



REQUEST FOR CEO ENDORSEMENT¹

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: LDCF

PART I: PROJECT INFORMATION

| | | | |
|--|-------------------------|------------------------------|--------------|
| Project Title: Enhancing Resilience to Climate Change by Mainstreaming Adaption Concerns into Agricultural Sector Development in Liberia | | | |
| Country(ies): | Liberia | GEF Project ID: ² | 4268 |
| GEF Agency(ies): | UNDP (select) (select) | GEF Agency Project ID: | PIMS 4439 |
| Other Executing Partner(s): | Ministry of Agriculture | Submission Date: | Aug 24, 2011 |
| GEF Focal Area (s): | Climate Change | Project Duration(Months) | 48 |
| Name of Parent Program (if applicable): For SFM/REDD+ <input type="checkbox"/> | NA | Agency Fee (\$): | \$261,460 |

A. FOCAL AREA STRATEGY FRAMEWORK³

| Focal Area Objectives | Expected FA Outcomes | Expected FA Outputs | Trust Fund | Grant Amount (\$) | Cofinancing (\$) |
|--------------------------------------|--|--|------------|-------------------|------------------|
| CCA-2 (select) | Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses | Output 2.2.1: Adaptive capacity of national and regional centers and networks strengthened to rapidly respond to extreme weather events | LDCF | 687,800 | 1,418,600 |
| CCA-1 (select) | Outcome 1.3 Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas | Output 1.3.1 Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability | LDCF | 1,516,600 | 4,126,522 |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | | | (select) | | |
| (select) (select) | Others | | (select) | | |
| Subtotal | | | | 2,204,400 | 5,545,122 |
| Project management cost ⁴ | | | | 177,000 | 800,000 |
| Total project costs | | | | 2,381,400 | 6,345,122 |

¹ It is important to consult the GEF Preparation Guidelines when completing this template

² Project ID number will be assigned by GEFSEC.

³ Refer to the [Focal Area/LDCF/SCCF Results Framework](#) when filling up the table in item A.

⁴ This is the cost associated with the unit executing the project on the ground and could be financed out of trust fund or cofinancing sources.

B. PROJECT FRAMEWORK

| Project Objective: To increase resilience of poor, agriculturally-dependent communities and decrease vulnerability of agricultural sector to climate change in Liberia. | | | | | | |
|--|-------------------|---|---|-------------------|--------------------------|-----------------------------------|
| Project Component | Grant Type | Expected Outcomes | Expected Outputs | Trust Fund | Grant Amount (\$) | Confirmed Cofinancing (\$) |
| COMPONENT 1: CAPACITY DEVELOPMENT | | OUTCOME 1: STRENGTHENED INSTITUTIONAL AND INDIVIDUAL CAPACITY TO PLAN AND MANAGE CLIMATE CHANGE IN THE AGRICULTURAL SECTOR IN LIBERIA | <p>Output 1.1: CRM and adaptation capacity in the agricultural sector developed of key technical stakeholders in the ministry technical departments, in parastatals, NGOs and in research institutes (especially those responsible for preparing policies and plans and for overseeing investments).</p> <p>Output 1.2: In two 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.</p> <p>Output 1.3: Liberian tertiary education system adapted to produce technicians, engineers and scientists knowledgeable about adapting to climate change</p> <p>REMOVED OLD OUTPUT 1.4</p> <p>Output 1.4: Raised awareness of national leaders to the threat of climate change to agriculture (e.g. MOA</p> | LDFC | 687,800 | 1,418,600 |

| | | | | | | |
|---|--|--|---|------|-----------|-----------|
| | | | <p>leaders, related Ministries and agencies, the Climate Change Committee, Cabinet, Food Security and Nutrition Technical Committee [FSNTC], Agriculture Coordinator Committee [ACC]).</p> <p>Output 1.5: Climate change and adaptation mainstreamed into LASIP and other key agricultural policy initiatives (e.g. Land Policy Reform, Enhanced Land Husbandry drive under LASIP)</p> | | | |
| <p>COMPONENT 2: ENHANCING RESILIENCE TO CLIMATE CHANGE BY MAINSTREAMING ADAPTION CONCERNS INTO AGRICULTURAL SECTOR DEVELOPMENT IN LIBERIA</p> | | <p>OUTCOME 2: INNOVATIVE, SUSTAINABLE, SOCIALLY APPROPRIATE ADAPTIVE MEASURES PILOTED AT THE COMMUNITY LEVEL</p> | <p>Output 2.1: A baseline analysis of current livelihood and natural resource use strategies and their vulnerabilities to climate change undertaken at two ‘demonstration sites’ and community adaptation strategies and plans in place.</p> <p>Output 2.2: Local community-based adaptation strategies and plans implemented: At least four adaptation and locally adapted innovations enhancing resilience to climate change tested at demonstration sites.</p> <p>Output 2.3: County agriculture plans in Bong and Grand Gedeh account for potential climate risks and incorporate building of climate change resilience as a key component.</p> | LDCF | 1,516,600 | 4,126,522 |

| | | | | | | |
|--------------------------------------|----------|--|---|----------|------------------|------------------|
| | | | Output 2.4: Agricultural policies and donor investments are guided by adaptation learning at demonstration sites and integrate a land-use and livelihood strategy that helps local farmers build critically needed climate change resilience | | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| Subtotal | | | | | 2,204,400 | 5,545,122 |
| Project management Cost ⁵ | | | | | 177,000 | 800,000 |
| Total project costs | | | | | 2,381,400 | 6,345,122 |

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

| Sources of Co-financing | Name of Co-financier (source) | Type of Cofinancing | Cofinancing Amount (\$) |
|---------------------------------|--|---------------------|-------------------------|
| Other Multilateral Agency (ies) | UNDP | Grant | 200,000 |
| National Government | Government of Liberia, Ministry of Agriculture | Grant | 5,000,000 |
| National Government | Government of Liberia, Ministry of Agriculture | In-Kind | 100,000 |
| | | | |
| CSO | AEDE | Grant | 909,632 |
| Other Multilateral Agency (ies) | FAO | Grant | 135,490 |
| (select) | | (select) | |
| (select) | | (select) | |
| (select) | | (select) | |
| (select) | | (select) | |
| (select) | | (select) | |
| Total Co-financing | | | 6,345,122 |

⁵ Same as footnote #3.

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

| GEF Agency | Type of Trust Fund | Focal Area | Country Name/ Global | (in \$) | | |
|------------------------------|--------------------|----------------|----------------------|------------------|-----------------------------|-------------|
| | | | | Grant Amount (a) | Agency Fee (b) ² | Total c=a+b |
| UNDP | LDCF | Climate Change | Liberia | 2,381,400 | 238,140 | 2,619,540 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| (select) | (select) | (select) | | | | 0 |
| Total Grant Resources | | | | 2,381,400 | 238,140 | 2,619,540 |

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

| Component | Estimated Person Weeks | Grant Amount (\$) | Cofinancing (\$) | Project Total (\$) |
|----------------------------|------------------------|-------------------|------------------|--------------------|
| Local consultants* | 960.00 | 441,600 | | 441,600 |
| International consultants* | 192.00 | 576,000 | 0 | 576,000 |
| Total | | 1,017,600 | 0 | 1,017,600 |

* Details to be provided in Annex C.

F. PROJECT MANAGEMENT COST

| Cost Items | Total Estimated Person Weeks/Months | Grant Amount (\$) | Co-financing (\$) | Project Total (\$) |
|--|-------------------------------------|-------------------|-------------------|--------------------|
| Local consultants* | 211 | 80,000 | 250,000 | 190,000 |
| International consultants* | 70 | 50,000 | 200,000 | 190,000 |
| Office facilities, equipment, vehicles and communications* | | 22,000 | 200,000 | 165,000 |
| Travel* | | 25,000 | 150,000 | 115,000 |
| Others** | | | | |
| Total | | 177,000 | 800,000 | 627,000 |

* Details to be provided in Annex C.

** For others, to be clearly specified by overwriting fields *(1) and *(2).

G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

(If non-grant instruments are used, provide in Annex E an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF Trust Fund).

H. DESCRIBE THE BUDGETED M & E PLAN:

The proposed project indicator framework follows the GEF-5 Adaptation Monitoring and Assessment Tool (AMAT) and is aligned with the UNDP M&E Framework for Adaptation. Objective level indicators and outcome level indicators are specified according to the UNDP nomenclature of Results Based Management (RBM). The project design further foresees the development of more specific M&E tools,

especially at the local implementation level. Participatory local level M&E can be a powerful management and communication tool, especially tracking and demonstrating project results at the demonstration sites. It is foreseen that a more detailed M&E project framework is developed during the project inception phase for national management purposes

Project Objective

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

Indicator: % change in projected food production in target areas given existing and projected climate change (AMAT indicator 1.2.8)

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

Indicator 1.1: No. of staff trained on technical adaptation themes (AMAT indicator 2.2.1.1)

Indicator 1.2: Sectoral strategies that include specific budgets for adaptation action (AMAT indicator 1.1.1.2)

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

Indicator 2.1: Climate resilient agricultural practices introduced to promote food security (AMAT indicator 1.2.1.3)

Indicator 2.2: % of targeted households that have adopted resilient livelihoods under existing and projected climate change (AMAT indicator 1.3.1.1)

REMOVED REFERENCE TO OUTCOME 3

The full set of indicators at the level of objective and outcomes, current baselines, envisaged targets and means of verification are included in Annex A: Project Results Framework.

