



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

Submission date: April 23, 2010
Re-submission date: June 8, 2010

GEFSEC PROJECT ID: 4268
GEF AGENCY PROJECT ID: 4439
COUNTRY(IES): Liberia
PROJECT TITLE: Enhancing Resilience to Climate Change by Mainstreaming Adaption Concerns into Agricultural Sector Development in Liberia
GEF AGENCY(IES): UNDP
OTHER EXECUTING PARTNER(S): Ministry of Agriculture (MOA)
GEF FOCAL AREA: Climate Change Adaptation

INDICATIVE CALENDAR	
Milestones	Expected Dates
Work Program (for SCCF FSP)	N/A
CEO Endorsement/Approval	June 2011
GEF Agency Approval	July 2011
Implementation Start	September 2011
Mid-term Review (if planned)	November 2013
Implementation Completion	September 2015

A. PROJECT FRAMEWORK

Project Objective: To increase resilience of poor, agricultural-dependent communities and decrease vulnerability of agricultural sector to climate change in Liberia.

Project Components	Indicate whether Investment, TA, or STA	Expected Outcomes	Expected Outputs	Indicative LDCF/SCCF Financing*		Indicative Co-financing		Total (\$)
				(\$)	%	(\$)	%	
1. Capacity development	TA	Strengthened institutional and individual capacity to plan and manage climate change in the agriculture sector in Liberia.	<ul style="list-style-type: none"> ▪ Raised awareness of national leaders (e.g. MOA leaders, Cabinet, FSNTC, ACC) to the threat of climate change to agriculture; ▪ Climate change mainstreamed into LASIP and other key agricultural policy initiatives (e.g. Land Policy Reform, Enhanced Land Husbandry drive under LASIP , etc..) ▪ Capacity developed of key technical stakeholders (responsible for preparing policies and plans and for overseeing investments) in the ministry technical departments, in para-statal and in research institutes; ▪ Agro-Climatological Centre created, and capacity of meteorological services to provide targeted climate related data to agricultural stakeholders reinforced; ▪ Liberian tertiary education system adapted to produce agricultural engineers knowledgeable about adapting 	498,000	52,5	450,000	47,5	948,000

			<p>to climate change (possibly in collaboration with UNICEF);</p> <ul style="list-style-type: none"> ▪ In three counties, county planners and extension workers have the technical capacity to support communities on climate change, by providing advice on climate change impacts on agriculture and on alternative approaches and measures; ▪ At the National level, a land and water management agency is created (supported through co-financing). 					
2. Demonstration measures to reduce vulnerability	TA	Innovative, sustainable, socially appropriate adaptive measures piloted at the community level.	<ul style="list-style-type: none"> ▪ At six sites in three counties (same counties as Component 1), the agricultural planning process has been modified so that it fully accounts for climate change. Since Agriculture plans are a key element of the County Development Agendas, this, in turn, will lead to modified County Development Agendas; ▪ Climate change factors integrated into three ongoing small-scale projects that support community farmers; ▪ In the same three counties, capacity of farmers developed and climate resilient practices that ensure growth and yields (e.g. soils and water management, agro-forestry) are disseminated. 	1,387,350	22,9	4,672,000	77,1	6,059,350
3. Knowledge management and up-scaling.	TA	Lessons learned and best practices from pilot demonstration measures, capacity development initiatives and policy changes disseminated to stakeholders and development partners.	<ul style="list-style-type: none"> ▪ Establishment of a small bursary programme to promote action-oriented research into climate change and adaptation in community farming; ▪ Knowledge management website incorporated into MOA website; ▪ Project lessons prepared for dissemination through the Adaptation Learning Mechanism. 	258,000	42,4	350,000	57,6	608,000
4. Project management				238,150	28,1	608,000	71,9	846,150
Total project costs				2,381,500	28,1	6,080,000	71,9	8,461,500

