



PROJECT IDENTIFICATION FORM (PIF)¹

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: LD²CF

PART I: PROJECT IDENTIFICATION

Project Title:	Integrating climate resilience into agricultural and pastoral production for food security in vulnerable rural areas through the Farmers Field School approach.		
Country(ies):	Burkina Faso	GEF Project ID:²	5014
GEF Agency(ies):	FAO (Select) (Select)	GEF Agency Project ID:	617677
Other Executing Partner(s):	Ministère de l'Agriculture et de l'Hydraulique (MAH), Ministère de l'Environnement et du Développement Durable (MEDD) and the Ministère des Ressources Animales (MRA) in collaboration with the Conseil National de l'Environnement et du Développement Durable (CONEDD)	Submission Date:	July 12, 2012
GEF Focal Area (s):	Climate Change	Project Duration (months):	48
Name of parent program (if applicable): ➤ For SFM/REDD+ <input type="checkbox"/>		Agency Fee (\$):	381,000

A. FOCAL AREA STRATEGY FRAMEWORK³:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-Financing (\$)
CCA-1 (Select).	Outcome 1.1: Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Output 1.1.1 Adaptation measures and necessary budget allocations included in relevant frameworks	LDCF	500,000	3,524,000
CCA-2 (Select).	Outcome 2.1: Increased knowledge and understanding of climate variability and change-induced threats at country level and in targeted vulnerable areas	Output 2.1.2: Systems in place to disseminate timely risk information	LDCF	700,000	7,400,000
CCA-2 (Select).	Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Output 2.2.1: Adaptive capacity of national and regional centers and networks strengthened to respond rapidly to extreme weather events Output 2.2.1: Targeted population groups covered by adequate risk reduction	LDCF	510,000	3,200,000

¹ It is very important to consult the PIF preparation guidelines when completing this template.

² Project ID number will be assigned by GEFSEC.

³ Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.

		measures, disaggregated by gender (Score)			
CCA-3 (Select).	Outcome 3.1: Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas	Output 3.1.1: Relevant adaptation technology transferred to targeted groups	LDCF	1,919,000	4,984,000
Sub-Total				3,629,000	19,108,000
Project management cost ⁴				181,000	362,000
Total project costs				3,810,000	19,470,000

B. PROJECT FRAMEWORK

Project Objective: To enhance the capacity of Burkina Faso's agricultural and pastoral sectors to cope with climate change, by mainstreaming Climate Change Adaptation (CCA) practices and strategies into on-going agricultural development initiatives and agricultural policies and programming and upscaling of farmers adoption of CCA technologies and practices through a network of already established FFS

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
1. Piloting of improved climate-resilient agricultural practices in the framework of CONEDD's mandate and the SRD/PNSR's action plans	TA	1.1. Increased resilience of dry crop cereal and livestock production systems through the adoption of improved CCA strategies and practices including adoption of new varieties and cultivars and adapted soil and water management practices in at least 10 % of crop cultivation areas assisted by at least 7 major partner projects and/or governmental programmes piloting improved adaptation practices (surfaces and yields at least maintained in assisted dry crop cereal and livestock production systems in three agro-ecological zones of Burkina Faso)	1.1.1. A core of national programme managers aware of the potential for mainstreaming CCA in rural development using the FFS and DFF (Diversity Field Fora) approaches, through field and institutional visits to neighbouring countries where mainstreaming is already taking place 1.1.2. Past and current farmers' CCA practices and institutional support initiatives mapped and their resilience effectiveness evaluated 1.1.3. Multi-stakeholders FFS- and DFF-based knowledge building strategy formulated and applied to fostering adoption of CCA technologies and practices 1.1.4. A diverse set of soil and water management practices and crop varieties chosen from existing climate stress tolerant cultivars/species of cereals and legumes and piloted in three agroecological zones in dry crop and livestock production systems with a strong focus on dry cereals and crops/livestock/trees integration strategies	LDCF	900,000	3,064,000
2. Capacity building and upscaling of improved agricultural	Inv.	2.1. 26,000 farmers and agropastoralists have adopted improved climate resilient practices and technologies introduced through FFS covering 15,000 ha	2.1.1. CCA best practices and technologies integrated into FFS curricula and training material 2.1.2 400 FFS facilitators trained in adaptation practices	LDCF	2,064,000	9,920,000

⁴ GEF will finance management cost that is solely linked to GEF financing of the project.

practices through Farmer Field Schools (FFS) in the framework of on-going FAO-supported projects and other MAH, MRA and MEDD's " <i>projets sous tutelle</i> "		2.2. 200 FFS-based CCA initiatives supported by a CCA Local Adaptation Investment Fund, mobilizing complementary financing of at least USD 400,000 by year 4	and technologies including adapted varieties and ecosystem resilience strategies and practices, and 26 000 farmers trained through FFS. 2.1.3. Appropriately adapted CC impact monitoring and tested weather forecast decision support tools for farmers (developed by UNDP and other programmes/organizations) are applied through selected FFS covering 15,000 ha 2.2.1 Demand-driven Local Adaptation Investment Fund in place to further support CCA in FFS				
3. CCA strategies mainstreamed into agricultural sector policies and programmes in conformity with CONEDD's mandate and SDR/PNSR's action plans	TA	3.1. CCA strategies mainstreamed into 50% of agricultural sector policies, planning and programmes for targeted vulnerable areas of the following regions: Sahel, East, Center-north and Center-west (30% of operational projects in sector-level programmes have budgeted for CCA components and investments increased (USD 1 million/year by the end of the project) through specific budgetary provisions made by MAH, MEDD, and CONEDD)	3.1.1 Gaps and opportunities for mainstreaming CCA into agricultural sector policies, planning and programmes identified, and FFS-based CCA mainstreamed to reinforce dry-land crop and livestock sector development 3.1.2 Mechanisms established for cross-sector coordination in the implementation of FFS-based outreach strategies for CCA, monitoring of CCA processes, and formulation of new CCA initiatives in the agricultural sector such as "Climate proofing in the agricultural sector" (MAH, MEDD, MRA, CONEDD) 3.1.3 Draft investment plan available in support to CCA mainstreaming and up-scaling in the agricultural sector in complement to existing agricultural investment plans	LDCF	500,000	5,762,000	
4. Project monitoring and evaluation	TA	4.1 Project implementation based on results-based management and application of project lessons learned in future operations facilitated	4.1.1 System for systematic collection of field-based data to monitor project outcome indicators operational 4.1.2 Midterm and final evaluation conducted 4.1.3 Project-related "best-practices" and "lessons-learned" for enhanced adaptation to climate risk of the agricultural sector are disseminated via publications, project website and others	LDCF	165,000	362,000	
Sub-Total						3,629,000	19,108,000
Project management Cost					LDCF	181,000	362,000
Total project costs⁴						3,810,000	19,470,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government:	MAH through its " <i>projets sous tutelle</i> " in the framework of the SDR/PNSR	Grant	8,400,000
National Government:	MAH" through its " <i>projets sous tutelle</i> " in the framework of the SDR/PNSR	In-kind	7,500,000
National Government:	MEDD through its " <i>projets sous tutelle</i> " in the framework of the SDR/PNSR	Grant	850,000
National Government:	MRA through its " <i>projets sous tutelle</i> " in the	In-kind	370,000

GEF Agency	framework of the SDR/PNSR FAO	In-kind	100,000
Bilateral Aid Agency (ies)	Italy through FAO (GCP /INT/092/ITA) Luxembourg through FAO (GCP/BKF/053/LUX) Italy through FAO (GCP/BKF/002/ITA) France through FAO (GCP/RAF/422/FRA and its follow up)	Grant Grant Grant Grant	300,000 1,600,000 200,000 150,000
Total Co-financing			19,470,000

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY¹

GEF Agency	Type of Trust Funds	Focal Area	Country Name/ Global	(in \$)		
				Project amount (a)	Agency Fee (b)	Total c=a+b
FAO	LDCF	Climate Change	Burkina Faso	3,810,000	381,000	4,191,000
(select)	(select)	(select)				0
Total Grant Resources				3,810,000	381,000	4,191,000

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. THE LDCF/SCCF ADAPTATION STRATEGY:

The project will directly contribute to the implementation of the SCCF/LDCF adaptation strategy through the integration of climate resilience into agricultural and pastoral production for food security in vulnerable rural areas of Burkina Faso through the Farmers Field School (FFS) approach. The proposed project will support the objectives CCA-1, CCA-2 and CCA-3, with a particular focus on CCA-3 in accordance with FAO's comparative advantages. It will also contribute indirectly to mitigate and prevent LD processes by strengthening sustainable land management (SLM) and land management (LM) approaches, improving capacity to more effectively coordinate actions with ministries of the rural development sector and more fully incorporate CC considerations into SLM's menus.

