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Project Identification Form (PIF) entry – Full Sized Project – GEF - 7

## 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 NGI**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)**

FIE

**Executing Partner Type**

Government

**GEF Focal Area**

Climate Change

**Taxonomy**

Climate Change Adaptation, Climate Change, Focal Areas, Climate resilience, Least Developed Countries, Livelihoods, Community-based adaptation, Influencing models, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Stakeholders, Beneficiaries, Communications, Behavior change, Awareness Raising, Local Communities, Private Sector, Individuals/Entrepreneurs, SMEs, Gender Equality, Gender Mainstreaming, Gender-sensitive indicators, Sex-disaggregated indicators, Gender results areas, Capacity Development, Access and control over natural resources, Access to benefits and services, Capacity, Knowledge and Research, Knowledge Exchange, Peer-to-Peer, Knowledge Generation, Training

**Rio Markers****Climate Change Mitigation**

Climate Change Mitigation 0

**Climate Change Adaptation**

Climate Change Adaptation 2

**Duration**

72 In Months

**Agency Fee(\$)**

848,580

**Submission Date**

3/19/2020

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

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
CCA-1	LDCF	6,932,420	31,175,554
CCA-2	LDCF	2,000,000	8,994,133
	<b>Total Project Cost (\$)</b>	<b>8,932,420</b>	<b>40,169,687</b>

## B. Indicative 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 Indicator: Hectares of land under climate-resilient, agro-ecological management Target: 100,000 ha of agro-sylvo-pastoral production land

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Governance for climate resilient development of agro-sylvo-pastoral communities in the Sudanian and Sudano-Sahelian zone	Technical Assistance	<p>Outcome 1: the climate resilience of agro-sylvo-pastoral (ASP) community development in 3 pilot landscapes is strengthened through improved governance and institutional capacity, with a focus on conflict resolution</p> <p>Indicator:</p> <p>(i) Number of investment plans of communal development plans that mainstream climate resilience</p> <p>Target: (i) 3 plans covering a total area of at least 100,000 ha</p>	<p>Output 1.1: at least 100 staff from extension services are trained on the resolution of climate-driven conflicts in pilot landscapes, and adequate mechanisms (e.g. Commissions de Conciliation Foncière Villageoises) are strengthened</p> <p>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 (Conseils Villageois de Développement), including securing land tenure and mobility of pastoralists</p> <p>Output 1.3: the capacity of at least 12 municipal councils 3 regional councils, 12 local platforms, 3 regional and 1 national platform for land-use management and relevant coordinating organisations is strengthened to integrate climate change into the</p>	LDC F	1,200,000	2,201,973

<p>(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</p> <p>(TAPE indicator, linked to SDG indicators 1.4.2, 2.4.1 and 5.a.1)</p>	<p>management of land tenure and land use issues</p> <p>Output 1.4: climate change resilience is mainstreamed into the annual investment plans of communal development plans in target landscapes through a participatory process</p> <p>Output 1.5: climate change adaptation is mainstreamed into landscape management plans and/or local Chartes foncières (Land charters) to be developed through participatory processes for the 3 pilot landscapes</p>
<p>(ii) 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)</p>	<p>Output 1.6: the capacity of 150 extension officers is developed to implement climate-resilient landscape management plans and Chartes foncières</p>

Climate resilient productive landscapes	Investment	Outcome 2: In the 3 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: climate-smart, locally-adopted practices (e.g. zai, Delfino ploughing, assisted regeneration of indigenous woody species, afforestation, fire prevention and control measures, controlled access) are introduced on 15,000 hectares of pasture and forested land to support the climate	LDC F	2,900,000	12,513,044
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Indicator: (i) % increase of farm output value per hectare (link to SDG indicator 2.3.1)	resilience of ASP production systems by sustainably intensifying production
(ii) Increase of the Gini-Simpson indices of diversity for crops and animals (link to SDG indicator 2.4.1)	Output 2.2: climate-smart, locally-adopted practices (e.g. zai, Delfino ploughing, assisted regeneration of indigenous woody species, afforestation, fire prevention and control measures, 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
(iii) Increase in soil health (using SOCLA 10 indicators, linking to SDG indicators 2.4.1 and 15.3.1)	resilience of ASP production systems by sustainably intensifying production
Target: (i) TBC during PPG	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
(ii) Final average score exceeds 70% (i.e. desirable agricultural biodiversity)	the dissemination of sustainable water management practices and small-scale infrastructure
(iii) Final average score above 5% (acceptable to desirable levels)	

Climate resilient agro-sylvo-pastoral livelihoods	Investment	Outcome 3: ASP mixed and gender-sensitive value chains are strengthened, diversifying and improving livelihoods of agro-sylvo-pastoralists, through upstream upscaling of the Agro-Pastoral Field Schools approach, and downstream	Output 3.1: the capacity of 100 APFS master trainers from the MEEVCC , MAAH and MRAH is strengthened	LDC F	3,600,000	23,854,670
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support to transformation and market linkages	Output 3.2: the capacity of 500 APFS facilitators from the MEEVCC, MAAH, MRAH, local NGOs and CSOs is strengthened
Indicator: (i) % increase in youth and women employment opportunities in ASP sectors (linking to SDG indicator 8.6.1)	Output 3.3: 1,500 APFSs are equipped with small transformation units to facilitate market access (including for the reduction of post-harvest losses)
(ii) % increase in women's empowerment in Agriculture Index A-WEAI (linking to SDG indicator 5.a.1 and 5.a.2)	Output 3.4: 1,500 APFSs are featured with Farming Business School modules to improve the capacity to access markets (including supply-demand matching)
Target: (i) TBC during PPG	Output 3.5: 150 endogenous facilitators are trained to manage community funds
(ii) TBC during PPG	Output 3.6: 15 Associations Villageoises d'Épargne et de Crédit (AVEC) are supported to formalise their financial management
	Output 3.7: the impact of the Fonds d'Investissement Local pour l'Adaptation (FILA) is upscaled, financing 50 micro-projects

Monitoring, evaluation, capitalisation and knowledge management	Technical Assistance	Outcome 4: the results of the project are evaluated, and lessons learned are documented and disseminated  Indicator: a knowledge management strategy and plan support a sustainable upscaling, outscaling and inscaling approach of lessons learnt	Output 4.1: a methodology for the monitoring of AVEC (including the participation to the national user's platform) is formulated and implemented  Output 4.2: lessons learned from the implementation of the APFS approach are collected and disseminated  Output 4.3: relevant national sector development strategies mainstream the Agro-Pastoral Field Schools (APFS) approach in order to upscale and outscale climate change adaptation practices and approaches  Output 4.4: a monitoring & evaluation plan for the project is formulated and implemented  Output 4.5: communication materials are designed and disseminated  Output 4.6: an exit strategy is formulated	LDC F	807,067	1,600,000
<b>Sub Total (\$)</b>					<b>8,507,067</b>	<b>40,169,687</b>
<b>Project Management Cost (PMC)</b>						
LDCF					425,353	
<b>Sub Total(\$)</b>					<b>425,353</b>	<b>0</b>

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**Total Project Cost(\$)**

**8,932,420**

**40,169,687**

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

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Ministry of Agriculture and Hydro-Agricultural Development (MAAH)	Grant	Investment mobilized	13,381,616
Donor Agency	IFAD	Grant	Investment mobilized	22,429,881
Donor Agency	UNDP	Grant	Investment mobilized	2,409,712
Donor Agency	Climate Investment Fund	Grant	Investment mobilized	1,948,478
			<b>Total Project Cost(\$)</b>	<b>40,169,687</b>

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

Aligned with the co-financing guidelines, the investment mobilised comprises all relevant investments by project partners in the three target regions that are not operating or operational costs. A summary is provided here: o Government of Burkina Faso/Ministry of Agriculture and Hydro-Agricultural Development MAAH co-financing totals USD 13,381,616, comprising the following relevant projects operating in the same geography as the LDCF project: • Projet de Développement d'Infrastructures Agricoles Post Récoltes (Project for the Development of Post-Harvest Infrastructures, PDIAP): USD 3,951,915; • Projet de Développement d'Incubateur d'Entrepreneurs dans les Filières Agricoles Porteuses (Project for the Development of an Entrepreneurs Incubator for High-Potential Agricultural Value Chains, PDIEFAP): USD 666,684; • Projet de Développement de la Valeur Ajoutée des Filières 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. (Please, note that these two latter government funded projects also benefit from EU and AFD financial support.) o IFAD's funded project Projet d'appui à la promotion des filières agricoles (Agricultural Value Chains Promotion Project, PAPFA) contributes a total USD 22,429,881 in co-financing to the LDCF project. Note this project is executed by MAAH. o UNDP's funded Programme Amélioration des moyens d'existence durables en milieu rural dans les régions 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) contributes a total USD 2,409,712. o The Climate Investment Fund supports the Projet d'appui au développement de l'anacarde dans le bassin de la Comoé pour la REDD+ (Project to strengthen the cashew nut sector in the Comoé basin for REDD+, PADA/REDD+), and USD 1,948,478 has been identified as co-financing to this LDCF project.

