFS research programme to be set up under Output 4.1 is also expected to generate knowledge products and data that will be adequately disseminated.

3. Throughout the PPG phase, special attention has been given to incorporate lessons learned from past relevant projects into this project?s design. In particular, the table below identifies how key lessons learned and recommendations from the Terminal Evaluation of the GEF-funded project 5014 ?Integrating Climate Resilience Into Agricultural and Pastoral Production for Food Security

in Vulnerable Rural Areas Through the Farmers Field School Approach? in Burkina Faso have been taken into account.

Table 22. Capitalisation on key lessons learned and recommendations from the Terminal Evaluation of FAO-GEF. Note: formal recommendations issued in the Terminal Evaluation are identified as such in the table.

Key lessons learned & recommendations	Capitalisation in proposed project
Main successes	
Recommendation 1: In view of the updated challenges at strategic and operational levels and the positive results achieved by the project, a new phase of the project should be envisaged to consolidate the achievements and institutionalise the APFS approach.	The formulation of the proposed project is a direct response to this recommendation.
Project implementation has helped to further clarify the manifestations and effects of climate change in Burkina Faso in general and in particular in the regions, communities and populations targeted by the project, highlighted the Government's priorities and strategic frameworks for intervention, as well as their shortcomings, and proposed corrective actions. Most rural households are aware of climate change but the adoption rates of technologies disseminated by conventional tools remain low. The lack of a holistic approach to agricultural advisory services due to the compartmentalisation and lack of coordination of the sectoral extension and advisory systems of the three main ministries in charge of rural development are obvious realities of the Burkinabe context, to which the APFS approach experimented by the project has proved to be one of the appropriate ways of responding. The improved collaboration between the different local technical services for agriculture, livestock and environment is one of the proofs that the CEAP approach is relevant.	The continued implementation of the APFS ? including through the upscaling activities to be conducted (mainstreaming into policies and strategies as well as in university curricula) ? will contribute to the institutionalisation of the approach. In addition, the APFS curricula to be developed will be integrated, associating the various agro-sylvo-pastoral dimensions underpinning agroecology. For this reason, all relevant ministries (esp. MTEE and MAAHRAH) will be involved.
The CCA practices and technologies tested in the APFSs and the associated tools (AVEC, FILA microprojects) have been well accepted by decision-makers and populations and have been effectively adopted as a means of strengthening the resilience of populations.	The most successful of these tools (APFSs and AVECs) will be reiterated in the proposed project.
Good ASP practices or technological practices tested in the APFSs have proven to be significantly more productive than farmers' practices and have significant socio-economic benefits.	These practices will be taken over in the new APFSs and, as necessary, complemented with other agroecological practices.
Sustainability risks	

The project has integrated several sustainability factors such as the good involvement of the central, regional and provincial directorates of the MAAHRAH, MRAH, MTEE and local NGOs, and capacity building of the agents in charge of developing and operationalising agricultural advisory strategies.	A similar approach has been followed in the PPG phase and will be continued during the implementation phase.
The institutionalisation of the [APFS] approach remains subject to the budgeting of CCA measures in policies, projects and programmes.	The APFS approach will be mainstreamed in relevant policies and strategies under Output 4.2.
With regard to the institutionalisation of the APFS approach and CCA, although considerable progress has been made, there is still a significant risk that each ministry in charge of rural development will continue to use its approach without incorporating all the requirements and principles of the integrated APFS approach. In this perspective, the MAAHRAH for example may continue to favour the less costly PFS through its PNVACA, if the rural development ministries (MRAH, MTEE, MESRI) do not have specific resources or substantial projects to run their own extension system in a coordinated manner with SNVACA. The FAO, as the lead agency of the Technical and Financial Partners (TFP) of the rural sector, must continue to accompany and support the government in the promotion and institutionalisation of the APFS approach. The same applies to the mobilisation of resources and partnerships to integrate CCA and nutrition in the CDPs and the implementation of the associated measures.	The APFS approach will be mainstreamed in relevant policies and strategies under Output 4.2. The need to follow a cross-sectoral, integrated approach when designing APFS curricula and implementing them (e.g. by associating facilitators from the three line ministries) will be underlined.
Execution & implementation	
Recommendation 3: Reflections must be carried out and actions taken to make the Task Force more operational in future projects. The functioning of this mechanism is often reduced by changes in the LTO and by the fact that the LTO is simultaneously involved in several other dossiers. The project has experienced several changes in LTO and the Task Force mechanism has not functioned well, somewhat reducing the visibility of the project at the FAO level.	The LTO team has been strongly involved in project design (both during PIF preparation and the PPG phase); this involvement is expected to continue during the implementation phase. Upon inception, the composition of the Project Task Force will be established taking availability constraints into account, to ensure that PTF members actually follow the project.
Despite the adequate choice of activities and the implementation approach, the Theory of Change was confronted with the inadequacy of the budget foreseen for some activities, which necessitated a major budget revision at the beginning of the project.	The budget for the proposed project has been designed in strong collaboration with field experts and FAO Burkina Faso officers involved in the previous LDCF project, to ensure that the budget is realistic and adequate.
Micro-projects have had a difficult start and are experiencing considerable delays in implementation, mainly due to the late and/or incomplete supply of inputs and materials for animal shelter construction. (?) In view of all these inadequacies, the functioning of the micro-projects is judged unsatisfactory.	In light of this finding, it was decided not to carry on with the implementation of FILA-like funds during the proposed project (see also the section ?Changes from the PIF?).

Project design	
Recommendation 2: The modalities and mechanisms for mobilising co-financing (disbursable and non-disbursable) for future projects deserve to be improved both at the design and start-up stages. This project was one of the first to have a disbursable financial counterpart from the State for the organisation of Copil activities, the organisation of certain supervision missions, the payment of regional focal points, the acquisition of small office equipment and the rehabilitation of local branch offices. Despite the difficulties encountered in its mobilisation, the existence of this disbursable counterpart fund has demonstrated the State's very proactive commitment to this project and constitutes a significant step forward in State co-financing. The mobilisation of this fund, added to the monitoring and supervision resources provided for in the Memorandum of Understanding between MAAHRAH and FAO, has made it possible to overcome several shortcomings that often limit the monitoring and supervision by the Government of certain projects financed by the partners. However, in order to improve the effectiveness of co-financing in future projects, it is necessary from the design stage to evaluate and quantify this co-financing by the Government by linking it to well-defined activities and results, and at the outset to organise the partners' workshop sufficiently early and to draw up memoranda of understanding and carry out joint or concerted planning to increase synergies.	The cofinancing plan for the proposed project does not involve disbursable cofinancing. However, the strong synergies between the project and the various baseline initiatives described in the project document will provide ample opportunities to mutualise costs with government-lead initiatives when and if necessary. Similarly to the previous project, the GoBF has been showing strong commitment to support the design of the proposed project (cf. Annex I2) and will support its implementation as required.
The indicator for the overall project objective in the prodoc focuses exclusively on land degradation, whereas the overall project objective focuses on reducing the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change.	The objective-level indicators for the proposed project are threefold and cover a representative range of higher-level impacts expected from the project.
The Terminal Evaluation found in the field that the vast majority of farms in the communities concerned have not yet adopted best practices (which is understandable given the project's objective and duration) and also that many herds are still raving and causing damage to crops and tree plantations. According to APFS beneficiaries, this low uptake is due to the fact that many producers do not have the minimum financial resources required to acquire the necessary equipment and inputs and to implement the best practices they were taught.	The early implementation of AVECs will complement the dissemination of best practices through AVECs (as well restoration practices under Component 2) and ensure that financial barriers to the implementation of these practices are lifted.
Objectives and targets set for Component 3 were too ambitious for the limited duration of the project**.**	The six-year implementation period of the proposed project will provide more time to realise some of the longer-term impacts; in addition, the targets have been calibrated to be realistic as they were informed by the experience of the previous project.
Mainstreaming of gender and specific social contexts	

The project did take gender into account from the design stage, and transversally for all activities but also specifically in the activities of Outputs 2.1, 2.2, 2.3, 2.4 and 2.5, the indicators of which have gender-specific targets. The integration of gender in the achievement of project activities and objectives is a core reason for the good appreciation of the project.	Likewise, gender aspects have been systematically mainstreamed into the project design and result-based framework (Annex A1), as reflected in the Gender section.