A full draft M&E plan for this FSP (see Table below) is included in Section 6 of the project document.

| M& E workplan and budget | | | |
|---|--|--|---|
| Type of M&E activity | Responsible Parties | Budget US\$ <i>Excluding project team staff time</i> | Time frame |
| Inception Workshop and Report | <ul style="list-style-type: none"> ▪ Project Manager (MOA) ▪ PIU ▪ UNDP CO, UNDP GEF | Indicative cost: 10,000 | Within first two months of project start up |
| Measurement of Means of Verification of project results. | <ul style="list-style-type: none"> ▪ UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. ▪ PIU, esp. M&E expert | To be finalized in Inception Phase and Workshop. | Start, mid and end of project (during evaluation cycle) and annually when required. |
| Measurement of Means of Verification for Project Progress on <i>output and implementation</i> | <ul style="list-style-type: none"> ▪ Oversight by Project Manager (MOA) ▪ PIU, esp. M&E expert ▪ Implementation teams | To be determined as part of the Annual Work Plan's preparation. Indicative cost is 20,000 | Annually prior to ARR/PIR and to the definition of annual work plans |
| ARR/PIR | <ul style="list-style-type: none"> ▪ Project manager (MOA) ▪ PIU ▪ UNDP CO ▪ UNDP RTA | None | Annually |

| | | | |
|--|--|--|--|
| | <ul style="list-style-type: none"> ▪ UNDP EEG | | |
| Periodic status/ progress reports | <ul style="list-style-type: none"> ▪ Project manager and team | None | Quarterly |
| Mid-term Evaluation | <ul style="list-style-type: none"> ▪ Project manager (MOA) ▪ PIU ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team) | Indicative cost: 30,000 | At the mid-point of project implementation. |
| Final Evaluation | <ul style="list-style-type: none"> ▪ Project manager (MOA) ▪ PIU ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team) | Indicative cost : 45,000 | At least three months before the end of project implementation |
| Project Terminal Report | <ul style="list-style-type: none"> ▪ Project manager ▪ PIU ▪ UNDP CO | None | At least three months before the end of the project |
| Audit | <ul style="list-style-type: none"> ▪ UNDP CO ▪ Project manager (MOA) ▪ PIU | Indicative cost per year: 3,000 (12,000 total) | Yearly |
| Visits to field sites | <ul style="list-style-type: none"> ▪ UNDP CO ▪ UNDP RCU (as appropriate) ▪ Government representatives | For GEF supported projects, paid from IA fees and operational budget | Yearly |
| TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses | | US\$ 117,000 (+/- 5% of total GEF budget) | |

Project monitoring and evaluation will be conducted in accordance with established UNDP-GEF procedures and will be undertaken by the UNDP-Country Office (CO) with support from UNDP-GEF. The Project Results Framework (SRF) in Annex A provides *performance* and *impact* indicators for project implementation on the outcome level along with other corresponding *means of verification*. These will form the basis of the project's Monitoring and Evaluation (M&E) plan. The M&E process includes detailed ongoing monitoring and reporting procedures, external mid-term and final reviews. These reviews will be supplemented by the conventional annual Tripartite Reviews, Mid-term Review and the Terminal Tripartite Review required by UNDP procedures.

The Project Management Unit (PMU) in conjunction with the Project Board will develop a detailed schedule of project review meetings, which will be incorporated into the inception workshop report. This schedule will include time-frames for Tripartite Reviews, Project Steering Committee and Technical Support Mechanism Meetings and other relevant advisory and coordination mechanisms. Day-to-day monitoring of implementation progress will be the responsibility of the Project Manager (PM) based on the Annual Work Plan (AWP) and its indicators.

The PM and UNDP-CO will undertake the quarterly progress monitoring of the project implementation. This monitoring will be based on the project's performance indicators which would have been fine-tuned in consultation with the stakeholders during the inception workshop. The targets and indicators may be revised annually as part of the internal evaluation process.

UNDP will conduct visits to the pilot sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may

also join these visits. A Field Visit Report will be prepared by UNDP and will be circulated no less than one month after the visit to the project team and Project Board members.

Annual monitoring will occur through the tripartite review (TPR). This is the highest policy level meeting of the parties directly involved in the implementation of the project (i.e. MEPN and UNDP-CO). The project will be subjected to TPR at least once every year, the first one to be held within the first twelve months since the start of full implementation. With support from the PM, the MEPN will prepare an Annual Project Report (APR) and submit it to UNDP-CO at least two weeks prior to the TPR for review and comments. The APR will serve as the basis for assessing the performance of the project in terms of its contribution to the intended outcomes through outputs and partnership work. The APR will provide an accurate update on the project results, identify major constraints and propose future directions.

The Terminal Tripartite Review (TTR) will be held in the last month of operations. The TTR considers the implementation of the project as a whole, paying particular attention to whether the project achieved its objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects.

The Project Management Team will be responsible for the preparation and submission of the following reports which will form part of the monitoring process:

- *Inception Report*
- *Annual Project Report*
- *Project Implementation Review*
- *Quarterly Progress Reports*
- *Periodic Thematic Reports*
- *Project Terminal Report*
- *Technical Reports*
- *Project Publications*

The project will be subjected to at least two independent external evaluations at the mid-point and at the end of the project. The final evaluation will look at impact and sustainability of results, including the contribution to capacity development.

The project will be audited annually, using the National Execution Modality by the Office of the Auditor General. Audit reports and follow up action plans will be endorsed and monitored by UNDP.

Further details can be found in Section 6 of the project document.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1. The [GEF focal area/LDCF/SCCF strategies](#):

In line with the LDFC strategies laid out in document GEF/LDCF.SCCF.9/4/Rev.1, this project addresses adaptation priority needs identified in Liberia's Napa and all three LDCF objectives set out in document. Focus of the intervention is on reducing vulnerabilities to climate risks in the agricultural and food security sectors and the following objective and associated key outcomes are addressed.

Objective CCA-1 - Reducing Vulnerability: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level .

All three indicated outcomes are addressed, but outcomes 1.2 and 1.3 are the focus of the intervention.

Outcome 1.1: Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas

Outcome 1.2: Reduced vulnerability to climate change in development sectors

Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

LDCF conformity

The Republic of Liberia ratified the UNFCCC in 2002 and is classified among the non-Annex 1 parties. It also ratified the Kyoto Protocol in the same year, thus pledging political and practical commitment in the direction of sustainable development, while creating conditions to benefit from opportunities in this framework. Thus, following the example of Least Developed Country (LDC) Parties to this Convention, Liberia has developed and submitted its NAPA and is entitled to benefit from the LDC Fund for the implementation of priority measures identified in its NAPA. Furthermore, Liberia's NAPA top priorities comply with the LDCF eligibility criteria.

The Liberian NAPA (2008) identified eight high priority projects, of which a ranking exercise identified the 'top priority' project as 'Enhancing resilience to increasing rainfall variability through the diversification of crop cultivation and small ruminants rearing (agriculture)'. This proposed LDCF project directly responds to this priority.

The proposed project has been prepared fully in line with guidance provided by GEF and the LDCF Trust Fund. The project follows the guidance from 'Programming Paper for Funding the Implementation of NAPAs under the LDC Trust Fund (GEF/LDCF 2006).

Firstly, in line with GEF/LDCF (2006), this project was identified and conceived through the participatory NAPA process in Liberia. Moreover, it was designed to be consistent with, and supportive of, national development strategies, as expressed in the PRSP and related documents. It is aligned with the UNDAF and CP, as outlined in detail in Section 1.1.2 above.

Secondly, the project addresses the urgent and immediate activities identified in the NAPA, and is in line with the priority sectors identified in GEF/LDFC (2006) on a global basis. Notably, this project focuses on urgently needed adaptive capacities in the agricultural sector and addresses priorities identified in both the agricultural and food security sectors. It builds local community adaptation capacities and strengthens county and national government services to be able to address adaptation in a well informed and knowledgeable way. The systemic capacity to address adaptation in Liberia is strengthened through targeted interventions at the policy, planning and budgeting levels.

Thirdly, this project is designed to address critical policy gaps in terms of the predominant upland shifting agricultural system and ensuring a sustainable lowland rice production system that currently make local communities and the agricultural and food security sectors more vulnerable to anticipated climate change risks.

Overall GEF Conformity

The Project has been designed to meet overall GEF requirements in terms of design and implementation. For example:

- Sustainability: the project has been designed to have a sustainable impact, at village and at national level. See section on sustainability below for more details;
- Monitoring and evaluation: the project is accompanied by an effective and resourced M&E framework, that will enable ongoing adaptive management of the project, ensuring that

lessons are learnt, management decisions are taken based on relevant and up-to-date information, and regular progress reports are available for concerned parties;

- **Replicability:** great attention has been paid in the project design to ensure that lessons are replicable, and that the necessary replication mechanisms are in place. See section below on replicability for more details;
- **Stakeholder involvement:** following on from the NAPA process, the design of this project was effectively participatory. Moreover, the design of the project ensures the appropriate involvement of stakeholders in project implementation and monitoring.