A.1.2. FOR PROJECTS FUNDED FROM LDCF/SCCF: THE LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:

Burkina Faso ratified the UNFCCC in September 1993 and is currently included in the list of Least Developed Countries (LDCs). Burkina Faso's National Adaptation Programme of Action (NAPA) was submitted to UNFCCC in December 2007. Consistent with guidance for the LDCF (GEF/C.28/18, May 12, 2006), the present proposal is a NAPA follow-up project aiming to address adaptation priorities of the agriculture and agro-pastoral sectors. The project will implement an integrated strategy of adaptation-focused interventions with emphasis on the enhancement of rural smallholders and pastoral communities' food security. The project will thereby contribute towards the attainment of the Millennium Development Goal (i.e., eradication of extreme poverty and hunger).

A.2 NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS, IF APPLICABLE, I.E. NAPAS, NAPS, NBSAPS, NATIONAL COMMUNICATIONS, TNAS, NIPS, PRSPs, NPFE, ETC.:

The project is fully consistent with Burkina Faso's NAPA presented in 2007. All NAPA adaptation measures are in synergy with the dispositions of post-Rio conventions ratified by Burkina Faso: "United Nations Framework Convention on Climate Change" (UNFCCC), "United Nations Convention to Combat Desertification" (UNCCD) and "Convention on Biological Diversity" (CDB). The project will support the mandate of the *Conseil National de l'Environnement et du Développement Durable* (CONEDD) as the institution in charge of coordinating and monitoring of all activities related to post-Rio Conventions, including climate change (CC). It will strengthen CONEDD's capacities to ensure "the integration of the dimensions of CC and adaptation into policies, strategies and development programmes" and "the mobilization of financial resources required for the implementation of CC/adaptation activities".

The 12 priority adaptation measures (or "options d'adaptation") identified in Burkina Faso's NAPA for reducing risks, improving food security and meeting Millennium Development Goals (MDGs) in the face of CC are mostly focusing on the agricultural and pastoral sectors.

The priority actions to be tackled by the present project were selected according to the following criteria: (i) reduction of the impact of CC; (ii) poverty reduction; (iii) synergy with the multilateral environmental agreements; and (iv) cost efficiency of the implementation of the action. The LDCF project will address at least 6 of the 12 key adaptation activities across the agricultural and agro-pastoral areas identified in the NAPA that are intimately linked to rural food security, namely: (i) strengthening of the early warning systems for food security; (ii) development and management of water use;

(iii) forage plants production and building of food reserves; (iv) development and sustainable management of natural resources and vegetation; (v) protection of pastoral lands; and (vi) securing agricultural production through the use of appropriate technological packages.

The project is also consistent with the “*Plan National de l’Environnement pour un Développement Durable*” (PNEDD) that now substitutes (Decree 2011-157) the “*Plan d’Action National Environnemental*” (PANE). The project will contribute to the following PNEDD programmes: (i) “*Programme d’Action National de Lutte Contre la Désertification et de Gestion des Ressources Naturelles*”; and (ii) “*Programme Changements et Variabilité Climatiques*”.

The main programmes and action plans that support the management of natural resources in Burkina Faso are : (i) National Programme Against Desertification (« *Programme National de Lutte Contre la Désertification* » – PNLCD) from 1986; (ii) Agricultural and Land Tenure Restructuring (« *Réorganisation Foncière et Agricole* » – RAF) from 1984; (iii) National Programme for Land Management (« *Programme National de Gestion des Terroirs* » – PNGT) from 1992; and (iv) National Action Plan for the Environment (« *Plan d’Action National pour l’Environnement* » – PANE) from 1991.

In 1998 the Government of Burkina Faso adopted a National Strategy for Integrated Management of Soil Fertility (« *Stratégie Nationale de Gestion Intégrée de la Fertilité des Sols* » – SNGIFS) and a related Action Plan (« *Plan d’Action de la Gestion Intégrée de la Fertilité des Sols* » – PAGIFS), which define strategic orientations of actions with regards to soil fertility in Burkina Faso.

Burkina Faso adopted its Poverty Reduction Strategy in December 2003, aimed at reducing the global incidence of poverty from 46.4% to less than 35% by 2015. The new **Accelerated Growth and Sustainable Development Strategy** (« *Stratégie de croissance accélérée et de Développement Rural* » 2011–2015 – SCADD), has a planning horizon set for 2015, substitutes the Poverty Reduction Strategic Framework (« *Cadre Stratégique de Lutte contre la Pauvreté* » – CSLP). The « *Programme national du secteur rural* » (PNSR), currently being finalized, will replace the Rural Development Strategy (“*Stratégie de Développement Rural*” – SDR, adopted in 2003) and will allow for a sector-specific implementation of SCADD. It will focus on the following strategic orientations, defined in a joint sector review in July 2010: (i) the improvement of food and nutrition security and sovereignty in a context of CC, desertification and demographic growth; (ii) the increase of the income of rural populations based on facilitated access to markets, modernisation of family-run estates, professionalization of actors, product transformation, diversification and promotion of agro-sylvo-pastoral activities – including and water wildlife, and the emergence of a dynamic private sector; (iii) sustainable development and natural resources management; (iv) the development of partnerships between actors of the rural sector following defined roles and responsibilities, and the strengthening of their capacities.

The adaptation activities to be carried out under the LDCF project will be undertaken in close synergy with the PNSR. The proposed LDCF project is fully compatible with the priorities of this programme approach to rural development mentioned above. The project will also be instrumental in supporting the forthcoming process of implementation of the PNSR, in which programmes and action plans on CCA issues will be incorporated transversally through project activities.

Finally, the proposed LDCF will also support the implementation of the *National Food Security Program*, following FAO’s support to the formulation of this programme from 2006 to 2010.

B. PROJECT OVERVIEW:

B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:

As a land-locked country, Burkina Faso’s economy is very fragile and is affected by internal and external isolation, a strong population growth (3.1%), severe environmental constraints, and by extreme poverty. According to UNDP (2011), Burkina Faso ranks 181st out of 187 countries in terms of the Human Development Index (0,331), and the Multidimensional Poverty Index is 0.536%. Estimations from 2006 (SDR) indicate that 80% of Burkina Faso’s population (14,017,262 habitants [RGP/H, 2006]) depend on agriculture, animal husbandry and other land-based activities, and that the contribution of those activities to national GDP and exports is 35.5% and 27.2%, respectively (INSD/MEF, 2009). Nine million hectares are considered as having an agricultural potential, representing 33% of Burkina Faso’s total land mass, of which 4.4 million ha are cultivated. Most of those soils support low productivity levels and are very sensitive to water and wind erosion. Land suitable for irrigation covers only 165,000 ha.

Three main agro-ecological zones are usually distinguished in Burkina Faso: (i) Sahelian (<600 mm rain/year); (ii) North-sudanian (600 to 900 mm); and (iii) South-sudanian (900 to 1200 mm). A constant southwards migration of the 600 mm and 900 mm isohyets has been registered throughout the last four decades, resulting in an expansion of the Sahelian climatic zone and a reduction of the South-sudanian zone, meaning that CCA is a challenge in most of the national territory.

