



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: FSP

TYPE OF TRUST FUND: LDCF

PART I: PROJECT IDENTIFICATION

Project Title:	Strengthening climate resilience and reducing disaster risk in agriculture to improve food security in Haiti post earthquake		
Country(ies):	Haiti	GEF Project ID:	
GEF Agency(ies):	FAO	GEF Agency Project ID:	609906
Other Executing Partner(s):	Ministry of Environment	Submission Date:	January 31, 2011
GEF Focal Area (s):	LDCF	Project Duration (months):	36
Name of parent program (if applicable):		Agency Fee:	272,700

A. FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Financing from LDCF	Indicative Co-Financing ^a
			(\$ a)	(\$ b)
CCA-2 Increasing adaptive capacity	Outcome 2.1 mainstreaming adaptation in agriculture development frameworks and in planning frameworks of vulnerable municipalities/districts (DRM and Agriculture sectoral strategies, policies and development plans include adaptation targets supported by budget allocations in particular with focus on vulnerable municipalities/districts).	6-8 municipalities/districts integrate CB-DRM in sectoral development plans and at least two national policies or plans include adaptation targets 15-25 extension and national research institution staff are able to replicate their experiences with adaptation and CB-DRM practices in crop production development services.	307,000	475,000
CCA-3 Adaptation technology transfer	Outcome 3.1 Successful demonstration, deployment and transfer of crop production adaptation technologies and practices (climate resilient plant material and seeds adopted by 20-30 % of farmers in the target areas; 20%-30% of the farming households in the pilot communes are replicating (or are planning to replicate) demonstrated good adaptation practices in their own fields) Outcome 3.2 Enhanced adaptation environment to support transfer of crop production adaptation technologies through Farmer Field Schools (FFS) and local plant material and seed systems.	Climate resilient crop varieties identified, multiplied and available for at least 1,500-2,000 families for the upcoming planting seasons 93-240 (3-5 good practice demonstrations in 6 agricultural cropping seasons in 6-8 pilot areas) locally selected good adaptation practices reviewed, documented and demonstrated on farmers fields in different agro-ecosystems and localities; 30-40 facilitators trained on climate resilient agricultural practices and able to lead FFS; 10-15 FFS established providing capacity building and implementation in the field of climate resilient agriculture technologies and practices (soil conservation and agro-forestry practices to reduce the risks of climate hazards and cultivation of short-cycle drought and flood tolerant seed varieties adapted to identified changes in local climatic conditions) through local experimental learning cycles involving 250-375 male and female farmers in adoption of adaptation technologies. 10-12 groups of seed producers of climate resilient crop varieties identified and adequately trained); 3-5 groups of seed producers have adequate facilities and tools for production of plant material and seed multiplication	2,150,000	4,350,000
Project management cost			270,000	475,000
Total project costs			2,727,000	5,300,000

B. PROJECT FRAMEWORK

Project Objective:					
Project Component ¹	Grant Type (TA/INV)	Expected Outcomes	Expected Outputs	Financing from LDCF	Indicative Co-Financing ^a
				(\$ a)	(\$ b)
1. Strengthening of local planting material and seed systems of climate resilient crop varieties	TA and investment	Local plant material and seed systems of climate resilient varieties is functioning in a sustainable manner providing plant material and seeds adopted by 20-30 % of farmers in the target areas	(i) Climate resilient crop varieties identified, multiplied and available for at least 1,500-2,000 families for the upcoming planting seasons (ii) 10-12 groups of seed producers of climate resilient crop varieties identified and adequately trained	700,000	3,300,000