A.2. National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.: Liberia has prepared a **National Adaptation Program of Action (NAPA)** targeting *Vulnerable Groups in Urgent Need of Adaptation Activities*, among those whose livelihoods consist of farming. This project fully reflects the priority measures identified by the Republic of Liberia's NAPA, and will contribute to the country's development and achievement of critical MDGs. Agriculture, the main livelihood activity and one of the driving forces of Liberia's economy, is a leading priority for the government.

This is Liberia's second LDCF proposal and is identified as top NAPA priority. The profile of the priority was described as follows. **Overall objectives:** The primary objective of the project is to reduce vulnerability of farmers to climate change by diversifying crop farming through the cultivation of soybeans, lowland rice and small ruminant rearing. The major **goals** of the project include (1) to reduce to a considerable extent the impacts of extreme effects of weather on farm productivity; (2) to encourage and promote the diversification of sustainable agricultural productivity; (3) to increase the food production level of farm families. **Expected results** include (1) rural communities' capacities strengthened; (2) increase in sustainable livestock and crop production; (3) poverty levels at both national and household levels reduced; (4) farmers' income increased due to diversifying agricultural production; (5) malnutrition levels among rural communities reduced.

Major adaptation activities and needs that were identified during stakeholder consultations for the NAPA are:

- Carrying out the timing of crop cultivation in response to changing patterns of rainfall;
- Intercropping, irrigation, and the optimization of lowland/swamp farming practices;
- Pest control including fencing of farms against rodents, bird scare scrolls, regular weeding, and the use of high 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.

The proposed LDCF project design has been closely aligned with these expectations and in consultation with a wide range of stakeholders.

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Baseline project revolves around promoting food security in Liberia through the aggressive development of low-land rice cultivation. Major baseline investments have been made over the past years into rehabilitating the agriculture sector after the war, and low-land rice production is one of the key strategies pursued by Government and cooperation partners. Although the efforts of such swamp development for productive use is commendable, there are serious climate change related problem that

face this drive – as well as both the agriculture and food security sectors per se. In the following the baseline project is described according to the three components of the proposed LDFC project.

COMPONENT 1: CAPACITY DEVELOPMENT

OUTCOME 1: STRENGTHENED INSTITUTIONAL AND INDIVIDUAL CAPACITY TO PLAN AND MANAGE CLIMATE CHANGE IN THE AGRICULTURAL SECTOR IN LIBERIA

Armed conflict and social instability led to the emigration of the limited trained manpower of Liberia. Few have returned as the institutional infrastructure they need for job satisfaction is still in its early stages. Thus there are few scientists capable of working on the challenges of current land use practices; there are no facilities for taking soil samples for example. Mid-level personnel have not been trained with a systems approach or in participatory methodologies. These are provided mainly by NGOs and even then in a haphazard manner. The Ministry of Agriculture is only now reconstructing itself and with its limited budget has a very limited capacity for outreach. Climate change management capacities at individual, institutional and systemic levels – either as a stand alone or mainstream approach, are currently not systematically strengthened.

As a post-conflict country, Liberia has focused its recent development efforts on enhancing national security, revitalizing the economy, strengthening governance and rule of law, and rehabilitating infrastructure and delivering basic social services – the four pillars of Liberia’s PRS. Investments in the agricultural sector have been impressive – mostly with a view to building national food security. Support from a multitude of donors has included the UN joint program on food security, of which UNDP has been a significant partner. However, building climate change resilience in the sector has not been a focus of any such investments to date.

UNDP is coordinating the implementation of a GEF LDFC project on coastal erosion, the first NAPA priority addressed in the country context. Oxfam has made an initial effort to initiate capacity support efforts in terms of CC. Cuttington University’s agriculture school has started to integrate climate change modules into their ongoing modules – mostly through a mainstreaming approach. The NAPA process provided some initial stakeholders with exposure to climate change issues and thinking, but no systematic approach to climate change analysis, risk assessment and adaptation planning is in place. There is no clear guidance – and lessons learned – on how climate resilience can be achieved in the agricultural, rural development and food security sectors in Liberia. In fact there are many assertions and myths circulating, and evidence-based decision making is largely absent.

If capacities are not strengthened to attend to climate change challenges in the sectors, it is very likely that maladaptive practices in agriculture, rural development and food security will remain prevalent – making the sectors and the people depending on them for their daily livelihoods and incomes extremely vulnerable.

Additionally, national development and relevant sectoral policies are currently not addressing climate change risks posed to Liberia. Worryingly, several agricultural investment policies seem to lay the foundation for maladaptive practices, exposing rural Liberians who directly depend on subsistence agriculture for their daily livelihoods to future risks and making them particularly vulnerable. For example the large-scale drive towards developing lowland rice cultivation throughout most counties, at least as a stand-alone livelihood strategy seems very risky. In addition, the continued degradation of ecosystems e.g., through uncontrolled slash and burn practices renders communities extremely vulnerable to future climate shocks. Even larger-scale commercial agricultural projects and investments may be ill advised to react on policies that have not undergone some rigorous ‘climate change proofing’ – or the adjustment of investments in line with projected climate change risks. Numerous donor-supported investments – which have been mostly driven as emergency and post-

conflict responses up to now, would benefit from building climate change resilience into them as a key consideration for future programming. UNDP has a comparative advantage to spearhead such a policy shift among donors as well as national decision makers, with a specific climate risk and environmental management for sustainability focus in the institutions' work plan.

In terms of related financial baselines, a diversity of multi-lateral and bi-lateral donors is active in Liberia, as well as numerous private and church-based charities. Much of the support focuses on the relief and reconstruction activities outlined in Liberia's Results Focused Transitional Framework. The majority of interventions are still geared to emergency assistance and post-war recovery. However, measures targeting the medium and long term are now becoming more prominent, including in the agricultural sector – with a focus on improving food security. Most of the interventions listed below have a lowland rice cultivation development component or focus.

UNDP is playing a major role in supporting capacity development in Liberia, including that relevant to the agricultural sector. UNDP currently provides around \$60 million annually in grants⁶, including for Liberia Decentralisation and Local Development; Community Based Recovery and Development; Micro-Finance – Improved Access by Women to Financial Services in Rural Areas; Support to Youth Employment and Empowerment; Disaster Risk Reduction Programme and Centre Songhai Liberia Initiative (a promising agricultural production/marketing experiment). On a national level, baseline support for the enhancement of agricultural sector capacities include, but are not restricted to the following: The UN-Joint Food security program (US\$ xxx) and the EU – food facility support (US\$ 1,6 Mio)⁷ were rolled out up to now and have greatly contributed to supporting national capacities in the agricultural sector in post-war Liberia. The Liberia Integrated Assistance Programme (LIAP) funded by USAID totalled to about US\$ 20 Mio with 12,505 MT of commodities for monetization and 5,248 MT of materials for distribution coming out of that support, which aimed to reduce food insecurity of rural households in 24 districts including in Bong between 2007 and 2010. In addition to training in food production and nutrition, the program conducts rehabilitation of damaged community infrastructure including markets. The Agriculture for Children's Empowerment Project (ACE) funded by USAID (US\$ 2.7 Mio) aims to improve child welfare using economic growth activities. ACE's main entry points into the communities are schools and agricultural input service providers. ACE project is linked to this proposed project, as improved education for children helps improve families' skills and capacity in agricultural production. FAO is implementing numerous relevant agricultural sector development projects throughout Liberia with an overall portfolio of US\$ 10 Mio⁸. Notably some investments under the Food Security through Commercialization of Agriculture (FSCA) (US\$ 1.5 Mio) will be implemented as co-financing contribution under Component 2 of this project. A significant intervention by government is the Agriculture Sector Rehabilitation Project (ASRP) currently under implementation. The total investment of the various donors (e.g. ADF, IFAD) is about US\$ 26.7 million). The overall goal of the project is to contribute to food security and poverty reduction. Its specific objective is to increase the income of smallholder farmers and rural entrepreneurs including women, on a sustainable basis.

Capacity building relative to climate change is slowly coming onto the development agenda, responding to critical sustainability needs. Liberia's Environmental Protection Agency (EPA) coordinates the climate change program in Liberia, and has coordinated the NAPA. The GEF sponsored 'Enhancing Resilience of Vulnerable Coastal Areas to Climate Change Risks in Liberia' project has a capacity building component at the national and county levels. About US\$ 3.3 million are allocated to this capacity building. EPA, together with UNDP is coordinating an Investment and

⁶ These come from diverse sources, including UNDP's own funds, from UNCDF, from a range of bilateral donors (e.g. SIDA, DANIDA) and others (eg. EU).