4. The table below identified key knowledge management activities, deliverables and budget.

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.1.1	Train extension workers (at least 50% women) and, as relevant, customary authorities and CSOs on regulatory texts and legislation on rural land management.	Training reports	64,700																								
1.1.2	Train extension workers (at least 50% women) and, as relevant, customary authorities and CSOs on rural land conflict management and conflict mediation techniques	Training reports	61,800																								
1.1.3	Train members of the CVDs, CFVs and CCFVs on regulatory texts and legislation on rural land management.	Training reports	95,500																								
1.1.4	Train members of CVDs, CFVs and CCFVs on the management of rural land conflicts and conflict mediation techniques.	Training reports	88,780																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.2.1	Develop tailored capacity needs assessment for relevant local bodies (CVDs, CCFVs, CFVs). The capacity needs assessment shall be partly based on self-declared needs and be specific to the context of each commune in terms of land degradation status and climate vulnerability.	Capacity needs assessment	9,940																								
1.2.2	On the basis of the capacity needs assessment, develop tailored training programmes for each commune and local body.	Training programmes	1,800																								
1.2.3	Conduct training activities in accordance with the tailored training programmes, in conjunction with the revision / development of PCD and Chartes fonci?res under Outputs 1.4 and 1.5.	Training reports	194,400																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.3.1	Hold information/communication workshops on land policy, Law 034 and the objectives and actions envisaged by the project for 23 municipal councils	Workshop report	89,340																								
1.3.2	Carry out participatory diagnoses of natural resources and their use/allocation in terms of land for 23 municipal councils	Participatory diagnoses	56,220																								
1.3.3	Carry out socio-tenure surveys involving validation at village level to refine this resource mapping and materialise the legitimate rights (State, communes, villages, lineages, individuals) exercised on the communal territory for the benefit of 23 municipal councils	Socio-tenure surveys	67,800																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.3.4	Create frameworks for consultation and reflection ('multistakeholder platforms'), as provided for by the Burkinabe law, at village and communal levels to establish or strengthen social dialogue between the various land tenure actors at local level.	Platform ToRs	178,680																								
1.3.5	Organise workshops to validate proposals on land tenure security options, tools and approaches ? including regeneration and agroecology	Workshop reports	150,980																								
1.3.6	Create and consolidate Geographic Information Systems/GIS leading to Land Information Systems/LIS at the level of the commune SFRs Organise a training on tenure software solutions identified jointly with an international tenure expert.	GIS databases / layers & training	57,124																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.3.7	Organise information/communication workshops on land policy, Law 034 and the objectives and process of integrating climate change adaptation into regional development plans for the benefit of the three Regional Councils	Workshop reports / communication material	42,060																								
1.3.8	Capitalise and feed the reflection on the integration of climate change in the management of land tenure and land-use issues through the three Regional Committees for Land Tenure Security in Rural Areas[1] and the National Committee for Land Tenure Security in Rural Areas[2] (CORE/CONASFR).	Study	5,400																								
1.3.9	Translate the PNSFMR in Moor? and Dioula and disseminate the translations (in electronic and paper versions) in the target regions.	Translated PNSFMR	6,000																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.4.1	Undertake participatory Climate Change Vulnerability Impact Assessments in target landscapes using guidelines for Vulnerability Impact Assessment under PROVIA or other relevant methodologies and identify recommended adaptation actions.	Climate Change Vulnerability Impact Assessments	80,000																								
1.5.1	Select three pilot landscapes (one per region) and conduct a baseline analysis of existing land-use plans for each landscape.	Baseline analysis of land-use plans	5,540																								
1.5.2	Based on the baseline analyses to be produced under Activity 1.5.2, conduct participatory workshops with relevant stakeholders to identify gaps in land-use plans (either geographic or in terms of thematic coverage).	Identification of gaps in land-use plans	63,020																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
1.5.3	Support SFRs, CFVs and other relevant bodies to develop landscape management plans and/or local Chartes fonci?res through participatory processes for the 3 pilot landscapes, with a view to address the gaps identified under Activity 1.5.2.	Landscape management plans and/or local Chartes fonci?res	47,095																								
2.1.1	Conduct a participatory diagnostic of existing community listening groups and community-based organisations and gender aspects in the target communes and identify capacity gaps.	Diagnostic of existing community listening groups	267,960																								
2.1.2	Train facilitators (women and men) on the methodology of Dimitra Clubs	Training programmes	N/A																								
2.1.3	Create and support Dimitra Clubs in the 8 target communes (5 villages per commune; 5 Dimitra Clubs per village) for 18 months.	Dimitra Clubs	N/A																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.2.1	Develop tools and approach for participatory diagnostic with simple indicators of climate-change affected agro-ecosystems, based on recognised methodologies for assessing ecosystem services, adapting tools from the Participatory Negotiated Territorial Development Approach and diagnostic/design tools used in agroecological/ regenerative approaches	Tools and approach for participatory diagnostic with simple indicators of climate-change affected agro-ecosystems	60,000																								
2.2.2	Once facilitators in charge of the participatory design of restoration plans are selected (e.g. local NGOs with demonstrated capacity in terms of facilitation/power dynamics management as well as technical skills), train these facilitators on the methodology developed under Activity 2.2.1.		39,000																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.2.3	Based on Chartes fonci?res and other land-use plans, support the participatory design of restoration maps for degraded forests and rangelands	Restoration maps	30,000																								
2.2.4	Establish restoration options to guide the restoration of approx. 15,000 of degraded forests and rangelands	Restoration protocols	3,600																								
2.2.6	Provide technical and business training to community members (esp. women and youths) for the sustainable management of nurseries following FAO?s Agroforestry Field School methodology	Training programmes	146,200																								
2.2.7	Conduct community training sessions on: i) soil preparation techniques; ii) planting techniques; and iii) maintenance of restoration plots.	Training programmes	28,980																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
2.3.1	Conduct community training sessions on low-cost water management techniques such as contour bunds, stone lines, planting pits and three-sided basins.	Training programmes	17,580																								
2.3.2	Together with relevant local and regional partners, conduct a participatory assessment of irrigation needs in the target landscapes to identify the areas most suited for irrigation investment.	Assessment of irrigation needs	4,700																								
2.3.3	Based on the participatory assessment, produce costed feasibility studies for the equipment of 20 ha with irrigation infrastructure (boreholes with solar exhaures, wells etc.)	Feasibility studies	12,100																								
2.3.6	Train local youths on the maintenance of irrigation equipment.	Training programmes	5,600																								
3.1.1	Organise a stakeholder workshop to discuss and validate the APFS implementation strategy	Workshop report	88,020																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.1.2	Conduct a survey of agroecological innovations and practices already used in the target area and that can be seen as ?pre-tested? by local innovators (?traque aux innovations?).	Survey results	4,800																								
3.1.3	Organise at least two technical workshops to develop a training curriculum for master trainers and facilitators, including expertise on agroecology	Curriculum for master trainers	175,872																								
3.1.5	Organise initial training sessions for master trainers on the APFS approach and climate-resilient ASP practices	Training reports	360,000																								
3.1.6	Organise training sessions for master trainers on Farmer Field and Business Schools (FFBS)/ Farmer Marketing Schools and Village Savings and Credit Associations	Training reports	55,000																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.1.7	Organise refresher training sessions for master trainers, ? la carte	Training reports	52,500																								
3.2.1	Conduct a rapid survey of needs and interests of farmers in target communities to be carried out before the training of facilitators with a view to inform the organisation and content of facilitators? training.	Survey results	N/A																								
3.2.2	Develop a training plan for the training of facilitators	Training plan	8,500																								
3.2.4	Organise initial training sessions for facilitators on the APFS approach, climate-resilient ASP practices and gender-sensitive development	Training reports	570,000																								
3.2.5	Organise training sessions for facilitators on FFBS, Farmer Marketing School (or other related modules as relevant) and AVEC	Training reports	120,000																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.2.6	Organise refresher training sessions for facilitators	Training reports	240,000																								
3.2.7	Train endogenous facilitators from the APFS groups to ensure continuity of the learning process	Training programme	390,000																								
3.3.1	Carry out participatory diagnoses in target communities to identify farmers? priorities, characterise farm systems and jointly identify climate-resilient ASP practices to be tested	Participatory diagnoses	N/A																								
3.3.4	At the end of each APFS, organise open days to share results of experimentation and learning with the rest of the community.	Open day reports	200,000																								
3.3.5	Organise regional open days in Y3 to which local/regional decision-makers can participate to understand the results of activities and potential of practices tested.	Open day reports	100,000																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.4.1	Carry out market studies of ASP products	Market studies	14,800																								
3.4.2	Implement Business and Marketing modules within 500 APFSs (at least 50% of women beneficiaries)	Training reports	N/A																								
3.4.5	Organise training sessions on cooperative governance and financial literacy	Training reports	16,900																								
3.4.7	Organise specific technical training to increase the technical capacity of beneficiaries to conduct the target activities	Training reports	10,000																								
3.5.1	Conduct a participatory audit of the BioSPG label and identify entry points to improve its definition and mode of implementation ? including on monitoring. Conduct a cross-checking exercise with CNABIO to identify any discrepancies between practices promoted through the APFSs and BioSPG local specifications	Audit report	9,900																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
3.5.2	Based on the results of the audit, collectively propose and validate improved BioSPG specifications and implementation guidelines, along with a monitoring plan.	Improved specifications	15,800																								
3.6.1	Present the advantages and principles of AVECs to APFS trainees	Training programmes	N/A																								
3.6.3	Provide support for the operations of AVECs through a learning-by-doing approach	Training programmes	N/A																								
4.1.1	Convene an international stocktaking workshop on challenges and research perspectives for the evaluation of APFS?s impact to support climate adaptation and the agroecological transition.	Workshop report	58,840																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.1.2	Together with national and, as relevant, international research institutions, develop a pilot research programme to study the mid- to long-term impact (10 years) of APFSs established under Component 3.	Pilot research programme	N/A																								
4.1.3	Sign an LoA with selected research institutions to implement the research programme.	LoA, methodological and field studies	150,000																								
4.1.4	Support the identification of and help secure funding sources for the research programme to continue after the project termination and complete the mid- to long-term research objectives.	Identified funding sources, funding agreements	N/A																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.2.1	Conduct consultation workshops with the MTEE, MAAHRAH and relevant stakeholders at national and local levels (including members of the PSC) to identify entry points for the mainstreaming of APFS into strategies and policies.	Workshop reports	39,000																								
4.2.2	As required from the relevant ministries, develop and submit amendments to mainstream APFS into relevant strategies and policies, for validation by policy makers	Draft policy amendements	N/A																								
4.2.3	Organise an information/sensitisation workshop for universities and ASP vocational training schools, with knowledge-sharing on international experience (East Africa) related to the mainstreaming of APFS into curricula	Workshop report	66,072																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.2.4	Develop a strategy to propose avenues for the mainstreaming of APFSs and agroecology into university & vocational training curricula	Study	8,100																								
4.2.5	Support at least one pilot university and one pilot vocational training center to mainstream APFS into their curricula.	Curricula	N/A																								
4.2.6	After two academic years, conduct a stocktaking study on the results of the mainstreaming of APFS into the curricula of the two pilot institutions. Convene an experience-sharing workshop to present the results of the study and encourage other training institutions to mainstream APFS into their curricula.	Stocktaking study	50,120																								
4.3.1	Co-develop and implement the MEL plan	MEL plan	N/A																								
4.3.2	Organise a workshop to review the project?s MEL system at project inception.	Workshop report, approved MEL plan	30,000																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.3.4	Conduct a terminal TAPE assessment to assess relevant project indicators from the results-based framework.	TAPE report	50,000																								
4.3.5	Produce at least three grey literature publications and three scientific papers for publication in peer-reviewed, scientific journals, the Hand-in-Hand Geospatial Platform for ecological monitoring etc.	At least three grey literature publications and three scientific papers	N/A																								
4.3.6	Upload relevant project information and data (incl. GIS) on the Hand-in-Hand Geospatial Platform and the WOCAT database (incl. actual intervention costs).	Data & information uploads	N/A																								
4.3.7	Conduct an Environmental & Social Risk assessment in accordance with national & FAO guidelines once exact project sites are selected	Environmental & Social Risk assessment	12,100																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.4.1	Prepare and publish annual briefs and case studies, including at least one that is gender-focused on the project?s accomplishments, experiences and lessons learned	Annual briefs and case studies	N/A																								
4.4.2	Organise information and knowledge exchange on APFS, including with the Central Africa Field School Network, African Forum For Agricultural Advisory Services, Global FFS Platform, etc. Participate to the regional agroecology seminars to be organised under the GEF-LDCF project ?Resilient, productive and sustainable landscapes in Mali?s Kayes Region?.	Mission reports	40,000																								
4.4.3	Organise biannual meetings of the cofinancing partners to exchange lessons learned and share knowledge, co-chaired by the GEF national Focal Point.	Meeting minutes	36,000																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.4.4	Train farmers and facilitators on producing short videos and uploading them online/sharing them with others for further sharing.	Training reports	40,000																								
4.4.5	Produce two to three short practical videos in partnership with Access Agriculture to document some innovative promising practices that emerge from APFS. Translate these videos in local languages for greater dissemination.	Videos	N/A																								
4.5.1	Conduct consultations to produce an exit strategy for all identified activities requiring further actions after project termination.	Consultation reports	2,500																								
4.5.2	Based on the consultations, develop an exit strategy specifying roles and responsibilities, action costs and pre-identified funding sources	Exit strategy	N/A																								