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

Sources of Co-financing	Type of Co-financing	Amount
Project Government Contribution	Cash/in-kind	500,000
GEF Agency (UNDP)	Cash	200,000
Multilateral Agencies	Unknown at this stage	5,380,000
Total co-financing		6,080,000

C. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Project Preparation *	Project	Total	Agency Fee
LDCF Grant		2,381,500	2,381,500	238,150
Co-financing		6,080,000	6,080,000	
Total		8,461,500	8,461,500	238,150

D. For Multi-GEF agencies/countries (in \$)

N/A

PART II: PROJECT JUSTIFICATION**A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED ADAPTATION BENEFITS TO BE DELIVERED:**Economic and agricultural development

1. In February 2009 the GEF approved the PIF for project “*Enhancing Resilience of vulnerable coastal areas to climate change risks in Liberia*”. This was the first project under the Liberia National Adaptation Programme of Action (NAPA) to be approved by the GEF. The CEO Endorsement for “*Enhancing Resilience of vulnerable coastal areas to climate change risks in Liberia*” was submitted to GEF for approval in February 2010. Although that project was initially the third highest NAPA priority, it was submitted first to the LDCF for support due to the recent increases in the threat of sea level rise.

2. Consistent with LDCF GEF/C.28/18, May 12, 2006, the Government of Liberia now seeks LDCF funding for a Full-Sized Project to implement another priority project identified in its NAPA (NAPA was submitted to UNFCCC in May 2008). Specifically, LDCF resources will be used to enhance the resilience of the population to climate change impacts on agriculture and food production.

3. Liberia is in a period of transition after years of conflict and humanitarian emergencies. It is now moving through recovery and to development. The democratic process has started to take root and has been shown to work. Under the leadership of the government, Liberians are experiencing peace and a long-sought hope of a better future for themselves and their families.

4. Despite substantial recovery efforts, the country remains one of the poorest countries in the world, with a per capita GDP of only US\$362 (PPP) in 2009¹. Its Human Development Index in 2009 was 0.442, placing it 169th out of 182 countries. Poverty incidence is high, with 68 percent of the rural population and 55 percent of the urban population living on less than one US dollar per day, and children and the elderly the largest groups living in poverty². Moreover, 56 percent of the rural and 29 percent of the urban population fall below the extreme poverty

¹ UNDP, Human Development Report, 2009.

² 2007 Core Welfare Indicator Questionnaire (CWIQ)

line, meaning they are not able to meet the costs of food-needs based on a food basket providing 2,400 kcal per person per day.

5. Liberia's principal vision for growth is set out in the Poverty Reduction Strategy, 2008 – 2011 (PRS). Given the strategic importance of the agricultural sector, notably that approximately 70% of the population depend on agriculture for a livelihood, and the fact that agricultural development can have immediate impacts on the economy, the PRS seeks *“to revitalize the food and agricultural sector to contribute to shared, inclusive, and sustainable economic growth and development, provide food and nutritional security, increase employment and incomes, and measurably reduce poverty.”* For example, two key pillars of the PRS are Pillar 2: Revitalizing the Economy and Pillar 4: Basic Infrastructure and Social Services. Concerned immediate goals are: (1) making strategic farm inputs and services accessible, affordable and available to 125,000 farming families, (2) increasing rice, cassava and vegetable production by 30% over the 2007 baseline level by expanding land under cultivation, and (3) strengthening the Ministry of Agriculture and other stakeholders.

6. At the County level, each county has developed a County Development Agenda (CDA), the local mechanism for implementing the PRS.