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

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
FAO	LDCF	Burkina Faso	Climate Change	NA	8,932,420	848,580	9,781,000
<b>Total GEF Resources(\$)</b>					<b>8,932,420</b>	<b>848,580</b>	<b>9,781,000</b>

**E. Project Preparation Grant (PPG)**

PPG Required



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	<b>219,000</b>
<b>Total Project Costs(\$)</b>					<b>200,000</b>	<b>19,000</b>	<b>219,000</b>

## Core Indicators

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

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female				
Male				
<b>Total</b>	0	0	0	0

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

Please, see the annexed LDCF core indicators worksheet (roadmap) N.B. Estimates of core indicator targets have been calculated based on available field data, as reported below: Centre-Ouest Boucle du Mouhoun Hauts-Bassins Total # hectares of cropland 3,000 7,000 5,000 15,000 # hectares of pastures 1,000 3,000 1,000 5,000 # hectares of forest 2,000 4,000 4,000 10,000 # vulnerable agro-sylvo-pastoralists 10,000 20,000 20,000 50,000 # hectares per household 4,2 4,9 3,5

## Part II. Project Justification

### 1a. Project Description

#### 1. Adaptation problems, root causes and barriers that need to be addressed

##### a) General context: a least developed country strongly dependent on subsistence agriculture and threatened by insecurity

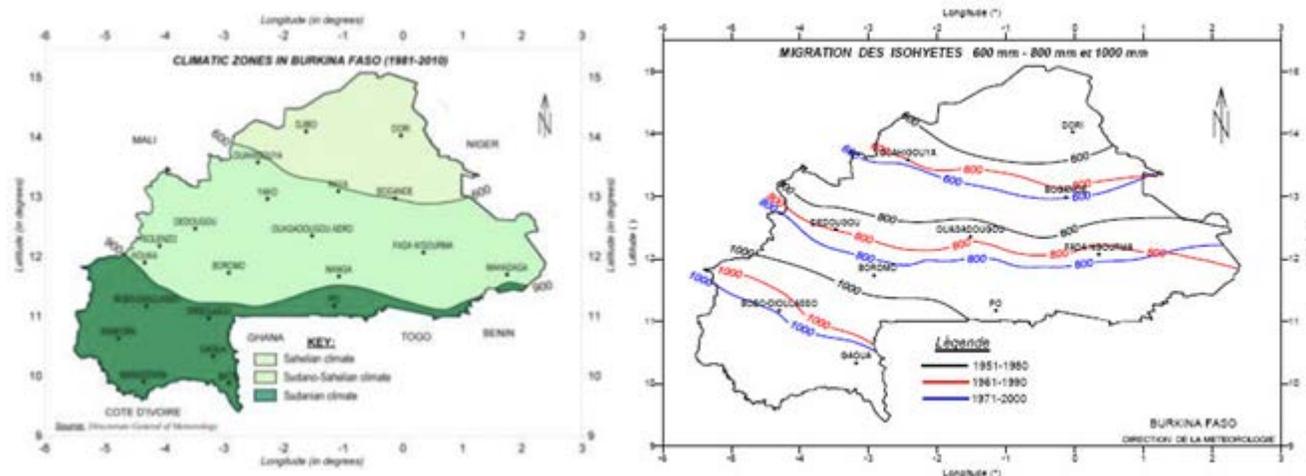
Landlocked Burkina Faso ranks 183 out of 189 countries in the 2018 Human Development Index and 144 out of 157 countries in the World Bank's Human Capital Index. It is among the 14 poorest countries in the world[1] and qualifies as a Least Developed Country. Since 2016, the northern and eastern regions 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].

Burkina Faso's population of 19.7 million[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]. 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], and a higher dependence to climatic conditions and vulnerability to climate changes[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].

##### b) Burkina Faso is a climate change hot spot

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).



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[1].

### c) Projected climate change and anticipated second-order consequences

Climate projections conducted under the A2, B1 and A1B emission scenarios[2] 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 to 2 to 10 mm.

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 pasture land and water-holes, forcing pastoral activities further south.

d) The impacts of climate change will compound 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<sup>[3]</sup>. 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.

The annual cost of land degradation in Burkina Faso is estimated at USD 1.8 billion (approx. 26% of GDP)<sup>[4]</sup>. 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 the 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 floodings ; 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).

- Across the Sahelian and Sudano-Sahelian zones in particular, **agro-sylvo-pastoral systems do not yield their full productive potential**. Amongst several reasons, this is because of the limited dissemination of best 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 agriculturalists, 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 will 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<sup>[5]</sup>.

· **Conflicts over the use of natural resources** are also predicted to become more frequent with climate change. 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[6] were between farmers and pastoralists. Besides land tenure issues (conflicts over ownership rights), conflicts are typically over damages made by cattle on cultures, 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.

The main structural causes of conflicts over natural resources in Burkina Faso[7] are described in the table below. 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.

Table 1. 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	Comment
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 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.
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.
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, has already materialised in areas where terrorist groups are active.
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[8].

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

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 leading to the collapse of the ecosystem services that sustain the agro-sylvo-pastoral productive systems.

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[9]. However, traditional transhumance practices no longer constitute an adequate response to the challenges posed by climate change, neither for pastoralists nor for hosting areas and communities. 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[10] (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.) Léonard*, *Echinochloa stagnina*). The exhaustion of water sources has also been documented as a consequence of changes in transhumance habits[11]. Changes in transhumance and agricultural calendars that no longer coincide to generate synergies between transhuming pastoralists and agricultural farmers are another issue, adding to the risks of conflicts over the use of natural resources[12].

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 maladaptation solutions (unsustainable transhumance habits, immigration from areas where climate impacts on ASP systems can no longer sustain rural livelihoods) or internal displacement to flee insecurity. Consequently, 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[13]	1,737,197	2,086,333	2,297,496
Area	21 891 km <sup>2</sup>	34 333 km <sup>2</sup>	25 573 Km <sup>2</sup>
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[14]
Climate	North & South-Sudanian	South-Sahelian, North & South-Sudanian	South-Sudanian
Environmental characteristics	<p>Guinean species : dominant families are Combretaceae, Leguminosae-Caesalpinioideae, Leguminosae-Mimosoideae and Leguminosae-Papilionoideae</p> <p>Agroforestry landscapes are dominated by <i>Vittelaria paradoxa</i>, <i>Parkia biglobosa</i>, <i>Borassus akeassii</i>, <i>Borassus aethiopicum</i>, <i>Lannea microcarpa</i>, <i>Bombax</i></p> <p><i>Costatum</i> and <i>Faidherbia albida</i>.</p> <p>The northernmost part of the region is characterised by the abundance of acacia species.</p>	<p>The northernmost parts of the region are characterised by shrub steppes and savannas. Families like Combretaceae, Leguminosae-Mimosoideae and Capparaceae can be found.</p> <p>Agroforestry landscapes are dominated by <i>Faidherbia albida</i>, <i>Vittelaria paradoxa</i>, <i>Lannea microcarpa</i> and <i>Sclerocarya birrea</i>.</p>	<p>Guinean species : dominant families are Combretaceae, Leguminosae-Caesalpinioideae, Leguminosae-Mimosoideae and Leguminosae-Papilionoideae</p> <p>Agroforestry landscapes are dominated by <i>Vittelaria paradoxa</i>, <i>Parkia biglobosa</i>, <i>Borassus akeassii</i>, <i>Borassus aethiopicum</i>, <i>Lannea microcarpa</i>, <i>Bombax</i></p> <p><i>Costatum</i> and <i>Faidherbia albida</i>.</p>
Landscape & land-use changes[15]	<p>Savannas and gallery forests</p> <p>6 registered forests (5.7% of the region)</p> <p>Existence of conservation spaces (communal forests, sacred groves, cynegetic reserves) protected and managed by local populations</p> <p>The region lost 29% of its forest cover between 2002 and 2013.</p>	<p>13 registered forests (5.6% of the region)</p> <p>Existence of conservation spaces (communal forests, sacred groves, cynegetic reserves) protected and managed by local populations</p> <p>The region lost 17% of its forest cover between 2002 and 2013.</p>	<p>Savannas, gallery forests, dense herbaceous</p> <p>16 registered forests (16.7% of the region)</p> <p>The region lost 22% of its forest cover between 2002 and 2013.</p>
Agriculture[16]	<p>Cotton:</p> <ul style="list-style-type: none"> <li>· Sanguié &amp; Sissili provinces: 1-10% of cultivated land (c.l.)</li> <li>· Ziro: 21-50% of c.l.</li> </ul>	<p>Cotton:</p> <ul style="list-style-type: none"> <li>· Nayala &amp; Sourou provinces: 1-10% of cultivated land</li> <li>· Kossi &amp; Banwa: 11-20% of c.l.</li> </ul>	<p>Cotton:</p> <ul style="list-style-type: none"> <li>· Houet, Kenedougou &amp; Tuy provinces: 21-50% of c.l.</li> </ul>

	Corn : · Sanguié & Boulkiemdé: 1-10% of c.l. · Sissili & Ziro: 11-20% of c.l.	· Mouhoun & Balé: 21-50% of c.l. l. Corn : · Kossi, Nayala, Sourou, Mouhoun: 1-10% of c.l. · Banwa & Balé: 11-20% of c.l.	Corn: · Houet, Kenedougou & Tuy: 21-31% of c.l.
Value chains with strong potential[17]	Cotton, corn, cattle, small ruminants, pigs	Cotton, corn, cattle, small ruminants	Cotton, corn, cattle, small ruminants
Transhumance statistics[18]	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

The three target regions are the most forested of Burkina Faso, and the most vulnerable to deforestation induced by migratory pressure, 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 A.

f) A favourable institutional context to enhance the climate resilience of ASP productive systems at the landscape level

Burkina Faso benefits from an enabling institutional and legal environment that will facilitate the achievement of the proposed project's outcomes. Some of the relevant national policies and strategies in place are described below.

- Three main documents set the overall development path for Burkina Faso. The National Prospective Study Burkina 2025 (ENP[19]) 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[20]) 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[21]) puts the development vision in a territorial perspective.

- The National Plan for Economic and Social Development (PNDES[22]) is the five-year plan for the development of Burkina Faso, for the period 2016-2020. In particular, it sets quantitative targets for sector-specific objectives.

- The National Strategy for Administrative Devolution 2014-2023 (SNDA[23]) describes the conditions and the modalities for the devolution of authority towards sub-national levels in the Burkinabé public administration.

- The National Adaptation Programme of Action (NAPA) was published in 2007 and the National Adaptation Plan (NAP) in 2015. They describe national priorities in terms of CCA.
- Relevant sector-specific programmes and strategies include: i) the Agricultural National Investment Programme (PNIA[24]) articulated with the ECOWAS[25] Agricultural Policy; ii) the Rural Development Strategy (PNSR[26]); iii) the Environmental Plan for Sustainable Development (PEDD[27]); iv) the Forestry Code; and v) the National Strategy and Action Plan for the Promotion of Non-Timber Forest Products.

In addition, Burkina Faso is a signatory of several international conventions and mechanisms relevant to climate change adaptation as well as land degradation and biodiversity, and has produced a number of national strategic plans and reports. These include:

- the United Nations Framework Convention on Climate Change (UNFCCC) National Determined Contribution (2015);
- the UNFCCC Second National Communication[28] (NC; 2014);
- the Second UNFCCC Technology Needs Assessment (TNA) for adaptation (2017) and mitigation (2018);
- the National Programme of Action against Desertification (2000);
- voluntary national commitments towards Land Degradation Neutrality (2017); and
- the National Biodiversity Strategy Action Plan (NBSAP; 1999) and fourth report to the Convention for Biological Diversity (CBD; 2010);

Relevant national priorities set forth in these strategies are further described in Section II.7.

Burkina Faso's continuous commitments towards the adaptation and sustainable management of productive landscapes over the past decades shows a strong will to advance its Climate Change Adaptation (CCA) agenda. The scope and ambition of this agenda are challenged by a number of persistent barriers.