Burkina Faso’s climate is characterized by strong inter-annual rainfall variability. Since 1974, there has been an enhanced recurrence of dry years and prolonged drought, which have resulted in severe negative effects on livelihood. The last episode has been the 2009–2010 food crisis, followed by favorable precipitation in the 2010–2011 cropping season. Another CC-related disaster occurred during the rainy season of 2007 where severe flooding, coupled with international price increases, caused a strong impact on food security in rural households which in turn has aggravated the vulnerability towards CC. In addition, the flooding of September 2009, which affected specific regions, indicates the regularity of CC-related disasters and their impact on the rural environment, where 80% of the national population live. This has

contributed to the increased vulnerability of rural people and the deterioration of the fragile ecosystems upon which they depend.

CC projections for 2025 indicate that Burkina Faso is likely to face a hotter and drier future. According to the NAPA, rainfall will decrease by 3.4% in 2025 and by 7.3% in 2050 (based upon extrapolations from observations in Ouagadougou from 1920 to 2000). This reduction will be coupled with great interannual and seasonal inconsistency. On the other hand, average temperatures will increase by 0.8 °C by 2025 and by 1.7 °C by 2050 in the entire country (results of the simulation with the model MAGICC SCENGEN). The decrease of rainfall and the increase of temperature will result in the decrease in productivity of food crops such as millet, sorghum and corn. This in turn will sharpen food insecurity, particularly in rural areas.

With regard to water resources in the most vulnerable areas, current projections for 2025 indicate a decrease of annual rainfall of 45.6% in Comoé and of 54.7% in Mouhoun in comparison with the average for the 1961–1990 period. In comparison with measurements from 1961–1990, the water volume in all watersheds of Burkina Faso will be reduced significantly by 2050. Estimates related to forestry/biodiversity indicate that biomass potential will diminish from 200 million m³ in 1999 to only 110 million m³ in 2050. The impact of CC will also affect the existence of certain species of both fauna and flora, as well as migration patterns of species that move from Sahelian regions to Sudanese regions. With regard to the pastoral activity, the impact of the temperature increase and rainfall decrease will result in: (i) drastic size reduction and degradation of pasture; (ii) deficit in fodder and food production; and (iii) deficit of water supply for cattle. This will result in a reduction of husbandry production and a reduction in supply of all cattle related products (Ministère des Ressources Animales, MRA, 2005). The increase of climate variability and its consequences (drought, floods, locust invasions, etc.) may lead to important cattle mortality and ruin agropastoral producers from the Sahelian region, as already happened during the droughts of the 70s and 80s.

Although pastoralists are significantly affected by CC effects (rainfall decrease, droughts, seasonality disruptions), they do not perceive CC-related long-term risks and consequences. Small farmers and pastoralists are especially vulnerable because of their limited knowledge and capacity to adapt to climate variability and change and there is a need to build their capacity in adopting drought-resilient agropastoral and agroforestry practices to counter the adverse effects of climate variability. Furthermore associated problems such as unsuited agricultural management practices (regarding crop and variety selection, water and soil management, and rangeland management), increasing population pressures leading to expansion of agriculture into fragile ecosystems, and increasing competition between herders and agriculturalists, as well as lack of capital investment and positive incentives for sustainable rural development, are likely to be greatly aggravated by CC. The actions taken to address CCA in the agricultural sector are not only specific to CCA, but are therefore equally beneficial in addressing the development objectives of Burkina Faso. An enhanced portfolio of choices of practices and technical solution from which farmers can experiment and adopt, with the guidance of research and extension services, will lead to overall system diversification (diversified varieties and planting patterns, more synergistic associations of crops, livestock and locally adapted trees, and improved integration of crop/livestock systems).

Baseline initiatives, investments and barriers

Despite the fact that climatic variability has always been considered in rural development policies, programmes and field activities, farmers and agropastoralists will likely soon be subject to greatly increased risks owing to climate and environmental changes. Burkina Faso will most likely have to adapt agricultural and pastoral systems to a hotter and drier future leading to decreasing yields and degradation of the natural resource base (soils, water, and biodiversity). The NAPA follow-up to date has focused on creating basic awareness and institutional conditions for better addressing CCA issues, and on the demonstration of best practices in climate-resilient agropastoral production for sustainable improvement of food security in the most vulnerable communities (UNDP/LDCF project). Likewise, both traditional and improved varieties of sorghum, millet, groundnuts, cowpea, and other crops have been identified and piloted which are grown to minimize the risk of crop loss owing to climate variability. Institutions such as Bioversity International have been working on production and multiplication of local varieties through its Diversity Field Fora approach. However, a proven efficient outreach platform for up-scaling promoting a more widely adoption of these demonstrated best practices and adapted varieties among dry-land farmers and pastoralists is still lacking.

FAO with partners, such as the World Food Programme (WFP), Bioversity International and others, have supported the Burkina Faso Government in coping with repeated food crises, and is now interested in supporting a shift from a reactive, to a more proactive approach, linking food security, disaster risk management (DRM), and CCA. In particular, FAO and WFP recently launched an emergency assistance platform which would need to introduce this linkage.

The Government of Burkina Faso has an important portfolio of "*projets sous tutelle*" related to the issue of CCA and land degradation, led by the Ministère de l'Agriculture et de l'Hydraulique (MAH), the Ministère de l'Environnement et du Développement Durable (MEDD) and the MRA in the framework of the current SDR and forthcoming PNSR (a minimum of 18 projects currently under implementation with a cumulative budgets sum to more than USD 240 million of funding provided by both multilateral and bilateral sources). However, most of these MAH-executed projects and programmes do not systematically integrate CCA, they are often sector-specific in design (no integration between the components of production systems), and lack a systematic approach for training existing and future farmers and herders or methods for the consolidation of local knowledge and adaptation capacities.

This lack of systematic integration of CCA reflects a situation where government institutions are very much aware of the CCA challenges but has come to a point in the process of integrating adaptation where mainstreaming in sector policies,

planning and investment frameworks is needed to foster a systematic incorporation of piloting of CCA practices and strategies in projects supporting rural development and in particular the development among vulnerable groups on the ground.

FAO has since 1996 supported the Government of Burkina Faso through several projects that aim at reinforcing farmers' knowledge and skills in adapting crop-system to threats and stresses. These projects are based on non-formal, participative educational methods, developed through a "Farmer Field School" (FFS) approach where farmers adopt knowledge and practical skill demanding practices and technologies through experimental learning which so far in particular has been effective in the scaling up of Integrated Pest Management (IPM). At the core of the FFS approach lies in a participatory process involving groups of farmers actively engaged in testing and experimenting with new methods in order to arrive at adaptive management solutions that are then adopted over time. This approach addresses agronomic, environmental, and marketing environments and interactions. The FFS are "grass-roots laboratories" in which farmers explore existing and new techniques through an experimentalist approach, leading to improved choices based on improved farmer understanding of how systems function, and what are the opportunities and constraints associated with existing and new technologies.

The FFS approach in Burkina Faso has led to the strengthening of technical capacities for around 27,000 producers in 1,050 communities throughout the country. The yields of rice, cotton and vegetable crops have increased from between 10% and 200% depending on the crop and location, while generally reducing imported chemical inputs, particularly chemical pesticides, substituted by introducing practical measures to use biopesticides and botanical extracts. Key topics include how to improve soil fertility management (water and nutrient retention, nutrient balances, and soil structure) through balanced use of chemical fertilizers with inputs of plant residues and composted organic materials. Other topics include the value of leguminous cover crops for food and forage, "living fences", basic principles of seed selection, planting practices, weed control, and post-harvest issues. To date the FFS have been introduced in all 13 regions of the country and are present in 42 of 45 total national provinces, thereby covering all three agro-ecological zones considered vulnerable by NAPA. The success of the approach is recognized by the Government of Burkina Faso and it is now being institutionalized through integration into the National System of Agricultural Extension (« *Système national de vulgarisation et d'appui conseil – SNVACA* ») as its main tool for extension.