			(iii) 3-5 groups of seed producers have adequate facilities and tools for production of plant material and seed multiplication.		
2. Field testing and replication of climate-resilient practices for climate risk management in agriculture	TA and investment	Local capacities and location specific good practices options menu available for scaling-up farmer's adoption of climate resilient agriculture technologies and practices reducing risks from climate variability and change (menu of good practice options showing clear adaptation benefits in testing seasons, demonstration fields, awareness raising materials and adaptation practice implementation guidelines available, and 150-250 farmers and 15-25 extension and national research institution staff are able to replicate their experiences with adaptation practices and CB-DRM) 50%-70% of all farming households in pilot communes have enhanced capacities in CB-DRM and are aware of different adaptation options (150-250 farmers have conducted field demos on their own fields, and 20%-30% of the farming households in the pilot communes are replicating (or are planning to replicate) demonstrated good adaptation practices in their own fields)	(i) Good practices option menus for disaster risk reduction and climate risk management of small scale agricultural producers established based on lessons learned, local knowledge, scientific know how, and a set of criteria for mitigating climate hazards in specific agro-ecosystems (ii) 93-240 (3-5 good practice demonstrations in 6 agricultural cropping seasons in 6-8 pilot areas) locally selected good adaptation practices reviewed, documented and demonstrated on farmers fields in different agro-ecosystems and localities with technical support from agricultural extension and/or national research institutes or farmers groups. (iii) training and awareness raising material (including good adaptation practices implementation guidelines, pamphlets, videos, and cultural events for awareness raising) for implementation and further replication prepared (iv) Community-Based Disaster Risk Management (DRM) Plans for Agriculture developed in 6-8 communes, including climate change risks and linked to other (non agricultural) DRM plans, and implemented over 4 agricultural seasons with project support	850,000	775,000
3. Promoting climate-resilient agricultural technologies and practices through Farmer Field Schools (FFS)	TA	Ecosystem services supporting crop production in areas with FFS and/or CB-DRM supported by the project maintained or improved under climate change and variability induced stress measured in crop yields Farmers participating in FFS are aware of CC risks and impacts on agricultural production and options of climate-resilient agricultural good practices and 250-300 farmers have adopted the practices in their own fields. The FFS are established as adaptation technology transfer and adoption approaches for climate resilient agriculture production, or are proven to be inadequate for the Haitian rural context.	(i) a comprehensive training programme for FFS focusing on transfer and adoption of climate-resilient agricultural technologies and practices (ii) 30-40 facilitators trained on climate resilient agricultural practices and able to lead FFS (iii) 10-15 Farmer Field Schools established providing capacity building and implementation in the field of climate resilient agriculture technologies and practices (soil conservation and agro-forestry practices to reduce the risks of climate hazards and cultivation of short-cycle drought and flood tolerant seed varieties adapted to identified changes in local climatic conditions) through local experimental learning cycles involving 250-375 male and female farmers in adoption of adaptation technologies	700,000	275,000
4. Integrating climate change adaptation and disaster risk reduction into agricultural policies, programmes and institutions	TA	DRM and Agriculture sectoral strategies, policies and development plans include adaptation targets supported by budget allocations (6-8 municipalities/districts integrate CB-DRM in sectoral development plans and at least two national policies or plans include adaptation targets) National and local government institutions and agriculture development services providers involved in DRM and agriculture development, coordinate capacity building and institutional strengthening processes to ensure responsiveness to needs from changing and variable climate involving local communes.	(i) Community-Based Disaster Risk Management Plans (related to climate risk) integrated into sectoral development plans at municipality/district level and recommendations for up-scaling; (ii) improved coordination and action plan for strengthening institutional and technical capacities for support to CB-DRM and adoption of adaptation practices in agriculture at national and decentralized level; (iii) agricultural policy assessment - gaps and opportunities for mainstreaming climate CB-DRM and change adaptation into DRM and agricultural sector policies identified.	207,000	475,000
Project management Cost				270,000	475,000
Total project costs*				2,727,000	5,300,000

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

Sources of Co-financing for baseline project	Name of Co-financier	Type of Co-financing	Amount (\$)
Nat'l Gov't	Government of Haiti	In-kind	300,000
GEF Agency	Brazil (OSRO/HAI/008/BRA) through FAO	Grant	1,500,000
GEF Agency	Spain (OSRO/HAI/007/SPA) through FAO	Grant	2,000,000
GEF Agency	Japan (OSRO/HAI/009/JPN) through FAO	Grant	700,000
GEF Agency	Norway (OSRO/HAI/013/NOR) through FAO	Grant	800,000
Total Co-financing			5,300,000

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.2. THE LDCF/SCCF ELIGIBILITY CRITERIA AND PRIORITIES:

Haiti is a party to the United Nation Framework Convention on Climate Change (UNFCCC) as a non-annex I LDC. The country ratified the convention in 1996 and is eligible for UNDP and FAO technical assistance and LDCF funding. The project is supporting the implementation of priority actions identified for the agriculture sector in the Haiti National Adaptation Plan of Action (NAPA, 2006) submitted October 2006. The NAPA is giving priority to food security associated with appropriate adaptation measures. This project will implement an integrated strategy for adaptation in crop production-focused interventions with emphasis on the enhancement of rural smallholder food security (availability and access) and Disaster Risk Management (DRM). The project will thereby also contribute toward the attainment of the first Millennium Development Goal (eradication of extreme poverty and hunger) and is in line with the FAO mandate. The project is consistent with the five criteria outlined in the LDC Programming Paper for funding of NAPA implementation by the LDCF. GEF criteria for project design financing have been respected including giving priority to on-the-ground implementation of adaptation measures (component 1, 2 and 3) and the Results Framework for the LDCF outcome and output indicators have been taken into account as demonstrated in table I.A above.

A.2 NATIONAL STRATEGIES AND PLANS OR REPORTS AND ASSESSMENTS UNDER RELEVANT CONVENTIONS:

Agriculture and food security are noted as the NAPA priority areas (I, III, IV). The priority objectives listed in the Interim Cooperation Framework are: reviving and contributing to a sustainable intensification of agricultural production to improve food security. The priorities include watershed management, soil conservation, use and conservation of natural resources and preservation and enhancement of food security. These are closely linked to the priorities establish in the Poverty Reduction Strategy Paper to increase agricultural production and improve the institutional framework and governance of the agricultural sector. The project will contribute to the implementation of the Haitian NAPA. Given the country wide vulnerability of small-scale farmers and the intensification of climate-related impacts on rural livelihoods, the proposed project has been designed as an integrated country-wide project. The vulnerability of the agricultural sector in Haiti is closely linked to water and soil conservation, as described in the Haiti NAPA which identifies the following priority adaptation needs pertaining to:

- land use planning: i) development of crops adapted to areas with poor agricultural potential; ii) development of crop varieties and appropriate technologies building climate resilience in production systems; iii) reduction of deforestation activities leading to soil erosion.
- the forestry sector: i) reforestation; ii) the practice of agro-forestry and iii) the existence of seed banks
- the water sector : i) the construction of new water capturing system from different sources; ii) reforestation of hillsides overlooking these water sources; and iii) construction of water tanks to collect the surplus runoff water
- the livestock sector: i) banning of free animal grazing and ii) construction of ponds used as a source of drinking water for livestock.