7. These efforts mirror Africa-wide efforts to drive economic growth through the agriculture sector. African governments, in recognition of the relationship between agriculture and economic growth and development, adopted the Comprehensive African Agriculture Development Programme (CDAAP) in 2003. CDAAP aims to develop integrated, multi-partner approaches to agricultural development and poverty alleviation. Liberia adheres to the CDAAP. Liberia has developed the Liberian Agriculture Sector Investment Programme (LASIP) as the mechanism to revitalize the sector and implement CDAAP in Liberia. The LASIP is a multi-partner, integrated, medium-term programme of capacity development and investments to transform Liberia's agriculture sector, reduce poverty and drive economic growth. The LASIP targets the factors that have undermined agricultural production in the past, such as inadequate infrastructure, structural weaknesses and poor policies. As such, it is an integral part of the PRS.

8. The gender dimensions of agricultural development and food security are obvious. Women and girls face gender inequality, including heavy work burdens with implications for the ability of women to positively change their livelihood situations and the corresponding conditions of their children. Women constitute the majority of small-holder producers and the agricultural labour force in general. They produce some 60% of agricultural products and carry out 80% of trading activities in rural areas. However, they have less access to resources (land, capital, technologies, skills, information) than their male counterparts.

Climate change

9. In addition to non-climate related pressures, climate change is already impacting agriculture and farming in Liberia. For example, it is becoming increasingly difficult to identify the optimal time to plant crops. This results in lower yields and increases the vulnerability of farmers. In many regions, reduced soil moisture is also considered to be a factor in sub-optimal cereal yields. Rainfall changes and temperature increases have also resulted in more pests, weeds, animal diseases³. Increased flooding and increased salinity in coastal regions are also climate change factors that can undermine agricultural development.

10. In the future, climate change is expected to lead to increased changes in rainfall patterns, shorter and more intensive rainy seasons, longer dry seasons, and increased temperatures year-round. Increased flood damage is also forecasted. As a result, the forecasted climate change may undermine national efforts to revitalize the agriculture sector and to increase food production. This is a direct threat to agricultural production and food security, and in turn a threat to development, peace and stability.

11. In order to respond to the greatest and most immediate threats of climate change, the government of Liberia undertook a process to prepare a National Adaptation Programme of Action (NAPA). Through a participatory and consultative process, the NAPA identified the three most urgent priority interventions. The first of these was to enhance resilience to increasing rainfall variability through the diversification of crop cultivation and small ruminants rearing.

³ Government of Liberia: National Adaptation Programme of Action, 2008 (NAPA).

12. The NAPA identified that, in many parts of Liberia, rain-fed farmers have devised numerous kinds of coping strategies to deal with agricultural production in the face of climatic variability. With the advent of changes in climatic patterns in recent decades, many of these strategies are proving to no longer be effective. The NAPA identified future potential adaptation strategies, including:

- modifying the timing of crop cultivation in response to changing rainfall patterns;
- intercropping, irrigation and optimization of lowland/swamp farming practices;
- pest control, including fencing of farms against rodents, bird scare scrolls, regular weeding, and the use of echoing bells; and,
- maintaining fast growing nitrogen fixing tree species to improve soil fertility and using multiple-purpose tree species on farmlands to maintain forest cover.

13. However, the widespread introduction and adoption of these, and of other strategies to adapt to climate change, faces a series of barriers, including:

- insufficient knowledge and awareness amongst decision-makers and planners;
- the current agriculture policies have not taken climate change into account, either because they are outdated, or because they were prepared rapidly in order to kick-start the sector after the civil conflict;
- low capacity of technical staff and extension agents;
- the information needed by farmers, on climate change, on impacts, and on the benefits of alternative measures is either missing or is not communicated to the farmers that need it;
- the need to demonstrate and pilot the practices in the site specific contexts found at different sites in Liberia.

14. The LDCF Project will address the above barriers, thereby supporting the ongoing process to revitalize the agriculture sector, and ensure that adaptation to climate change is integrated into the revitalization process. Specific contributions toward the reduction of vulnerabilities to climate change will be achieved through the pursuit of specific outcomes including: (a) integrating concerns into relevant policies and planning processes at the state and national levels; (b) comprehensive capacity development for individuals in national agencies focusing on agriculture and in pilot counties, and farmers; (c) demonstration of risk reduction strategies and measures at pilot sites; (d) strengthening technical capacity to integrate climate change risk management into farmer level agricultural capacity; and (e) capturing and disseminating lessons learned to key stakeholders.