The FFS approach offers a great opportunity for providing a proven platform for scaling up the adoption of CCA practices and technologies including resilient crop varieties however, so far the FFS curriculum and training material does not systematically include CC impact monitoring and climate forecasting as decision-support tools for farmers, and CCA practices and technologies. In the baseline scenario, the experiences with climate-resilient crop varieties and CCA practices are fragmented and systematic support for up-scaling the adoption by farmers is lacking. Furthermore, the network of FFS trainers and farmers needs to be expanded to include topics related to the cultivation of dryland cereal, such as millets (mostly *Pennisetum* species), *Sorghum* species, very often associated with niébé or cowpea (*Vigna unguiculata*) and to a lesser extent peanuts, which constitute the base of Burkina Faso's food security. Opportunity exists for a more integrated association between dry cereals, animal husbandry and associative cropping with of a variety of nitrogen-fixing cover crops and intercropping with locally evolved tree and shrub species (e.g. *Faidherbia albida*) or introduced species for soil stabilization and biofuel production, such as *Jatropha* species.

Baseline projects and programmes providing co-financing to the proposed project

The project will receive co-financing from two main channels: (i) part of the co-financing will come from various FAO-led initiatives being funded by various bilateral sources. Those projects will include both post-emergency and regular development support initiatives such as GCP/INT/092/ITA « *Développement des techniques de collecte d'eau de surface à petite échelle au Burkina Faso et en Tunisie* » (2010–2013 – USD 1.6 million); GCP/BKF/053/LUX – « *Projet d'amélioration de la gestion et de l'exploitation durable des produits forestiers non-ligneux* » (2010–2013 – USD 5.3 million); GCP/BKF/002/ITA « *Projet d'appui au développement de la commune de Dori* » (2012–2015, USD 300.000) ; the follow up of the GCP /INT/113/FRA "Appui à la surveillance épidémiologique et à la lutte anti acridienne et études sur les rémunérations des externalités" (2010–2013 – USD 1.7 million), as well as other initiatives currently in the pipeline ; (ii) A number of "projects sous tutelle" executed by the MAH, the MEDD and MRA in the framework of the SDR and PNSR. This information will be up-dated during PPG for crafting final co-financing arrangements. The details of co-financing and collaborations through FAO are:

- The project will benefit from FAO's broader experience in the application and mainstreaming of the FFS approach in neighbouring countries such as Benin, Niger and specially Mali where a strong FFS institutionalization process is under way and will be supported by a similar LDCF project supporting the integration of CCA considerations into the FFS approach,
- The project GCP/BKF/053/LUX – « *Projet d'amélioration de la gestion et de l'exploitation durable des produits forestiers non-ligneux* » is funded by Luxemburg and integrating non-timber forest products into more resilient production systems, is likely to be completed by the end of 2013. Having MEDD as national counterpart, the project per se has not been designed as an adaptation project, but it will bring strong co-financing to integrate CCA with the present LDCF intervention both at cropping system level and at a community level. The project will co-fund a USD 1.6 million grant out of a total foreseen budget of USD 5.3 million. Specifically, the co-financing will cover the integration of CCA aspects into ongoing activities including: (i) structuring the agricultural and agropastoral chain, improving small farmers/agropastoralists

organization, strengthening the community-based decision-making regarding activities to be pursued in the diversification of FFS, and improving the selection of dryland crops and farming systems (Component 1); (ii) enhancing/institutionalizing stakeholders' roles in existing policies and programmes (Component 3); (iii) contributing to diagnostic studies for the development and improvement of chains (therefore enhancing the baseline for management strategies in Component 1) and sustaining inclusion of appropriate crops/livestock/trees integration strategies. In turn the LDCF project would allow for a more systematic incorporation of adaptation strategies and practices into the Luxemburg-funded project.

- The LDCF activity will be collaborating with two ongoing water sector-related initiatives that will strengthen FFS actions related to the improved maintenance of appropriate soil moisture management and irrigation access. At present, those interventions are not integrating climate resilience consideration. The GCP/BKF/002/ITA « *Projet d'appui au développement de la commune de Dori* » will contribute with USD 200,000. The project aims at increasing food security through revenue diversification and improving agricultural and livestock production. Main co-financing action will involve farmers' capacity-building activities, which will contribute to the Component 2 of the present LDCF project. Furthermore, the project GCP/INT/092/ITA « *Développement des techniques de collecte d'eau de surface à petite échelle au Burkina Faso et en Tunisie* » funded by Italy for the period 2010–2013 for USD 1.6 million will collaborate with the present project proposal. Particularly a grant co-fund of approximately USD 300,000 will allow the exploration of possibilities for small-scale surface water collection. The water collection is already ongoing is not used in the view of contrasting droughts and climate variability, and will contribute to Component 2 of the present project.
- A major FAO activity in West and Northwest Africa is the desert locust management through the EMPRES programme, initiated in 2006 in the so-called “Western Region” (WR). The WR includes frontline countries (Chad, Mali, Mauritania and Niger) where locust breeding areas are located and invasion countries (Algeria, Burkina Faso, Libya, Morocco, Senegal and Tunisia) where desert locust swarms can fly rapidly across causing significant crop damage unless prevented by control. The project « *Traitement environnemental de la lutte anti-acridienne en Afrique de l'Ouest et du Nord Ouest* » (GCP/RAF/422/FRA, USD 1.3 million, funded by the “*Secrétariat du Fonds Français pour l'Environnement Mondial*”, FFEM), including Burkina Faso as an invasion country, aims at reinforcing the collection and interchange of data and at enhancing the methodologies for desert locust monitoring. In this framework, the CIRAD research centre (*Centre de coopération internationale en recherche agronomique pour le développement*) elaborated a method allowing real-time analysis of meteorological and phyto-phenological data based on both meteorological station network- and satellite- derived NDVI (*Normalized Difference Vegetation Index*) data. CIRAD findings were tested in Mauritania as detailed in the report « *Définition de méthodologies d'exploitation de l'imagerie satellitaire pour des applications directement opérationnelles* ». The real-time activity will be followed up in the front line WR countries in the framework of the EMPRES programme with an indirect impact in the invasion countries (including Burkina Faso) as better preventive controls will be carried out in the frontline countries. EMPRES follow up will provide an in-kind co-fund of USD 150,000 to the present LDCF activity. The EMPRES-WR programme will collaborate in the following LDCF activities: sharing of methodologies and data derived from findings of the activities financed by FFEM for the development of targeted tools related to weather forecast and biomass development analysis (output 2.2.3); selected FFS-level capacity building in climate and locust community/participatory monitoring; awareness and use of desert locust Information Service (DLIS) data. The collaboration will contribute to protect crop production and increase of food security in the present LDCF activity, contributing to both Component 1 and 2. In the absence of this partnership the present LDCF could not include desert locust monitoring into farmers' adaptation related efforts.

The inscription of the LDCF project both within the mandate of the CONEDD and the broader frameworks of the SDR/PNSR will facilitate the build-up of synergies and partnerships with a broad range of “*projets sous tutelle*” of the “*Secrétariat Général de l'Agriculture et de l'Hydraulique*” (SG/AH), the “*Secrétariat Général de l'Environnement et du Développement Durable*” (SG/EDD), and the “*Secrétariat Général des Ressources Animales*” (SG/RA) in the fields of agriculture, agro-pastoral development and land management/restoration. The fact that SDR and PNSR are programme approaches incorporating both agro-pastoral and environmental management initiatives and projects will also allow for effective coordination with a number of projects and initiatives. MAH will provide USD 15,9 million in co-funding, MEDD USD 1.79 million in co-funding, and MRA-led CONEDD projects will contribute with USD 450,000.