⁷ EU's Contribution to Strengthening the Government of Liberia and UN Joint Response to Food Crises through UNDP. Progress Report (June 2009 – July 2010)

⁸ Information obtained from FAO fact sheet, FAO/Liberia (tel. #+2316553891)

Financial Flows (I&FF) assessment of adaptation in the agricultural sector. This project is primarily linked to national capacity development on climate change adaptation and comes with an investment of approximately US\$ 40,000. The Forestry Development Agency coordinates the REDD program (US\$ 200,000) and is supporting climate change capacity development. Specific support to Cuttington University, through Oxfam and IFPRI, and the UNDP ‘Boots on the Ground’ programme, all related specifically to building national climate change capacity are not costed individually, but make significant baseline contributions to this project. UNDP is also facilitating another GEF funded project under the Sustainable Land Management focal area, entitled ‘Mainstreaming and Capacity Building for Sustainable Land Management.’ This project aims at creating an enabling environment for sustainable land management through mainstreaming and developing capacities for sustainable agriculture through a broad-based participatory process. The roughly US\$ 1 million investment is being implemented by the EPA and the University of Liberia.

COMPONENT 2: ENHANCING RESILIENCE TO CLIMATE CHANGE BY MAINSTREAMING ADAPTION CONCERNS INTO AGRICULTURAL SECTOR DEVELOPMENT IN LIBERIA

OUTCOME 2: INNOVATIVE, SUSTAINABLE, SOCIALLY APPROPRIATE ADAPTIVE MEASURES PILOTED AT THE COMMUNITY LEVEL

Liberia historically had a dual rural economy: a modern agricultural sector, mainly tree crops especially rubber, and a subsistence slash and burn farming system that produced the basic foodstuffs for the population. From the beginning these two systems have been in conflict. An urban elite promoted a policy of privatization and state ownership of the land and trees, leasing their exploitation in the form of concessions. As the USA Property Rights and Resource Governance paper points out, ‘This policy has permitted the state to grant concessions for vast tracts of customary land. It has also contributed to conflict, as indigenous communities lost their food and livelihood source and an important lynchpin of their cultural heritage.’ The same document also points out that ‘...central to the war was conflict over land and natural resource rights...’⁹ The government has recognized the importance of these issues, and set up a National Land Commission (2009) to draft a new framework for land rights and the return of ownership of land and forest resources to the community. Community-based natural resource management systems are being promoted by the Commission.

Over the past years, significant investments have been made in the agricultural sector. The government is pursuing a policy of promoting lowland rice production in a drive to secure national food security (see above). Major investments and pending proposals by organizations such as the UN-family, the EU, IFAD and ADB are focused on lowland rice production. A full production chain, starting with infrastructure investments on site for rice production, capacity development of local farmers groups, development of a market for the produce, setting up of processing infrastructure, seed facilities and transportation lines, is being set up by a concerted and largely well coordinated donor support effort.

Notably the lowland rice development effort is being pursued as a sole focus. However, field investigations and community interviews during the PPG phase of this project clearly identified that farmers largely apply a dual farming strategy. The so-called upland farming, which can be described as a migratory slash and burn system, produces ‘upland’ rice varieties which are preferred by the rural population, as well as other key food crops such as cassava, bananas, groundnuts, root crops, pepper, maize, beans and so forth. The lowland rice production priority of the government is not rejected but is seen as a complementary activity, the scale of which depends on the level of government and donor investment; inputs, finance, transport and crop prices. Lowland farming is mainly conducted as a cash income alternative earned from project remittances and rice sales, and not to produce preferred local

⁹ See USAID Country Profile of Liberia – Land tenure and Property Rights Profile.

food. Lowland rice production is highly dependent on subsidized external inputs such as fertilizers, chemicals and fuel.

Very limited formal information on characteristics, functions and dynamics of these farming systems exist to date. OXFAM and CARE have conducted some relevant and site specific studies throughout Liberia and especially at the proposed project 'sites'. FAO has only just started to develop some foundations for farming systems research, as they have so far focused their support in the context of post-conflict food security. Although some anthropological studies on tribal use of forests existed prior to the war, post-war work on forest access and resources seems to be very limited if they exist at all. Information on upland slash and burn, although still the most significant farming system, is extremely limited, especially information on cropping cycles and their yields. Systematic information on the successes of the lowland rice interventions in swamps is absent or inaccessible. Most information seems to be anecdotal, and partially captured by local communities in terms of planting inputs and harvest yields.

The upland farming practices bring with them numerous sustainability concerns, notably an uncontrolled cutting and burning of primary forests, often leading to long-term land degradation. Increasing population pressure throughout Liberia exacerbates the pressure on the limited upland farming areas and poses serious environmental threats. Several conservation NGOs are working on sustainable forest management projects, and Conservation International (CI), the World Wide Fund for Nature (WWF) and IUCN, amongst others, have projects in place that aim to improve and better direct the current slash and burn threats to the forests.

Climate change impacts are considered to be affecting local farming and lowland rice production already. Farmers reported that the seasonal rainfall patterns had already changed and that they have already started to adapt their traditional farming practices. They find that lowland rice production is more vulnerable to climatic variations, and their own traditional seed supplies do sometimes produce more reliable harvests. OXFAM conducted some initial research relating partially to the climate change risk of lowland farming in particular, and agricultural systems more broadly in Liberia. IFPRI is currently undertaking a research project which aims to map the suitability of various crops, including lowland rice, under existing regional climate change projections for Liberia. Although this research is not yet citable, it is clear that adverse impacts are expected. This information, linked to local perceptions, indicates that more diversified agricultural strategies must be pursued to build climate change resilience amongst local farming communities and the agricultural sector per se.

Although there are currently no specific local level climate change adaptation interventions ongoing in the agricultural sector in Liberia, it was found that the baseline situation in Panta District (Bong County) and in Gbarzon District (Grand Gedeh) is favorable to start building and piloting this important increment. Both districts are characterized by having well-established farmers' organizations in place and major NGOs as well as the UN are already cooperating in agricultural development projects at these sites. In Gbarzon a local cooperative, which is involved in lowland rice production as well as in an oil plantation, was established more than a decade ago, and is supported by the EU through OXFAM. In Panta CARE has been promoting conservation agriculture for the past two seasons and the district is relatively close to CARI with its agricultural scientific manpower. Additionally the UN Joint Program invested in this district, promoting local food security over the past years. Major advancements in terms of baseline agricultural development have been made at these sites since the end of the war, and local communities are mobilized and motivated to improve their own capacity – including for climate change resilience.

In terms of financial baseline, the investments in the agricultural sector described under Component 1 apply. More specifically, investments at the demonstration sites include the following for Bong and Grand Gedeh Counties:

Bong (Panta District): The UN Joint program has made significant investments in Bong county. In Panta district lowland rice development has been supported by the program and specifically by FAO to an approximate baseline investment of US\$ 1.5 Mio. Additionally, the World Food Program (WFP) initiated the Purchase for Progress (P4P) Scheme (with a budget of over US\$1 million for purchases in three counties, including Bong) in the same area. P4P is a partnership of WFP, the Bill & Melinda Gates Foundation, the Howard G. Buffet Foundation, the Government of Liberia and UNDP. The WFP is buying locally produced rice, an initiative to transform the way WFP purchases food in developing countries, giving small-scale farmers access to markets and the opportunity to sell their surplus at competitive prices. The rice is being milled locally and distributed to local beneficiaries of feeding programs. If surpluses can be generated by the local rice farmers these may even be used elsewhere for WFP's interventions in the future. The cumulative support to farmers in Panta district is not available currently, however, the baseline interventions are very visible and the local communities are actively involved in lowland rice cultivation development.

The Agency for Economic Development and Empowerment (AEDE), a Liberian NGO, supported the Panta Farmers Multi-purpose Cooperative Society in Panta District between 2008 and 2010¹⁰. US\$174,000 (funded by USADF) were invested to develop 150 acres of lowland, to conduct training in governance and financial management, and to construct a warehouse and one office building. Additionally 12,600 seedlings for 210 acres of oil palm were financed. The FAO further invested in the development of vegetable production. AEDE provided training and seeds to farmers.

Additionally, CARE International operates in three districts in Bong County, namely in Suakoko, Kpai and Panta Districts, piloting conservation agriculture (CA) techniques as a way of improving crop yields and soil fertility with smallholder farmers. Over the past three years, CARE has invested US\$ 1.2 Mio in Bong for CA – a sizeable baseline investment concerning possible adaptation techniques on site.

The Government of Liberia is investing into the county through its national budget, and specific allocations to the agriculture and food security sectors are made. However, during the project preparation no final financial figures could be solicited and “cleared” by MOA.

Grand Gedeh (Gbarzon District): OXFAM, with the financial support from the EU Emergency project, implemented food production support interventions in Liberia for US\$3 million. The Agency for Economic Development and Empowerment (AEDE), a Liberian NGO, worked together with OXFAM to support the rehabilitation and development of lowland rice infrastructure, building of new processing infrastructure, as well as purchasing of seeding material. Capacity support has also been provided in the form of training relating to lowland agriculture. Overall approximately US\$1,3 Mio were spent in the district between 2008 and 2011.