	Description	Key deliverables	Budget USD	Year 1				Year 2				Year 3				Year 4				Year 5				Year 6			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
4.5.3	Convene an end-of-project workshop to present the main project accomplishments as well as challenges, and formally endorse the exit strategy.	Workshop report	15,000																								

9. Monitoring and Evaluation

Describe the budgeted M and E plan

1. The project results, as outlined in the project results framework (Annex A1), will be monitored regularly, reported annually and assessed during project implementation to ensure the project effectively achieves these results. Monitoring and evaluation activities will follow FAO and GEF?s policies and guidelines for monitoring and evaluation. The M&E system will also facilitate learning, replication of the project?s results and lessons which will feed the project?s knowledge management strategy.

Monitoring Arrangements

2. Project oversight and supervision will be carried out by the Budget Holder with the support of the PTF, LTO and FLO and relevant technical units in FAO headquarters. Oversight will ensure that: i) project outputs are produced in accordance with the project results framework and leading to the achievement of project outcomes; ii) project outcomes are leading to the achievement of the project objective; iii) risks are continuously identified and monitored and appropriate mitigation strategies are applied; and iv) agreed project adaptation benefits are being delivered.

3. The FAO-GEF Coordination Unit and HQ Technical units will provide oversight of GEF financed activities, outputs and outcomes largely through the annual Project Implementation Reports (PIRs), periodic backstopping and supervision missions.

4. Day-to-day project monitoring will be carried out by the Project Management Unit. Project performance will be monitored using the project results matrix, including indicators (baseline and targets) and annual work plans and budgets. At inception phase, the results matrix will be reviewed to finalise the identification of i) outputs ii) indicators iii) targets and iv) any missing baseline information

5. A detailed M&E System, which builds on the results matrix and defines specific requirements for each indicator (data collection methods, frequency, responsibilities for data collection and analysis, etc) will also be developed during project inception by the PMU M&E specialist.

Table 23. Monitoring & Evaluation plan.

M&E activity	Responsible parties	Timeframe	GEF Budget (USD)
Inception workshop	Project Management Unit (PMU)	Within two months of project document signature	USD 30,000
Project inception report	Project Manager	Within two weeks of inception workshop	None
Project Progress Reports (PPRs)	PMU based on the systematic monitoring of output and outcome indicators identified in the project?s Results Framework. The PPR will be submitted to the FAO BH and FAO LTO for comments and clearance. The FAO BH will upload the PPR on the FPMIS.	Every six months	None
Project Implementation Review report (PIR)	FAO LTO (in collaboration with the PMU) will prepare an annual PIR covering the period July (the previous year) through June (current year) to be submitted to the FAO BH and the GEF-Funding Liaison Officer	Annually in July	None
Co-financing reports	FAO Burkina Faso Representation office, supported by PMU	Annually	Co-financing
LDCF Core Indicators	PMU and reviewed by FAO LTO	At mid-point and end of project	Project staff time
M&E expertise	PMU	Continuous	USD 80,280
Mid-term Review	External consultant, FAO BH in consultation with PMU, GEF Coordination Unit and other partners.	In the 3rd quarter of the 3rd year of the project	USD 40,000
Independent Terminal Evaluation	The BH will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralized independent terminal evaluation of this project under the guidance and support of OED.	At least six months before operational closure	USD 40,000
End-of-project workshop	FAO Burkina Faso Representation office / PMU	Within two months of project closure	USD 15,000
Terminal report	FAO Burkina Faso Representation office / PMU	Within two months of project closure	USD 7,000

Total Budget[1]	USD 212,280

Monitoring and Reporting

6. In compliance with FAO and GEF M&E policies and requirements, the PMU, in consultation with the PSC and PTF will prepare the following: i) Project inception report; ii) Annual Work Plan and Budget (AWP/B); iii) Project Progress Reports (PPRs); iv) annual Project Implementation Review (PIR); v) Technical Reports; vi) co-financing reports; and vii) Terminal Report. In addition, the Core Indicators will be used to monitor adaptation benefits and updated regularly by the PMU.

7. **Project Inception Report**. A project inception workshop will be held within two months of project start date and signature of relevant agreements with partners. During this workshop the following will be reviewed and agreed:

   ? the proposed implementation arrangement, the roles and responsibilities of each stakeholder and project partners;

   ? an update of any changed external conditions that may affect project implementation;

   ? the results framework, the SMART indicators and targets, the means of verification, and monitoring plan;

   ? the responsibilities for monitoring the various project plans and strategies, including the risk matrix, the Environmental and Social Risk Management Plan, the gender strategy, the knowledge management strategy, and other relevant strategies;

   ? finalise the preparation of the first year AWP/B, the financial reporting and audit procedures;

   ? schedule the PSC meetings;

   ? prepare a detailed first year AWP/B,

8. The PMU will draft the inception report based on the agreement reached during the workshop and circulate among PSC members, BH, LTO and FLO for review within one month. The final report will be cleared by the FAO BH, LTO and the FAO GEF Coordination Unit and uploaded in FAO?s Field Program Management Information System (FPMIS) by the BH.