The project is also in consistency with and will complement the FAO National Programme for Food Security (NPFS) for Haiti, wherein agriculture and environment supported by the project is among the priority areas.

At the request of and under the direction of the Government of the Republic of Haiti (GoH), with the technical support of several international partners, including FAO, a post-disaster needs assessment (PDNA) was conducted in March 2010 to assess damage and losses and identify general and sectoral needs. According to this PDNA, the total value of damage and losses caused by the earthquake has been estimated at nearly US\$8 billion, 120% more than the 2009 GDP. The project is in line with the PDNA and its pillars for the reconstruction of the country including the preparation for rainy/cyclone seasons, the incorporation of environmental aspects in all decisions related to the recovery and development process, the inclusion of DRM measures into the (re)construction process as well as the development of an active employment policy incorporating the principles of the 'highly labour intensive' approach in the Agricultural sector.

In the rural sector, the strategy of the post earthquake response to face the disaster has been defined by the GoH in a Special Plan of Action which lists the following objectives as national priorities for the rehabilitation of the agricultural sector: (i) increase the supply of agricultural food product in the country, through the availability of agricultural inputs at the level of the main production areas and improvement of commercialization networks; (ii) develop programmes and strategies to better integrate displaced families; (iii) improve accessibility of food products in view of increasing the circulation of livelihoods (job creation in the

rural sector); (iv) integrate national production to external assistance through the contracts with national entities for food supply; and (v) prepare for the next hurricane season.

The GoH regards the rural sector as the main pillar for national growth as well as for the reduction of poverty in the country, as it is reflected in official documents, notably the DSNCRP (Document de stratégie nationale de croissance pour la réduction de la pauvreté). The DSNCRP includes among others the following components which the project will support: (i) promotion of a sustainable agriculture and of better land management, with particular focus on the protection of watersheds, and the development of sustainable agricultural methods taking into account climate change and the prevention of natural disasters; (ii) boost of agricultural production through better organization of the agricultural commodity chains pre- and post-production and better access to basic services for producers; (iii) modernization of rural infrastructures, including rehabilitation and adjustment of the existing irrigation systems, construction of new systems and the improvement of water storage facilities; and (iv) reinforcement of national capacities, through training and technical assistance to national stakeholders including public and private actors of the agricultural sector.

B. PROJECT OVERVIEW:

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

Haiti is ranked among the poorest countries in the world and is considered the poorest of the Western/American Hemisphere: the national per capita GDP amounts to US\$12 billion, the lowest of the Caribbean region. Additionally, high inflation rates contribute to a constant decrease of the purchasing power of the consumers. Ca. 4 million Haitians, about 55% of the total population, live below the US\$1.00 a day poverty line and 76% below US\$2.00 a day poverty line. Poverty is higher in rural areas with an incidence of 69% and 86% for the US\$1.00 and US\$2.00 poverty lines respectively. 3.8 million people, the majority in the rural zones, suffer from hunger and 24% of children under five suffer from chronic malnutrition (EMMUS).

Agriculture is a key economic activity in Haiti employing 46% of the existing labor force, and sustaining 70% of the population. Around 57% of Haiti's land is used for agriculture (29% for pasture and 28% for cultivation), with forestry occupying 4% of the land (WDI, 2005). Despite a downward drift in its contribution to the GDP from 47% to 27.58% over the 1970-2005 period, agriculture still provides 33% of the commodity exports. According to the Haitian Institute for Statistics and Informatics (IHSI) (2005), agricultural cultivation rate of land is around 90%. On average, 80% of the rural households have access to 1.8 parcels (0.99 ha) of land, which they own in 80% of the cases. A limiting factor for Haiti's agriculture is that it to a last extent depends on mountainous, rough terrain characterized by generally steep slopes; 57% of the agricultural land is located on slopes, and is to a large extent (60%) exposed to medium to high erosion risks. By its nature agriculture is, like in most LDCs, among the most vulnerable sectors to climate variability and change.