The MAH started implementing the National System of Agricultural Vulgarization and Extension (SNVACA) in 2008 with FAO technical support. The SNVACA is a programmatic framework based on decentralized structures depending on the 13 Regional Directions of the MAH, 45 Provincial Directions, 302 Areas for Technical Support, and 1200 Extension Units (*unités d'animation technique*). The SNVACA is aiming at introducing (i) support for cotton production by different private sector actors; (ii) an increase in the number of facilitators; (iii) implementation of a facilitator's capacity building plan. The SNVACA is a community appropriation device aiming to consolidate and pilot extension activities on the national scale. The FFS approach is being integrated into the SNVACA as its main tool, and the process will institutionalize the FFS activities. Hence, although not yet fully operational at the moment of the PIF preparation (a pilot phase started in 2011), the SNVACA constitutes a cost-effective opportunity to finance the additional costs of adaptation using the LDCF funds in a near future. The current process of implementation of programme approaches for rural/agricultural development in Burkina Faso and the integration of the FFS approach into the SNVACA both create favorable conditions for mainstreaming CCA considerations into which transcends individual projects, and see FAO as an

implementing stakeholder. The MHA is participating in the present project activities with various "projets sous tutelle" used as co-funds on the basis of projects and programmes included in the framework of the SDR/PNSR for a total of USD 4.7 million in grant and in-kind. The MHA co-funds will be derived from the following projects/programmes:

- The *Projet d'amélioration de la productivité agricole et de la sécurité alimentaire (PAPSA)*, an IDA-funded activity (USD 51.3 million, time framework 2009–2016) is implemented under the supervision of the Regional Agricultural Chambers (*Chambres régionales d'agriculture, CRA*) and beneficiaries are organized in groups or cooperatives. The objective is to improve the capacity of poor producers to increase food production and to ensure improved availability of food products in rural markets. Specifically, project activities will focus on building the capacities of service providers, as well as strengthening agricultural input supply delivery systems. The PAPSA will take into account more than 300,000 households and is structured on providing a wide range of capacity-building activities including improved seeds, fertilization, and agricultural equipment use, as well as strengthening the capacity of producer organizations. The project as such does not include CC-related considerations and its activities can be strengthened in this field. In particular, the project will be additional to the present LDCF FFS Component 2 activities by providing USD 3.5 million grant co-funds to provide inputs and supporting farmer's labors activities and USD 2.0 million in-kind co-financing supporting CCA-related activities. At the same time, the project will integrate CC-related considerations.
- The *Programme d'appui aux filières agro-sylvo-pastorales (PAFASP, WB, USD 84 million, 2006–2013)* will support the starting phase of the project. The project aims to develop the supply chain and to adapt products for international markets, with a view to diversifying the agricultural economy. The project objective is to double the total volume of exports on the international market for four products with a strong component on improving technical, economical, and market capacities and a component related to the creation of an institutional and policy-enabling environment for value chain creation. Nonetheless, the project does not include CC considerations which will be introduced through collaboration with the present LDCF. The project will be additional to Component 3 of the present LDCF including USD 3.5 million grant to enhance institutional collaboration and for the dissemination of good operational practices and "lessons learned" for enhanced adaptation to climate risk of the agricultural sector, as well as replication at national level in support of sound CCA policy-making and programming. As well, the project will contribute to CCA-related activities through an in-kind contribution of USD 2.0 million.
- The *Projet d'adaptation aux changements climatiques par l'aménagement des bas-fonds dans les provinces du Ziro, Boukiémé et Balé* (USD 20 million) is funded by the Banque Ouest Africaine de Développement (BOAD) (2012–2017) and aims at the reduction of poverty and the equitable access to value chains by the rural poor, operating at a national scale. The project includes the dissemination of information in rural areas and the building of local information networks regarding technologies, organizations, and credit access, capacity-building through the FFS, and operationalization of local funds to fund micro-project and to prepare value chain development plans. Experiences and lessons learned regarding CCA in land management will form a baseline to the present LDCF project activity by providing additional values based on good practices and lessons learned and contributing with a USD 1.0 million grant to Component 3 through awareness activities. The baseline in-kind contribution of USD 1.5 million will include lowland management, and support for livestock-related activities.
- The *Projet de développement rural intégré du Plateau central* is funded by IDB (2012–2017, USD 21million). The project, financed by a grant partly funded by ordinary IDB funds and partially funded by *istisna`a*, aims at the development and securization of pastoral and fishing activities in the Central Plateau taking into account environmental protection but without taking into consideration climate variability. The project will integrate climate-related activities through additional financing using a grant of USD 1.6 million to support the present LDCF activity in best practices promotion and dissemination (Component 1) and in the initial development of specific agro-pastoralist field schools (AGFS) (Component 2). The component 2 will also benefit from an in-kind contribution of USD 1.0 million supporting land rehabilitation and land management.
- The WB project "*PPAAO/WAAPP – Projet de Productivité Agricole en Afrique de l'Ouest*" (2010–2016) (USD 45 million) is aiming at: the creation of enabling conditions for regional cooperation in improved technology development and dissemination (Component 1); the creation of a National Centre for Research in Fruits and Vegetables (Component 2); and the financing of a mechanism to sustain the adoption of improved technologies (component 3). The LDCF will be additional by introducing climate-related activities building upon Component 3 supporting the farmer, and embracing more CC resilient technologies and approaches through the use of FFS. The project will co-finance through a grant of USD 300,000.

The MEDD will participate in the present LDCF project activities with co-funds in the framework of the SDR/PNSR for a total grant contribution of USD 850,000 that will be used in different project activities as detailed below. The MEDD "projets sous tutelle" that will be used for co-funds includes:

- The IDA (WB)-funded project *Projet d'accès aux services énergétiques/gestion participative par les communautés de base des aménagements forestiers* (2008–2013, USD 8 million) will include different activities related to energy and biomass production from forests. A key methodology used during the project has been the participatory management of forest resources through community schemes. The project will integrate CCA activities providing a grant of USD 850,000 and by involving communities into CCA FFS/APFS activities (Component 2). As well, the dissemination of appropriate and agroecosystems-specific integration strategies will be supported and piloted (particularly crops/livestock/trees production strategies).

The MRA is participating in the present project activities with co-funds from different projects and programmes for a total of USD 370,000 in-kind. The MRA "projets sous tutelle" that will provide co-financing to the Component 1 of the present LDCF proposal and in detail will include:

- The Belgium-funded (*Centre national de coopération au développement*) project *Appui au Développement du Zébu Peul au Sahel* (ZEPESA) (approx. USD 8 million, ending in 2016) has the objective to improve the genetic material of the zebu Fulani, to improve the zebu selection procedure, to reinforce the breeders, and to improve market capability. The LDCF project will ensure that climate-resilient agricultural practices and strategies will be introduced using an in-kind contribution of USD 200,000 focusing on bourguo pasture.
- The Luxemburg-funded *Projet d'amélioration de l'élevage du Zébu Azawak et de gestion durable des ressources pastorales* (USD 9 million, ending in 2015). Although not falling directly into CCA activities, the project aims at the rehabilitation of pastoral resources and grazing land areas while focusing on the promotion of the *Azawak Zebu*, a local bovine that is considered productive and adaptable under intensified exploitation. The third project component aims to improve *Azawak* livestock-raising conditions while maximizing local genetic resources and to use them to increase productivity, an activity potentially suitable to increase herder's resilience to CC. The LDCF project will ensure that climate-resilient agricultural considerations are introduced into the promotion of the *Azawak Zebu* as well as in the promotion of improved livestock practices such as the well managed integration of crops/livestock/trees through a contribution of USD 150,000.

Project approach

The **adaptation objective** of the LDCF project is to enhance the capacity of Burkina Faso's agricultural and pastoral sectors to cope with climate change, by mainstreaming Climate Change Adaptation (CCA) practices and strategies into on-going agricultural development initiatives and agricultural policies and programming and upscaling of farmers adoption of CCA technologies and practices through a network of already established FFS.