9. **Results-based Annual Work Plan and Budget (AWP/B).** The draft of the first AWP/B will be prepared by the PMU in consultation with the FAO Project Task Force and reviewed at the project Inception Workshop. The Inception Workshop inputs will be incorporated and subsequently, the PMU will submit a final draft AWP/B to the BH within two weeks after the workshop. For subsequent AWP/B, the PMU will organise a project progress review and planning meeting for its progress review and adaptive management. Once PSC comments have been incorporated, the PMU will submit the AWP/B to the BH for non-objection, LTO and the FAO GEF Coordination Unit for comments and for clearance by BH and LTO prior to uploading in FPMIS by the BH. The AWP/B must be linked to the project?s Results Framework indicators to ensure that the project?s work and activities are contributing to the achievement of the indicators. The AWP/B should include detailed activities to be implemented to achieve the project outputs and output targets and divided into monthly timeframes and targets and milestone dates for output indicators to be achieved during the year. A detailed project budget for the activities to be implemented during the year should also be included together with all monitoring and supervision activities required

during the year. The AWP/B should be approved by the Project Steering Committee, LTO, BH and the FAO GEF Coordination Unit, and uploaded on the FPMIS by the BH.

10. **Project Progress Reports (PPR)**: The PPRs are used to identify constraints, problems or bottlenecks that impede timely implementation and to take appropriate remedial action. PPRs will be prepared based on the systematic monitoring of output and outcome indicators identified in the Project Results Framework (Annex A1), AWP/B and M&E Plan. Each semester the Project Manager will prepare a draft PPR, will collect and consolidate any comments from the FAO PTF. The PMU will submit the final PPRs to the FAO Representation in Burkina Faso every six months, prior to 31 July (covering the period between January and June) and before 31 December (covering the period between July and December). The July-December report should be accompanied by the updated AWP/B for the following Project Year (PY) for review and no-objection by the FAO PTF. The Budget Holder has the responsibility to coordinate the preparation and finalisation of the PPR, in consultation with the PMU, LTO and the FLO. After LTO, BH and FLO clearance, the FLO will ensure that project progress reports are uploaded in FPMIS in a timely manner.

11. **Annual Project Implementation Report (PIR**): The PIR is a key self-assessment tool used by GEF Agencies for reporting every year on project implementation status. It helps to assess progress toward achieving the project objective and implementation progress and challenges, risks and actions that need to be taken. Under the lead of the BH, the Project Manager will prepare a consolidated annual PIR report covering the period July (the previous year) through June (current year) for each year of implementation, in collaboration with national project partners (including the GEF OFP), the Lead Technical Officer and the FLO. The PM will ensure that the indicators included in the project results framework are monitored annually in advance of the PIR submission and report these results in the draft PIR.

12. The BH will be responsible for consolidating and submitting the PIR report to the FAO-GEF Coordination Unit for review by the date specified each year. FAO - GEF Funding Liaison Officer review PIRs and discuss the progress reported with BHs and LTOs as required. The BH will submit the final version of the PIR to the FAO-GEF Coordination Unit for final approval. The FAO-GEF Coordination Unit will then submit the PIR(s) to the GEF Secretariat as part of the Annual Monitoring Review of the FAO-GEF portfolio

13. **Technical Reports**: Technical reports will be prepared as part of project outputs and to document and share project outcomes and lessons learned. The LTO will be responsible for ensuring appropriate technical review and quality assurance of technical reports. Copies of the technical reports will be distributed to project partners and the Project Steering Committee as appropriate.

14. **Co-financing Reports**: The PMU will be responsible for tracking co-financing materialised against the confirmed amounts at project approval and reporting. The co-financing report, which covers the GEF fiscal year 1 July through 30 June, is to be submitted on or before 31 July and will be incorporated into the annual PIR. The co-financing report needs to include the activities that were financed by the contribution of the partners.

15. Tracking and reporting on results across the GEF 7 core indicators and sub-indicators: As of July 1, 2018, the GEF Secretariat requires FAO as a GEF Agency, in collaboration with recipient

country governments, executing partners and other stakeholders to provide indicative, expected results across applicable core indicators and sub-indicators for all new GEF projects submitted for approval. During the approval process of the proposed project, expected results against the relevant indicators and sub-indicators have been provided to the GEF Secretariat. Throughout the implementation period of the project, the PMU is required to track the project?s progress in achieving these results across applicable core indicators and sub-indicators. At project mid-term and project completion stage, the project team in consultation with the PTF and the FAO-GEF CU are required to report achieved results against the core indicators and sub-indicators used at CEO Endorsement/ Approval. Methodologies, responsibilities and timelines for measuring core-indicators will be outlined in the M&E Plan prepared at inception.

16. **Terminal Report:** Within two months before the end date of the project, and one month before the Final Evaluation, the PMU will submit to the FAO Office of Evaluation a draft Terminal Report. The main purpose of the Terminal Report is to give guidance at ministerial or senior government level on the policy decisions required for the follow-up of the project, and to provide the donor with information on how the funds were utilized. The Terminal Report is accordingly a concise account of the main products, results, conclusions and recommendations of the project. The target readership consists of persons who are not necessarily technical specialists but who need to understand the policy implications of technical findings and needs for insuring sustainability of project results.

MTR and Evaluation provisions

Mid-Term Review

17. As outlined in the GEF Evaluation Policy, Mid-Term Reviews (MTRs) or mid-term evaluations (MTEs) are mandatory for all GEF-financed full-sized projects (FSPs), including Enabling Activities processed as full-sized projects. It is also strongly encouraged for medium-sized projects (MSPs). The Mid-Term review will: i) assess the progress made towards achievement of planned results; ii) identify problems and make recommendations to redress the project; and iii) highlight good practices, lessons learned and areas with the potential for upscaling.

18. The Budget Holder is responsible for the conduct of the Mid-Term Review (MTR) of the project in consultation with the FAO-GEF Coordination Unit halfway through implementation. He/she will contact the FAO-GEF Coordination Unit about 3 months before the project half-point (within 3 years of project CEO Endorsement) to initiate the MTR exercise.

19. To support the planning and conduct of the MTR, the FAO GEF CU has developed a guidance document ?**The Guide for planning and conducting Mid-Term Reviews of FAO-GEF projects and programmes**?. The FAO-GEF CU will appoint a MTR focal point who will provide guidance on GEF specific requirements, quality assurance on the review process and overall backstopping support for the effective management of the exercise and for timely the submission of the MTR report to the GEF Secretariat.

20. After the completion of the Mid-Term Review, the BH will be responsible for the distribution of the MTR report at country level (including to the GEF OFP) and for the preparation of the **Management Response** within 4 weeks and share it with national partners, GEF OFP and the

FAO-GEF CU. The BH will also send the updated core indicators used during the MTR to the FAO-GEF CU for their submission to the GEF Secretariat.

Terminal Evaluation

21. The GEF evaluation policy foresees that all medium and full-sized projects require a separate terminal evaluation. Such evaluation provides: i) accountability on results, processes, and performance; ii) recommendations to improve the sustainability of the results achieved; and iii) lessons learned as an evidence-base for decision-making to be shared with all stakeholders (government, execution agency, other national partners, the GEF and FAO) to improve the performance of future projects.

22. The Budget Holder will be responsible to contact the Regional Evaluation Specialist (RES) within six months prior to the actual completion date (NTE date). The RES will manage the decentralised independent terminal evaluation of this project under the guidance and support of OED and will be responsible for quality assurance. Independent external evaluators will conduct the terminal evaluation of the project taking into account the ?GEF Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects?. FAO Office of Evaluation (OED) will provide technical assistance throughout the evaluation process, via the OED Decentralised Evaluation Support team ? in particular, it will also give quality assurance feedback on: selection of the external evaluators, Terms of Reference of the evaluation, draft and final report. OED will be responsible for the quality assessment of the terminal evaluation report, including the GEF ratings.

23. After the completion of the terminal evaluation, the BH will be responsible to prepare the management response to the evaluation within 4 weeks and share it with national partners, GEF OFP, OED and the FAO-GEF CU. The BH will also send the updated core indicators used during the TE to the FAO-GEF CU for their submission to the GEF Secretariat.

Disclosure

24. The project will ensure transparency in the preparation, conduct, reporting and evaluation of its activities. This includes full disclosure of all non-confidential information, and consultation with major groups and representatives of local communities. The disclosure of information shall be ensured through posting on websites and dissemination of findings through knowledge products and events. Project reports will be broadly and freely shared, and findings and lessons learned made available.

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[1] This budget only covers formal M&E requirements. Additional M&E activities (e.g. final TAPE assessment, implementation of B-INTACT tools) will be conducted and are budgeted under Component 4. The detailed budget in Annex A2 also includes provision for the recruitment of an M&E Officer.

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)?

1. The proposed project will generate socio-economic benefits by maintaining and enhancing the resource base on which the local communities in the target provinces rely for their livelihoods.

2. Moreover, the project will support women and men small-scale producers in the target landscapes in accessing markets and modern value chains. It thereby aims to realize socio-economic benefits for the herders and farmers, while incentivizing them to manage their resources sustainably. The project will thus work towards achieving full and productive employment and decent work in rural areas.

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3. The project adopts a human rights-based approach, and this includes the right to Decent Rural Employment. This concept will guide the activities implemented under Components 2 and 3 of the proposed project. It will particularly promote employment creation and enterprise development, while aligning to the other dimensions of Decent Rural Employment, including:

? governance and social dialogue (support participation of women and rural poor in local decision-making and governance mechanisms empowering women and youths in particular);

? social protection (promote safer technology for small-scale and commercial agriculture in extension support programmes); and

? standards and rights at work (support socially responsible agricultural production, provide access to tools to limit hard working conditions).

