PROJECT IDENTIFICATION FORM (PIF)
PROJECT TYPE: Full-sized Project
THE Least Developed Countries Fund (LDCF) [1]

GEF

Submission date: April 2, 2009
Re-submission date:

GEFSEC PROJECT ID[2]**:**
GEF AGENCY PROJECT ID: 607574
COUNTRY(IES): Mali
PROJECT TITLE:
Integrating climate resilience into agricultural production for food security in rural areas of Mali
GEF AGENCY(IES): FAO
OTHER EXECUTING PARTNER(S):
Ministry of Agriculture
GEF FOCAL AREA: Climate Change

INDICATIVE CALENDAR	
Milestones	**Expected Dates**
Work Program (for SCCF FSP)	June 2009
CEO Endorsement/Approval	Dec 2010
GEF Agency Approval	January 2011
Implementation Start	Feb 2011
Mid-term Review (if planned)	January 2013
Implementation Completion	January 2015

A. PROJECT FRAMEWORK (Expand the table as necessary)

Project Objective: To increase resilience of the agricultural sector and livelihoods to Climate variability and Change in Mali

Project Components	Type, TA, or STA**	Expected Outcomes	Expected Outputs	Indicative LDCF/SCCF Financing*		Indicative Co-financing*		Total ($)
				($)	%	($)	%	
1. Piloting of improved climate-resilient agricultural practices.	TA	1.1 Resilience of agricultural production to climate variability and change enhanced.	A. Improved soil and crop management practices piloted in three agricultural systems in three ecosystems. B. Climate resilient crop and forage varieties chosen from existing stress tolerant cultivars/species of cereals and legumes, and piloted in three different ecosystems identified in the NAPA.	855,920	31	1,872,328	69	2,728,248
2. Capacity building and promotion of improved agricultural practices through Farmer Field Schools.	TA; STA	2.1 Farmers and pastoralist aware and informed of improved climate-resilient agricultural practices. 2.2 Farmers' capacity to adopt and implement the improved practices through participatory Farmer Field School approach strengthened. 2.3 Wide/increased adoption of improved climate resilient practices.	A. Training material on adaptation practices developed. 300 farmers trainers trained B. Climate change adaptation and best practices integrated into Farmer Field School curriculum. Manuals and guidelines produced and distributed. C. 16,000 farmers and two pastoral communities trained and applying improved agricultural practices. D. Videos and fact sheets are	754,598	33	1,509,281	67	2,263,879

[1] This template is for the use of LDCF projects and SCCF Adaptation projects only. For other SCCF projects under Technology Transfer, Sectors and Economic Diversification windows, other templates will be provided.
[2] Project ID number will be assigned initially by GEFSEC. If PIF has been submitted earlier, use the same ID number as PIF.

			prepared for farmers and for trainers with focus on experience gained and on sustainable use of biodiversity for adaptation of agriculture to climate variability. E. Decision support tools developed.					
3. Climate change considerations mainstreamed into agricultural sector policies and programs.	TA	3.1. Mechanisms established for cross-sectoral coordination and sensitization on climate resilient agriculture production and food security. 3.2. A set of lessons-learned prepared ,and climate change considerations mainstreamed into agricultural sector policies, programs and planning.	A. National capacities for integrating interventions related to adaptation of the agricultural sector to climate change are strengthened by supporting the decision-making cross-sectoral process related to climate resilient development. B. Agricultural policy assessment - gaps and opportunities for mainstreaming climate change adaptation into agricultural sector policies identified including the agricultural biodiversity and the pastoral sector. C. Good operational practices and "lessons learned" for enhanced adaptation to climate risk of the agricultural sector are developed, disseminated and replicated at national level to support policy makers and programs shifting from a reactive response to a pro-active preparedness approach.	213,480	50	213,480	50	426,960
4. Project management, monitoring and evaluation			A. Project management B. Project monitoring and evaluation	153,529 129,291	34 34	299,911 255,000	66 66	453,440 384,291
Total project costs				2,106,818	34	4,150,000	66	6,256,818

* List the $ by project components. The percentage is the share of LDCF/SCCF and Co-financing respectively to the total amount for the component.