#### g) Barriers to the improvement of the resilience of ASP productive systems

- Barriers related to governance and planning at the landscape level

The security of land tenure is a primary condition to design and implement sustainable planning of natural resources. However, the mechanisms destined to ensure the security of land tenure at the local level are not totally operational. The main limits of these mechanisms are analysed in a study produced under the FAO, GEF-funded project "Integrating Climate Resilience Into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas Through the Farmers Field School Approach"[29] (see below). These limits include: i) the overlapping of tenure rights in some areas; ii) oftentimes, the inexistence of local land tenure enforcing institutions planned for by the law, namely the Services Fonciers Ruraux, Commissions Foncières Villageoises and Commissions de Conciliation Foncière Villageoises[30]; iii) the lack of technical, financial and human resources of the above-mentioned institutions; iv) insufficient information

circulation between actors in charge of the security of land tenure; and v) the relatively high costs and extended delays for the procedures of establishing land rights. As a result, and although national laws theoretically provide the conditions for the appropriate management of land tenure, many communes fail to actually implement designated mechanisms in practice.

Adding to the insufficient security of land tenure, the inadequacy of conflict resolution mechanisms constitutes a barrier to the planning and implementation of sustainable management plans of natural resources. As described above, this issue is exacerbated in a context of climate change, where the objects, frequency and parties of the conflicts over resources are evolving, often leaving traditional conflict-resolution mechanisms powerless.

Other barriers pertaining to governance and planning of adaptation at the landscape level include: i) the lack of mainstreaming of adaptation into local-level development frameworks, namely the Plans Communaux de Développement (communal development plans); and ii) the absence of landscape management plans and / or Chartes foncières that take an integrated approach to ASP management

Finally, at the national level and from an instrumental perspective, the Agro-Pastoral Field School approach has proven successful, but is not institutionalised through its mainstreaming into sectoral strategies and action plans.

Under Component 1, the proposed project will address the main barriers for the governance of sustainable landscape management and strengthened ASP productive systems, at the national, regional and local level.

- Barriers related to climate change adaptation

Besides governance issues, the capacity of local populations in the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions to adapt to the adverse impacts of climate change is constrained by several barriers, including: i) inadequate land-use planning, with a lack of mainstreaming of climate change adaptation into existing land-use plans; ii) limited dissemination of climate-adapted agricultural techniques; iii) insufficient integration of environmental, agricultural and pastoral aspects in the choice and implementation of land-use practices; iv) limited availability and adoption of climate-resilient crops; and v) lack of appropriate infrastructure and associated best practices in terms of water management.

In the absence of relevant, integrated responses to these barriers, the climate threats described in Section 1.a.1.c will both directly and indirectly – i.e. by compounding non-climate threats such as land degradation – impact rural communities whose livelihoods depend on ASP productive systems.

Under Component 1, sustainable land management plans will be developed, and, under Component 2, the proposed project will support the implementation of these plans through adequate restoration and rehabilitation activities.

- Barriers related to strengthening of ASP value chains and sustainable financing

In the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions, not only is the production of ASP commodities not reaching its full potential, but market linkages to foster the marketing of commodity-based products are also not adequate. As a result, any attempts to support the intensification of ASP commodities will not yield the desired socio-economic outcomes if supply cannot meet demand. In particular, the transformation of raw products is often inexistent or inadequate, business skills from ASP communities are limited (people struggle to identify sustainable, bankable market opportunities) and access to financing is constrained. Despite the existence of local, community-based financial mechanisms (such as AVEC; see baseline description below), these mechanisms often lack the degree of formalisation that would optimise their functioning. In addition, seed financing remains scarce and usually does not allow the financing of scalable businesses. Lessons learned from ongoing initiatives to provide additional seed financing (such as FILA) have not yet been documented.

As a result of above-mentioned barriers, market opportunities are not identified and seized, the value-added of commodity-based value chains is not leveraged and ASP-based livelihoods are threatened. Under Component 3, the proposed project will therefore strengthen ASP value chains to increase the climate resilience of ASP communities' livelihoods.

## 2.a) Baseline scenario

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- Baseline scenario related to governance and sustainable landscape planning

At the national level, policies and strategies in place generally create favourable conditions for rural development and sustainable landscape management. This body of policies and strategies notably include the ENP (Burkina 2025), SCADD, SNADDT and PNDES. In addition, the Burkina Faso NAP provides specific national objectives for the agriculture, livestock farming and environmental & natural resource sectors (see Section 7).

In terms of land tenure, the main legal text is law N 034-2009/AN of 16 June 2009 that sets up the legal status of rural land after the landmark Agrarian and Land Tenure Reorganisation<sup>[31]</sup> of 1984. Specific decrees<sup>[32]</sup> then defined the local mechanisms in charge of land tenure management, namely: i) the Services Fonciers Ruraux, in charge of tenure inventory and registration; ii) the Commissions Foncières Villageoises<sup>[33]</sup>, 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 Foncière Villageoises, in charge of conflict resolution. The main local planning documents that constitute the reference for these institutions in charge of land tenure are the Chartes Foncières. These documents theoretically 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 lending; v) actions in favour of

vulnerable groups, including youths, women and pastoralists; and vi) the resolution of conflicts over land use. However, only 42 Chartes Foncières had been actually adopted country-wide[34] as of November 2018. In addition, their geographical perimeter does not necessarily coincide with landscapes, which is the relevant scale at which most natural resource management decisions need to be elaborated and implemented.

At the regional level, strategies and policies are also generally adequate to support sustainable landscape management, with Regional Development Plans being the main guiding documents.

At the local level, in addition to the institutions in charge of land tenure describe above, development priorities are laid out in Communal Development Plans overseen by the Village Development Councils and Municipal Councils. These plans are featured with annual investment plans.

As described in the barriers analysis above, existing governance structures and practices are preventing to fully implement sustainable landscape management and strengthen ASP productive systems in the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions. This is evident at the national, regional and local levels.

- Baseline scenario related to climate change adaptation

The population of Burkina Faso is one of the most vulnerable in the world[35] (ranked 162/181) due its low adaptive capacity (ranked 155/180) and exposure to extreme weather events (ranked 172/192). Although the three target regions are not located in the Sahelian climate zone, which is currently the most vulnerable to climate change, they have nevertheless been experiencing the adverse impacts of climate change. In addition, these regions are anticipated to face additional pressure from migrations originated from northern regions, induced by both climatic and safety drivers. Without adequate adaptation measures, the ASP sector in the target region will thus be increasingly impacted by, *inter alia* land degradation, deforestation, decreased water availability, reduced land fertility, increased frequency of bushfires and increased risk of livestock disease outbreaks. These threats are described in further details in the sections above.

- Baseline scenario related to value chains

In the absence of appropriate adaptation actions, key commodity-based value chains in the target regions will not develop their full potential, and are likely to see their productivity decrease. Crops with a cultural cycle longer than 90 days will likely be impacted the most by erratic rainfall, more frequent dry spells as well as increased evapotranspiration. The vulnerability of other cultures such as cotton, yam and other off-season crops will also increase[36]. While the livestock sector will suffer most from climate changes in the Sahelian region, Sudanian and Sudano-Sahelian regions will face the indirect consequences of these changes, as shifts in transhumance habits and overall southward migrations will bring additional pressure to ecosystems as cattle compete for natural resources. Higher cattle densities in these areas is also likely to increase the risk of animal disease outbreaks. Occasions to develop integrated agro-pastoral systems in the target regions will need to be seized so that increased pressures are eventually turned into opportunities to support both agricultural and livestock sectors[37].

## 2.b) Associated baseline projects

The following baseline projects will provide co-financing for the proposed project and thus complement the proposed GEF LDCF investment.

### **Projet d'appui à la promotion des filières agricoles (Agricultural Value Chains Promotion Project, PAPFA)**

This project (2018-2023) is co-funded by IFAD[1], the OPEC[2] 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, Balé, Nayala), the Hauts-Bassins region (provinces of Houet, Tuy, Kéné Dougou) and the Cascades region to support four value chains, namely rice, vegetables, sesame and niébé. 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.

### **Programme Amélioration des moyens d'existence durables en milieu rural dans les régions 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, MEEVCC-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 fora 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).

### **Projet d'appui au développement de l'anacarde dans le bassin de la Comoé pour la REDD+ (Project to strengthen the cashew nut sector in the Comoé 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 Comoé 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). In particular, opportunities to capitalise on PADA/REDD+ outputs in this domain and reproduce them in target communities will be explored during the PPG phase.

### **Projet de Développement d'Infrastructures Agricoles Post Récoltes (Project for the Development of Post-Harvest Infrastructures, PDIAP)**

Implemented by the MAAH 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 MAAH 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.

### **Projet de Développement d'Incubateur d'Entrepreneurs dans les Filières Agricoles Porteuses (Project for the Development of an Entrepreneurs Incubator for High-Potential Agricultural Value Chains, PDIEFAP)**

The PDIEFAP is implemented by the MAAH 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.

### **Projet de Développement de la Valeur Ajoutée des Filières 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.

## Projet Agriculture Contractuelle et Transition Ecologique (Project Contractual Agriculture and Ecological Transition, PACTE)

Implemented between 2019 and 2024 by the MAAH, 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 modernise 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.

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[1] International Fund for Agricultural Development

[2] Organisation of the Petroleum Exporting Countries

### 3.a) Proposed alternative scenario

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 Annex A.

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.

These climate changes pose 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; 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 livelihoods 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.

To avoid the scenario described above and avert to resort to emergency responses in the mid-run, the development of value chains (from financing to marketing) will accompany the dissemination of sustainable agro-ecological practices and the collective elaboration 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 help rural livelihoods adapt to climate change.

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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. It 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, agroecology can support food production and food security and nutrition while restoring the ecosystem services and biodiversity that are essential for sustainable agriculture. Agroecology can play an important role in building resilience and adapting to climate change.

This agro-ecological approach is adopted in all components of the project, from enhancing governance at the landscape level (Component 1), to demonstrating packages of innovative production, restoration and management practices (Component 2), to developing and diversifying mixed value chains and livelihoods (Component 3), and co-creation of knowledge and knowledge management (Component 4). Target landscapes will be assessed for their multidimensional agro-ecological performances using a newly FAO-developed analytical framework (Global Analytical Framework for the Multi-Dimensional Assessment of Agroecology - TAPE), indicating areas that need to be further improved in order to catalyse the transformational change towards productive, sustainable and resilient landscapes in the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions. Therefore, the project is supporting the achievement of a number of SDGs, as its intervention logic is rooted in a number of complementary principles, 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).