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
	Medium/Moderate		

Measures to address identified risks and impacts

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

Risk identified	Risk Classification	Mitigation Action (s)	Indicator / Mean(s) of Verification	Progress on mitigation action

ESS#1: Natural Resource Management	Moderate	To mitigate any risk of conflict and exclusion that might derive from changes to existing informal rights within target communities (under Component 1, Outputs 1.1. and 1.2), the project will undertake the following mitigation measures: All changes to tenure will be in line with national policies (PNSFMR) on rural land tenure, key documentation on land tenure will be translated to local languages Legitimate tenure rights will be mapped early in the project (under Output 1.3). To do so, socio-tenure surveys involving participation at village level to document the various rights exercised on the communal territory Local agents and institutions involved in tenure issues will be trained in conflict-management and resolution Farmers in target villages will be involved in awareness-raising meetings and consultations concerning land tenure grievance mechanisms and conflict resolution mechanisms are setup in each target community Key members of target communities (including women and youth) will be included in all activites implemented, including training and consultations on land tenure. As part of Component 2, restoration activities might lead to changes in access to forested areas for some members of local communities. To mitigate any risk of these changes negatively affecting neighbouring communities, all the measures that will be taken to protect and regenerate local forests and natural habitats will be identified collectively by village members, with project facilitation.	# extension workers and customary authorities trained on regulatory texts and legislation on rural land management. # of members of the CVDs, CFVs and CCFVs trained on regulatory texts and legislation on rural land management. % of women members of the CVDs, CFVs and CCFVs trained on regulatory texts and legislation # of socio-tenure surveys carried out and publicly displayed # extension workers and customary authorities trained on rural land conflict management, conflict mediation techniques, facilitation skills and community mobilization # of members of CVDs, CFVs and CCFVs on the management of rural land conflicts and conflict mediation techniques. % of women members of the CVDs, CFVs and CCFVs trained on conflict mediation # workshops and consultations held to validate proposals on land tenure security options, tools and approaches at village level % of women participating to workshops and consultations # frameworks for consultation and reflection setup at village and communal levels to establish or strengthen social dialogue between the various land tenure actors at local level . #of grievance brought to the attention of project management # of land-use plans	N/A

ESS#2: Biodiversity, ecosystems and natural habitats	Low	Protected forests and natural habitats are present in the three areas targeted by the projects, and are near project implementation areas (of Components 2 and 3), in particular in the area of Boucle du Mouhoun. To mitigate any risks to these habitats and forests, any reforestation or afforestation intervention that will be proposed by project stakeholders will: Include both ecologists and local community experts in the evaluation of the choice of species to be replanted. Be developed in line with the management plans of the PAs, so that the management plans in the buffer zones are fully coherent with the PA management plans. This includes also the indicators used to measure ecosystem health. Assisted natural regeneration and potentiated assisted natural regeneration will be the preferred approaches for any regeneration, effectively relying on spontaneous tree species existing in the area the project will endeavor to strengthen the system?s resilience by selecting patches for ANR that can create corridors or create continuity to restore habitats. The training curriculum of Agroforestry Field School will focus on locally adaptive, climate smart tree species, Nurseries set up by the project will focus on existing local species Ensure all land-use plans implemented as a result of the project are validated by local authorities the project will not introduce any exotic species as part of implementation. If restoration or afforestation actions are foreseen near protected forests or natural habitats, a Biodiversity Risk assessment should be carried out verifying that no species is invasive and no umbalances will be created that affect the buffer zones of protected habitats.	#ha of forests and rangelands restored following innovative protocols for increased productivity and resilience to climate change, and based on land-use plans validated by local authorities (Project monitoring reports, GIS monitoring, field monitoring, land use plans) Biodiversity risks assessments for any reforestation/afforestation action near protected areas and listed natural habitats Curricula of Agroforestry Field Schools Indicators to measure ecosystem health in line with management plans of Protected areas (where applicable)	N/A

ESS#3: Plant genetic resources for food and agriculture	Moderate	The focus of Component 2 will be on agro-sylvo-pastoral production practices for land restoration, climate change adaptation and sustainable intensification practices that allow better livelihoods while facilitating restoration of land and biodiversity in grasslands and biodiversity-rich forests. ?As part of the projects? agroecological approach, it will support the upscaling of locally adapted crop varieties and agroecological farm management practices that are likely to preserve and enrich existing natural genetic resources rather than eroding them. The project will train local facilitators to identify existing promising and well-adapted practices and varieties (*traque aux innovations*) as well as working with farmers and local experts to identify existing perennial and annual crop varieties that are used and well adapted to local socio-ecological conditions, and improve their production. The project will support the regeneration of forested land in project areas. To mitigate any risks linked to forest regeneration and afforestation activities, any such intervention will: Include both ecologists/experts and local community experts in assessing the suitability of tree species to be replanted. Be using Assisted natural regeneration and potentiated assisted natural regeneration as the preferred approaches for any regeneration, effectively relying on spontaneous tree species existing in the area The training curriculum of Agroforestry Field School will focus on locally adaptive, climate smart tree species, Nurseries set up by the project will focus on existing local species Ensure all land-use plans implemented as a result of the project are validated by	#ha of agro-sylvo-pastoral production land benefitting under improved and climate-resilient management # of agro-sylvo-pastoral producers trained on innovative climate change adaptation and SLM practices Level of agricultural biodiversity measured according to the TAPE methodology (average between the Gini-Simpson indices of diversity for crops and animals256 and the ?Natural vegetation, trees and pollinators? index; TAPE terminal assessment) Results of *traque aux innovations* carried out as part of Component 3. APFS training curricula #ha of forests and rangelands restored following innovative protocols for increased productivity and resilience to climate change, and based on land-use plans validated by local authorities (Project monitoring reports, GIS monitoring, field monitoring, land use plans) Curricula of Agroforestry Field Schools Biodiversity risks assessments for any reforestation/afforestation action happening near protected areas and listed natural habitats	N/A

ESS#7: Decent work	Low	The project will work with subsistence producers and other vulnerable informal agricultural workers, characterised by high levels of ?working poverty?. To mitigate any risks, the project has emphasis on improving their livelihoods by providing opportunities for either i) improving their working conditions (e.g. through implementation of agroecological practices) and better access to services, ii) giving them further income generating opportunities (e.g. training to become video-entrepreneur, training on business schools, improving access to markets) or by increasing their access to finance (i.e. by setting up village saving groups). Moreover Dimitra Clubs will be set up to discuss and find solutions to socio-economic challenges experiences by youth, women and men in a number of villages.	% farmers involved in cooperatives or farmer organizations %of farmers in cooperatives setup that are women % farmers receiving training on business-related modules for farming % of women farmers receiving training % villages with AVEC saving groups setup #activities setup to improve access to markets % of activities targeting women more specifically # transformation equipment provided to APFS/Agroforestry groups % of women groups or mixed groups receiving equipment # video entrepreneurs trained % of women video entrepreneurs #of Clubs set up	

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted

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).

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Objective: **Increase the climate resilience of agro-sylvo-pastoral family farming communities in the Sudanian and Sudano-Sahelian zones of Burkina Faso**							
	(i) Characterisation of Agroecological Transition (CAET) score. The CAET score is assessed based on the 10 elements of agroecology, namely diversity, synergies, efficiency, recycling, resilience, culture and food traditions, co-creation and sharing of knowledge, human and social values, circular and solidarity economy, and responsible governance	(i) The baseline CAET score in the target regions estimated through the PPG TAPE assessment is 45%.	N/A	(i) Median CAET score of a least 60% over the target circles, as areas with a CAET score of 50% and above are deemed to be in transition in the agroecological transition[1],[2].	(i) Terminal TAPE assessment	It is assumed that the project scale and lifespan will be sufficient to have an impact that translated in a significant increase of the CAET score.	TAPE team (FAO) and local partner

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	(ii) Area of production land under improved and climate-resilient management	(ii) Agroecological practices are unevenly disseminated across the target circles, as shown by the TAPE assessment. 596,000 ha in the target regions show sign of declining productivity[3].	(ii) 100,000 ha of agro-sylvo-pastoral production land benefitting under improved and climate-resilient management	(ii) 250,000 ha of agro-sylvo-pastoral production land benefitting under improved and climate-resilient management	(ii) Field observations, activity reports and procurements, tool results (TAPE, Trends.Earth), training material and workshop reports, procurement contracts and ToRs, expert reports, communities? interviews.	Local communities grasp the opportunities offered by SLM and agroecological practices, and are willing to invest the required time and energy to make their livelihoods more resilient. No significant barriers to the uptake of agroecological practices remain thanks to the project interventions. SLM and agroecological practices promoted by the project lead to measurable and sustainable results on ecosystems productivity, biodiversity, and income generation.	M&E team with assistance of FAO HQ experts as required (Trends.Earth, TAPE), independent evaluators, contractors, execution partners