** TA = Technical Assistance; STA = Scientific & technical analysis.

B. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT ($)

	Project Preparation *	Project	Agency Fee	Total
LDCF Grant	75,000	2,106,818	218,182	2,400,000
Co-financing	50,000	4,150,000		4,200,000
Total	125,000	6,256,818	218,182	6,600,000

* Please include the previously approved PDFs and planned request for new PPG, if any. Indicate the amount already approved as footnote here and if the GEF funding is from GEF-3.

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME

Sources of Co-financing	Type of Co-financing	Amount
Government Contribution	Cash/In-kind	3,000,000
GEF Agency(ies)	In-kind	200,000
Bilateral Aid Agency(ies)	Unknown at this stage	350,000
Multilateral Agency(ies)	Unknown at this stage	650,000
Private Sector		
NGO		
Others		
Total co-financing		4,200,000

* Indicate the amount of project preparation included in the columns.

PART II: PROJECT JUSTIFICATION

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO SOLVE IT, AND THE EXPECTED ADAPTATION BENEFITS TO BE DELIVERED

Mali's climate is characterized by strong inter-annual rainfall variability. Since 1968, there has been an enhanced recurrence of dry years and prolonged drought which have caused severe negative effects on livelihood. This has contributed to increased vulnerability of rural people and has further caused the deterioration of the fragile ecosystems upon which they depend. Climate change projections for 2025 indicate that Mali may face a hotter and drier future. Average temperature is predicted to increase by 2.71°C to 4.51°C while rainfall is predicted to decrease by 8 to 10 percent. These changes in temperature and rainfall patterns represent a threat to food security in Mali's agriculture-based economy. Mali's NAPA reports that the agro-pastoral sector, involving 75% of the population, will be affected by climate change. Under the climate change scenario, crop yields in Mali may decrease by 5.5% and forage yields may fall by 20%[3].This will affect major food crops, such as millet, sorghum, rice and maize, as well as livestock which is the second most exported commodity. As a result, the proportion of the population that will be vulnerable to food insecurity and hunger may rise to 68%, a scenario which is of major concern to the government.

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 agricultural practices to counter the adverse effects of climate.

Non climate-driven problems such as unsuited agricultural management practices (regarding crop selection, water and soil management, and rangeland management), increasing population pressures leading to expansion of agriculture into fragile ecosystems, as well as lack of capital investment and positive incentives for sustainable rural development, are likely to be greatly aggravated by climate change. Adaptation of the agricultural sector is therefore not an end in itself but a means to address the development objectives of Mali. A mix of technical solutions (such as different crops or planting patterns) and institutional solutions are necessary to support the rural communities, in an integrated way.

The overall goal of the LDCF project is to lessen the impact of climate variability and change on vulnerable farmers and pastoral groups, through lessening impacts on natural resources that are critical to sustain agriculture production and food security. Specifically, the project interventions will take place in three vulnerable regions identified in the NAPA and in three different production systems, namely a cereal, a mixed crop/livestock, and a pastoral production system. The project is articulated into the following three components *i) increase resilience of farmers and pastoralists through their involvement in the adaptation process and increased adoption of agricultural practices; ii) increase adaptative knowledge and capacity building of all stakeholders involved at community, district and national level; iii) mainstream climate change considerations into agriculture sector policies and programs;* The project will play an important role in catalyzing and assisting Mali in transferring lessons learned to other areas of Mali which are vulnerable to climate change, and in comprehensive policy development.

[3] Butt et al., 2005

Among the priority measures identified in the NAPA the agricultural sector was identified as first priority for improving food security and meeting MDGs in the face of climate change. The LDCF project will address key adaptation activities across the agricultural and agro-pastoral areas identified in the NAPA that are intimately linked to rural food security, namely: *(i) Adoption of improved agricultural management practices able to cope with climate change, (ii) Development of new varieties for crop/pasture systems adapted to climate variability, (iii) Rehabilitation of climate change derived degradation, (v) Support for capacity building on effects of climate change.* The adaptation activities will be undertaken in close synergy with the new National Agricultural Strategic Plan (to be published in first half of 2009) that will include adaptation activities such as the use of local and improved pastures species, rehabilitation of grasslands and improved conservation practices.