As a consequence of its geographic location in the hurricane belt and its geological features, Haiti is exposed to many natural risks such as hurricanes, droughts, landslides, earthquakes and tidal waves. In recent years (between 2001 and 2008), storms and floods have had the highest human and economic impact in Haiti, with losses for the period 1997-2006 averaging at 0.05% of GDP -1.8 million people have been affected by storms (5 events) with the cost of damages reaching US\$101 million and 295 569 people have been affected by floods (4 event) with the cost of damages reaching US\$1 million. In August and September of 2008, Haiti was hit by four major storms and hurricanes (Fay, Gustav, Hanna and Ike). The combined impact constitutes the largest natural disaster, in terms of damage and losses, to affect Haiti since the beginning of the 20th century. Total damages and losses are estimated at US\$900 million, or around 15% of GDP

In spite of its originally rich natural resource endowment, the agricultural sector has become increasingly vulnerable during the last decades due to the combined negative interplay of increasing population pressure (annual growth rate 2.3%), environmental degradation, inefficient land use systems, poverty, overall governance problems in the country and the high exposure to recurrent natural hazards some of which are expected to increase due to the increase in frequency of events of extreme weather conditions. Recent data indicate, that 85% of the country's watersheds are either critically or totally deforested; the national dense cover forest accounts merely for 1 to 3%; and the annual soil lost is estimated to 36.6 million tons.

The Haitian farm extension system is supported on the one hand by the MARNDR and on the other by international organisms, local NGOs, and international cooperation agencies under the Ministry of Planning and External Cooperation umbrella. Those two parties work separately or jointly with individuals and/or grouped farmers to whom they provide technical training and farm inputs such as tools, seeds, fertilizers, etc, generally free of charge except for the seeds for which small contributions may sometimes be requested. Support provided to farmers is generally not DRM related. However, after weather-related or geological disasters, relief is delivered to the farmers, including farm material. The projects operating within the DRM-

Agriculture interface are generally meant to address post-disaster farm issues rather than preparing the farmers to cope with disaster impacts in advance including the ones from increased climate variations. (see Annex for baseline map on environmental constraints for agricultural potential).

The 12 January 2010 earthquake in Haiti left Port-au-Prince and villages in its surroundings in ruins, displaced an estimated two million people and injured or killed hundreds of thousands. The situation in rural areas has become more difficult given reports of as many as 600 000 people have moved back to rural areas, with nearly 600 new settlements established since the earthquake adding to the 75% of the population already living in rural zones and dependent on agriculture. The Earthquake has exacerbating a number of structural problems and issues already affecting the agricultural sector, which in combination with the natural hazard context, negatively impact on poverty, development and food security in the country.

The damages to the agricultural sector caused by the earthquake are mostly related to the silting of irrigated plots and cracking of irrigation canals. According to a FAO rapid post-disaster assessment, over 80% of rural housing has been severely affected and the houses in the Léogane watershed were completely destroyed. This watershed is very fragile and the damages it has experienced may cause landslides and mudslides in the rainy season. There has been a decrease in the volume of irrigation water available in the concerned municipalities of Gressier, Léogane and Grand Goave, affecting especially areas cultivated with maize, sugar cane and beans. Along with the damages to houses, there has also been a loss of assets, tools, seed stocks and storage facilities

The significant number of people of rural origin leaving the urban settings as a result of the earthquake is increasing the pressure on already scarce land resources and therefore causing environmental degradation and food insecurity. Support to the agricultural sector post-earthquake is still needed, particularly as the sector was recovering from the severe damage of the 2008 hurricane season that devastated more than seventy percent of the agricultural sector, creating pockets of severe malnutrition and killing hundreds of people. This ongoing recovery in agriculture, which provided an increased food production in 2009, has been set back by the damage and destruction resulting from the recent earthquake. Agriculture and associated livelihoods in rural areas will now experience further strain for the coming planting seasons. Small farmers are especially vulnerable in the aftermath of the earthquake due to the rapid increase in household size given movements from earthquake-affected areas to rural areas, and their limited coping strategies, knowledge and capacity to adapt to current hazard exposures, which may increase due to climate variability and change. A successful long-term agriculture rehabilitation process in Haiti, however, cannot be designed without addressing in an integrated way recurrent climate change risks, and building capacities to reduce future hazard exposure and the impacts expected from increased climate variability.

Hydro-meteorological hazards (storms, floods, and drought) have significantly adverse impacts on agricultural production, leading to soil erosion and increasingly higher levels of aridity and salinity of soils. Currently, soil salinity affects nearly 40 000 hectares of land, of which 65% are in Artibonite, 34% in the Western department, and the remainder in the South and Grand Anse. Climate change projections for 2050 and beyond indicate that more than 50% of the total area of Haiti will be in danger of desertification. According to current climate change scenarios the following changes with relevance to agricultural sector are expected to face Haiti: a) an estimated increases in temperatures by 0.8-1°C by the year 2030 and by 1.5-1.7°C by the year 2060, with the highest increases occurring during the month of June-July and October; b) an estimated decreases in precipitations by 5.9-20% by 2030 and by 10.6-35.8% by 2060, with the highest decrease during the month of June-July; and c) even more extreme weather events in the Caribbean region in according to the Intergovernmental Panel on Climate Change (IPCC) 4th assessment report. Given that the months of June-July are the most vulnerable in terms of peak temperature increases coupled with peak precipitation decreases, this will lead to increased evapo-transpiration resulting in serious impacts on the agricultural sector. The scarcity of water will lead to less water for irrigation purposes.