In Zleh Town, Gbarzon District, the so-called AMENU Farmers Cooperative Society is the key beneficiary has been a key beneficiary with an investment of more than US\$204,000 made into lowland rice development (AEDE through OXFAM). Over 500 acres of lowland were rehabilitated (irrigation infrastructure built previously was in place) for rice production, and approximately 150 tons of rice were produced during 2009/10. The project procured three motor bikes, 4000 kg of seed rice, constructed six dams, conducted governance training and paid for labor. Under the project ‘Promoting food security in south-eastern Liberia through commercial rice value chain development (2010–2011)’ additional US\$1 million were availed to construct a rice milling center, a warehouse, one office building, as well as irrigation and paddy rice infrastructure were financed. Tools were bought and specific capacity building activities took place on site.

¹⁰ Information on expenditure received from AEDE Management (thru: +2316527159 or augustusjflomo@yahoo.com)

FAO has supported the district in rice cultivation in the past, and will continue its support through the Food Security through Commercialization of Agriculture (FSCA) project on the site in the form of co-financing.

As for Bong county the Government of Liberia is investing into agriculture and food security in Grand Gedeh, however no final budgetary allocations could be provided during the PPG phase.

B. 2. incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

To ensure that the baseline project will become more climate resilient, specific additional LDCF activities have been planned. The following sections outlines these activities and the associated adaptation benefits.

Overall, the ultimate long-term solution would be to develop and implement a national strategy for addressing climate change risks in Liberia's agriculture, rural development and food security sectors. Such a national strategy would be build on ongoing practical local level adaptation learning, targeted research and a specific effort of improving and updating existing and newly emerging sectoral policy instruments, including programs, to include climate risk and management considerations. One major part of the strategy would address the need to climate change proof the current low-land rice development drive and to help local people build more resilience livelihoods through diversification and integration of up-land and low-land production, and forest resource use. In detail the following interventions are planned as per project component:

COMPONENT 1: CAPACITY DEVELOPMENT

OUTCOME 1: STRENGTHENED INSTITUTIONAL AND INDIVIDUAL CAPACITY TO PLAN AND MANAGE CLIMATE CHANGE IN THE AGRICULTURAL SECTOR IN LIBERIA

Adaptation alternative:

A critical mass of climate risk management capacity is being systematically built at the local, regional and national levels, through an integrated project design.

Technical staff of the MOA, the Land Commission and other relevant national government institutions, national and international NGOs working in the sectors, as well as technical experts at academic institutions in Liberia has the skills to plan and develop climate change resilience sector policies and programs, and to engage in evidence-based decision making leading to climate change resilient programming. An active and cutting-edge climate change research community is being established, and agricultural research agendas take climate change into consideration – and develop critical knowledge needed in Liberia for taking responsible local-level actions.

A strong baseline analysis to understand the agro-ecological, livelihoods, forest management, organization and training context more thoroughly will be in place and ongoing, laying the foundation for evidence-based planning. A more detailed formulation of any subsequent land-use intervention strategy will benefit from such a baseline. It will also provide the evidence base for the detailed planning of relevant land-use intervention strategies (in Component 2) for three systems: forest, upland shifting agriculture and lowland rice farming. The baseline analysis will be carried out with selected farmers identified during the inception stage, and representative of the communities' priorities. The baseline analysis is being carried out with key partners such as CARE, CARI, the University of Cuttington and others – and also serves as a capacity development opportunity. Based on on-the-ground piloting and testing (Component 2), sustainable climate change risk management practices are being developed for the sector, and suitable adaptation action and strategies are being developed. Project partners including regional extension officers will have the capacity to work with and advise local communities on climate change risks and opportunities – and facilitate local level adaptation responses.

In the adaptation alternative, it is recognized that policy shifts are firstly dependent on relevant and reliable information, and secondly on a dedicated policy dialogue that effectively conveys the relevant messages to the

policy makers – and are integrated into critical policy processes. A key result is the effective mainstreaming of climate change risk and adaptation actions throughout existing and newly developed agricultural policies in Liberia.

As such, it is envisaged that newly forming national development policies such as the upcoming second NPRS will mainstream climate change risks into its design, as well as planning of local poverty reduction actions. Existing sectoral policies will be reviewed taking cutting edge climate change knowledge and local and national level adaptation learning into consideration. Based on the dedicated local level adaptation learning demonstrations in Grand Gedeh and Bong county, valuable lessons learned for building climate resilient communities and economies will be absorbed into national decision making. The lowland rice development drive will be reviewed in the context of a diversified livelihoods approach, including agro-ecological and conservation-agriculture principles to rural development. Viable alternatives to low-return slash and burn practices will be developed and promoted.

As adaptation learning will probably continue far beyond the scope of the LDCF intervention, the principles of adaptive learning and policy making will be ingrained into ongoing and revolving policy making processes, i.e. through the mainstreaming of relevant climate change risk management principles.

Output 1.1: CRM and adaptation capacity in the agriculture sector developed of key technical stakeholder in ministry technical departments, in parastatals, NGOs and in research institutes (especially those responsible for preparing policies and plans and for overseeing investments)

Climate change research, risk management and adaptation are all still concepts rarely discussed among technical stakeholder in the agricultural, rural development and food security sectors. With post-conflict priorities focusing on basic service delivery and reconstruction, limited investments have been made so far in Liberia in addressing climate change. However, there is a strong demand for knowledge and skills development revolving around climate change in land production systems, and it is realized that climate change poses real threats to local livelihoods, current development models and the future economic growth of Liberia.

The systematic identification of human resource requirements of the various institutions involved and the availability of these resources in-country is required. Profiles for the key technical stakeholders need to be developed. A program will be set up that will a) train those in key positions with other relevant skills but whose knowledge of the specific aspects of climate change relevant to their work is weak, b) develop a program of training relevant personnel lacking in the posts in government, with scholarships, where necessary and c) develop a program of updating the existing professional pool about international advances in the subject relevant to the Liberian context, via internet, guest visitors and other mechanisms.

Key trainees to be targeted are the technical staffs of the four departments of the MOA, staffs of other governmental and parastatal organizations such as EPA and FDA, and those of major NGOs active in the agriculture and food security sectors, including OXFAM, CARE, AEDE. Senior teaching staff of the tertiary education centers will be targeted by the trainings as well. Technical advisors of donor programmes and cooperation partners will be also included on a individual basis.

A suite is suggested of specifically designed and targeted interventions strengthening the technical capacities pertaining to climate risk management in Liberia. Such interventions must be built from the community level with a participatory demand-driven approach based on learning-by-doing and reflecting the rationale of this specific LDCF project intervention.

Indicative activities:

- 1.1.1 Develop a Climate Change Management (CCM) capacity development plan for technical stakeholders in the agricultural sector.
- 1.1.2 Based on the vulnerability assessments and lessons learned under Component 2, develop specific

climate risk management strategies for the various actors in the sector.

- 1.1.3 Lay the baseline for the implementation of knowledge transfer strategies at various levels, including educational institutions, government functionaries, local leaders, communities.
- 1.1.4 Set up a Monrovia-based think tank on CRM and adaptation in the agricultural sector for key stakeholders (government, non-government and donors), facilitating knowledge exchange among the various interest groups, and learning and up-scaling from the demonstrations.
- 1.1.5 Support relevant (on-site) climate change management research by organizations, institutions and individuals through small research grants.
- 1.1.6 Develop a website on climate change learning: for this purpose, the project will support end-users surveys and hire developers to design a cutting edge and modern climate change adaptation website for Liberia with a focus on the agricultural sector. The knowledge management website will be linked to the websites of all relevant institutions including EPA, FDA, UNDP and the climate change secretariat for example.
- 1.1.7 Make website maintenance and updating with key information a key task of a staff member and ensure that regular follow-up is guaranteed.

Output 1.2: In two 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.

Regional technical staffs have extremely limited opportunity for professional updating, and usually find it difficult to address newly emerging technical issues and practices into their ongoing work. In Grand Gedeh and Bong counties, where the selected demonstration sites under Outcome 2 are situated, decentralized MOA staff and also county administration agricultural officers are in need of specific learning opportunities to enable them to take evidence-based decisions and to facilitate meaningful local level adaptation action.

Indicative activities:

- 1.2.1 Include county level staff in implementation arrangements for site-level initiatives to facilitate hands-on learning with the project team.
- 1.2.2 Develop a CCM capacity development plan for county level technical stakeholders in the agricultural sector. Link to Output 1.1 and specifically address needs and target group profiles for county level staff.
- 1.2.3 Implement county-level CCM capacity development plan, in particular focusing on building the capacity of key actors especially field staff, i.e. extension workers, NGOs, community leaders including those from women's organizations and leading farmers.
- 1.2.4 Make climate change learning materials accessible to key actors using the newly established climate change web portal. Cater for those who do not have web access by printing hard copies or distributing CD-ROMs with the learning materials.

Output 1.3: Liberian tertiary education system adapted to produce technicians, engineers and scientists knowledgeable about adapting to climate change

A long-term strategy to capacity building is to integrate relevant learning modules into the curricular and teaching practices of tertiary education institutions. The Agriculture Department of the University near Monrovia, the agricultural technical and Cuttington University in Bong County annually produce the graduates that will find employment in public and private sectors as well as future farmers' leaders. It is seen to be a strategic entry point to assist these institutions to mainstream climate change risk management meaningfully into their curricula or even to develop specific climate change modules.