By funding the additional costs of interventions, necessary to meet the urgent and immediate adaptation needs of the agricultural sector identified in the Mali NAPA, the project will aim at increasing the resilience to climate change of key agricultural and agro-pastoral systems in selected sites by enhancing the ability of small farmers and pastoralists to cope with increasing climate variability. The present project will further generate adaptation benefits by ensuring that farmers and pastoralists are involved in the consultative process at community, district and national level. By its focus on sustainable crop production and use of available resources (including careful management of agricultural biodiversity and grasslands) in three different ecosystems, the project will incorporate the decisive elements needed for both effectiveness and replicability potential.

Component 1: Piloting of improved climate- resilient agricultural practices

Climate Change is expected to impact severely on crop production and food security, and the objective of this component is, therefore, to increase long-term resilience of cropping systems and contribute to reduce the impact of agriculture on the natural resource base. In Mali there is a large range of traditional and improved cultivars of sorghum, millet, groundnuts, etc. Some of them have been selected for their capability to resist to climate variability by the *Institut de l'économie rurale (IER)*. Sustainable management practices such as reduced fertilization, conservative tillage methods and integrated pest management have been tested in different projects but are not yet widely adopted. Under this component: i) improved soil and crop management practices will be tested and adopted by small farmers such as piloted (e.g. increased use of quick maturing crops, adjustment of planting time, increased use of legume species and forages in rotations, establishment of permanent species and integration of agro-forestry for feed and fuel production, increased use of biodiversity at farm level); ii) existing stress tolerant cultivars and species will be multiplied, and distributed to farmers and agro-pastoralists; iii) the most promising varieties will be established in three different ecosystems and adapted to the most representative cropping system (most likely a cereal, a mixed crop/livestock, and a pastoral production system). The activities will be realised, building upon the WFP Food for Work programme, by Ministry of Agriculture in coordination with CNRA (*Comité National de la Recherche Agricole*), DNA (*Direction Nationale de l'Agriculture*), IER (*Institut de l'économie rurale*), IPR/IFRA and Ministry of Environment (*Secretariat technique permanent*).

Component 2: Capacity building and promotion of improved agricultural practices through Farmer Field Schools

This component will contribute to increase skills and information about the changing climate and its associated risks on agriculture production and food security at local, regional, and national level. In Mali, the FFS approach was established in 1998 and has recently been endorsed by governmental institutions to be used at national level. FAO's Agricultural Department is assisting Farmer Field Schools by employing 500 trainers, at the moment, that have already trained some 22,000 farmers and are scheduled to train approximately 40,000 farmers (37% women) in rice, cotton, and vegetable systems. The Farmers Field School (FFS) approach, a form of adult education, will be used in this project to support farmers' learning from field observations. Existing genetic material of resilient crops and pastures will be used and agricultural climate resilient management practices tested in the country. The project will: i) re-inforce the FFS approach by training 300 government and farmers trainers in adaptation practices for sustainable crop and pasture production, and community-based sustainable grassland management; ii) prepare FFS curricula and manuals on local adaptation measures for climate resilience and diversified agriculture to be distributed at national level; iii) 20,000 farmers and two pastoral communities will receive tools and assistance through the Farmers Field School Approach to be able to adopt more efficient soil and water and input management

practices (e.g. soil organic matter, organic fertilizers), and an array of adaptive strategies (e.g. increased use of drought resistant and perennial crops, increased production of forages, improved recycling of organic matter, increased use of double purpose crops for food and feed production) will be tested. Also, the capacity building activity will be developed for Users of Research Results (URR), which is a committee formed by representatives of cooperatives put into place by the CNRA (*Comité National de la Recherche Agricole*); iv) prepare videos, fact sheets, and press material for various target audiences (particularly farmers and policy makers) with particular attention to women and young people, and with a focus on experience gained at grassroots and traditional practices, to boost resilience and careful management of agriculture biodiversity for climate change; v) in collaboration with the "*Direction nationale de la Metéorologie*" and with the UNDP LDCF project, develop information tools to facilitate the decision taking process of farmers through site-specific provision of weather forecast that will improve farmers'capacities in making adjustments in cropping management decisions.