15. Expected adaptation benefits include strengthening of technical capacities in key sectors. This will notably be with respect to agricultural planning and agricultural practices in poor communities in Liberia. Other benefits will include the development of social and organizational capacity and general awareness about the adverse impact of climate change. The project will also promote a programmatic approach to adaptation planning among various stakeholders, development partners and donors, and facilitate the mainstreaming of climate risk reduction into agricultural planning frameworks, policies and programmes in Liberia. Several agriculture-based communities will have adapted to climate change. In the face of climate change and Liberia's subsequent adaptation to its adverse impacts, the project will also support future up-scaling and replication.

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

16. The project is consistent with national priorities/plans set out in key documents like the National Adaptation Programme of Action (NAPA), Poverty Reduction Strategy (PRS), the Liberian Agriculture Sector Investment Programme (LASIP), the Food Security and Nutrition Strategy (FSNS), United Nations Development Assistance Framework (UNDAF), UNDP Liberia Country Programme Document (CPD) and Country Programme Action Plan (CPAP) (2008-2012), and the National Disaster Relief Policy (on-going).

17. LASIP has four components, addressing respectively: land and water resources development; food and nutrition security; competitive value chains and market linkages, and; institutional development. LASIP involves a range of policy and investment initiatives, including land policy reform, enhanced land husbandry, increased food crops production and productivity, rehabilitation and expansion of rural roads, strengthening of rural financial services. LASIP involves a range of national and international partners, notably: the Ministry of Agriculture (MOA),

Ministry of Internal Affairs, the Food Security and Nutrition Technical Committee (FSNTC), the Agriculture Coordination Committee (ACC), and many agriculture sector parastatals, technical institutes, and research institutes, etc. Total investment in LASIP in the coming four-year period is estimated at over \$200 million. A key strategy of this LDCF project will be to mainstream climate change into LASIP.

18. The project will also contribute to meeting objectives set out in the UNDP Country Programme 2008-2012 for Liberia (CPD 2008-2012), and will be implemented within that Country Programme. Furthermore, the project is in line with the major development challenges and priorities identified in the United Nations Common Country Assessment (2006). Both documents all identified sound environmental management as one of several key development challenges for the sustainable development of Liberia, and emphasized the urgent need to address the impact of climate change, climate variability and sea-level rise to the overall development aspirations of Liberia.

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

19. The project will implement priority interventions in Liberia's NAPA and therefore satisfies criteria outlined in UNFCCC Decision 7/CP.7 and GEF/C.28/18. It will catalyze and leverage additional co-financing resources. The project requests the LDCF to finance the additional costs of achieving sustainable development imposed on the LDCF-eligible countries by the impacts of climate change. It is country-driven, cost-effective, and will integrate climate change risk considerations into agricultural development and high-priority national initiatives to achieve sustainable agricultural growth and food security (which is a priority intervention sector that is eligible under LDCF guidelines). Liberia ratified the UNFCCC in November 2002 and is included in the list of Least Developed Countries (LDCs), as prepared and regularly updated by the United Nations. The country is therefore eligible for funding within the LDCF Adaptation window. In addition, this proposal is consistent with the following eligibility criteria:

- **Country ownership:** Liberia has completed and submitted its NAPA to the UNFCCC. This proposal originated from the NAPA process and was prepared with the full involvement of relevant stakeholders. All Liberia's fifteen counties were represented in the NAPA validation process. The sector being targeted is among the first priorities sectors identified in the NAPA.
- **Program and policy conformity:** The proposed project constitutes a response to urgent and immediate adaptation needs (program conformity). It is designed to address the additional costs of priority adaptation measures identified in the NAPA (programme design), and it will also create the necessary capacity to continue to do so after project completion (sustainability). The ratio of LDCF funds to co-financing is consistent with the sliding scale rule.
- **Financing:** Cost-effectiveness criteria will apply in the choice of adaptation measures and modalities. Financial contributions to the project strike a good balance between technical assistance, and the use of LDCF and other funds.
- **Institutional coordination and support:** The project is designed to complement other ongoing and planned projects and programmes without duplicating them. UNDP will play a pivotal role in project support by co-financing the project, but also by assessing the best national implementation modality, supervising implementation and mitigating project risks. Project implementation will be coordinated through the UN joint programme in Liberia.
- **Monitoring and evaluation:** The project will be monitored in line with the standard UNDP/GEF monitoring and evaluation procedures. Adaptive management will be a key component of the management approach.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

20. The international community is providing broad support to the Government in related areas. The government is currently mobilizing \$278 million from a range of development partners to implement LASIP.

21. Under LASIP, one of the most important and relevant initiatives is the Government and UN's "*Joint Programme on Food Security & Nutrition*". This Programme has two specific components (i) Emergency

Preparedness and Response (EPR) in Support of Government's Strategic Priorities, and (ii) Medium Term Support to the Poverty Reduction Strategy. The specific UN programmatic components are three-fold (i) Support for Access to Markets and Factors of Production (ii) Support for Access to Basic Services and Safety Nets, and (iii) Support for Nutrition Priority Interventions.

22. During the planned PPG preparatory phase, consultations will be held with all organizations/initiatives of relevance (including UNICEF) to discuss collaboration and partnerships in the achievement of the proposed intervention. Partnership modalities will be explored and a full stakeholder involvement plan will be developed, outlining the detailed arrangements for involving partners and sharing of responsibilities based on partners' respective comparative advantages.

E. DESCRIBE ADDITIONAL COST REASONING:

Outcome 1: Institutional and individual capacity to plan and manage climate change in the agriculture sector in Liberia.

23. Without LDCF intervention, under the PRS, the LASIP will move ahead, developing capacity and implementing investments and supporting farmers. This will include reform of land management, extension services, improving rural infrastructure, information services, financial services and institutional organisation. However, in this baseline situation, none of the above is currently considering climate change. As a result, all progress in this sector is vulnerable to being undermined by climate change. Farmers will have neither knowledge of climate change, or options, or data, and infrastructure will be vulnerable to flooding and landslides. Moreover, the capacity of the meteorological services to provide good data and climate related predictions for agriculture will continue to be limited.

24. In the adaptation alternative, an additional funding of US\$ 500,000 is needed to develop a national and county enabling framework to support and ensure the mainstreaming of climate change adaptation. These funds will be used to raise awareness of key national and county (in three pilot counties) leaders, to develop technical and policy-related capacity for a large group of experts and officials in government and academia, to mainstream climate change across the LASIP, to integrate climate change into the tertiary agriculture-related education system, and to ensure an improved availability of decision-making relevant information and data for farmers and agricultural stakeholders. Guidelines and manuals addressing climate change and targeting local government agencies, extension services and farmers may be developed. An Agro-climatology center will be established to collect climate related data and coordinate early warning systems. With LDCF support, the LASIP will be refined to the needs of adapting to climate change. Moreover, with co-financing, the government will establish an agency to map, describe, classify soil/land resources and plan agricultural land use activities.

Outcome 2: Innovative, sustainable, socially appropriate adaptive measures piloted at the community level.