The project marks a shift from earlier NAPA follow-up initiatives (focused on very localized pilot projects in the most vulnerable communities) by choosing to implement an up-scaling/mainstreaming strategy based on a recognized, cost-efficient and expanding training and extension approach building on the FFS and "Diversity Field Fora" (DFF) approaches. While capitalizing on the results of the early NAPA implementation initiatives, the proposed LDCF project will work through the establishment of partnerships with on-going initiatives for incorporating the FFS-CCA approach in existing programme frameworks such as the SDR/PNSR and associated projects, thus contributing to filling the gap in terms of required increased adaptive capacity of the agricultural sector for food security. The adaptation scenario will allow for both the expansion of the FFS approach and the integration of CCA considerations and practices in FFS curricula. The adaptation scenario will lead to a more coherent intervention that will include the following production systems mentioned in SDR/PNSR's priority programmes:

- (i) **Dry cereals and pastures:** the major effort will be put on expanding FFS for more climate-resilient and sustainable production of dry cereals and better **integrating the crops/livestock/trees/water harvesting components of production systems that are particularly exposed to climate variability.**
- (ii) **Irrigated rice:** the FFS will focus on a sustainable IPPM-based intensification strategy, including water management and climate variability adaptation practices, in support of existing and ongoing investment in rice perimeters.
- (iii) **Vegetable production:** the FFS will focus on improved soil and water management, improved access to a greater diversity of locally adapted cultivars, greatly reduced use of toxic pesticides and a better understanding of the risks associated with pesticides for human and environmental health, better distribution in time of production cycles leading to higher earnings, and better linking of farmers to local markets allowing for increased income generation for vulnerable producers, in particular women's groups.

The project approach will be based on participation of local communities and their knowledge and local best practices will be combined with technical and scientific improvements increasing resilience towards CC. The FFS and APFS approach are not to be considered as stand-alone capacity building but as training-by-adopting improved practices and technologies in farmers' fields and pastoral areas. At the core of the FFS approach lies a participatory process involving groups of farmers, actively engaged in testing and experimenting with adapted solutions to changing environmental and market conditions allowing for sustainable intensification of production and resilience towards CC. Based on wide community participation, the FFS and APFS are "grass-roots labs" in which farmers/pastoralists build and expand their knowledge base, evaluate technical options and are better equipped to adapt to changing conditions, and develop their own management and cropping system in their lands and territories, integrating local knowledge with scientific knowledge and improved practices. The FFS, as well as the APFS, allow for up-scaling of CC adaptation practices to be applied in wide areas by farmers and agro-pastoralists.

Specifically, the project interventions will take place in the three agro-ecological zones of Burkina Faso (Sahelian, Sudano-Sahélien and Sudano-Guinéen) which are equally critical important for national food security vulnerable to CC.. Adaptation to increased pastoralist sector risks will combine two strategies: management and improvement of pastoral livestock conditions; and improved landscape management including responding to the needs of pastoral activities. The project is articulated into the following three components: (i) piloting of improved climate-resilient agricultural practices in the framework of CONEDD and SDR/PNSR mandates; (ii) capacity building and promotion of improved agricultural

practices through FFS in the framework of ongoing FAO-supported projects and other MA and ME “projets sous tutelle”; and (iii) CCA strategies mainstreamed into agricultural sector policies and programmes, in conformity with CONEDD and SDR/PNSR. The project will also play an important role in catalyzing and assisting Burkina Faso in transferring lessons learned from other GEF-funded projects in Burkina Faso as well as from neighbouring countries, such as Niger, Benin and Mali (a similar LDCF project is just being launched in Mali).

By funding the additional costs of interventions, necessary to meet the urgent and immediate adaptation needs of the agricultural sector identified in the Burkina NAPA, the project will work in selected sites by increasing the resilience of key agricultural and agropastoral systems to CC through enhancing the ability of small farmers and pastoralists to understand how better to adapt and cope with risks associated with increasing climate variability. The present project will further generate adaptation benefits by ensuring that farmers and agropastoralists are involved in the consultative process at community, district and national levels. By its focus on sustainable crop production and use of local available resources (including careful management of agricultural biodiversity and grasslands) in at least three vulnerable and strategic ecosystems, the project will incorporate the decisive elements needed for both effectiveness and potential for up-scaling.

B. 2. INCREMENTAL / ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) OR ADDITIONAL (LDCF/SCCF) ACTIVITIES REQUESTED FOR GEF/LDCF/SCCF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS (GEF TRUST FUND) OR ASSOCIATED ADAPTATION BENEFITS (LDCF/SCCF) TO BE DELIVERED BY THE PROJECT:

The current process of implementation of programme approaches for rural agricultural development in Burkina Faso and the integration of the FFS approach into the SNVACA both create favourable conditions for mainstreaming CCA considerations into a structured programmatic framework that transcends individual projects. Hence it constitutes a cost-effective opportunity to finance the additional costs of adaptation using the LDCF funds.

With the additional financing from the LDCF, the proposed intervention will expand the scope of the activities carried out in the country by increasing farmers’ resilience and diversifying the choices available to farmers and the systems themselves, hence, decreasing the overall vulnerability of small-farmer systems and pastoralists who depend on agriculture. The additional financing from LDCF will allow for the implementation of the following activities in each project component:

Component 1. Piloting of improved climate-resilient agricultural practices in the framework of CONEDD’s mandate and the SRD/PNSR’s action plans.

Component 1 will fine-tune and pilot at field level the use of agro-ecosystems-specific strategies for increasing resilience. This will include adoption of new varieties and cultivars and sound CCA practices in dry crop cereal production systems stopping losses of agricultural surfaces and yields. This will be additional to the baseline activities carried out by the MAH/MEDD/MRA without a comprehensive strategy outlook and without access to systematic information on optimal use of crop genetic resources, and will allow for the introduction and piloting of a diverse set of crop varieties chosen from existing climate stress-tolerant cultivars/species of cereals and legumes, and particularly to all projects implemented by MRA. Also after the mapping of past and current farmers’ CCA practices and institutional support initiatives, additionality will be guaranteed by actively involving at least 7 major partner projects and/or governmental programmes in piloting improved soil, water and crop management practices in 10% of the crop areas assisted by these partner projects. Furthermore, an updated mapping of past and current farmers’ CCA practices and institutional support initiatives relating to climate adaptation will be developed in conjunction with a knowledge building strategy that will be formulated integrating concepts of FFS and DFF. The preparation of such a collaborative strategy will be based on fragmented but valuable information that could enhance social and economic outcomes for diverse stakeholders, and will draw upon and synthesize existing information and make it available to a multi-stakeholder platform. The increased awareness created through the process will allow the application of the strategy to foster the application of CCA practices.

Component 2. Capacity building and upscaling of improved agricultural practices through Farmer Field Schools (FFS) in the framework of ongoing FAO-supported projects and other MAH, MRA and MEDD’s “projets sous tutelle”

This component will use the FFS approach as a tool for scaling-up farmers adoption of knowledge demanding climate resilient practices and adaptation technologies including resilient varieties and diversification strategies to spread risks and increase system resilience. The community-led facilitation of practices and technologies will strengthen the adoption processes and will be additional to baseline approaches that do not include cross-sector collaboration among local resource users and do not deploy effective methodologies to make farmers adopt climate-resilient technologies. Furthermore, the component will promote climate impact monitoring and weather forecast decision support tools for farmers developed by UNDP, by EMPRES, and other organizations by appropriately adapting these tools and testing them in selected participating FFS. Finally, a demand-driven Local Adaptation Investment Fund will be set-up to further support CCA in FFS. Those activities will be additional to the SNVACA activities as well as the projects PAPSA, *Projet de développement rural intégré du Plateau central*, and *Projet d’accès aux services énergétiques/gestion participative par les communautés de base des aménagements forestiers*.