A number of tools and approaches will be used across all four components in order to facilitate the transition towards agro ecological food systems, including:

- Governance:
  - o OpenForis - CollectEarth for mapping;
  - o SHARP + for resilience assessments.

- Demonstration and diversification:
  - o Farmer Field and Agro-sylvo-pastoral Field Schools for capacity building and dissemination; and
  - o Gender-sensitive value chain approach for enhanced empowerment of women in target communities.

A Problem tree and a Theory of Change diagram for the proposed project are presented in Annexes D and E, 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, conflict-free and gender-transformative agro-sylvo-pastoral (ASP) community development in 3 pilot landscapes

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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 Foncières Villageoises and Commissions de Conciliation Foncière 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 foncières, are usually either non-existent or incomplete, and thus do not provide the conditions for the sustainable use and collective management of natural resources, especially in a context of climate change. What is more, the geographical perimeter of Chartes foncières is not necessarily relevant for the management of natural resources, and Chartes foncières may need to be consolidated into sustainable landscape management plans (e.g. at the micro-catchment or forest level).

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).

This governance component will be completed by the institutionalisation of the APFS approach into relevant national strategies (Output 1.7), which will enable this approach to be upscaled at the national level (and will be completed by the training of facilitators under Component 3).

This outcome will be delivered through six outputs:

Output 1.1: at least 100 staff from extension services are trained on the resolution of climate-driven conflicts in pilot landscapes, and adequate mechanisms (e.g. Commissions de Conciliation Foncière Villageoises) 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 and mobility of pastoralists

Output 1.3: the capacity of at least 12 municipal councils 3 regional councils, 12 local platforms, 3 regional and 1 national platform for land-use management and relevant coordinating organisations is strengthened to integrate climate change into the management of land tenure and land use issues

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

Output 1.5: climate change adaptation is mainstreamed into landscape management plans and/or local Chartes foncières to be developed through participatory processes for the 3 pilot landscapes

Output 1.6: the capacity of 150 extension officers is developed to implement climate-resilient landscape management plans and Chartes foncières

### Component 2: Climate resilient productive landscapes

Outcome 2: In the three 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

Under Component 2, the proposed project will facilitate the implementation of Chartes Foncières and sustainable landscape management plans by disseminating best agro-ecological best practices to local communities (Output 2.1), restoring grasslands and forests (Output 2.2). It will also locally disseminate adapted sustainable water management practices and small-scale infrastructure (Output 2.3).

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 for their land restoration, adaptation and biodiversity conservation co-benefits[40][41][42]. Measures will indicatively include: i) reduced tillage; ii) resilient seed selection; iii) intercropping; and iv) crop rotation. Pastures and forested land will be

restored through the implementation of adequate practices such as: i) zai; ii) Delfino ploughing; iii) assisted regeneration of indigenous woody species; iv) afforestation; v) fire prevention and control measures; and vi) controlled access. These techniques will help reduce rural communities' vulnerability to the impacts of climate change, while improving and intensifying agricultural productivity and fighting land degradation.

Finally, water availability will be supported through the dissemination of locally-adapted sustainable water management practices[43], and the implementation of small water infrastructures such as contour bunds, stone lines, planting pits, three-sided basins).

This outcome will be delivered through three outputs:

Output 2.1: climate-smart, locally adopted ASP production practices (e.g. reduced tillage, resilient seed selection, intercropping, crop rotation) are introduced on 15,000 hectares of production land to improve the climate resilience of agricultural systems through increased productivity, soil health and agro-biodiversity diversification

Output 2.2: climate-smart, locally-adopted practices (e.g. zai, Delfino ploughing, assisted regeneration of indigenous woody species, afforestation, fire prevention and control measures, 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: ASP mixed and gender-sensitive value chains are strengthened, diversifying and improving livelihoods of agro-sylvo-pastoralists, through upstream upscaling of the Agro-Pastoral Field Schools approach, and downstream support to transformation and market linkages

The Field School 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 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.

APFS consist in unformal education for adults to showcase 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 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. It will thus be a useful stepping stone towards the reduction of conflicts over natural resources.

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 our 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 MEEVCC, MAAH and MRAH, and the equipment of APFS with small transformation units (Output 3.3) and Farmer Business School modules (Output 3.4). This will facilitate the dissemination of best agroecological practices, including in the livestock sector.

Financial support piloted under GEF project #5014 will also be continued and upscaled, through the training of endogenous facilitators (Output 3.5), formalisation of the functioning of Associations Villageoises d'Epargne et de Crédit (AVEC; Output 3.6) and funding of community-based micro-projects through the Fonds d'Investissement Local pour l'Adaptation (FILA; Output 3.7).

This outcome will be delivered through seven outputs:

Output 3.1: the capacity of 100 APFS master trainers from the MEEVCC, MAAH and MRAH is strengthened

Output 3.2: the capacity of 500 APFS facilitators from the MEEVCC, MAAH, MRAH, local NGOs and CSOs is strengthened

Output 3.3: 1,500 APFSs are equipped with small transformation units to facilitate market access (including for the reduction of post-harvest losses)

Output 3.4: 1,500 APFSs are featured with Farming Business School modules to improve the capacity to access markets (including supply-demand matching)

Output 3.5: 150 endogenous facilitators are trained to manage community funds

Output 3.6: 15 Associations Villageoises d'Epargne et de Crédit (AVEC) are supported to formalise their financial management

Output 3.7: the impact of the Fonds d'Investissement Local pour l'Adaptation (FILA) is upscaled, financing 50 micro-projects

Component 4: Monitoring, evaluation, capitalisation and knowledge building

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

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 financial management at the local community level (Output 4.1) and the implementation of the APFS approach (Output 4.2). For the former, active participation to the national user's platform initiated by Catholic Relief Service will be undertaken. For the latter, lessons learned will also be drawn from baseline projects that have been implementing the APFS approach.

This outcome will be delivered through six outputs:

Output 4.1: a methodology for the monitoring of AVEC (including the participation to the national user's platform) is formulated and implemented

Output 4.2: lessons learned from the implementation of the APFS approach are collected and disseminated

Output 4.3: relevant national sector development strategies mainstream the Agro-Pastoral Field Schools (APFS) approach in order to upscale and outscale climate change adaptation practices and approaches

Output 4.4: a monitoring & evaluation plan for the project is formulated and implemented

Output 4.5: communication materials are designed and disseminated

Output 4.6: an exit strategy is formulated

#### 4) Alignment with GEF focal area

The proposed project adopts a landscape and agro-ecology approach to tackle climate change adaptation and vulnerability issues, with a focus on improved agricultural practices and the strengthening of selected value chains. It is fully aligned with the LDCF programming strategy<sup>[44]</sup>, as described in the table below.

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	2.1, 2.2, 2.3, 3.3 and 3.4
	1.1.4: Vulnerable ecosystems and natural resource assets strengthened in response to climate change impacts	2.1, 2.2 and 2.3
	1.2.2: Investment models developed and tested	3.3, 3.4
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	3.5, 3.6 and 3.7
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 and 4.3
	3.2.1 Capacities strengthened to identify, implement and/or monitor adaptation measures	1.1, 1.2, 1.3, 1.6, 3.1 and 3.2
	3.2.2: Increased awareness of climate change impacts, vulnerability and adaptation	3.1, 3.2 and 4.5

##### 5) Additional cost reasoning and expected contributions from the baseline, the LDCF and co-financing

Indicative total co-financing mobilised for the proposed project amounts to USD 40,169,687. It stems from two sources:

- MAAH investments for a total of USD 35,811,497 through the projects:
  - Projet d'appui à la promotion des filières agricoles (Agricultural Value Chains Promotion Project, PAPFA) : USD 22,429,881;
  - Projet de Développement d'Infrastructures Agricoles Post Récoltes (Project for the Development of Post-Harvest Infrastructures, PDIAP): USD 3,951,915;
  - Projet de Développement d'Incubateur d'Entrepreneurs dans les Filières Agricoles Porteuses (Project for the Development of an Entrepreneurs Incubator for High-Potential Agricultural Value Chains, PDIEFAP): USD 666,684;

- o Projet de Développement de la Valeur Ajoutée des Filières Agricoles du Burkina Faso (Project for the Improvement of Value Added of Agricultural Value Chains in Burkina Faso, VAFA) : USD 3,551,973; and
- o Projet Agriculture Contractuelle et Transition Ecologique (Project Contractual Agriculture and Ecological Transition, PACTE): USD 5,211,044.
  - MEEVCC investments for a total of USD 4,358,190, through the projects:
    - Programme Amélioration des moyens d'existence durables en milieu rural dans les régions 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 développement de l'anacarde dans le bassin de la Comoé pour la REDD+ (Project to strengthen the cashew nut sector in the Comoé basin for REDD+, PADA/REDD+) : USD 1,948,478.

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

### 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 Foncières and Plans de Développement 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 2,201,973 structured as follows:

- MAAH: USD 1,701,973
- o VAFA: USD 1,001,973; and
- o PACTE: USD 700,000.
- MEEVCC: USD 500,000
- o PAMED: USD 500,000.

GEF support and financing: GEF LDCF support (for a total of USD 1,200,000) 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.

## 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 standardised under the PAPFA and PACTE projects; and ii) the restoration of dirt roads under the PAPFA project, which will facilitate access to target sites<sup>[1]</sup>. Total co-financing will be USD 12,513,044 structured as follows:

- MAAH: USD 11,511,044
- o PAPFA: USD 10,000,000; and
- o PACTE: USD 1,511,044.
- MEEVCC: USD 1,002,000
- o PAMED: 1,002,000.

GEF support and financing: GEF LDCF support (for a total of USD 2,900,000) 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.

## 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 dirt 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 MAAH (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 23,854,670 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.
- MEEVCC: USD 2,856,190
- o PAMED: USD 907,712; and
- o PADA/REDD+: USD 1,948,478.

GEF support and financing: GEF LDCF support (for a total of USD 3,600,000) will be sought under Component 3 to strengthen those ASP mixed and gender-sensitive value chains 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 and market linkages.

#### 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
  - o PAPFA: USD 1,000,000;
  - o PDIEFAP: USD 200,000; and
  - o PACTE: USD 400,000.

GEF support and financing: GEF LDCF support (for a total of USD 807,067) 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.

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

#### 6) Adaptation benefits (LDCF)

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 80,000 people (50% women) will benefit from the project interventions (GEF Core Indicator 11), and that 100,000 ha of landscapes in production systems will be placed under sustainable management (GEF Core Indicator 4.3).