The intertwining of supporting agriculture production while stopping environmental degradation and adapting the production systems to climate change has turned into an urgent approach given the present status of the country. The challenge is to enhance the resilience of agricultural systems and livelihoods to climate variability and change while sustaining food production. Integrating proactive DRM and climate change adaptation (CCA) strategies into agricultural sector policies and development plans and their implementation on-the-ground will help ensure that structural factors related to vulnerability and risk reduction are more systematically addressed. There are two major linkages between CCA and disaster risk reduction in the Haitian context: (i) climate change is likely to increase the number and scale of climate induced disasters that need to be managed and modifies local vulnerability to shocks; and (ii) existing institutional structures, technologies and tools to reduce and manage disaster risks are natural entry points for mitigating losses to current climate threats and thereby enabling longer term adaptation in agriculture.

This project will primarily build upon previous experiences from technical assistance provided by FAO through: (i) a regional Technical Corporation Programme (TCP) (Cuba, Grenada, Haiti and Jamaica) with the objective to improve agricultural emergency preparedness through climate hazard resilience in Caribbean countries prone to hurricane related disasters and supporting the food security of small farmers (the project has mapped soil conservation and agro-forestry practices proven to be most effective in reducing the risks associated with climate hazards) (2007); (ii) lessons learned from the MARMELADE FAO project supporting sustainable land management in Haiti; (iii) an UTF/IFAD funded project responding to the crisis of soaring food prices which aimed at identifying, distributing and multiplying short-cycle drought and flood tolerant seed varieties accepted by local farmers and already adapted to identified changes in local climatic conditions; (iv) an emergency project (OSRO) financed by the Japanese Government with the objective to assist the Haitian Government in supporting farmers victims of hurricanes Dennis, Wilma and Alpha (2005) and Ernesto (2006) in southern Haiti and promote good agricultural practices for risk reduction and disaster management; and (v) the EU Food Facility project, which aimed at increasing food production through improved water harvest, irrigation and the development of a technological and livelihoods package combined.

The project **adaptation objective** is to increase resilience of vulnerable farmers including their livelihoods and agro-ecosystems against the impacts of climate variability and in the post-earthquake crises through integration of disaster risk management and adaptation practices in the agricultural sector and replication of more hazard resilient crop varieties and cultivation technologies.

The project is designed around four **components**: (i) strengthening of local planting material and seed systems for multiplication and dissemination of quality seeds and planting material of climate resilient crop varieties; (ii) identification, field testing and replication of good climate-resilient practices for climate risk management in agriculture; (iii) promotion of climate-resilient agricultural technologies and practices through Farmer Field Schools (FFS); and (iv) integrating climate change adaptation and disaster risk reduction into agricultural policies, programmes and institutions.

B.2. ADDITIONAL ADAPTATION ACTIVITIES AND BENEFITS REQUESTED FOR LDCF/SCCF FINANCING:

In the current post-earthquake *baseline* situation in Haiti there is an urgent need to ensure the seed supply for the coming cultivation seasons which is supported by several donors including the following projects executed by FAO: "Immediate Support to Agricultural Production and Food Security of earthquake-affected families, migrant families and hosting communities" (OSRO/HAI/008/BRA) supported by Brazil; "Immediate Support to Agricultural Production and Food Security of earthquake-affected families, migrant families and hosting communities" (OSRO/HAI/007/SPA) supported by Spain; and "Emergency rehabilitation of agricultural production after the earthquake" (OSRO/HAI/009/JPN) supported by Japan. In the *adaptation scenario* the additional funds from the LDCF, to be used in component 1 of the proposed project, will concentrate on supporting the reproduction and provision of seeds for varieties of crops which have already proven to be more resilient to climate variability in the Haitian agro-ecological context. In that way, the LDCF funds will ensure that the results of the work already done on identifying and testing climate resilient crop varieties is incorporated in the effort to support the post-earthquake food production and the development path of local seed systems and crop production.

In component 2 and 3 *adaptation scenario* the LDCF funds will support capacity building of farmers and extension staff and support small farmers and rural communities in the identification and field testing of location specific, small scale agricultural technologies and practices which have potential to increase the climate-resilience of small farmer's crop production, such as the use of more stress tolerant crop and tree varieties, more short cycled crop varieties and sustainable land and water management practices preventing landslides and other disasters due to extreme climate events. Systematic field testing and documentation of good adaptation practices with farmers through action research and dissemination of practices through Farmer Field Schools will be instrumental for field delivery. By these investments the component will also support the medium-term up-scaling of the application of successfully tested good adaptation practices as part of the agriculture development path. These local level activities will be additional to agricultural practices in the *baseline situation*, which focus mainly on agricultural production increase. They will also be complementary to the disaster risk management efforts at the national level, supported by the National Risk and Disaster Plan and investments in watershed management and risk prevention financed by a range of other donors including IADB (Program for Natural Disaster Mitigation in Priority Watersheds), CIDA, UNDP and GTZ (Artibonite watershed), USAID (Limbé and Montrouis watersheds), and a Norway supported project executed by FAO ("Livelihood support to earthquake affected rural families of Cormier watershed" through smallholder reforestation/agroforestry and water resources management activities (OSRO/HAI/013/NOR). These are all part of the *baseline investments* in sustainable agriculture development and DRM to which the LDCF will finance the additional costs of testing and implementing CCA practices. The project interventions will also

create incentives for enhanced local level cooperation, coordination and joint planning, including contingency planning for extreme events and adaptation planning.