Component 3. Climate change adaptation strategies mainstreamed into agricultural sector policies and programmes in conformity with CONEDD’s mandate and SDR/PNSR’s action plans

Component 3 will support the mainstreaming of CCA in the agriculture sector development in rural areas of the Sahel, East, Center-north and Center-west. This will be additional to the baseline activities carried out by the PAFASP project. The CCA cross-sectoral interventions will be coordinated through a cross-sector coordination in the implementation of FFS-based outreach strategies for CCA, for the CCA policy processes monitoring, and toward the formulation of new CCA initiatives in the agricultural sector (MAH, MEDD, MRA, CONEDD), including an inter-institutional task force that will coordinate adaptation interventions defining integrated CCA agendas (integrated into sector-level programming) and the maximisation in the application of key tools such as "Climate proofing in the agricultural sector". CC-related agricultural policy approaches will be mainstreamed into the rural development sector practices basing on a gap and opportunities analysis, which will be additional to the current situation where resilience in most cases is dealt with as a separate issue or not dealt with at all. This mainstreaming process will be based on the findings from the application on the ground of CC-resilient agricultural and soil management practices in Component 2 supported by the FFS approach. A draft investment plan available in support to CCA mainstreaming and up-scaling in the agricultural sector.

Adaptation benefits: The LDCF funded project is expected to generate the following adaptation benefits in selected regions such as the "Région du Sahel", "Région de l'Est", "Région du Centre-Nord", and "Région du Centre-Ouest": (i) increased knowledge and understanding of CC-induced threats generated by other initiatives (UNDP/LDCF and others) are channeled in an effective and cost-efficient manner through an expanding network of FFS; (ii) resilient varieties and cultivars and sound CCA practices are adopted in dryland cereals and livestock-based production systems (surfaces and yields are at least maintained in three agro-ecosystems); (iii) 26,000 farmers and agropastoralists adopt improved climate-resilient practices through FFS training; (iv) concrete adaptive-management skills at farmer and herder levels are strengthened through a growing network of at least 1,300 FFS fully integrating CCA strategies and practices ; (v) 200 FFS-based CCA initiatives are supported by a CCA Local Adaptation Investment Fund, contributing to the elimination of financing bottlenecks in the adaptation pathways; (vi) CCA strategies are mainstreamed into agricultural sector policies, programmes and planning based on "lessons learned"; (vi) effective and recurrent mechanisms are in place for cross-sector coordination in the implementation of FFS-based outreach strategies for CCA including an inter-sectoral task force in place/strengthened, defining integrated CCA agendas and tailoring them into sector-level programming and enhanced institutional collaboration (CONEDD, MRA, MAH and MEDD) in the application of key tools such as "Climate proofing in the agricultural sector"; (ix) draft investment plan available to support CCA mainstreaming and up-scaling in the agricultural sector in complement to the existing agricultural investment plan.

B.3. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, INCLUDING CONSIDERATION OF GENDER DIMENSIONS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS(GEF TRUST FUND) OR ADAPTATION BENEFITS (LDCF/SCCF). AS A BACKGROUND INFORMATION, READ "MAINSTREAMING GENDER AT THE GEF.":

The proposed project will improve socioeconomic conditions of small-scale farmers and herders, rural families and subsistence economies in vulnerable and key productive areas of the three agro-ecological zones of Burkina Faso: (i) ensuring higher productivity and greater resilience in agricultural production and food security systems, allowing rural populations to adapt and expand their local knowledge base and agricultural practices as a buffer against CC impacts; (ii) reducing social tensions between agriculturalists, agropastoralists, herders and other natural resource users through a better integration of the crops-livestock, soil and water management and tree components of productions systems; (iii) reducing the impacts of CC on the most vulnerable groups, including rural women. Since poor rural women have both production and reproduction roles – by collecting water and wood, raising small animals, labouring land for family subsistence and cash crops, such as vegetable plots, and bearing children – they are the most affected by CC.

Furthermore, rural populations with increased knowledge and able to apply good management practices will help reduce land degradation and prevent competitive pressures on natural resources and thereby reducing trends towards desertification (indirect global environmental benefits). The project will reduce the vulnerability of farming systems by enhancing farmer adaptive-management capacity and skills, and thereby limit climate-induced economic losses (direct adaptation benefit). Socioeconomic analyses will be conducted during project preparation to explore potential larger system linkages leading to enhanced local socioeconomic and adaptation benefits.

B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE 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:

<i>Risk</i>	<i>Risk rate</i>	<i>Mitigation</i>
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<i>Partnership building capacities constrain project implementation</i>	<i>M</i>	<i>Partnership building capacities to ensure mainstreaming into ongoing initiatives may constitute a medium challenge. However, LDCF-funded activities and management will be partly blended with the ongoing MAH/DGPV (Direction Générale des Productions Végétales) programmes and GEF-funded FAO FFS-IPM programme, and will benefit from its partnership experience. Exchanges with neighbouring Mali will be organized at the beginning of the project cycle to benefit from its broader experience in terms of "institutionalization" of the FFS-CCA approach. Benefits from this sharing should also reinforce the SNVACA implementation.</i>
<i>High probability of increased occurrence of extreme weather events that may affect crop and livestock cycles and increase food/nutritional insecurity within project areas</i>	<i>H</i>	<i>The project will mitigate those risks by supporting the implementation of CCA policies and measures to strengthen pro-active and coordinated responses as well as setting multi-stakeholder community-based capacity building initiatives (i.e FFS) and by linking with ongoing emergency / post-emergency initiatives and regular animal health support governmental programmes. Finally, community-level field observation capacities will be fostered to anticipate CC-related disruptions.</i>
<i>Reluctance to participate in the project activities by agriculturalists and slowness of local institutions to agree on project activities</i>	<i>L/VL</i>	<i>The risk of reluctance of stakeholders is low to very low, as FFS are widely distributed and well known in the country. Nevertheless, it will be addressed through local participation in project development and implementation, and areas where income has been generated or losses reduced from adaptation activities will be demonstrated and replicated. The risk of slowness of local institutions is very low as FFS are being institutionalized owing to their high potential and awareness of national and local authorities. To overcome that risk, common objectives will be established by placing emphasis on local ownership of the process as well as capacity.</i>
<i>Risk of modifications and variation of management within the framework of local institution</i>	<i>M</i>	<i>A medium risk of ongoing modification within the framework of the local institutional settings is present. The risk will be addressed by strongly involving local institutions at all level, and building appropriate programmes for the involvement of concrete officers and institutional sectors.</i>
<i>Seed shortages owing to climate variability shock, prolonged droughts, and/or pest and disease outbreaks with risk of project crop/grassland failure</i>	<i>M</i>	<i>Pest and disease outbreaks owing to climate variability may cause risk of crop/grassland failure during the project. The project will address this risk by systematically linking the adoption of CCA measures as well as fostering community-level field observation capacities to reduce seed multiplication failures, particularly with specialized seed multiplying farmers.</i>
<i>Limited capacity of local and national institutions</i>	<i>L</i>	<i>Government capacity is not likely to represent a high risk for the project because the capacity for FFS activities and the projects is already in place. However, the risk of lack of capacities will be mitigated by mobilizing and articulating the capacity of different actors, projects, programmes and bilateral agencies to work intensively with government and gradually transfer skills to government counterparts.</i>

B.5 IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, NGOs, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:

The Ministère de l'Agriculture et de l'Hydraulique (MAH) will be the main partners for project execution. However, the LDCF project will be inscribed in the general framework of the SDR/PNSR, and will support the mandate of the Conseil National de l'Environnement et du Développement Durable (CONEDD). The inscription of the project within the frameworks/mandates of both the SDR/PNSR and CONEDD will allow for effective liaison with MAH-associated institutions such as DGPV (*Direction Générale des Productions Végétales*), INERA (*Institut de l'Environnement et des Recherches Agricoles*), the Ministry of Environment (*Secrétariat Générale and Direction Générale de l'Environnement*), the *Direction Nationale de la Météorologie*, the Ministère des Ressources Animales (*Secrétariat Générale, Direction des Etudes et de la Planification*), and with projects implemented by those institutions. Special emphasis will be placed on developing partnerships with related public/private regional development agencies or "filières" –support agencies, farmers' organization and women groups, some of which are already involved in FFS. A more detailed stakeholder analysis will be undertaken during project preparation.