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	(iii) Number of direct beneficiaries disaggregated by gender	(iii) 0. The total population of target communes is approx. 1,049,000.[4] Although no up-to-date data is available on the share of agricultural population in the target regions, this share can be estimated at around 80% (839,000 people).[5]	(iii) 50,000 (50% women)	(iii) 100,000 (50% women)	(iii) Activity reports, workshop reports, procurement contracts and ToRs, expert reports, communities? interviews.	Terminal TAPE assessment	M&E team with assistance of FAO HQ experts as required (Trends.Earth, TAPE), independent evaluators, contractors, execution partners
Component 1: Governance for climate resilient development of agro-sylvo-pastoral communities in the Sudano-Sahelian zone							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 1: Strengthened governance and institutional capacity for climate resilient, conflict-free and gender-transformative agro-sylvo-pastoral (ASP) community development in three pilot landscapes	(i) Number of investment plans of Communal Development Plans (CDP) that mainstream climate resilience	(i) On average, only one commune out of five has reviewed its CDP and mainstreamed climate change adaptation actions into it. In addition, existing CDPs do not all have adequate annual investment plans annexed to them, with relevant cost estimates of identified actions with associated funding options.	(i) At least 10 investment plans of communal development plans that mainstream climate resilience	(i) At least 15 investment plans of communal development plans that mainstream climate resilience	(i) Revised CDPs and investment plans, activity reports, workshop reports, expert reports.	Communal authorities are willing to proceed with the revision of planning documents. The government supports the decentralisation process throughout and beyond the implementation phase.	M&E team, independent evaluators, contractors, execution partners

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
-	(ii) Number of institutions capacitated to foster land tenure security at the local, regional and national levels	(ii) All institutions listed in the final target are officially established, but most lack the capacity (in terms of technical knowledge and equipment) to fulfil their mandate, contribute to land tenure security and facilitate the mainstreaming of climate change adaptation into land security.	(ii) Strengthened capacity of: ? 23 municipal councils ? 23 Services Fonciers Ruraux ? 3 Comit?s R?gionaux pour la S?curisation Fonci?re en milieu Rural ? 1 Comit? National pour la S?curisation Fonci?re en milieu	(ii) Strengthened capacity of: ? 23 municipal councils ? 23 Services Fonciers Ruraux ? 3 Comit?s R?gionaux pour la S?curisation Fonci?re en milieu Rural ? 1 Comit? National pour la S?curisation Fonci?re en milieu strengthened	(ii) Training reports, workshop reports, procurement contracts and ToRs, expert reports, interviews.	The government supports the decentralisation process throughout and beyond the implementation phase. Stakeholders at the local, regional and national levels are interested to increase their knowledge about the importance of mainstreaming climate change adaptation into land tenure.	M&E team, independent evaluators, contractors, execution partners

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 1.1: At least 100 staff from extension services are trained and coached on the resolution of climate-driven conflicts, community mobilisation and facilitation skills in pilot landscapes, and adequate mechanisms (e.g. CCFVs) are strengthened Output 1.2: Climate change adaptation is mainstreamed into the practical governance of land-use management in pilot landscapes through the strengthening of Village Development Councils, including securing land tenure, mobility of pastoralists and access to resources Output 1.3: The capacity of at least 23 municipal councils, 3 regional councils, 23 local multistakeholder platforms, 3 regional and 1 national platform for land-use management and relevant coordinating organisations are strengthened to integrate climate change and regenerative {agroecological approaches} into the management of land tenure and land use issues Output 1.4: Climate resilience and regenerative approaches are mainstreamed into the annual investment plans of communal development plans in target landscapes through participatory processes Output 1.5: Climate change adaptation and regenerative approaches are mainstreamed into landscape management plans and/or local Chartes fonci?res to be developed through participatory processes for the pilot landscapes							
Component 2: Climate-resilient productive landscapes							

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Outcome 2: In the pilot landscapes, the implementation of landscape management plans strengthens the resilience of ASP production systems, as they become more productive, soil health improves and agricultural biodiversity increases	(i) Hectares of forests and rangelands restored to become more productive and demonstrating an enhanced resilience to climate change	(i) 0 ha	(i) At least 15,000 ha of degraded forests and rangeland identified for restoration in validated land-use plans and science-base restoration protocols established	(i) At least 15,000 ha of forests and rangelands restored following innovative protocols for increased productivity and resilience to climate change, and based on land-use plans validated by local authorities	Project monitoring reports, GIS monitoring, field monitoring. As relevant, the Monitoring, Evaluation and Learning Plan to be developed under Component 4 may include the monitoring of SDG Indicator 15.3.1, namely ?proportion of land that is degraded over total land area?. Tools like Trends.Earth[6] would then be used to track progress towards SDG Indicator 15.3.1.	Local communities grasp the opportunities offered by Sustainable Landscape Management and climate adaptation practices. No significant barriers to the uptake of best land management remain thanks to the project interventions. There is local interest to operate community nurseries.	M&E team, independent evaluators, contractors, execution partners

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
-	(ii) Number of beneficiaries of improved water management and number of hectares benefitting from irrigation	(ii) 0	(ii) At least 500 community members (50% women) trained on water conservation measures and feasibility studies available for the establishment of irrigation systems benefitting 20 ha.	(ii) At least 1,000 community members (50% women) trained on water conservation measures and 20 hectares benefitting from irrigation systems	(ii) Training reports, feasibility studies, field visits, statues of water management committees, procurement contracts and ToRs	(ii) The participatory assessment of irrigation needs in the target landscapes manages to identify the areas most suited for irrigation investment and avoid rivalry between potential beneficiaries.	(ii) M&E team, independent evaluators, contractors, execution partners

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
-	(iii) Increase in soil health as measured by SOCLA indicators[7], linking to SDG indicators 2.4.1 and 15.3.1)	(iii) The baseline level measured by the TAPE assessment conducted during the PPG phase is 3.4	(iii) N/A	(iii) Increase of average score by 20% (4.1) i.e. above 3.5 corresponding to a desirable level[8]	(iii) Final TAPE assessment	(iii) Although soil health will be measured on farmland, and thus will also depend on farming practices *per se*, the assumption is made that restored forest and rangeland as well as the implementation of water conservation practices will improve soil health in farmland in the mid- to long term by improving nutrient cycling and reducing runoff, in an integrated productive landscape perspective. (ii) It is assumed that the terminal TAPE assessment can study a sample that is close enough in terms of key	(iii) TAPE team (FAO) and local partner

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 2.1: Establish and support Dimitra Clubs in 8 communes to facilitate the self-mobilisation of communities and the definition and implementation of land-use management plans and to improve conflict resolution Output 2.2: Climate-smart, locally-adopted agroecological practices (e.g. zai, Delfino ploughing, assisted regeneration of indigenous woody species, afforestation, controlled access) are introduced on 15,000 hectares of pasture and forested land to support the climate resilience of ASP production systems by sustainably intensifying production Output 2.3: The climate threats to water availability for ASP communities is reduced through the dissemination of sustainable water management practices and small-scale infrastructure							
Component 3: Climate resilient agro-sylvo-pastoral livelihoods							
Outcome 3: Agro-sylvo-pastoral livelihoods are diversified and made more resilient, through upstream livelihoods of agro-sylvo-pastoralists, through upstream upscaling of the Agro-Pastoral Field Schools approach, and downstream support to transformation and market linkages	(i) Number of agro-sylvo-pastoral producers trained on innovative climate change adaptation and SLM practices	(i) 0. The total population of target communes is approx. 1,049,000.[9] Although no up-to-date data is available on the share of agricultural population in the target regions, this share can be estimated at around 80% (839,000 people).[10]	(i) 5,000 (50% women)	(i) 15,000 (50% women)	(i) Surveys, project monitoring reports	(i) Target beneficiaries enroll in APFSs. Enough facilitators can be mobilised and trained to set up the 500 APFSs required.	(i) M&E team, independent evaluators, contractors, execution partners

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
-	(ii) Increase in women?s empowerment as measured by the Abbreviated version of the Women?s Empowerment in Agriculture Index (A-WEAI)[11] ? linking to SDG indicator 5.a.1 and 5.a.2.	(ii) The baseline level measured by the TAPE assessment conducted during the PPG phase is 42.59%.	N/A	(ii) Final average score exceeds 60% among farms in the TAPE sample, i.e. an acceptable level[12]	(ii) Terminal TAPE assessment	(ii) It is assumed that the terminal TAPE assessment can study a sample that is close enough to the initial assessment sample to allow for meaningful evolution measure. It is assumed that the project scale and lifespan will be sufficient to have an impact that translated in a significant increase of the index.	(ii) TAPE team (FAO) and local partner

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
-	(iii) Level of agricultural biodiversity measured according to the TAPE methodology (average between the Gini-Simpson indices of diversity for crops and animals[13] and the ?Natural vegetation, trees and pollinators ? index[14])	(iii) The baseline level measured by the TAPE assessment conducted during the PPG phase is 54%.	N/A	(iii) Final average score exceeds 70% among farms in the TAPE sample, i.e. a level of desirable agricultural biodiversity[15]	(iii) Terminal TAPE assessment	(iii) It is assumed that the terminal TAPE assessment can study a sample that is close enough in terms of key sociological characteristics to the initial assessment sample to allow for meaningful evolution measure. It is assumed that the project scale and lifespan will be sufficient to have an impact that translated in a significant increase of the index.	(iii) TAPE team (FAO) and local partner