Students and teaching personnel will be recruited to carry out on-farm research relevant to the key adaptation issues identified at the various demonstration sites in Grand Gedeh and Bong counties. They will work closely with researchers at CARI and with MOA county staff.

Indicative activities:

- 1.3.1 Support tertiary education institutions in the development of research proposals responsive to the adaptation strategies identified in the demonstration projects.
- 1.3.2 Facilitate on-site action research with local level community participation – and outputs that directly benefit local level application.
- 1.3.3 Establish a network of climate change research practitioners and support knowledge sharing and communication of research findings.
- 1.3.4 Establish an incentive system to encourage best practice, including a peer review mechanism to ensure research quality, e.g. the project could establish a research award system for students and lecturers.
- 1.3.5 Once identified and validated, new technologies, approaches and associated organizational activities will be promoted through an integrated medium strategy.

REMOVED OLD OUTPUT 1.4

Output 1.4: Raised awareness of national leaders to the threat of climate change to agriculture (e.g. MOA leaders, related Ministries and agencies, the Climate Change Committee, Cabinet, Food Security and Nutrition Technical Committee [FSNTC], Agriculture Coordinator Committee [ACC]).

The work that is being conducted i.e. under Component 2 of the project – the in-depth study of farmers' experiences and responses to increasing climate instability and its impacts – must be documented, systematized and edited into visual and written material for key national actors. Overall the role of the existing land-use systems must be documented and such local knowledge must be communicated to relevant decision makers. The demonstration sites for validating farming systems options should be developed as centers for visits and discussion of decision makers with farmers, so that lesson learning is incorporated directly into policy making. The new knowledge of the dynamics of climate change and its implications for Liberia should be disseminated among decision makers in regular meetings and workshops. All these activities are to be coordinated by the management team of the project according to a plan of work approved by the project Board made up of representatives of the key ministries and representatives of civil society.

Indicative activities:

- 1.4.1 Develop a detailed knowledge management and communication strategy addressing all intended project outcomes (e.g. website incorporated into MOA's and other related ministries' and agencies' websites).
- 1.4.2 Document the local level lessons learned in a systematic manner and develop the validation site capacity to function as local level learning laboratories (linked to Outcome 2).
- 1.4.3 Implement specific policy outreach activities such as technical seminars, field visits, policy dialogues and regular technical briefing papers for specific target groups.
- 1.4.4 Specifically link project lessons learned to the international peer community through attending conferences, presenting papers and linking to the Adaptation Learning mechanism, amongst others. Implement strategy and track impacts.

Output 1.5: Climate change and adaptation mainstreamed into LASIP and other key agricultural policy

initiatives (e.g. Land Policy Reform, Enhanced Land Husbandry drive under LASIP)

On the basis of the lessons learned from the project, agricultural policies will be reviewed and updated to incorporate climate change resilience building components. The think tank established under Output 1.1 will guide such policy dialogue. Partners in government, the private sector, national and international NGOs and the donor community will engage in critical climate change policy discussions and reviews.

The new PRS will clearly include climate change resilient programming and future interventions of the donor community will be climate sensitive to ensure long-term sustainability of investments in the agricultural, rural development and food security sectors. It is important not only to concentrate efforts on sustainability of future projects, but also to promote the sustainability of existing projects, e.g. by following-up on the EC food facility project being implemented by AEDE.

Indicative activities:

- 1.5.1. Formally identify and catalogue policy opportunities (such as the upcoming PRS update striving for Liberia to become a Middle Income Country by 2030), reviews of agricultural sectoral policy but also of donor investment proposals for mainstreaming climate change resilience building opportunities (based on project findings).
- 1.5.2. Together with key stakeholders (MOA, EPA, others), develop joint strategies of mainstreaming climate change concerns into future policy development.
- 1.5.3. If appropriate, develop climate change mainstreaming tools, integrating lessons from the project intervention.
- 1.5.4. As part of project review, track and analyze policy impacts.

COMPONENT 2: ENHANCING RESILIENCE TO CLIMATE CHANGE BY MAINSTREAMING ADAPTION CONCERNS INTO AGRICULTURAL SECTOR DEVELOPMENT IN LIBERIA

OUTCOME 2: INNOVATIVE, SUSTAINABLE, SOCIALLY APPROPRIATE ADAPTIVE MEASURES PILOTED AT THE COMMUNITY LEVEL

Adaptation alternative:

In the adaptation alternative a systematic local level adaptation strategy is being piloted in two districts in Liberia, namely Panta District (Bong County) and in Gbarzon District (Grand Gedeh). Based on an initial farming systems baseline analysis, an integrated land-use and livelihood strategy is being supported that helps local farmers build critically needed climate change resilience.

It must be recognized and understood that climate change is a location-specific issue. There will be no 'one fits all' solution anywhere in Liberia. Decentralized ways of working are needed, within the framework of coherent national policies. For example, project demonstrations such as mini-ponds show that it is a good adaptation practice for farmers operating on clay soil such as in Zleh Town, but might not be suitable for farmers operating on sandy soil like in Kpor. Specific attention is required to develop location-specific adaptation options to manage future anticipated risks taking into consideration bio-physical, socio-economic and socio-cultural issues.

Furthermore it is critical that the local farmers are the key drivers of the adaptation strategy, identifying their own local solutions. The 'project sites' refer to areas where established farmers' organizations operate. Farming families that are recognizable 'leaders' in farming practice and innovation and who are interested in external support for improving the viability of their farming systems are sought as partners. It is essential though that these 'leaders' remain in control of the changes on the farm. Bottom-up farmers' action is promoted, building buy-in and ownership, as well as promoting traditional knowledge inputs and innovation that are workable on site.

Instead of promoting single technical ‘adaptation technologies’, the locally developed adaptation strategies are developed as a holistic ‘livelihoods strategy’, which incorporates traditional multiple land and resource uses in the upland and lowland farming systems.

From the initial field consultations at the project ‘sites’, various proposals for potential adaptation ideas are indicated under ‘potential for change’ in the table below.

Liberian land use systems framework and climate change risk and adaptation context

| SYSTEM | BRIEF DESCRIPTION | ENVIRONMENTAL IMPACT | POTENTIAL FOR CHANGE | CC IMPLICATIONS |
|-------------------|---|---|--|---|
| FOREST EXTRACTION | Millenarian, bush meat, plants, insects, mushrooms and honey based on intimate knowledge of forest life. Also source of charcoal for urban consumption. | Sustainable when population levels are low and technology unsophisticated. Population growth and weapons plus conflict have emptied the forests of Liberia of bush meat. Knowledge of plants and other sources of food, drink, medicine, oils etc. lessening as older generations die and youth lose interest. | Potential productivity of forest is high but requires clarification of rights over the commons and consensus over its sustainable management. Key is recovery of forest knowledge systems and technical assistance to systematize, register and give value to this knowledge. | Maintenance of forest and forest quality key to rainfall and temperature moderation. Conservation of biodiversity and its knowledge system. Maximizes capacity of Liberian forest to capture CO ₂ . Charcoal production also contributes to CO ₂ contamination but depends on production system as can also contribute to absorption depending on use. |
| MIXED MIGRATORY | Again a traditional system adjusted to the problem of forest soil infertility, shifting slash and burn, multiple crops on sloping land for good drainage. | Again sustainable when land population ratios favor land. With change in the balance forest has little time to grow back and is now associated with widespread degradation. A multiple cropping system which helps to reduce fertility loss, control pests and disease, ensure resilience to climate and other factors while ensuring a more varied diet. | This is the most important farming system of Liberia and to be able to conserve the forest, produce the nation’s food and enable land-use planning, slash and burn has to be replaced by a stable forest farming system. There are various experiences in agro-ecological farming for tropical rainforests and their adaptation to the Liberian reality should be the first priority of the country. | Agro-ecological systems allow for forest recovery, control of soil erosion, retention of water, absorption of heavy rains, maximizing biodiversity of cultivated species as well as the ecosystem and stabilizing food production, reducing the need for external inputs and production costs and environmental vulnerabilities. It is also the most efficient system for CO ₂ absorption. |
| SWAMP RICE | Not a traditional farming system. Being promoted as a solution to low levels of rice production. Can have two harvests | Low lying areas in the forest that fill with water in the rainy season. Government promoting them as areas for commercial rice production. This has been | Sustainability of system not clear, farmers do not abandon upland farms or crop varieties (including rice species native to the region). Commercial rice production is seen as an added value | Rice is a climate problem especially when stover is burnt, being a major contributor to methane contamination. |

| | | | | |
|------------|--|---|--|---|
| | a year with a third dry land crop such as groundnuts or another species of legume. | tried before; it requires external inputs, market mechanisms and technical support. | system so continuity dependent on maintenance of support structures and markets for products. Also disease problems associated with system (malaria, bilharzia, dengue) and wading in paddy not attractive to younger men. | Successful lowland rice production implies a more industrialized form of farming with use of fertilizers, herbicides and insecticides all with great potential environmental damage. This type of monoculture is also an ideal environment for loss of control of pests and disease. The most relevant alternative option is the introduction of SRI. |
| GARDEN | Fruit trees and vegetables traditionally grown round the homestead. | Fruits, vegetables, chickens and goats are often part of the area around the village and homesteads but few families have turned this practice into something more productive. | Intensive farming of small plots integrating animals into the system are very efficient and offer an excellent source of micronutrients and protein. This farming system based on charcoal making, predominated in the Amazon in the past and is known as TERRA PRETA. | Charcoal making to produce biochar is a technology that absorbs CO ₂ and allows for the building of viable gardens and multicropping plots enhancing the food security of the rural population hence reducing pressure on the forests. |
| PLANTATION | The major commercial farming system based on tree crops such as rubber, cacao, coffee and palms for oil. | Over a hundred years old; started and still dominated by Firestone for rubber production. Productivity collapsed during the armed conflict and recovery is a priority of government, which is also promoting foreign investment in oil palm production. | Limited change for the model, highly susceptible to disease, both oil palm and bananas are facing serious disease threats in various parts of the world. When that happens chemical abuse is standard. | Absorption of CO ₂ but loss of biodiversity and generally not sustainable in the long run. |

The adaptation alternative in the agricultural sector requires the incorporation of an agro-ecosystem resilience approach. As to successfully deal with the impacts of climate change, current farming practices have to change. To achieve that, the country has to continue feeding itself and even increase yields, especially in areas where it is not self sufficient such as rice. At the same time it needs to ensure that the predominant farming systems transit to more sustainable environmentally friendly systems.