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 strengthening selected commodity-based VCs.

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 CCA and 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 in 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 CCA into annual investment plans of their communal development plans).

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. 80,000 women and men are benefiting directly from the LDCF investment and an estimated 100,000 hectares of production land will be managed in such a way to withstand climate stressors.

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. Please, further note that estimates for the direct benefits are rooted in a challenging context, one of extreme poverty (extreme poverty headcount of 40 percent and an annual GDP per capita of just US\$650), poor infrastructure and electrification (less than 1 percent of the rural Burkinabè population have access to electricity and 75 percent of the rural population live further than 2 km from a road in good or fair condition), extreme vulnerability to climate change risks (see CCR screening), 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.

However, the project intervention logic and approaches maximise the scaling 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 are 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 agro-ecosystems, maximising its production potential in the face of climate change and the multiple climate-induced land-based

conflicts. 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 600,000 hectares are located in the three target regions.

- Approaches adopted by the project to facilitate a large-scale uptake of climate adapted practices and technologies by agro-sylvo-pastoral 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.

- 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 visualizations 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 Initiative 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.

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

The project will innovate through:

- agro-ecological techniques and sustainable agricultural and VCs intensification technologies tackling degradation and leaving larger area for biodiversity conservation, such as Delfino plough and Vallerani system and tree pruning;
- facilitating governance reform (devolution) with the strengthening of local-level land-use management institutions;
- supporting the formalisation of AVECs, including through the training of endogenous facilitators; and
- business models, including long-term landscapes restoration and management contracts with private actors.

Agro-ecological approaches to be disseminated will include both innovative and traditional practices, such as: i) the use of climate-resilient crop varieties; ii) reduced tillage; iii) alternatives to chemical fertilisers (use of compost) and pesticides (biological control, intercropping); iv) fascines; v) zai; vi) the use of leguminous plants; vii) crop rotation; and viii) djengo.

In addition, a number of innovative tools developed by the FAO will be used throughout the project. These include OpenForis - CollectEarth for mapping, SHARP + for resilience assessments and the TAPE for multi-dimensional agro-ecological performance assessments.

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, local institutions, youths (through the Farmer Business Schools modules of the APFS) and farmers (through APFS);
- the participatory development and updating of Chartes foncières and sustainable landscape management plans that will provide for the long-term, sustainable management of ASP resources;
- the dissemination of climate-smart agricultural techniques, that will help farmers cope with the adverse impacts of climate change on agricultural productivity;
- the formalisation of community-level financial mechanisms; and
- the development and demonstration of the feasibility of profitable business plans for local agri-enterprises.

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

- the mainstreaming of the APFS approach in national sector strategies and relevant policy documents, based on the successful experience of setting up APFSs in Burkina Faso through past and ongoing initiatives;
- the training of APFS trainers and facilitators from MEEVCC, MAAH and MRAH, who will in turn lead APFS sessions across Burkina Faso;
- decentralised and integrated governance (local institutions, inter-regional professional organisations – “faîtières” – and management plans) that will allow large-scale environmental and adaptation benefits;
- innovative community-level financial schemes that will be reported onto the national users’ platform; and
- strengthened capacity of local actors to generate multiple benefits through enhanced practices and more efficient VCs that can be replicated locally and regionally.

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[4] Ibid.

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

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[12] Ibid.

[13] 2020 projection from the National Institute of Statistics and Demography

[14] Commune of Bobo-Dioulasso

[15] Source: Land Degradation Neutrality Report 2020

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

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

[19] Etude Nationale Prospective Burkina 2025

[20] Stratégie de Croissance Accélérée et de Développement Durable

[21] Schéma National d'Aménagement et de Développement Durable du Territoire

[22] Plan National de Développement Economique et Social

- [23] Stratégie Nationale de Déconcentration Administrative
- [24] Programme National d'Investissement Agricole
- [25] Economic Community of West African States
- [26] Programme national du secteur rural
- [27] Plan d'Environnement pour le Développement Durable
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- [30] See baseline scenario section.
- [31] Reorganisation Agraire et Foncière
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[3] Source: World Bank, 2018.

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

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

[7] Ibid.

**1b. Project Map and Coordinates**

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

A situation map of the three target regions as well as land use and land-use change maps for each of them are presented in Annex A.

## 2. Stakeholders

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

**Indigenous Peoples and Local Communities** Yes

**Civil Society Organizations** Yes

**Private Sector Entities**

**If none of the above, please explain why:**

Please, note that the team in charge of the execution of the FAO GEF-funded project “Integrating Climate Resilience Into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas Through the Farmers Field School Approach” has been engaged in the PIF design, and this team is continuously interacting with the above-mentioned actors. These stakeholder groups will be strongly involved in the PPG phase.

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

During the PIF formulation phase, numerous consultations were held by the FAO Representation in Burkina Faso. In addition, a dedicated preparation mission in Burkina Faso was conducted from 9 to 13 December 2019. Senior FAO technical officers participated to the mission and worked with the local FAO team, governmental institutions and other agencies and donor partners to identify the intervention strategy for the proposed project. Consulted stakeholders included: i) MEEVCC: General Direction of Water and Forests, General Direction of Studies and Sectorial Statistics, Direction of Fauna and Cynetic Resources, Direction of Forest Engineering, Direction of Prospective and Operational Pacification, Direction of Monitoring, Evaluation and Capitalisation and Direction of Coordination of Projects and Programmes; ii) MAAH: Secretary General; iii) MRAH; iv) European Union representation; v) IUCN Burkina Faso; and vi) UN Capital Development Fund (UNCDF). This mission was also organised to coincide with a stocktaking workshop for the FAO, GEF-funded project “Integrating Climate Resilience Into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas Through the Farmers Field School Approach”. This was an opportunity to share lessons learned from this ending project, especially on the implementation of the APFS approach and on financial mechanisms (AVECs, FILA) at the community level.

During the PPG phase, further consultations will be conducted, including with local communities, with a view to secure stakeholders’ engagement from the onset of the project. A special focus will be placed on the consultation of ethnic groups particularly concerned by conflicts over the use of natural resources, as well as Civil Society Organisations (CSOs) and professional organisations representing the private sector.

During the implementation phase, a participatory approach will be used across activities. Landscape management plans will be designed in consultation with all relevant stakeholders. Local councils such as the Commissions Foncières Villageoises and Commissions de Conciliation Foncière Villageoises will benefit from capacity-building interventions to further strengthen their potential as key fora for the implementation of sustainable landscape management and conflict resolution. Participation to a national user’s platform for AVECs will be promoted. The project will also place a special focus on gender aspects, as described in the following section.

### 3. Gender Equality and Women's Empowerment

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

Gender equality is believed to be a condition for successful climate change adaptation actions in rural communities of Burkina Faso. Still, despite the fact that women make up more than half of the labour force in agriculture in the country, they have very limited access to resources and extension services such as micro-credits, land rights, access to technology and know-how. 95% of the women are engaged in subsistence agriculture or the informal sector, and play a fundamental role in the management and utilisation of the forest resources. These insights, which are observed throughout the different regions of the country (and which will be further detailed during the PPG phase thanks to a specific gender assessment in the selected project sites), have informed the preliminary project design. Each project component adopts an active *do-good* gender approach, and indicators help monitor the gender mainstreaming results achieved throughout the project implementation. Here are some concrete examples how:

- Land tenure securitisation, for women and men alike, is a fundamental indicator of success of component 1 and the project ensures that women's access is addressed throughout the different outputs to achieve this. For instance, capacity development of extension service providers will address the existing inequalities, highlight the role and participation of women in NR use and management to raise awareness on the need for gender equality.
- Climate resilient approaches and practices adopted under component 2 are selected in a participatory fashion, and the project will ensure that no practices or approaches are being selected that women are culturally, socially or other not likely to adopt.
- Results to be achieved under component 3 and 4 are rooted in a number of gender sensitive approaches, including agro-pastoral field schools, gender-sensitive value chain development, which will allow the project to achieve the targets.

These are but some examples. As mentioned above, an exhaustive and comprehensive gender assessment will be carried out during the PPG phase and further inform the project design. Provisions will be taken to fully embed gender equality in project decision-making, implementation and monitoring.

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

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

**improving women's participation and decision-making; and/or Yes**

**generating socio-economic benefits or services for women. Yes**

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

Yes

#### 4. Private sector engagement

**Will there be private sector engagement in the project?**

Yes

**Please briefly explain the rationale behind your answer.**

The expected outcome of Component 3 is the enhancement of the resilience of ASP communities through the strengthening of ASP value chains, upstream through the upscaling of the Agro-Pastoral Field Schools approach, and downstream through support to transformation and market linkages. 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. The exact means to achieve the latter will be further determined during the PPG phase, and may include the development of business plans, support to the organisation of the collective collection of products to sell them on regional markets etc.

## 5. Risks

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

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 at the identification phase are summarised in the table below.

Description	Type	Mitigation measure
Insecurity in the Centre-Ouest, Boucle du Mouhoun and Hauts-Bassins regions	Political	The target regions have been selected so as to limit the insecurity risk at the time of PIF formulation. However, this risk is not under the project control. 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.
Limited national and local capacity for the project effective implementation and limited chances to involve international consultants due to insecurity	Operational	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.
Ethnic and local tensions over the access to water, pastures, forest and other natural resources in the project areas	Social	The intervention rationale of the proposed project is to anticipate the potential increase in conflicts over natural resources in Sudano-Sahelian regions. Latent conflicts over 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 foncières and sustainable management plans. Ultimately, this will reduce the opportunities for conflict over access to and use of natural resources. These risks are site specific and will have to be thoroughly assessed as part of the environmental and social management response measures.
Climate-induced hazards (increased frequency and intensity of floodings, earlier start and delayed end of the rain season, more erratic rainfall, increased extreme temperatures, increased PET) and the secondary impacts, change in soil	Climate	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

<p>and the secondary impacts: change in cultural cycles, decreased water availability, erosion, changes in pastoral habits (incl. transhumance), increased incidence of cattle diseases</p>		<p>orestation 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.</p> <p>Noting the dependence of the agricultural sectors on the natural resource base, climate and the lack of poor communities to cope with natural hazards, a more comprehensive climate risk assessment and mitigation plan will be carried out during the PPG phase.</p>
<p>National execution partner(s) are assessed to have moderate or high risks on a selection of operational standards, making the operationalization of the project more costly and complex</p>	<p>Fiduciary</p>	<p>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.</p> <p>It is the intention to work with national execution partners, as the project partnership can help develop operational capacities of the partners. Still, if no suitable national execution partner can be identified during PPG (meaning that the micro-assessment indicates high risk and OPA is not an option), an international partner will be engaged in the project execution.</p>
<p>Limited mainstreaming of CCA into planning frameworks</p>	<p>Policy / institutional</p>	<p>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.</p>

The project has been screened against Environmental and Social risks, in line with FAO's Environmental and Social Safeguards, and rated as low risk (see certification in Roadmap section) . No FAO Safeguards were triggered in the preliminary screening, however the risk level will be further re-confirmed at PPG stage in line with FAO's safeguards and stakeholder engagement processes. The Agency will make sure that all mitigation measures vis a vis any potential adverse impact are duly considered in the CEO-endorsement package. Special attention will have to be given to potential conflicts over land use and access to natural resources and to the conflict resolution mechanisms to mitigate those risks.