The additional funding provided by LDCF in the *adaptation scenario* in component 4 will support the strengthening of local governments and organizations in incorporating climate change risk management in land use planning and disaster prevention in relation to agriculture, forestry and food security. The current emphasis in the *baseline costs* is on strengthening of national institutions in disaster preparedness and risk management. The additional funds provided by the LDCF will in turn allow for a strengthening of capacities from the local level perspective (support on disaster risk prevention and preparedness in rural Community-Based Disaster Risk Management Plans (CB-DRM) integrated into sectoral development plans at municipality/district level. The LDCF resources in the *adaptation scenario* will also allow for strengthening of institutional and technical capacities for support to adoption of CCA practices in crop production systems building the linkages to policies, strategies, and capacities at the national level supporting the mainstreaming of adaptation measures and climate change safeguards in the agriculture development and natural resources and disaster risk management framework and strategies.

The expected **adaptation outcomes** are: (i) local plant material and seed systems of climate resilient varieties is functioning in a sustainable manner providing plant material and seeds adopted by 20-30% of farmers in the target areas; (ii) local capacities and location specific good practices options menu available for scaling-up farmer's adoption of climate resilient agriculture technologies and practices (menu of good practice options showing clear adaptation benefits in testing seasons, demonstration fields, awareness raising materials and adaptation practice implementation guidelines available, and 150-250 farmers and 15-25 extension and national research institution staff are able to replicate their experiences with adaptation practices and CB-DRM); (iii) 50-70% of all farming households in pilot communes have enhanced capacities in CB-DRM and are aware of different adaptation options (150-250 farmers have conducted field demos on their own fields, and 20-30 % of the farming households in the pilot communes are replicating (or are planning to replicate) demonstrated good adaptation practices in their own fields; (iv) ecosystem services supporting crop production in areas with FFS and or CB-DRM supported by the project maintained or improved under climate change and variability induced stress measured in crop yields; (v) farmers participating in FFS are aware of CC risks and impacts on agricultural production and options of climate-resilient agricultural good practices and 250-300 farmers have adopted the practices in their own fields; (vi) the FFS are established as adaptation technology transfer and adoption approaches for climate resilient agriculture production, or are proven to be inadequate for the Haitian rural context; (vii) DRM and Agriculture sectoral strategies, policies and development plans include adaptation targets supported by budget allocations (6-8 municipalities/districts integrate CB-DRM in sectoral development plans and at least two national policies or plans include adaptation targets); (viii) national and local government institutions and agriculture development services providers involved in DRM and agriculture development, coordinate capacity building and institutional strengthening processes to ensure responsiveness to needs from changing and variable climate involving local communes.

B.3. SOCIOECONOMIC BENEFITS INCLUDING CONSIDERATION OF GENDER DIMENSIONS.

Climate related disasters, particularly in the absence of risk reduction initiatives, and the widespread unsustainable use of natural resources and land management practices in Haiti, can seriously reverse development gains by undermining livelihoods and food security, damaging infrastructure, increasing exposure to disease and eroding ecosystems. Climate change, with out adaptation initiatives, poses additional severe risks to food security and the agricultural sector, with particularly adverse impacts on smallholder farmers. The socioeconomic benefits of this project are therefore directly related to the access to seeds and planting material and cultivation of more climate resilient crop varieties and application of adaptation measures in crop production by farmers in the project's target areas, which will improve their food security and decrease their vulnerability to disasters caused by extreme climate events. In the training of FFS facilitators, the establishment of FFS and identification of farmers to participate in local seed systems and testing of adaptation practices special emphasis will be put on the involvement of female farmers and rural young. These groups are often vulnerable to food insecurity but are also important potentials of being the carriers of new practical skills and knowledge on CCA in crop production increasing food security.

B.4 RISKS, INCLUDING CLIMATE CHANGE RISKS AND POSSIBLE MITIGATION MEASURES :

The following table details the risks faced by the project, the risk level, and the mitigation measures that will be put in place to mitigate the risks:

Risk	Risk rate	Mitigation
Government institutions	H	The Haitian government institutions are severely hit by the post-earthquake situation and

engaged in other earthquake related activities and thus not being able to participate in project preparation and implementation		must spread their time and resources among coordination requirements and interaction with donors participating in the reconstruction. FAO is participating in the UN donor coordination efforts and has grounded missions in the country to work with MARNDR on the redirection of funds from current operations in the country and the development of new operations including the proposed LDCF project to support emergencies including the availability of seeds for the up-coming cultivation seasons to sustain food security. During project implementation, FAO will provide extra support for the project execution to ensure the quick flow of funds and alleviate the government in the current situation.
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 implementation. In particular, existing areas where income has been generated from adaptation activities supported by the UTF/IFAD funded project will be the starting point for demonstrating the benefits of climate resilient practices to other potential beneficiaries of the project.
Climate change risks	H	Floods, droughts and hurricanes plus other unfavourable climatic conditions may occur during the project life cycle. The project will provide to farmers the necessary tools, and capacity to adapt to the new climatic conditions, enabling them 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 and testing results at the same time.
Seed shortages due to extreme climate events and/or pests, diseases outbreaks and unavailability in enough quantities in the markets	M	One of these events 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 time.