25. In the absence of LDCF intervention, livelihoods and coping ranges within agricultural communities will continue to deteriorate. Changing rainfall and rainfall patterns, changing temperatures, storms and floods, increased pests and diseases will undermine the efforts of farmers and agriculture stakeholders to increase production and productivity. Changing climate also threatens the viability of local, agriculture related infrastructure (e.g. feeder roads and small-scale irrigation)

26. In the adaptation alternative scenario, additional funding of US\$1,391,500 will be used to demonstrate appropriate responses to climate change in rural areas. Based on a consultative planning process, at least six pilot investments will be identified, designed and implemented. These pilot investments will demonstrate practical ways to adapt to climate change in Liberian rural areas. They will demonstrate alternative agricultural strategies and agricultural investments. Revised crops or cropping patterns will be introduced and tested. Project activities will also demonstrate how small-scale infrastructure can be 'climate-proofed', thereby further increasing the resilience of the agriculture sector.

Outcome 3: Lessons learned and best practices from pilot demonstration measures, capacity development initiatives and policy changes disseminated to stakeholders and development partners.

27. Under the baseline conditions, the knowledge base about appropriate and high-impact community-based adaptation options is likely to remain insufficient on a national as well as regional scale. No lessons on adaptation to climate change, including variability, would be generated, and consequently there would be no need to disseminate such lessons

28. An LDCF amount of US\$ 260,000, together with considerable co-financing, will be used to analyze and evaluate the most effective set of adaptation options demonstrated by the project and capture and disseminate best practices as well as lessons learned to other sites within the country, and beyond. This may include toolkits or manuals, a website, or a small research programme. The project will feed these lessons into the Adaptation Learning Mechanism (ALM).

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

Risks	Rank	Mitigation measures
Unavailability of requisite human resources and data.	Medium	The issue of the unavailability of requisite human resources will be mitigated by recruitment of international consultants who will work closely with Liberian counterparts and by targeted capacity building activities. This approach is supported by the government and utilized in other UNDP programmes. Exit strategies will prevail, and all outside consultants will be tasked with building domestic capacity.
Insufficient institutional support and political commitments.	Medium	The proposed project is strongly supported by the Government of Liberia and other key stakeholders and development partners. The project team, in conjunction with UNDP, will therefore take advantage of this opportunity to seek substantial support from the Government and forge strong partnership with other development partners. Direct linkages to existing and planned baseline development activities implemented by government, securing of the necessary co-financing, as well as local buy-in will also minimize this risk.
Non-compliance by primary proponents for the successful implementation of this project.	Low-Medium	Ensuring that the project is designed and implemented in a participatory and inclusive manner, following established UNDP procedures, will mitigate the risk. Since the activities correspond to the urgent needs as expressed by the primary proponents, the risk of non-compliance should be reduced

29. 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:

30. The project is cost effective in meeting identified targets and criteria for success. It builds on existing baseline programs of line agencies – the LASIP - which provide a substantial portion of funds required to implement adaptation activities. National and state authorities in major stakeholder Ministries are key actors who will support effective implementation of activities. Capacity at local levels will be strengthened to achieve outputs efficiently and economically. In addition, the project has been assessed and prioritized in the NAPA process as the cheapest way to achieve the intended results, which confers to the intervention the best cost-benefit ratio. Moreover, during the PPG implementation phase, the proposed outputs under this PIF will be elaborated and their detailed cost-effectiveness thoroughly analysed, in line with GEF guidance. When the final proposal is submitted for CEO Endorsement, it will contain all the necessary justifications for cost-effectiveness.

H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:

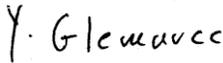
31. The proposed project is aligned with UNDP’s comparative advantage, as articulated in the GEF matrix, in the area of capacity building, providing technical and policy support as well as expertise in project design and implementation.

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:
 (Please attach the [country endorsement letter\(s\)](#) or [regional endorsement letter\(s\)](#) with this template).

Mr. Johansen Voker, Executive Director, Environmental Protection Agency (EPA)	Date: 22 March, 2010
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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.	
 Yannick Glemarec Executive Coordinator UNDP/GEF	Tom Twining-Ward, Regional Technical Advisor, UNDP/BDP/GEF
Date: June 8, 2010	Tel. and E-mail: +27 12 354 8136; tom.twining-ward@undp.org