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
-	(iv) Number of processing units and post-harvest storage units established, operational and effectively used by local stakeholders to transform, store and put agricultural products on the market	(iv) 0	(iv) Business plans established for at least 200 processing units and post-harvest storage units	(iv) At least 200 processing units established, operational and effectively used by local stakeholders to transform, store and put agricultural products on the market	(iv) Activity reports, business plans, procurement contracts, field surveys, market surveys	(iv) There is interest from rural communities in engaging in the processing of agricultural products	(iv) M&E team, independent evaluators, contractors, execution partners
-	(v) Presence of locally-produced, agroecological products on territorial markets	(v) Between 3 and 20% in territorial markets studied during the PPG phase.	(v) N/A	(v) Locally-produced agroecological products make up at least 30% of products exchanged in territorial markets	(v) Survey	(v) (v) The project will have a sufficient impact to translate into a significant increase in the presence of agroecological products on territorial markets, including through PGS.	(v) M&E team, independent evaluators, contractors, execution partners

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
Output 3.1: The technical and functional capacities of 50 APFS master trainers from the MTEE and MAAHRAH are strengthened Output 3.2: The technical and functional capacities of 200 new technical facilitators from the MTEE, MAAHRAH, local NGOs and CSOs and 500 endogenous facilitators are strengthened Output 3.3: The capacity of target communities to implement climate-resilient regenerative agro-sylvo-pastoral practices is improved through the creation of 500 APFSs Output 3.4: 500 APFSs are supported with Farming Busines/Marketing School modules to improve the capacity to organise and manage production as well as access and develop markets (including supply-demand matching), and 200 APFSs are equipped with small processing units and post-harvest storage solutions to facilitate market access (including for the reduction of post-harvest losses) Output 3.5: Participatory certification systems elaborated in partnership with the private sector, civil society and international sustainability certification initiatives to facilitate access to markets Output 3.6: 500 Village Savings and Credit Associations (Associations Villageoises d?Epargne et de Cr?dit, AVEC) are supported to formalise their financial management							
Component 4: Monitoring, evaluation, capitalisation and knowledge building							
Outcome 4: The results of the project are evaluated, and lessons learned are documented and disseminated	(i) A participatory Monitoring, Evaluation and Learning plan supports a sustainable upscaling, outscaling and inscaling approach of lessons learnt	(i) No MEL plan	(i) 1 MEL plan developed	(i) 1 MEL plan developed and implemented	(i) Evaluation reports (mid-term review, project interim reports etc.), knowledge platforms websites, number of visits of the website and documents downloads, knowledge products, communication products	(i) Sectoral institutions involved in natural resource management acknowledge the necessity to increase cross-sectoral and regional collaboration and participate (lead) accordingly	(i) M&E team, independent evaluators

Results chain	Indicators	Baseline	Mid-term target	Final target	Means of verification	Assumptions	Responsible for data collection
	(ii) Number of line ministries and universities mainstreaming APFSs into policy plans, strategies and curricula	(ii) 0	(ii) Policies / strategies in which APFS can be mainstreamed are identified collectively with relevant ministries. Entry points for the mainstreaming of APFS into curricula are identified.	(ii) The MTEE and MAAHRAH have mainstreamed APFS into policy plans/ strategies. APFS is mainstreamed into the curricula of at least one university and one vocational training center	(ii) Policy plans/ strategies, curricula	(ii) There is support within the government to institutionalise the APFS approach beyond the MAAHRAH and MTEE.	(ii) M&E team, independent evaluators
Output 4.1: Gaps in the evaluation of the mid- to long-term transformational impacts of APFSs are addressed through a sustainable research programme Output 4.2: Relevant national sector development strategies and the curricula of universities and schools of agriculture mainstream the Agro-Pastoral Field Schools (APFS) and agroecology approaches in order to upscale and outscale climate change adaptation practices Output 4.3: Effective and participatory Monitoring, Evaluation and Learning (MEL) implemented, including tools adapted to/with communities for them to define, monitor and visualise progress Output 4.4: Communication materials are designed and disseminated from the onset and throughout the project, including video and social media Output 4.5: An exit strategy is formulated							

[1] Source: FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application. Test version.

[2] Systems with a CAET score below 50% are non-agroecological systems (that may be market oriented conventional agriculture as well as subsistence level); from 50 to 70% systems are in transition to agroecology and above 70% systems are advanced agroecological systems.

[3] Land Productivity Dynamics data is derived from NDVI product of MODIS/Terra Vegetation Indices 16-Day L3 Global 250m SIN Grid V006, data collated over the 2001-2017 period.

[4] Source: Cinqui?me Recensement G?n?ral de la Population et de l?Habitation du Burkina Faso. R?sultats Pr?liminaires.

[5] Based on the 2006 General Census (latest complete edition)

[6] More information on Trends.Earth can be found here.

[7] The Latin American Society for Agroecology (SOCLA) developed 10 soil health indicators. These are presented in Nicholls C, Altieri M et al. 2004. A Rapid, Farmer-Friendly Agroecological Method to Estimate Soil Quality and Crop Health in Vineyard Systems. Biodynamics. 2004. These indicators are applied and interpreted jointly by farmers and researchers, and include soil structure, degree of compaction, soil depth, status of residues, color, odor, and organic matter, water retention, soil cover, signs of soil erosion, presence of invertebrates and microbiological activity.

[8]Brackets used in the literature are: > 3.5: desirable; between 2.5 and 3.5: acceptable; < 2.5: unsustainable. See FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application.

[9] Source: Cinqui?me Recensement G?n?ral de la Population et de l?Habitation du Burkina Faso. R?sultats Pr?liminaires.

[10] Based on the 2006 General Census (latest complete edition)

[11] The Women?s Empowerment in Agriculture Index (WEAI) is a survey-based index designed to measure the empowerment, agency, and inclusion of women in the agricultural sector. The WEAI has been used extensively since 2012 by a variety of organizations to assess the state of empowerment and gender parity in agriculture, to identify key areas in which empowerment needs to be strengthened, and to track progress over time. It measures the roles and extent of women?s engagement in the agriculture sector in five domains of empowerment: i) decisions about agricultural production; ii) access to and decision-making power over productive resources; iii) control over use of income; iv) leadership in the community; and v) time use. See IFPRI. 2015. Instructional guide on the abbreviated Women?s Empowerment in Agriculture Index (A-WEAI). Washington, D.C. The methodology to compute the index is presented on page 38 of FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application. Accessible here.

[12] Brackets used in the literature are: > 80%: desirable; between 60% and 80%: acceptable; < 60%: unsustainable. See FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application.

[13] The Gini-Simpson index represents the probability that the two randomly taken individuals correspond to different units of measurement (i.e. species, varieties or food groups). The methodology to compute the agrobiodiversity index is presented on page 44 of FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application. Accessible here.

See also: Arslan A, Asfaw S et al. 2018. Diversification as Part of a CSA Strategy: The Cases of Zambia and Malawi. In Climate Smart Agriculture - Building Resilience to Climate Change (pp.527-563). Springer.

[15] Brackets used in the literature are: > 70%: desirable; between 50% and 70%: acceptable; < 50%: unsustainable. See FAO. 2019. TAPE Tool for Agroecology Performance Evaluation 2019 ? Process of development and guidelines for application.

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).

Response to pending comments from GEF Review at PIF stage

Comment	Response
Is the articulation of gender context and indicative information on the importance and need to promote gender equality and the empowerment of women, adequate? This is cleared with the understanding that a full gender analysis and related action plan, in line with the GEF's gender policy will be undertaken at PPG.	A full gender analysis and gender action plan have been included in the project document.
There are 4 other LDCF-financed projects approved in Burkina Faso at the moment (not including the one already mentioned and one which has already closed). Please provide some information on whether and how the proposed project will coordinate with these initiatives to ensure complementarity and prevent duplication	The project will coordinate with ongoing LDCF projects in Burkina Faso. In particular, meetings of cofinancing partners to be chaired by the GEF Operational Focal Point will be organised (Activity 4.4.3). As relevant, invitation to these meetings will be extended to agencies in charge of the implementation & execution of other LDCF projects. In addition, regular coordination with other relevant initiatives will be part of the Terms of Reference of the Project Coordinator as well the Regional Focal Points (cf. Annex V).

Response to comments from Council Members at PIF stage

? Comments from United States of America

	Comment	Response
1	Consider how the project will manage the frustration of local communities who struggle with issues of land tenure. While the Hauts Bassins region is considered the food and cotton belt of the country, land tenure is a sensitive issue within the region as it hosts a great number of migrants and jobless youth. Additionally, the establishment of protected areas by the GoBF has increased the scarcity of farm and grazing lands in the region.	Indeed, land tenure is an important issue and one that needs to be addressed prior to restoration activities. Under Component 1, the project will aim to facilitate the implementation of the Burkinab? law on land tenure by capacitating the Services Fonciers Ruraux and further developing Chartes fonci?res. Having a strong communication / awareness-raising campaign not only on the legal text of tenure but also of what is aimed to be achieved by the project to ensure limiting false expectation will also be crucial.