Component 3: Climate change considerations mainstreamed into agricultural sector policies and programs

This component will develop capacities for integrating interventions related to adaptation of the agricultural sector to climate change by supporting the cross sectoral decision making process related to climate resilient development. Also, agricultural issues and themes will be integrated into environmental and climate change interventions. District policy makers, agencies, donors, and development partners that have severe human resource limitations as well as potential overlapping mandates, will be involved in this component to: i) provide support and good coordination of interventions and relevant processes to avoid overlapping activities, conflicts and parallel processes; ii) gaps and opportunities for mainstreaming climate change adaptation into agricultural sector policies are identified trough specific studies for the crop and the pastoral sector; iii) mainstream adaptation practices in the agricultural biodiversity and in pastoral sector and elaborate policy elements for pastoral communities; iv) develop a set of good operational practices and lessons learned for enhanced adaptation to climate risk of the agricultural sector for dissemination and replication at national level, and for supporting policies and programs shifting from a reactive response towards a pro-active preparedness approach.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL PRIORITIES/PLANS:

Given the vulnerability of small-scale farmers and pastoralists, and the intensification of climate-related impacts on rural livelihoods, the proposed project has been designed as a large-scale integrated process that aims at providing added value and complementarity to ongoing national development activities in the agriculture and agro-pastoralist sectors. Therefore, a primary feature of the design of the present NAPA follow-up project is that the core project activities are mainstreamed within the existing framework of development strategies and investments. Indeed, the eradication of poverty, addressing the effects of the soaring food prices and improved food security are among Mali's primary development objectives.

In December 2006, Mali adopted its second Poverty Reduction Strategy Paper, known as the "*Growth and Poverty Reduction Strategy Framework" (GPRSF)* covering the period 2007-2011. The GPRSF is designed as the first phase of a ten-year action plan to achieve the MDGs and is embedded in the Government's long term vision "Mali 2025". Its overall goal is to promote redistributive growth and poverty reduction by boosting productive sectors. Regarding performance development of the agricultural sectors the following two objectives are related to the present project: (i) development of the principal agricultural product sectors to achieve food security and self-sufficiency, (ii) strengthening the capabilities through training, education, transfer of skills and promotion of rural credit. Also the *National Programme on Food Security*, covering the period 2007-2011, sets between its objectives (i) the crop intensification including the use of improved seeds and the seed stocks quality improvement and (ii) the diversification of production systems (including both crop and livestock systems).

The *National Environment Protection Policy* (NEPP) integrates three strategic axes for intervention: (i) strengthen and disseminate technical and methodological results and tools available for environmental protection: (ii) promote a multi-sector approach to environmental issues; and, (iii) protect and restore deteriorated areas and cultivated land. Land degradation and environment protection are key issues to be urgently tackled at the national level, as reported in the *Desertification National Action Program* (NAP) and the *Action Plan for the Integrated Management of Soil Fertility*. These plans outline the type of solutions that would enable land and grasslands management to be better defined in Mali. The Ministry of Agriculture also implements the *Agricultural Orientation Law*, which emphasizes the development of agricultural sector and the reduction of poverty in rural areas. The

forthcoming *National Agricultural Strategic Plan* (to be published in first half of 2009) will include activities related to adaptation to climate change and variability such as local and improved varieties use, fodder crops rehabilitation and the use of soil conservation practices. . The proposed project is also synergic with *National Action to Combat Desertification* and with *National Biodiversity Strategy and Action Plan.*

The proposal is aligned with the Result 4 of the *United Nation Assistance Framework (UNDAF):* reinforcement of food security, sustainable development, alternative energy sources and employment generation creation for the more vulnerable rural areas. FAO, WFP, and IFAD base their plan of action on this Framework.