H = High (greater than 60 percent probability that the outcome/result will not be achieved).

M = Medium (30 to 60 percent probability that the outcome/result will not be achieved).

L = Low (probability of less than 30 percent that the outcome/result will not be achieved).

B.5. KEY STAKEHOLDERS AND THEIR RESPECTIVE ROLES:

The project key institutional partners will be:

The **Ministry of Environment (MDE)** is the national authority on environment in the country involved in various activities related to climate change and will be a key partner in the supervision of this project. While the MDE was in charge of formulating the NAPA, the final responsibilities and tasks across sectors to promote CCA have not yet been clearly defined. The MDE has been decentralized and has presence at the Departmental level, accounting for different levels of operational capacity, which will provide counterpart support to the project at the decentralized level.

Another key stakeholder at national level will be the **Ministry of Interior and Territorial Collectivises** through its **Civil Protection Directorate** which has put into place a Natural Risk and Disaster Prevention Plan to pursue the diminishing of risk of natural disasters and to strengthen capacity to respond to natural disasters at the national, departmental, municipal and local level. The Civil Protection Directorate is decentralized, being present in several of the communes. Wherever the Civil Protection is not present, the CASEC (Conseils d'Administration des Sections Communales) and ASEC (Administration des Sections Communales) act as focal points as part of the Natural Risks and Disaster Prevention Plans. The network includes the Departmental Governors and different associations of women, youth and farmers.

At the departmental level, the project will collaborate with the **Direction Departementel de Agriculture (DDA)**, working on the promotion of agriculture, rural development and the conservation and utilization of natural resources. In addition, local and international NGOs working in the project areas, as well as the CASECs, ASECs and farmer and women associations, will be involved in different project activities to ensure local ownership and grass root participation. Some of these stakeholders will be represented by one member at the coordination and information meetings that will be called upon by FAO in the different departments where the project will operate.

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

With the support of FAO, the MARNDR prepared the Investment Plan for the Growth of the Agricultural Sector, a comprehensive document on the short- and medium- to long-term recovery and development of the sector. In line with this Plan, FAO has elaborated an Emergency and Rehabilitation 3-year Programme covering the most urgent requirements through three components: (i) support the Food Security and technical coordination of the agriculture emergency and rehabilitation response; (ii) support rural, urban and peri-urban vulnerable families through the implementation of a massive distribution of basic inputs, mainly for cereal and

pulses crop production and sustain strategic activities such as seed production, cash crop development, animal production and fishery; and (iii) build the foundations for longer term sustainable interventions offering immediate job opportunities and promoting the integrated DRM through the implementation of activities for erosion control and water management, reforestation, irrigation schemes and feeder road rehabilitation.

As FAO's other emergency activities in Haiti this LDCF project will be implemented and coordinated with MARNDR and other donors in the framework of this Programme approach covering, among others, planning of activities, human resources and technical support to ensuring synergies as well as avoiding overlaps and duplication of activities. The LDCF project, which in specific will contribute to component 3 of the three-year Programme mentioned above, will be implemented in coherence with all other projects of the component. Among those it will be co-financed by four selected ongoing projects (see section B.2 above), namely OSRO/HAI/008/BRA, OSRO/HAI/007/SPA, OSRO/HAI/009/JPN, and OSRO/HAI/013/NOR. The project will draw upon lessons learned, technical expertise, tools, training packages and the guidance produced from a number of these and other related projects, as well as from plans and policies developed in Haiti. The project also builds upon FAO's consolidated experience in the FFS approach worldwide.

Finally, the project will built upon and collaborate with other CCA, DRM, and soil rehabilitation projects in Haiti including the IADB financed Program for Natural Disaster Mitigation in Priority Watersheds and USAID, GTZ and CIDA financed watershed management projects. The project will be linked to other GEF funded projects like the IADB-GEF project Sustainable Land Management of the Upper Watersheds of South Western Haiti a LULUCF and SLFM project endorsed by the GEF CEO in 2009. It will also develop linkages with the UNDP/GEF funded transboundary project for the Artiebonite watershed. Moreover it will be linked to the LDCF funded project on "Strengthening adaptive capacities to address climate change threats on sustainable development strategies for coastal communities". The LDCF project components will be designed to be complementary to these projects and will be strictly coordinated through the agricultural cluster, part of the UN emergency cluster in Haiti, during the implementation to allow for exchange of experiences and lessons learned and avoid any duplication.

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

The proposed project is aligned with FAO's six priority action areas for climate change adaptation in agriculture, forestry and fisheries which are: (i) data and knowledge for impact assessment and adaptation; (ii) governance for climate change adaptation; (iii) livelihood resilience to climate change; (iv) conservation and sustainable management of biodiversity; (v) innovative technologies; and (vi) improved disaster risk management. Increasing frequency and intensity of extreme weather events calls for strengthened DRM systems, improved local practices for risk reduction and enhanced emergency response operations. Building on its longstanding experience in sustainable development and DRM, FAO prioritizes actions for disaster risk reduction as an entry point to climate change adaptation.