B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

The project draws on lessons learned, tools, and predictions from a number of FAO-led projects and initiatives in Burkina Faso and in neighbouring countries: (i) first, it builds on the technical capacities and growing experience of FAO in the FFS approach in Burkina Faso through the FAO-FFS regional GIPD project (*Gestion intégrée de la production et des déprédateurs*); (ii) second, it will integrate lessons learned from national assistance projects including those supported by FAO (approximately USD 50 million current project portfolio).

The baseline to build on also includes MEDD-led projects focusing specifically on climate resilience, including the rural development sector such as: (i) the UNDP-implemented and LDCF-funded NAPA follow-up project "*Strengthening Adaptation Capacities and Reducing the Vulnerability to Climate Change in Burkina Faso*", currently under

implementation, which concentrates its actions on pilot sites in vulnerable rural areas and; (ii) the IFAD/Biodiversity International subregional initiative (Mali, Burkina Faso and Niger) « *Reducing the risk of crop failure for poor farmers through enhancing traditional seed systems in Sahelian West Africa* »; (iii) the *Projet inventaire forestier national*, funded by Luxemburg; (iv) the "Programme national de partenariat pour la gestion durable des terres" funded by GEF and implemented by UNDP. The last programme will be key in strengthening inter-institution collaboration having as objectives the implementation of a long-term partnership on the sustainable and equitable land management and to improvement of the enabling environment for sustainable land management. The *Projet inventaire forestier national* has the objective of providing a permanent inventory of forest resources to ensure sustainable management at central and decentralized levels. The collaboration will include the integration of CC-related activities to: (i) disseminate CCA information and awareness-raising particularly to a core group of national programme managers with expertise on forests; (ii) ensure appropriate crops/livestock/trees integration strategies are disseminated; and (iii) ensure climate-resilient soil management strategies and practices are promoted.

Component 1 of the present project aims at activities diversification. In this framework, collaboration will be sought with the *Programme de biodigesteurs du Burkina Faso* (funded by SNV/Netherlands, USD 8 million, ending in 2014). The programme is in partnership with the *Programme de partenariat de biogaz en Afrique* (ABPP) and aims to develop the biogas sector for market and for domestic electricity by providing livestock heads to rural communities and producing organic fertilizers as by-products. The lessons learned from the project will contribute to the present LDCF proposal as a win-win activity that both mitigates and adapts to CC.

All project components presented in this FAO/LDCF proposal are complementary and do not duplicate the components presented under the UNDP/LDCF NAPA follow-up project "*Strengthening Adaptation Capacities and Reducing the Vulnerability to Climate Change in Burkina Faso*" recently presented for WP inclusion. In particular, Component 2 of the proposed project will incorporate UNDP/LDCF's results in terms of lessons-learned, validated CCA menus, and agro-meteorological information systems, and will disseminate them through a growing network of FFS. FAO's approach is complementary since it focuses not on pilot sites but on up-scaling through institutional partnerships for incorporating CCA strategies and practices through an expanding FFS network. FAO will work closely with UNDP/LDCF/NAPA's monitoring and evaluation unit during PPG to ensure both complementarities and full coherence between both initiatives.

Finally, the project will support and be coordinated with the Great Green Wall Initiative (GGWI) and the related GEF/WB programme currently under preparation. In particular, the proposed project will bring a specific contribution towards the achievement of Focal Area Objective CCA-3 "Promote transfer and adoption of adaptation technology", in line with FAO's comparative advantage.

C. DESCRIBE YOUR AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:

The proposed project is aligned with FAO's comparative advantage in the area of capacity building, providing technical analysis and assessments in relevant areas such as sustainable crop production and adaptation to CC of land and water management strategies, policy support, and use of agrobiodiversity. FAO has considerable technical experience and many field projects in a number of areas covered under this project (agriculture production and food security, CCA, agrobiodiversity, capacity building, development of community based capabilities and rural development, forage production and grassland management). The proposed project is also supporting the up-scaling of the FFS approach that has been endorsed at national level and will be used for all CCA capacity building and practices and technology adoption activities in the rural development sector country-wide. FAO has been supporting Burkina Faso's efforts both to develop a National Food Security Strategy, and to react to recurrent drought-driven food crisis episodes. FAO's Department of Agriculture and Consumer Protection is launching a review of 20 years of FFS experience, which will lead to the elaboration of an FFS-efficiency monitoring system and facilitate the access to additional funding for FFS-based activities under a result-based framework. FAO currently has a significant project portfolio in Burkina Faso with a major focus on food security and post-emergency operations, including 21 national projects totalling more than USD 41 million, and a further 17 regional/global projects implemented in Burkina Faso totalling more than USD 7 million.

C.1 INDICATE THE CO-FINANCING AMOUNT THE AGENCY IS BRINGING TO THE PROJECT:

FAO might provide USD 100,000 in grant/in-kind resources for project preparation and USD 100,000 in-kind for project implementation, in addition to an estimated USD 2.25 million in grant resources from various donor-funded projects (see Part I, Table C and Part II, section B6).

C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:

The project addresses FAO's strategic objective A (SOA - Sustainable Crop Production Intensification) and B (SOB - Sustainable Livestock Production Intensification) and F (SOF - Natural Resource management and CC). In particular, Components 1 and 2 fit into SOA OR (Organizational Result) 1, 3, 4 related to crop intensification through an ecosystem approach; IPPM (Integrated Production and Pest Management); and sustainable use of genetic resources; and into SOB OR 1, 4 related to sustainable use of environmental resources for sustainable livestock production; and use and maintenance of animal genetic resources; Component 3 in addition to SOA addresses SOF E 05 related to adaptation in agricultural systems. Furthermore, under UNDAF 2011-2015 for Burkina Faso, FAO has been assigned USD 21.5 million (of a total of USD 101.9 million) under Effect 1 "*La croissance économique accélérée est durable et pro-*

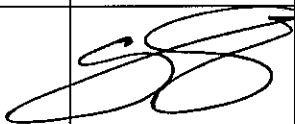
pauvre". The design of the proposed LDCF fits precisely within FAO's UNDAF-defined mandate in Burkina Faso, both in terms of thematic intervention and a synergies-building role in support to Effect 1, including four of its six products, which are: (i) national structures are better equipped to formulate, implement and monitor sectoral policies and programmes consistent with the MDGs and with the SCADD; (ii) vulnerable populations, particularly women and young people, can take advantage of market access, decent employment, energy services (new and renewable), and credit, and undertake viable income-generating activities; (iii) national structures and local communities practise an integrated approach to sustainable management of natural resources and take into account the effects of CC through adaptation and mitigation; (iv) the national authorities and local communities are better prepared and respond effectively to emergencies and natural disasters. The FAO Representation in Burkina Faso is staffed with technical and operational staff and can mobilize complementary national and international technical expertise within the pool of projects it manages and provide in-country support for the execution of the proposed project.

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 country endorsement letter(s) or regional endorsement letter(s) with this template).

NAME	POSITION	MINISTRY	DATE (Month, day, year)
HONADJA Mamadou	Secrétaire Permanent du Conseil National pour l'Environnement et le Développement Durable	MINISTERE DE L'ENVIRONNEMENT ET DU DEVELOPPEMENT DURABLE	1 MARCH, 2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Garry Smith Officer-in-Charge, Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla 00153, Rome, Italy		July 12, 2012	Caterina Batello, Team leader AGPME, FAO Department of Agriculture and Consumer Protection Rome, ITALY	+3906 5705 5701	Caterina.Batello @fao.org
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