As a consequence the proposed project targeting sustainable growth of agricultural outputs to sustain food security and livelihood productivity is fully consistent with the national strategies and implementation approaches.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:

Mali's NAPA was submitted to UNFCCC in July 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 sector. 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). Consultations with the Government have been made to ensure that the principles of country ownership and drivenness have been respected. The project is also consistent with the Least Developed Countries Programming Paper, conforming to each of the five criteria outlined in the Paper for funding the implementation of NAPA follow-up under LDCF, and GEF criteria for project design and financing have been respected. The ratio of the LDCF/SCCF financing and the co-financing fulfil the LDCF criteria.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

The project draws on lessons learned, tools, and predictions from a number of projects, plans and policies in Mali. It builds on the technical capacities of FAO that has many ongoing projects in the country and a consolidated experience in the Farmers Field School Approach. It will be coordinated by the Ministry of Agriculture in collaboration with CNRA (Comité National de la Recherche Agricole), DNA (Direction Nationale de l'Agriculture), IER (Institut de l'économie rurale), IPR/IFRA, the Ministry of Environment (Secretariat technique permanent) and the "Direction Nationale de la Météorologie". FAO/LDCF project will be coordinated with the following initiatives: (i) the African Monsoon Multidisciplinary Analyses (AMMA); (ii) the project "*Recherche Interdisciplinaire et Participative sur les Interactions entre les ecosystems, le Climat et la Sociétés d'Afrique de l' Ouest (RIPIECSA);* (iii) the *Institut du Sahel (CILSS)* rehabilitation and coordination processes; (iv) the *Community-based Risk Screening-Adaptation & Livelihood project (CRISTAL)* managed by IUCN; (v) the *Programme for support to the agricultural sector in Mali (PASAM) (vi) the WB/UNDP GEF project "Restoring agricultural and pastoral productivity" which will be implemented as part of the GEF TerrAfrica Initative,* (vii) the *IFAD GEF project on Community-Based Natural Resources Management and Biodiversity Conservation in the Inner Niger Delta.* The project will built on lessons learned from the Biodiversity / IER project « Renforcement des Capacités des Agriculteurs Sahéliens à gérer leurs ressources phytogénétiques pour améliorer leurs conditions de vie » funded by IFAD. The project will receive co-funding from: (i) the IFAD programme (under formulation) Production Intensification in Mali, (ii) the IFAD project "Investment and development rural programme of the Northern region of Mali", (iii) the Food for Work programme of WFP, and (iv) several bilateral donors. Institutional arrangements and other opportunities for synergies will be explored and confirmed during the project preparation phase (PPG). This project will collaborate with other climate change adaptation, biodiversity and soil rehabilitation projects in Mali. All project components presented in this proposal are complementary and do not duplicate the components presented under the UNDP LDCF project proposal. In particular, FAO component 2 will incorporate UNDP outputs 2.1 and 2.2. FAO component 3 will build on component 1 of UNDP project and will include agro-biodiversity and pastoral sector.

E. DESCRIBE ADDITIONAL COST REASONING:

Baseline scenario: It is recognized that Malian agricultural and pastoral sector are likely to be severely affected by climate change and both crop and forage yields are predicted to decrease with severe consequences for the food security and livelihood of small farmers and pastoralists who have limited capacity to adapt to climate variability and

change. Despite the fact that climatic variability has always been considered in rural development policies, programs and field activities, farmers and agro-pastoralists are now subject to increased risks due to climate and environment changes. Mali will have to adapt agricultural and pastoral systems to a hotter and drier future and react to the risk of decreasing yields and degrading the natural resource-bases (soils, biodiversity). In Mali there are traditional and improved cultivars of sorghum, millet, groundnuts, cowpea, etc. selected for their capability to resist to climate variability, but without LDCF intervention, their adoption by farmers and pastoralists will remain limited.