In addition, a climate risk level screening has been conducted and details can be found in the document uploaded in the Roadmap section as well (entitled Additional Annexes TOC ESS CCRS).

## 6. Coordination

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

The suggested execution partner is the Environmental Intervention Fund (Fonds d'Intervention pour l'Environnement, FIE) of the Ministry of the Environment, Green Economy and Climate Change (MEEVCC). The FIE will lead the project operational execution, with support from MEEVCC. The FIE was established in 2013 under the technical trusteeship of the MEEVCC and the financial trusteeship of the Ministry of Finance. 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; iv) fight against poverty.

The GEF Implementing Agency for the proposed project is the Food and Agriculture Organization of the United Nations (FAO). FAO will be responsible for the risk management plan.

FAO's comparative advantage in Burkina Faso lies not only in its historical support to rural institutions and experience implementing the FFS approach, but also in its technical capacity and experience in food systems, land-use practices and restoration of ecosystem services. FAO has also spearheaded integrated programming approaches as a core element of its operations. Building on this, FAO represents a unique partner able to effectively deliver policy advice in the field of land and forest restoration, as well as to nudge private investments across agricultural value chains. FAO has also proven experience in implementing GEF projects.

During the PPG phase, the operational capacity of the FIE will be assessed in order to determine the nature of the engagement of FIE in project execution. FIE will be the Operational Partner managing the project funds and supervised by the GEF Agency if all fiduciary standards are met. If not, the FIE will be steering the project execution delegating selected support services to another execution partner, who fully meets technical and operational requirements for timely and quality project execution. This latter can be FAO if no other cost-effective and technically sound partners can be assessed positively during the PPG phase. FAO's role in project execution will however, as per GEF policies, be costed within the project management cost (PMC), and further contribute to operational capacity development of the FIE *via* provisions taken in the institutional arrangements.

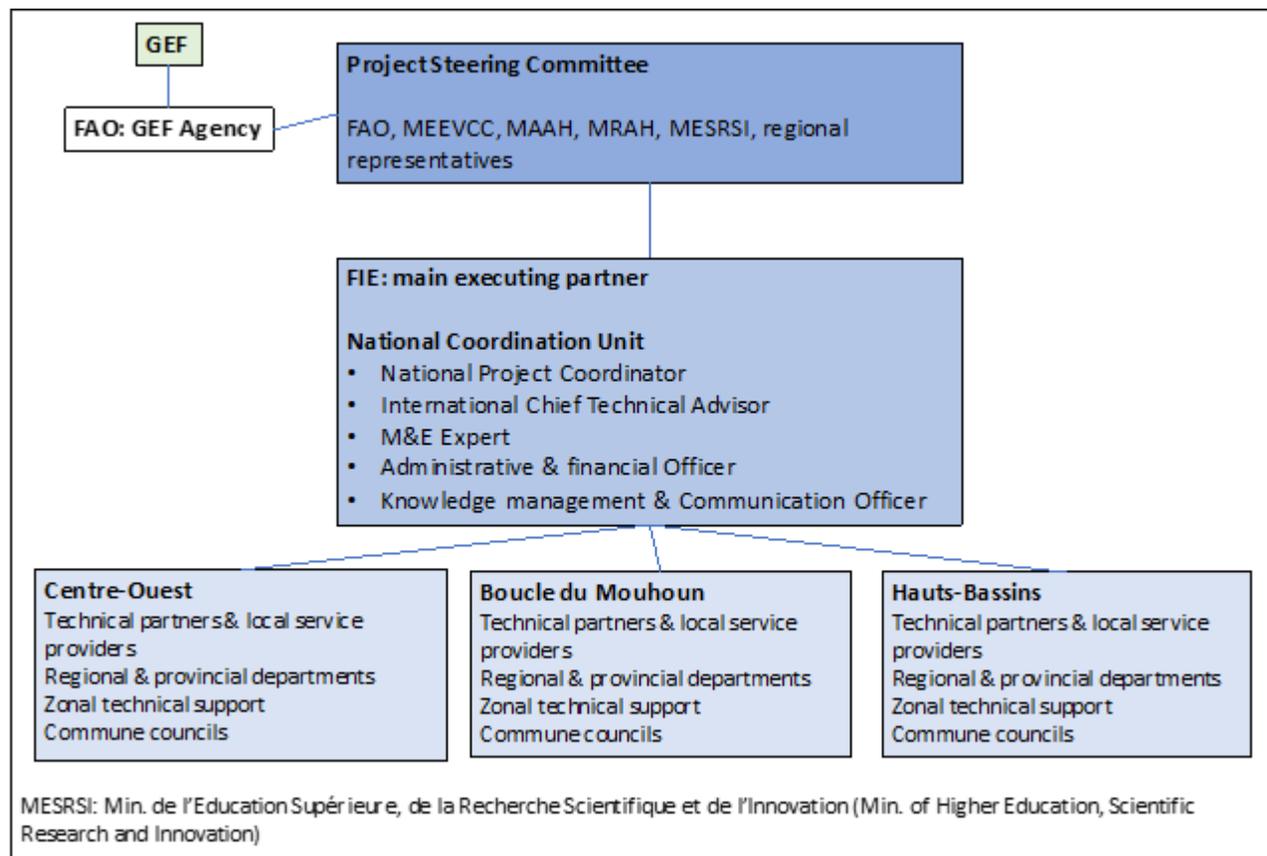
Other partners will be involved as appropriate. They include the following:

- government:
  - o Ministry of the Environment, Green Economy and Climate Change (MEEVCC)
- Ministry of Agriculture and Hydro-Agricultural Development (MAAH);
- Ministry of Animal and Fisheries Resources (MRAH);
- o Ministry of Higher Education, Scientific Research and Innovation (MESRS)

- Ministry of Water and Sanitation
- Ministry of the Economy, Finance and Development
- Ministry of Transport and Urban Mobility for National Meteorological Agency (ANAM)
- o decentralised authorities;
- civil society / NGOs:
  - o farmers organisations;
  - o NGOs, radios (located in the project areas);
  - o women and youth associations (de la zone de couverture du projet);
- private sector:
  - o local SMEs; and
  - o financial actors.

During the PPG phase, partnerships with local and international institutions will be envisaged. Potential partners include associations and local NGOs with proven tenure and natural resources management experience and/or expertise in agro-sylvo-pastoral value chain development, as well as local service providers and research institutes.

Tentative institutional arrangements for the implementation phase are presented in the diagram below.



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.

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.

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 OFF. 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.

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 implemented by UNDP since 2015. Its main objective is to develop and promote index-based weather insurance systems for climate-induced damage in agriculture. A focus is placed on maize and groundnut cultures, and the project targets producers in northern Burkina Faso. Opportunities to build on the insurance systems promoted by this project and disseminate them in the target regions will be analysed during the PPG phase.

- **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. Options to capitalise on this output in particular will be examined during the PPG phase.

- **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 will take into account the location of the target sites of this project, and consider the potential to create a geographical continuity of interventions in the Boucle du Mouhoun Forest Corridor.

- **Climate Resilience in the Nakambe Basin**

The concept for this project (USD 4,416,210) – to be implemented by UNDP – 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. Although the two projects will generally not intervene in the same regions, target areas might overlap in Centre-Ouest. To avoid any risk of duplication, coordination will be sought with UNDP during the PPG phase.

### **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), implemented by the FAO, is due for financial termination in the first semester of 2020. 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 this PIF, and consultations will continue during the PPG phase to make sure that past experience is duly reflected in the design of the proposed project.

### **Integrated and Sustainable Management of PONASI Protected Area Landscape**

This GEF project (concept approved in November 2017) is under development with UNDP, for a budget of USD 5.3 million. Its objective will be to safeguard critical wildlife habitat, biodiversity and ecosystem services in the PONASI<sup>[1]</sup> 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”).

### **Programme de Développement 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 Comité inter-État de lutte contre la sécheresse au Sahel (Permanent Inter-State Committee for Drought Control in the Sahel, CILSS) and executed by the MRAH. 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.

### **Projet Régional d’Appui au Pastoralisme au Sahel (Regional Sahel Pastoralism Support Project, PRAPS)**

This regional, World bank-funded project (2015-2021) 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 has a budget of USD 26,663,136 and is active in the regions of Hauts-Bassins, Boucle du Mouhoun, Cascades, Nord, Sahel and Est. Synergies with the proposed project will be sought in Hauts-Bassins and Boucle du Mouhoun, 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.

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[1] Pô, Nazinga and Sissili

## 7. Consistency with National Priorities

**Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions**

Yes

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

NAPA, NAP, NDC, NC and TNA

Burkina Faso submitted its NAPA in 2007 and 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 four components of the proposed project are articulated with the Specific Objectives of Burkina Faso's NAP, 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.

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.

These same priorities are also reflected in Burkina Faso's Nationally Determined Contribution submitted to the UNFCCC (2015).

In the Second National Communication to the UNFCCC (2014), a recommendation is made 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) are described, and will be promoted through the APFS approach under Component 2.

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.

- NBSAP and CBD report

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.

- UNCCD Land Degradation Neutrality (LDN)

In 2017, Burkina Faso set voluntary LDN targets of: i) ending deforestation by 2030; and ii) increasing the productivity of degrading arable land. The proposed project will contribute to these two targets by promoting an agro-ecology approach, improving land management practices on 30,000 ha of production land directly, and support the management on a total 100,000ha through the planning process.

Other relevant national policies and strategies that the proposed project aligns with and will contribute to are described in Section II.1.f.

## 8. Knowledge Management

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

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. For example, a dedicated methodology for the M&E of AVECs will be developed under Component 4. 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.