A critical aspect of the adaptation alternative is that the specific roles of women, youths and vulnerable people are considered and built upon. It is critical that disadvantaged individuals are not further deprived but are empowered by adaptation measures to build more sustainable livelihoods for themselves. Women, for example, clearly play an important role in agriculture and manage key aspects such as seeds, herbs, harvesting and commercialization, but that role is often not visible and is undervalued, given their marginalization from leadership roles and institutional decision making. To begin with, the role of women in seed selection and conservation, both very important for managing climate risks in agriculture, are not recognized. Any seed program will have to start with rural women. Specific integration of gender aspects and considerations in developing the local adaptation strategies is important.

A strong network and an alliance of service providers that work with the communities should be established and capacitated to undertake and facilitate local level adaptation action. NGOs, local government, research institutions, training institutions and above all the Ministry of Agriculture need to collaborate, to be able to translate field learning into a national policy framework.

Output 2.1: A baseline analysis of current livelihood and natural resource use strategies and their vulnerabilities to climate change undertaken at two ‘demonstration sites’ and community adaptation strategies and plans in place.

Although strong baseline activities are in place at the two selected ‘demonstration sites’, (1) Panta District (Bong County) and (2) Gbarzon District (Grand Gedeh), no detailed systematic analysis of existing livelihood and natural resource strategies has been undertaken to date. During the PPG phase some initial information was gathered to inform project design. Key information on the prevailing agro-ecological systems – the present farming systems, and the role of women and men – has not been documented. It is further unclear how the existing forest resources are being used, managed and governed. This is not unexpected given that government priority since peace was signed has prioritized the rehabilitation of agriculture and especially swampland rice production. At the same time the rehabilitation of the pre-war institutions that carried out farming systems work in the past, specifically CARI, has been slow. Few experienced personnel have returned and a new generation is only now beginning to return from post graduate studies. The priority of rehabilitation has also driven NGO priorities and only in 2010 did CARE begin work on agro-ecology systems.

To create a base line that enables agro-ecological interventions be demand and not supply driven requires a process of participatory monitoring of at least one year’s farming cycle this was just not possible with the time constraints facing the project preparation phase. Normally a base line can be built on existing information but in this case this is just not available given the destruction of historical records, the displacement of experienced personnel and the prioritization of rehabilitation by all actors in the sector. National personnel with experience in this type of work was not to be found, CARE is using regional consultants to help set up their initiative, hence the need to contract international personnel and the prioritizing of knowledge transfer and training.

In the light of this national context it has been identified as necessary, in collaboration with the existing project interventions of OXFAM, CARE, various UN-agencies and other potential partners, a detailed analysis of livelihood and land use systems of participating communities at the ‘sites’ will be undertaken. An in-depth understanding of how information is disseminated at the local level and who the key drivers are of the successful adoption of the new validated land-use practices. International best practice on farming systems research should be applied (e.g. FAO).

Participatory discussions and assessments of the local climate change risks, potential impacts on local livelihoods and natural resources systems as well as potential adaptation interventions must be conducted. Localized adaptation strategies and plans will be developed, focusing on an integrated approach to upland and lowland farming at the ‘sites’.

Indicative activities:

- 2.1.1 Undertake gender specific livelihoods assessments in pre-selected demonstration ‘districts’ and identify and agree to partnerships.
- 2.1.2 Identify, analyze and document the prevailing natural resource use strategies (e.g. forest resources, shifting agriculture and swamp rice).
- 2.1.3 Analyze the institutional arrangements of the communities at both the informal and formal levels.
- 2.1.4 Formulate vulnerability assessment for the selected partner communities.

Output 2.2: Local community-based adaptation strategies and plans implemented: At least four adaptation and locally adapted innovations enhancing resilience to climate change tested at demonstration sites.

Based on the local community adaptation strategies and adaptation plans developed for the demonstration sites, and in association with project partners already operating on site (i.e. OXFAM, CARE, various UN-agencies), new adaptation innovations will be demonstrated and tested interactively. Each site will have a support network (i.e. project team, agricultural extension services, NGOs operating at site, specialists from CADI). The design of the intervention will be based on cutting edge farmers' action learning principles, and lesson learned will be documented together with the local farmers. Balanced gender representation is required to ensure that gender vulnerabilities, roles and needs are fully considered and addressed.

Existing coping mechanisms will be identified with the local farmers and documented. A priority of this process is the identification and documentation of traditional farming systems and existing adaptations made by farmers in response to existing climate risks and climatic changes. Such existing coping mechanisms can potentially be formalized and promoted as adaptive measures suitable to the local frame conditions in many rural areas in Liberia.

Indicative activities:

- 2.2.1 Based on various in-depth analyses, farmers develop local adaptation strategies and plans with the support of project staff and extension services.
- 2.2.2 Identify local coping mechanisms already in place, and document them in detail.
- 2.2.3 Implement key adaptive measures from the local adaptation strategies and actions plans; set up testing and adaptation of innovations to local circumstances.
- 2.2.4 Establish a participatory monitoring and evaluation (M&E) system. Track success of adaptation innovation and share the lessons learned with key stakeholders at all levels.

Box 1: Potential adaptation measures appropriate to Panta and Gbarzon District sites (based on initial field consultations)

Building climate change resilience for lowland rice:

- System of Rice Intensification (SRI) introduced in the two sites via farmer to farmer validation methodologies including the use of legumes in rice cycle to help maintain fertility and reduce labor time needed for weeding (mucuna).
- Testing of the adaptability of local fish species to accompany the rice in the paddies as is done in various Asian countries (control of mosquitoes that carry malaria and dengue).
- Incorporation of stover into small animal husbandry systems as opposed to burning, after animal use can be returned to the land and enriched for improving soil cover and fertility.

Building climate change resilience for upland shifting agriculture: lowland rice:

- Use of legumes in crop cycle, especially with maize, to help maintain fertility and reduce labour time needed for weeding (mucuna).
- Support to a national program of identification and management of rice seed varieties starting with the women of the pilot communities as the prelude to a national seed project.
- Major focus is on experimenting with alternatives to slash and burn; for example introducing conservation agriculture to reduce need for rotation. Elimination of burning; mulching; incorporating national leguminous trees; intercropping; use of small ruminants; seed selection and broadcasting practices reviewed and alternatives experimented with.
- Communal seed beds for maintenance of all varieties of key crops used on the individual plots.
- Other examples:

Some general other:

- Experiment with biochar as an option for community gardens.
- With support from regional actors, pilot experiences of the semi-domestication of previously wild bush meat species such as cane rats, deer and grass cutters.
- Disseminate post-harvest experiences in drying (solar) and storage of grains and roots at the level of the household and community.

Output 2.3: County agriculture plans in Bong and Grand Gedeh account for potential climate risks and incorporate building of climate change resilience as a key component.

Understanding and learning generated from the practical field interventions at the demonstration sites will inspire country level agricultural and development plans to incorporate climate change considerations in the future. By including extension officers into the field teams and by conducting specific capacity development actions under Outcome 1 at the country level, sufficient buy-in, knowledge and interest is generated to up-scale the demonstration approaches and lessons learned.

Indicative activities:

- 2.3.1 Integrate extension officers into field teams; negotiate for time allocations in their work plans to be active partners in the project. If necessary, make budgetary allocations for their participation in terms of transport etc.
- 2.3.2 Project representative to participate in county-level planning processes to support the incorporation and mainstreaming of lessons learned on climate risk management and adaptation.
- 2.3.3 Organize site visits by relevant county representatives, as well as from other interested communities.
- 2.3.4 A series of investment proposals in support of both the farm systems identified and defined by the project as well as for the key crops and crop combinations identified by the field work carried out with support by this project.