FAO is supporting the Government of Mali through several projects that aim at reinforcing farmer's capacities and to the capacity building. These projects are based in participative education developed with the FFS approach. Specifically, FFS are funded by the following projects, all aiming at integrated long-term development and to the poverty reduction in rural areas: i) the multi-focal GEF program *"Reducing Dependence on POPs and other Agro-Chemicals in the Senegal and Niger River Basins through Integrated Production, Pest and Pollution Management"*; ii) the FAO technical cooperation *"Sub-regional program of participative capacity building in Integrated Crop Pest Management throughout Farmer Field Schools for Benin, Burkina Faso, Mali and Senegal"; iii)* the *"Program for the economic rural development of the Koulikoro region (DERK)"*; and three projects on food security funded by FAO, Spain and Venezuela in the regions of Kayes, Koulikoro, Mopti and Gao. The projects are located in the most productive agricultural areas of the country such as Sikasso, Ségou, Koulikoro, Mopti, Kayes and Bamako. The integrated crop management system's (IPM) capacity building tools are developed for the vegetables, cotton, rice, mangoes, sesame, cowpea, and maize cropping systems. Capacity building experiences involve 300 trainers and 22,000 trained farmers of which the 37% are women.

The Government of Mali has expressed interest in extending the use of FFS. In June 2008, the Ministry of Agriculture of Mali requested FAO to provide additional support to reduce food insecurity under the framework of the Master plan for Rural Development (SDDR). Particularly Mali's Ministry expressed its objective of involving 75% of Mali rice farmers (120,000 farmers) in IPM capacity building throughout the FFS approach during the next 3-5 years.

Under a Business as Usual scenario (BAU) the development activities are likely to not be enough to raise farmers and pastoralists' capacities to cope with unpredictable future changes posed by climate change. In particular there is a need to increase adoption by vulnerable people of existing knowledge, seed (including forage species), and agricultural technologies. But people's adaptation to environmental changes will need to combine technical fixes with generation of information and adaptation of FFS curricula, and with institutional support to mainstream adaptation of the agricultural sector to climate change.
LDCF intervention is needed to boost the adoption of agricultural tools and practices, increase capacity building, and support policies and programs to shift from a reactive response towards a pro-active preparedness approach.

Adaptation scenario: LDCF intervention will expand the scope of the activities carried out in the country related to increase resilience of agricultural sector to climatic changes and contribute to decrease the vulnerability of small-farmers and pastoralists who depend on agriculture. The interventions measures that this project will provide include: i) piloting of climate resilient improved agricultural practices and crop and pasture varieties; ii) provision of tools and training for 20,000 farmers and two pastoral communities to improve their adaptive capacity to climate change; iii) complementing ongoing and planned projects and programs by developing decision making tools for farmers and by developing extension curricula for climate change adaptation; iv) mainstreaming climate change into agriculture policies and programs. The output from different FFS project will be extended to dryland areas and pasture lands. The implementation of these interventions will contribute to fill the gap related to integration of increased adaptive capacity of the agricultural sector for food security and contribute to mainstream agriculture in the sectoral investment program for sustainable land management and the National Agricultural Strategic Plan.

F. INDICATE THE RISK THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MITIGATION MEASURES:

The risk of non-compliance by all primary proponents for the successful implementation of this project is at a medium level. This risk will be mitigated by ensuring that the project is designed and implemented in a participatory manner. Since the activities correspond to the urgent needs expressed by Mali's NAPA the risk of non-compliance should be rather low.

The following table details the risk of non compliance and the mitigation measures that will be put in place:

Risk	*Risk rate*	*Mitigation*
Slowness of the stakeholders to agree on national priorities.	*L*	*Major stakeholders (government, NGOs and communities) have diverse objectives and any discussions concerning agricultural management are likely to arouse concern. Common objectives will be established by giving emphasis on local ownership of the process as well as capacity. In addition, achievements on the ground that bring benefits to local agricultural producers will be demonstrated during the project to overcome scepticism.*
Reluctance of key stakeholders to endorse and participate in project activities.	*L*	*The risk of reluctance of stakeholders is low. Nevertheless it will be addressed by local participation in project formulation and implementation. In particular, existing areas where income has been generated from adaptation activities will be demonstrated to other landowners and replicated where possible.*
Climate change risk (drought which could worsen in the future).	*H*	*Droughts and unfavourable climatic conditions may occur during the project life cycle. If the project will provide to farmers the necessary tools, and capacity to adapt to the new climatic conditions, they will be able to react to the changes and meet their development objectives.* *The project will mainstream policies and programs to shift from a reactive response towards a pro-active preparedness approach.* *As interventions are developed in different agro-ecological zones, extreme dry growing seasons should not affect all intervention area at the same times.*
Pests and diseases / risk of crop failure	*M/H*	*Pest and disease outbreak due to climate variability may cause risk of crop failure during the project. The Integrated Pest Management approach is an effective method developed to reduce the risk of pest and diseases attack, but it is not yet adopted throughout the country. The project will address this risk by increasing the adoption of integrated pest control measures and by extending community field observation capacities. Decision support systems tools will be developed to increased farmer' preparedness to adapt to climatic variations.*
Seed shortages due to climate variability shock and/or pests and diseases outbreaks	*L/M*	*Climate change shocks and/or pest and diseases outbreaks may cause seeds shortages that may negatively influence new varieties distribution. The project will address this risk by extending community field observation capacities to decrease seed multiplication failures. As interventions are developed in different agro-ecological zones, extreme dry growing seasons should not affect all intervention areas (and multiplications fields) at the same times.*
Limited capacity of local and national institutions	*L*	*Government capacity is not likely to represent a risk for the project because the capacity for climate resilient development exists in the country. But the risk of non compliance will be mitigated by mobilizing the capacity of different actors, projects, programmes and bilateral agencies to work intensively with government and gradually transfer skills to government counterparts.*

Possible additional project risks will be further identified during the preparatory phase, and a comprehensive risk analysis and risk management strategy will be prepared upon submission for CEO endorsement.

G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT

The proposed project design - focusing on community involvement - is expected to be the most cost-effective approach since it will build on: i) existing Farmers Field Schools structure that is already operational in several regions; ii) on-going activities with similar objectives, such as the sectoral investment programme for sustainable land management and the National Agricultural Strategic Plan; iii) synergies with existing programs such as the Danish Programme for support to the agricultural sector in Mali (PASAM); and iv) avoiding overlapping and coordination of interventions with other climate change adaptation projects funded by LDCF in the country. During project preparation, a fuller cost-effectiveness analysis will be undertaken that will explore the costs and benefits of the proposed activities in greater detail and the possibility of reducing costs or increasing outputs/outcomes through a more cost-effective project design. This will include identifying the most effective approaches to mobilize resources from government, local communities and the private-sector to support long-term adaptation activities in different situations. A quantitative and qualitative cost effectiveness analysis will be integral part of the project preparation phase. A series of alternatives concerning modalities to be implemented will be generated and compared based on costs and capacity to accomplish outcomes and objectives.

H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:

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 us sustainable crop production and land management, policy support, use of biodiversity. FAO has considerable technical experience and many field projects in a number of areas covered under this project (agriculture production and food security, climate change, agro-biodiversity, capacity building, development of community based capabilities and rural development, forage production and grassland management). FAO is also executing the FFS approach project that was recently endorsed at national level by governmental institution and that will be used for all capacity building activities; and the CarboAfrica regional EU project for carbon baseline assessment on forest, bare and grassland areas. The National Programme for Food Security (NPFS, 2006) covering the period 2007-2011 is a country driven programme, designed and implemented by FAO, including interventions on the improvement of natural resources, crop intensification, and diversification of production systems. FAO currently also has a significant project portfolio in Mali (42 projects with total funding of 16 million US$) with a major focus on cross-sector approaches.

PART III: APPROVAL/ENDORSEMENT BY OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT:

Alamir Sinna Toure, Operational GEF Focal Point, Ministry of Environment	Date: *01. 22.2009*

(Enter Name, Position, Ministry)	Date: *(Month, day, year)*

B. AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the LDCF/SCCF criteria for project identification and preparation.	
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