FAO also has comparative advantage in the area of capacity building, providing technical analysis and assistance in areas such as sustainable intensification of crop production, land management, risk reduction, support to national priorities and policy formulation and institutional strengthening. FAO has broad technical expertise and experience, including many field projects (relief, recovery and development), in a number of areas covered under this project (agricultural production, food security, CCA, disaster risk reduction, DRM at all levels, rural development, land management and use, forestry). FAO has also extensive experience in implementation of the FFS approach proposed in this project for transfer of CCA technologies and practices. The NPFS was formulated and launched by Haiti (CNSA), with design and implementation support from FAO. FAO had a substantive project portfolio in Haiti pre-earthquake (projects with total funding of USD 24.3 million). Given the recent crisis, more funds have been directed toward food and agriculture relief and recovery through FAO providing co-financing for the proposed LDCF project.

C.1 INDICATE THE CO-FINANCING AMOUNT YOUR AGENCY IS BRINGING TO THE PROJECT: USD 5,000,000

C.2 HOW DOES THE PROJECT FIT INTO FAO'S PROGRAM AND CAPACITY IN HAITI:


As described under section B.6 above this project will be part of the FAO/MARNDR Investment Plan for the Growth of the Agricultural Sector and the related FAO Emergency and Rehabilitation 3-year Programme for Haiti. As described under section A.2 the project does also fit into the FAO SPFS and NPFS for Haiti and the PDNA supported by various international agencies including FAO. The project implementation will be supported by the FAO Emergency and Rehabilitation Coordination Unit in Haiti staffed with 20 international and 120 national technical and administrative personnel coordinating the FAO Emergency and Rehabilitation Programme.

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).

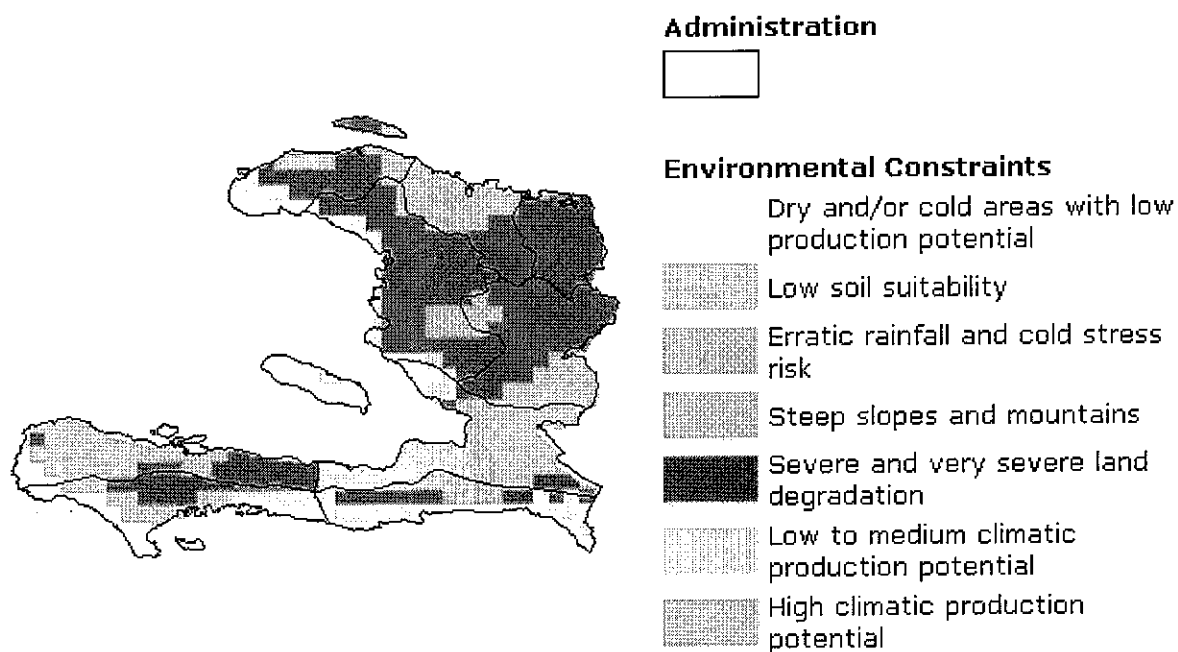
NAME	POSITION	MINISTRY	DATE (Month, day, year)
Daniel Brisard	GEF Operational Focal Point	MINISTRY OF ENVIRONMENT	03.03.2010

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
Charles Riemenschneider Director, Investment Centre Division Technical Cooperation Department FAO Viale delle Terme di Caracalla 00153, Rome, Italy		January 31, 2011	Rikke Olivera, GEF Programme Officer, Investment Center Division	+39 0675055701	Rikke.Olivera@fao.org
Barbara Cooney FAO GEF Coordinator Email: Barbara.Cooney@fao.org Tel: +3906 5705 5478					

Annex

Baseline map: Current Major Environmental Constraints related to Agricultural Potential



Source: FAO Note: For more maps on Haiti and agricultural resources, go to <http://www.fao.org/countryprofiles/Maps/HTI/04/ec/index.html>