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 through 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. Appropriate channels of communication (technical guidelines, radio, posters, brochures etc.) will be used to target specific stakeholders.

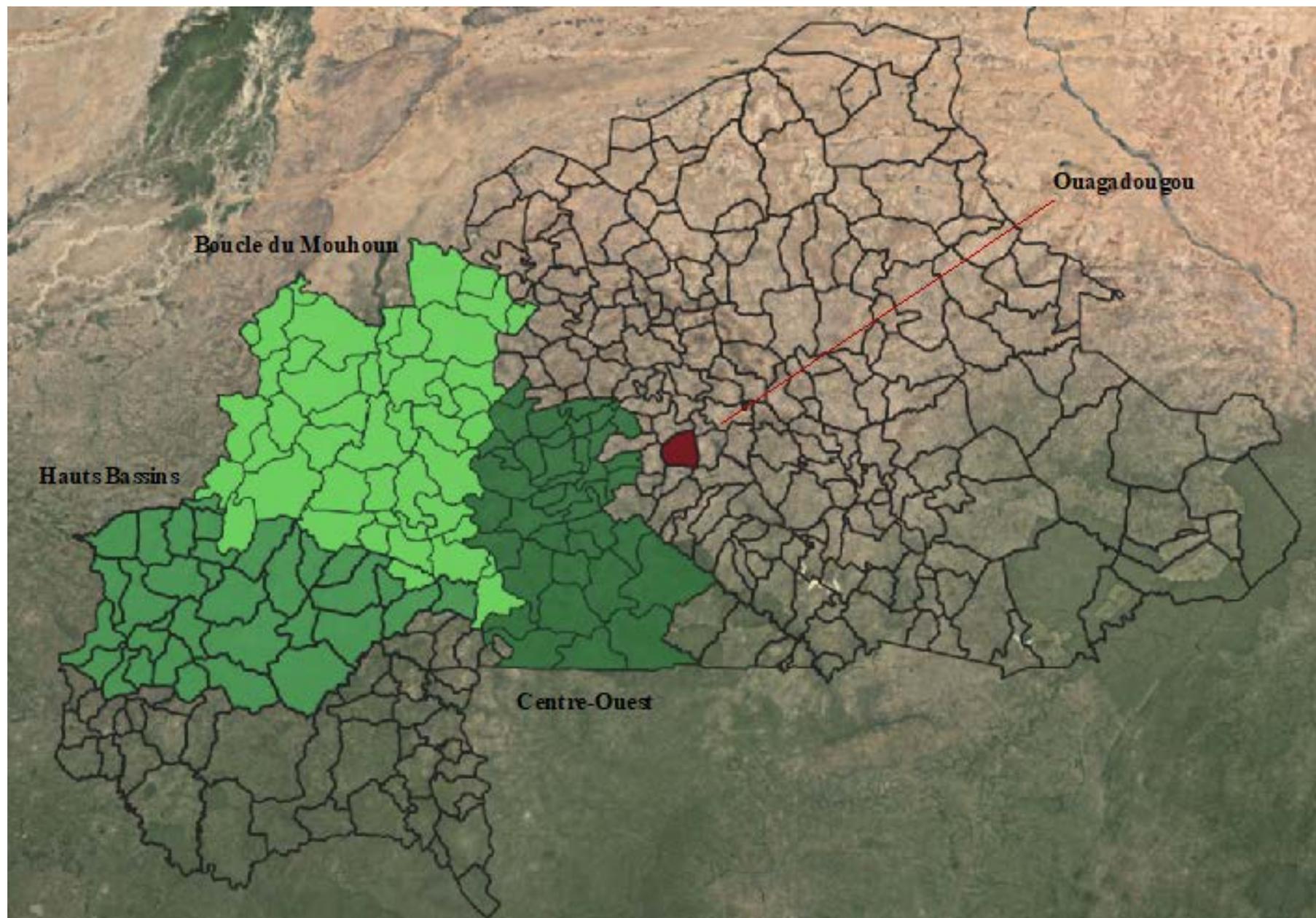
**Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)**

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

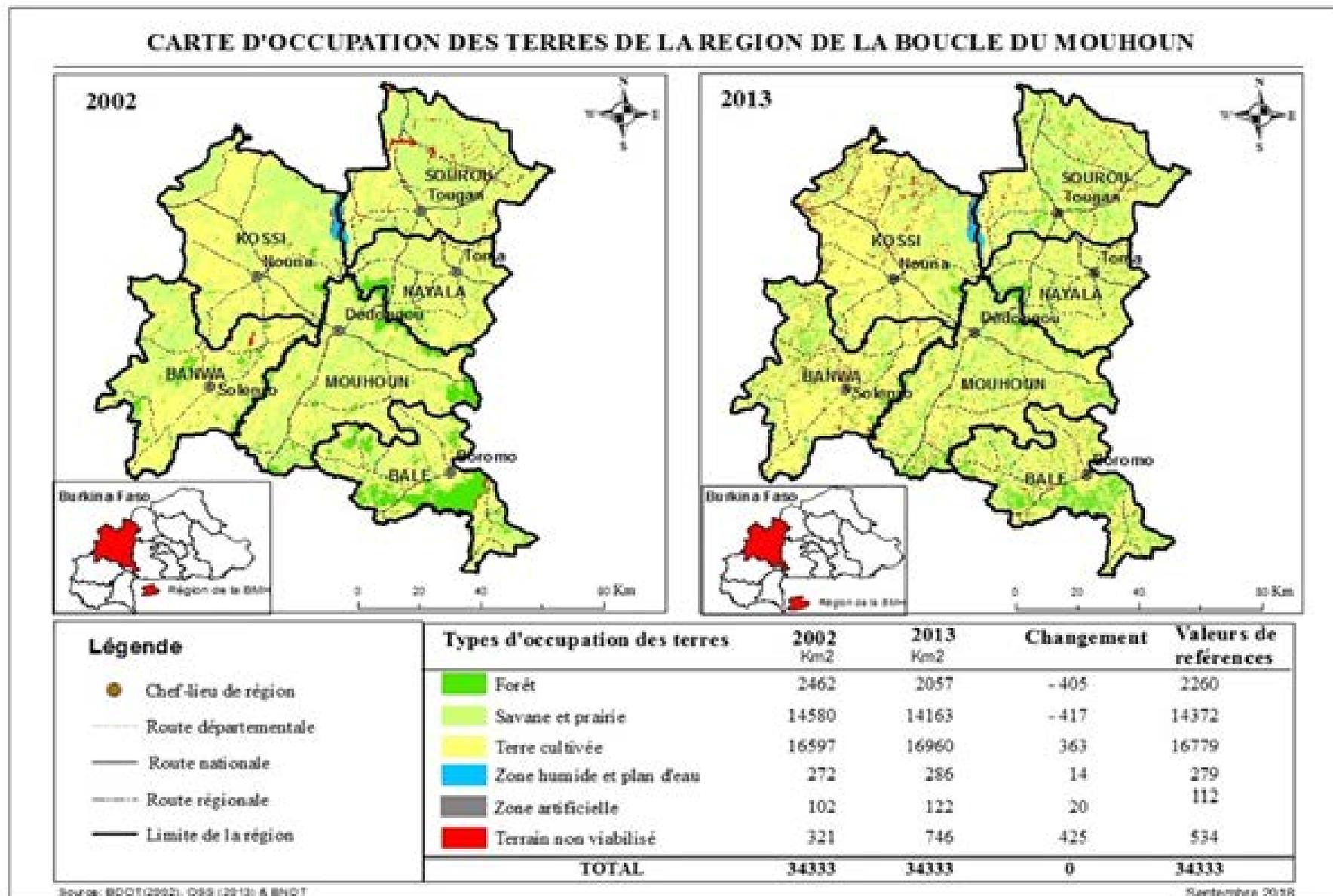
<b>Name</b>	<b>Position</b>	<b>Ministry</b>	<b>Date</b>
Mr. Justin Goungounga	GEF Operational Focal Point	Ministere de l'environnement, de l'economie verte et du changement climatique	8/16/2020