2	Develop Memorandums of understanding (MOUs) with existing programs pursuing the same objectives to create reliable partnership with clear defined activities and tools to assess the performance of the collaboration in achieving the objectives of the project.	Coordination with relevant projects will be sought as described in the project document. At this stage, it is not clear whether MoUs would be the most relevant option to ensure this coordination; however, this option may be implemented during project implementation, as required.
3	Create opportunities for farmers to farmers? exchange. For instance, farmers from the intervention zone will visit farmers in the central north and north regions of the country to ground test the climate resilient activities implemented by farmers in the central north and north regions of the country and benefit from their long experience.	Farmers to farmers exchange will be widely capitalised upon through the APFSs, both within training groups and through open field days and knowledge exchange sessions. The suggestion to organise field visits to northern regions was well noted and mentioned in Component 3; however, this will depend on safety conditions in these areas (to be further assessed during project implementation).
4	Promote agricultural intensification techniques to reduce the abusive use of pesticides and fertilizers contributing to deteriorate soil fertility and creating a high dependence on pesticides and fertilizers.	Intensification will be one of the axes of the APFS curricula.

5	Include a Social Behavior Change Communication (SBCC) component to promote social cohesion and disseminate appropriate messages in line with the COVID-19 outbreak and agricultural good practices.	Behavioural change will be sought through a number of outputs, including APFSs, Dimitra Clubs, adoption of improved water conservation practices etc.
6	Promote specific activities for women to increase their autonomy as women are deeply involved in households? agricultural activities in these regions and are lacking of specific activities to increase their individual revenue.	Women?s empowerment will be fostered through the project?s gender approach (cf. gender section).
7	Develop a fair mechanism that allows vulnerable households access to restored lands and other production inputs to properly exploit these lands.	Cf. response to Comment 1. The land-use plans to be developed will guide restoration protocols and ultimately provide vulnerable households with improved productive landscapes. Input access will be improved under Component 3. Recycling and synergistic practices (e.g. use of manure) will also be promoted to reduce dependency towards costly agricultural inputs.

? Comments from Germany

	Comment	**Response**

1	Stakeholder engagement: Germany appreciates the inclusion of non-state actors. Please specify, which ethnic groups, civil-society organisations and private sector organisations will be involved/consulted during the project?s PPG phase and during implementation.	Please see Section 2 and Anne I2.
2	Indicators: Germany appreciates the high number of beneficiaries. Please further elaborate on how this ambitious goal can be achieved. Please add the PIF?s table ?Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment?. Germany appreciates the large area of forest under protection measure. However, Germany suggests elaborating on how the ambitious goals can be achieved.	Please see the detailed Result-Based Framework in Annex A1 as well as extended activity plan. The indicator mentioned has been added as suggested.
3	Co-financing: Germany appreciates the extensive co-finance amounts. Please clarify as to whether letters of commitments from all four co-financiers have been issued.	Cofinancing letters have been annexed to the project document.
4	Synergies with existing projects and government policies and knowledge sharing: Germany appreciates the exploration of synergies with other projects and suggests to also approach the global programme Soil Protection and Rehabilitation of Degraded Soil for Food Security (ProSoil) implemented by GIZ in several countries, including Burkina Faso as well as the Regional Project to Support Pastoralism in the Sahel (PRAPS). Given the project?s focus on the local level, Germany suggests assessing how its lessons learnt could be shared with existing projects on decentralisation and municipal government which are being implemented by GIZ through bilateral projects (PDDC, Programme Decentralisation et Developpement Communal). Knowledge could also be shared with existing projects? platforms, such as the Platform for Agricultural Risk Management (PARM) and the Green Innovation Centres for the Agriculture and Food Sector (GIC). Furthermore, Germany suggests referencing the national strategy on "Restoration et Conservation des Ressources en Sol SNRCRS".	Consultations with GIZ have been conducted as suggested and coordination will be sought with the initiatives mentioned. Reference to the national strategy on "Restoration et Conservation des Ressources en Sol SNRCRS" has been added as suggested.

5	Mitigation co-benefits: Germany appreciates the focus on agriculture. Given the inclusion of forest restoration activities, Germany suggests mentioning potential mitigation co-benefits.	The suggestion is well-noted and a mention has been added in the Alternative scenario section. However, given that the exact size of forested land vs pastures vs cropland to be restored will depend on land-use planning activities to be conducted during project implementation, it is not possible to quantify mitigation co-benefits at this stage. Nevertheless, this should be calculated at a later stage.
6	Pastoralists: Germany appreciates the agro-sylvo-pastoral production focus. Nevertheless, solutions proposed are predominantly oriented towards agriculturalists. Germany suggests including more solutions aimed at pastoralists.	As per findings from the TAPE assessments, a focus will be placed on promoting integrated agro-pastoral systems. This will be reflected in the APFS curricula.
7	Exit strategy: Germany appreciates the multifaceted approach, however, suggests providing an exit strategy in the final draft.	This has been included as suggested (under Component 4).

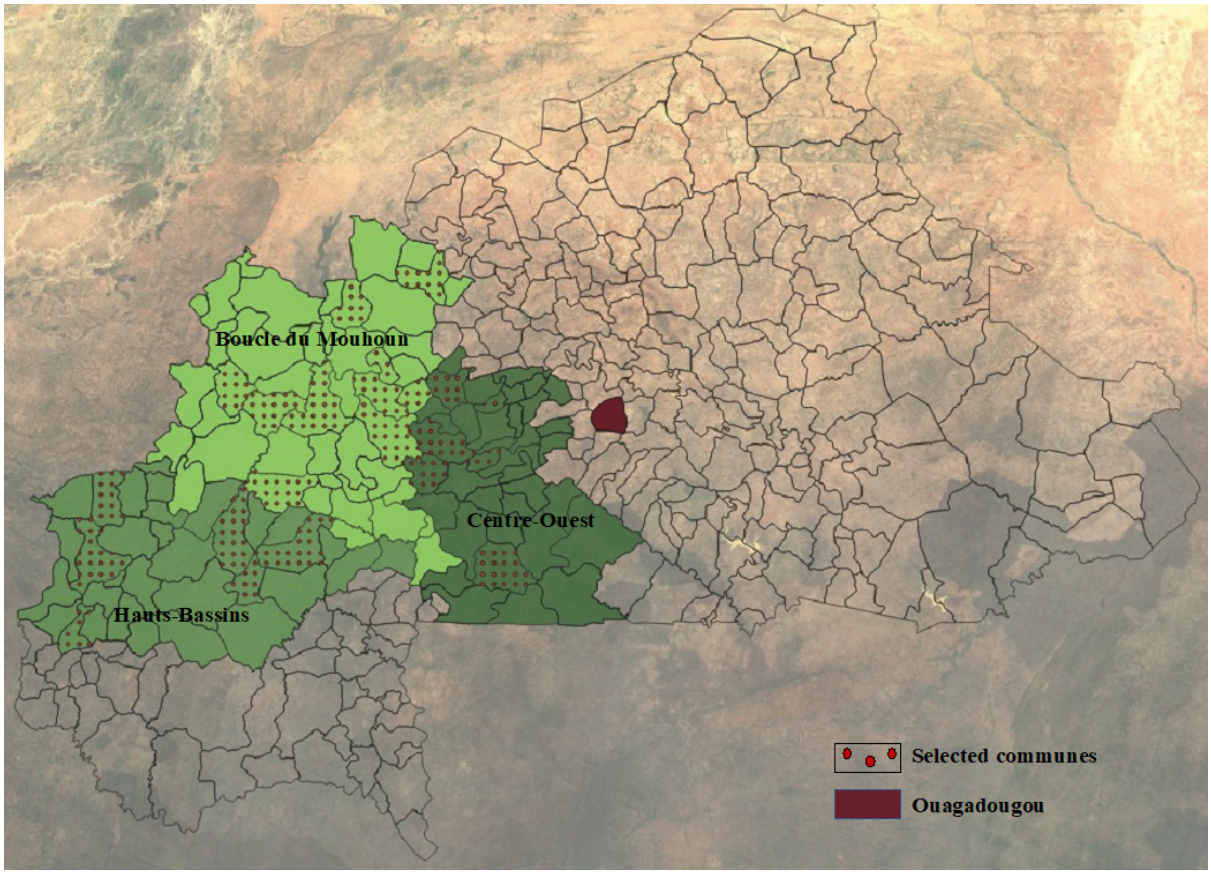
ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: 200,000 **GCP /BKF/907/LDF**			
Project Preparation Activities Implemented	***LDCF Amount ($)***		
	Budgeted Amount	***Amount Spent To date***	***Amount Committed***
(5011) Salaries Professional	9,540		*9,540*

(5013) Consultants	82,460	*46,892*	*7,452*
(5014) Contracts	*45,000*	*101,232*	
(5021) Travel	27,000	*15,776*	*11,224*
(5023) Training	36,000	*5,130*	*2,508*
(5028) General Operating Expenses		*246*	0
Total	**200,000**	**169,276**	**30,724**

ANNEX D: Project Map(s) and Coordinates

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



ANNEX E: Project Budget Table

Please attach a project budget table.

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.

NA

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.

NA

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).

NA