**ANNEX A: Project Map and Geographic Coordinates**

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

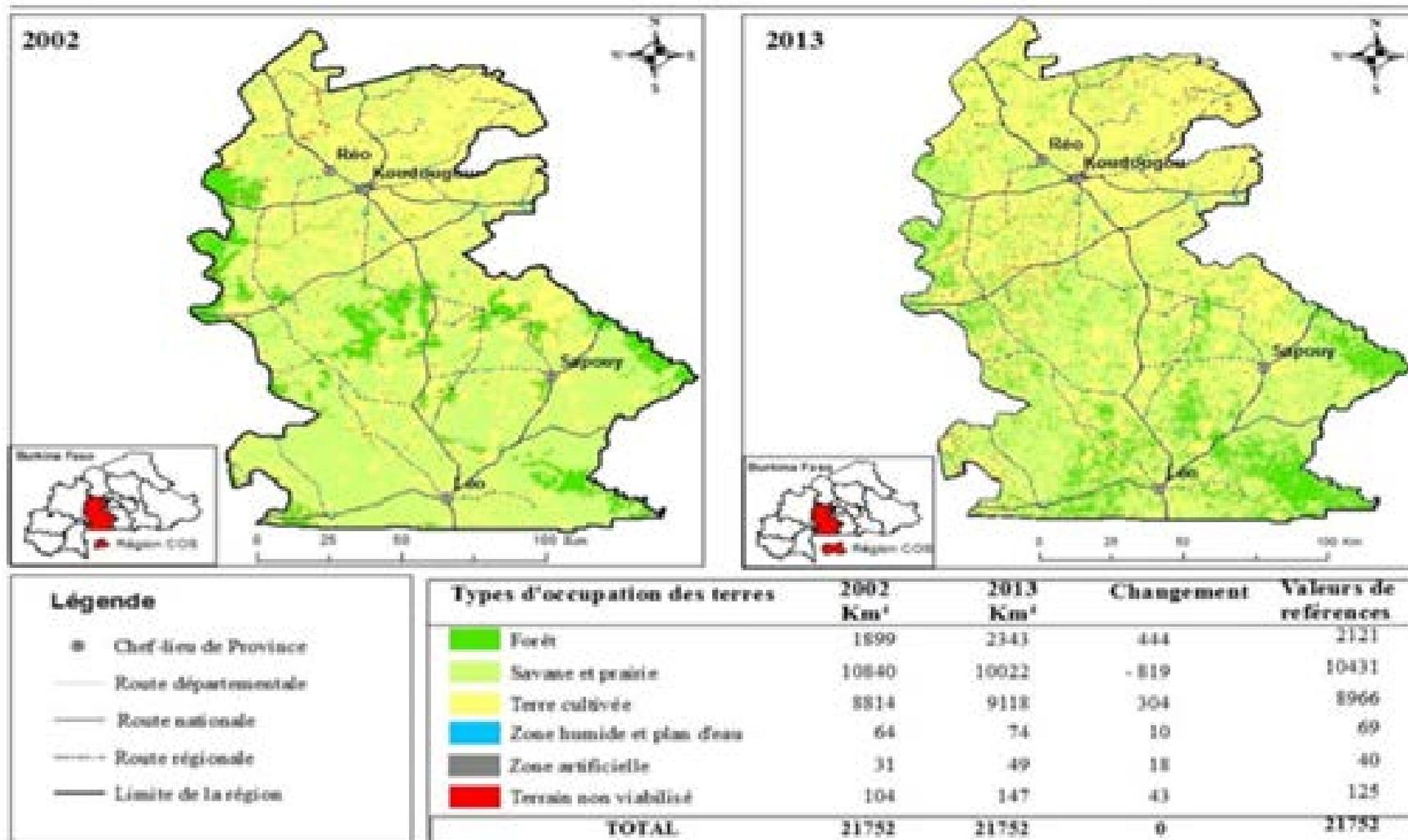


## Land use and land-use change maps for the Boucle du Mouhoun region[1]

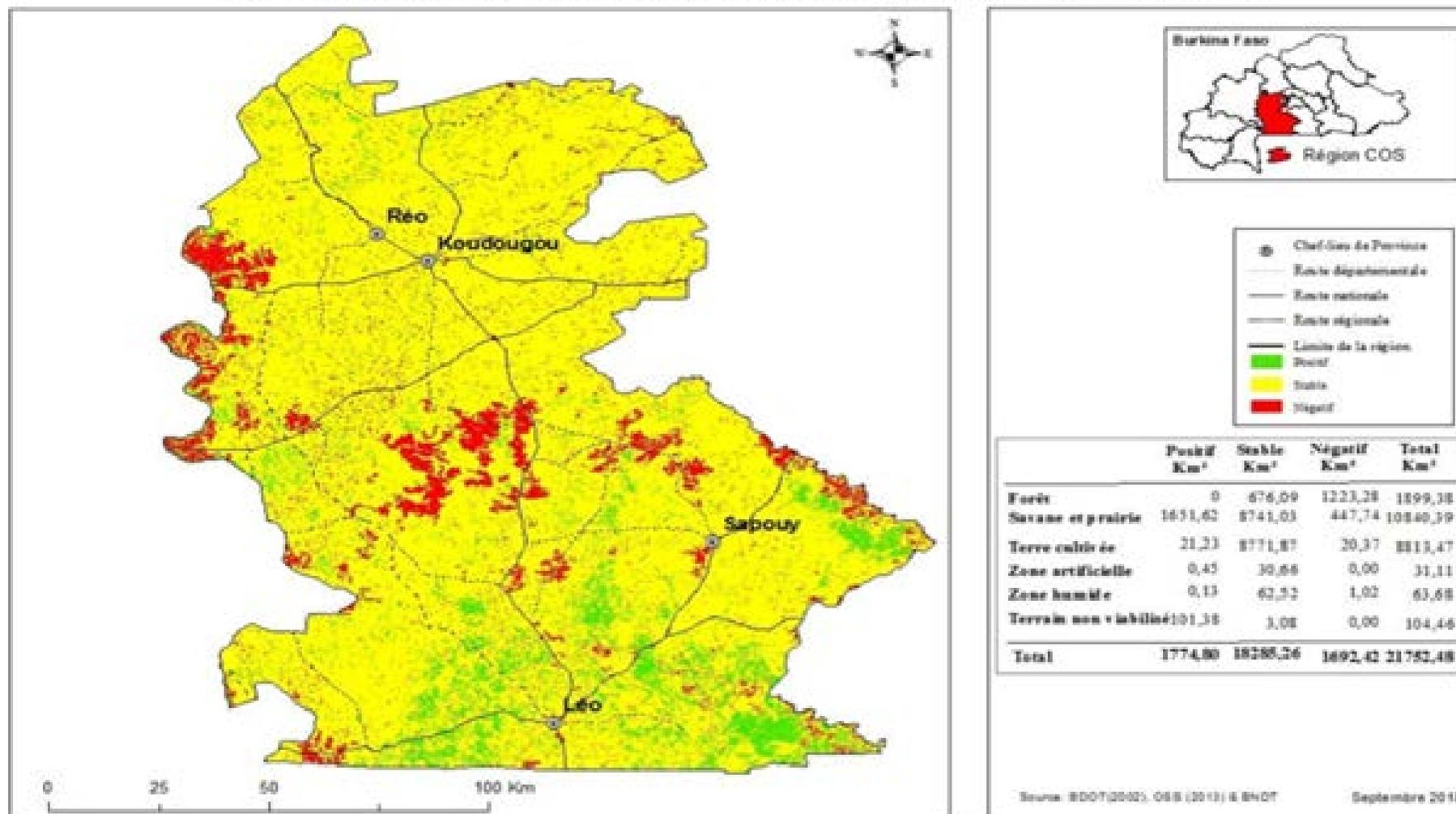




## CARTE D'OCCUPATION DES TERRES DE LA REGION DU CENTRE-OUEST

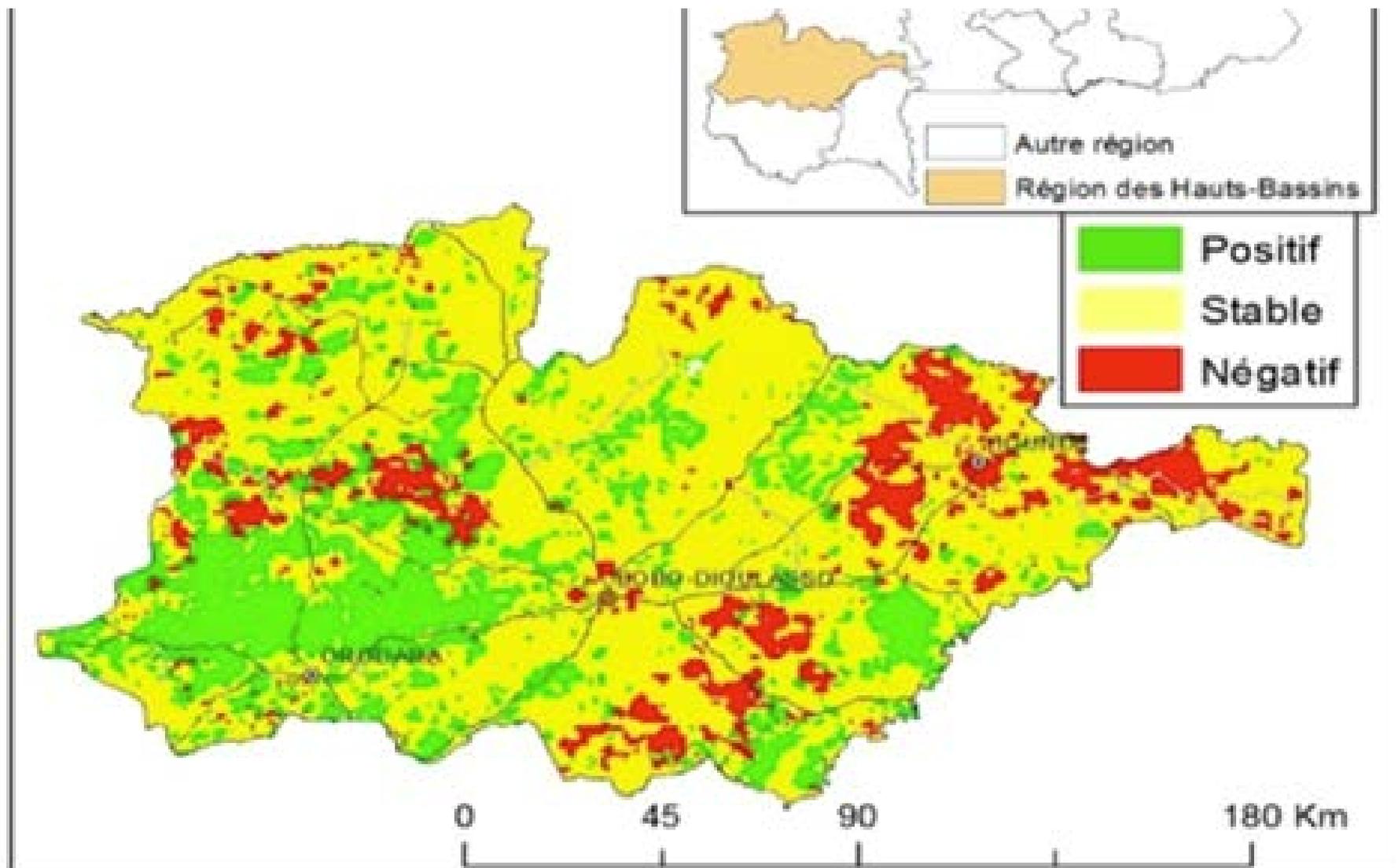


### CARTE D'EVOLUTION DE L'OCCUPATION DES TERRES DE LA REGION DU CENTRE-OUEST



Land use and land-use change maps for the Hauts-Bassins region[1]





<b>Types d'occupation des terres</b>	<b>Positif Km2</b>	<b>Stable Km2</b>	<b>Négatif Km2</b>	<b>Total Km2</b>
Forêts	1 878,58	2 972,36	0,00	4 850,95
Savane et prairie	94,27	7 038,00	6 529,69	13 661,96
Terres cultivées	3,01	5 600,90	299,41	5 903,32

<b>Zone humide</b>	<b>0,78</b>	<b>360,08</b>	<b>25,64</b>	<b>386,51</b>
<b>Zone artificielle</b>	<b>0,13</b>	<b>152,44</b>	<b>5,77</b>	<b>158,34</b>
<b>Terrain non viabilisé</b>	<b>0,00</b>	<b>2,60</b>	<b>553,44</b>	<b>556,04</b>
<b>TOTAL</b>	<b>1 976,76</b>	<b>16 126,38</b>	<b>7413,96</b>	<b>25 517,10</b>

Septembre 2018

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[1] Ibid.

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[1] Ibid.

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[1] Source: MEEVCC. 2020. Situation de reference, tendances a la degradation des terres, cibles et mesures au niveau des regions du Burkina Faso. Working document.