Output 2.4: Agricultural policies and donor investments are guided by adaptation learning at demonstration sites and integrate a land-use and livelihood strategy that helps local farmers build critically needed climate change resilience

It is essential to fully document and utilize the information and lessons learnt from the local level to be able to utilize such information for policy making and capacity building at county and national level. This output specifically aims to ensure that local level issues are adequately communicated “upwards” to the national level, where most policy decisions are being made. This is a critical element especially in a country like Liberia, where bottom-up, evidence based decision and policy making is just in a re-establishment phase. Directly after the war many “emergency” responses were conducted top down, and structures and channels for bottom up and participatory approaches are just being (re-)established. Government policies as well as donor investments are only now starting to become more strategic in nature, moving beyond the emergency response.

This output will make a significant contribution to ensure that adaptation learning – a new and novel effort – will be adequately documented and channeled “upwards” to inform national level policy decisions.

Indicative activities:

- 2.4.1 Incorporation of a climate change adaptation knowledge management website into MOA website: for this purpose, the project will support end-users surveys and hire developers to design a cutting edge and modern climate change adaptation website for Liberia with a focus on the agricultural sector. The knowledge management website will be linked to the websites of all relevant institutions including EPA, FDA, UNDP and the climate change secretariat for example.
- 2.4.2 Document the adaptation learning from the local level and ensure that such information is made available and fed into the work under outcome 1, especially output 1.1. In particular provide information for websites, the national think tank on climate risk management. This activity is linked to output 1.1, however specifically focuses on articulating and promoting the lessons learnt and concerns from the demonstration sites.

- 2.4.3 Produce a series of briefing papers for policy makers on adaptation best practices in the agricultural sector national program for dissemination to key decision-makers and develop a strategy for making relevant learning materials on the web accessible to end users without internet access.
- 2.4.4 Conduct specific policy-maker roundtable events that discuss the key findings from the demonstration sites and make tangible policy contributions.

B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF). As background information, read [Mainstreaming Gender at the GEF.](#):

The planned intervention falls under CCA Objective 1 – reducing the vulnerability including of local people to climate change risks. As such the major socio-economic impacts will be achieved through reducing vulnerability and risk of local farmers in terms of food security and income from agricultural production.

In rural Liberia, clear gender dimensions are visible in the agricultural production line and on the household level. Initial gender diversified consultations during the PPG phase indicated clearly, that women were responsible (i) for seed conservation and management relating to low-land rice productions, and (ii) for maintenance of the diversified up-land crop and food stuff production.

In terms of project design, gender analysis and gender specific activities have been planned under component 2 of the project.

Additionally, under component 1 of the intervention, gender and women empowerment are addressed at the national technical and decision-makers level, specifically catering for capacity building needs in climate change risk management and adaptation. It is recognized that in post-war Liberia a strong dominance of men in technical positions can be found and women empowerment must be integrated into any development intervention.

B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

There are several risks that have been identified in the PIF (see below) as well as during the PPG phase. Most risks are organizational or strategic in nature, and mainly relate to relatively low current institutional and individual capacities of the public service structure in terms of adaptation. In summary, the following key risks were identified:

- Unavailability of requisite human resources and data (PIF);
- Insufficient institutional support and political commitment (PIF);
- Non-compliance by primary proponents for the successful implementation of this project (PIF);
- Stakeholder relations (PPG);
- Natural disaster: unusual and catastrophic climatic events during project implementation (PPG).

In detail the following risks and mitigation measures for each risk are specified and have been systematically addressed in the project design:

| # | Description | Date Identified | Type | Impact & Probability (1-5) | Countermeasures / Mngt response | Owner |
|---|-----------------------------------|------------------|----------------|----------------------------|---|-----------|
| 1 | Unavailability of requisite human | April 2010 (PIF) | Organisational | I=5 P=4 | The issue of the unavailability of requisite human resources will be mitigated by recruitment of international consultants or | MOA, UNDP |

| | | | | | | |
|---|--|-------------------------|------------------------------|------------|--|-----------|
| | resources and data | | | | even an NGO 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 programs. Exit strategies will prevail, and all outside consultants will be tasked with building domestic capacity | |
| 2 | Insufficient institutional support and political commitments | <i>April 2010 (PIF)</i> | Political and Organisational | I=3 P=3 | 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. However, elections are up in the later part of 2011, and it is difficult to foresee if new government arrangements may affect the project. | MOA, UNDP |
| 3 | Non-compliance by primary proponents for the successful implementation of this project | <i>April 2010 (PIF)</i> | Strategic | I=4 P=2 | Ensuring that the project is designed and implemented in a participatory and inclusive manner, following established UNDP procedures, will mitigate the risk. The PPG phase included significant consultations with a variety of stakeholders and suggests partnership arrangements for the implementation of the project. Since the activities correspond to the urgent needs as expressed by the primary proponents, the risk of non-compliance should be reduced | MOA, UNDP |
| 4 | Stakeholder relations | April 2011 | Strategic | I=4 P=2 | The PPG phase suggested that the project be implemented under a partnership arrangement between government, UNDP and competent NGOs/institutions/individual experts (national and international). This established commitment to a partnership approach to implementation should build the foundation for a good success for project implementation. | MOA, UNDP |
| 5 | Natural disaster: Unusual and catastrophic climatic events during project implementation | April 2011 | Environmental | I=4 P=2 | Unusually difficult climatic circumstances could threaten the demonstration projects. Although the overall mitigation strategy is to diversify agricultural production and build climate resilient eco-agricultural systems, major natural disasters could hamper the local level demonstrations. As the project intervention is planned over a four years time period annual variations should be accounted for. | MOA, UNDP |

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

Project stakeholders were identified in a participatory and consultative manner during the PPG phase. The table below specifies the major groups included and their potential roles during project implementation. The

project implementation plan below specifies further how stakeholders will be part of the implementation arrangements.

Project stakeholders were identified in a participatory and consultative manner during the PPG phase. The table below specifies the major groups included and their potential roles during project implementation. The project implementation plan below specifies further how stakeholders will be part of the implementation arrangements.

Stakeholder groups and potential role during the project stage.

| Stakeholder groups | Description or example | Potential role during the project |
|---|---|---|
| Responsible national Government, Ministries, and Agencies | EPA, MOA, FDA, CARI, other line ministries and related organizations and institutions | Generally, these stakeholder groups will support project implementation. They will also mainstream climate change into their policies and strategy plans. They can also benefit from capacity development under the project. |
| Ministry of Agriculture (MOA) | National line ministry responsible for agriculture, rural development and food security policy in Liberia. | Overall implementing partner in the field. Coordinates project implementation with UNDP. |
| Central Agriculture Research Institute (CARI) | Liberia's national agriculture research institute under MOA. Has the potential to develop a specific research framework for CC adaptation as well as being an important partner for the field component of the project. | Collaborate in relevant climate change adaptation on-site learning with farmers. Serve as an information and documentation hub and provide specific services such as building a seed bank, providing soil testing facilities, etc. Centre for building scientific and social knowledge of rural land use systems. |
| CARE | Major NGO that has a conservation agriculture project in Bong County with a complementary focus to this proposal. | Key field executing partner in Bong County. |
| Environmental Protection Agency (EPA) | CC FP and related CC projects. Coordinator of NAPA. | Part of project steering body. Important for replication of project results, communication, knowledge management and sustainability aspects. |
| Private Sectors | Agriculture companies, agricultural financial institutions, small enterprises in the agricultural sector, Community Based Organizations (CBOs) and Non Governmental Organizations (NGOs) in the agricultural sector. | These Stakeholder groups will generally support project implementation. They will also mainstream climate change into their policies and strategy plans. Provide credit system, which can be linked to building the capacity of small enterprises, can possibly benefit from capacity development. Facilitate the introduction of technologies. |
| County Governments | MIA, County Governments, County Superintendants, district level, Clan level communities and family households. | These stakeholder groups will support the project implementation at the county, district and community levels. They will provide co-financing to the project. They will also mainstream climate change agricultural adaptation into county development plan. Farmers will be able to tolerate or perhaps take advantage of mild or moderate climate change through various adaptation measures, including switching among crops and livestock species, or between crops and livestock. They can also benefit from capacity development under the project. |
| NGOs and CBOs | Local, National, international (e.g. agricultural institutions, farmers' associations involved in the CC | These agencies already support and implement related activities at some project sites. They can provide co-financing, knowledge |

| | | |
|-----------------------------|---|---|
| | adaptation within the agricultural sectors etc. | transfer, organizational support and training as well as general partnership support to project implementation. |
| Local Communities | Farmers' cooperatives, petty traders, house-owners, etc. Sometimes organized through traditional organizational methods, or women's groups, youth groups, etc. | They are the direct target beneficiaries of the project. They would benefit from organizational support, participating in processes, having their role as knowledge managers recognized and promoted, attending workshops to build their capacity, and from any livelihood revenue schemes. |
| Gender based stakeholders. | To mainstream gender into climate change adaptation. | They are affected differently by the impacts of climate change vulnerability. They can benefit from capacity development under the project. There are also age differences that also need to be understood better for specific age strategies to be initiated. Project will make every effort to contribute to national efforts to improve the status of women and improve gender balance. |
| Research Institutions | Research organizations such as biometeorological institutions, Firestone research institute, hydro-meteorological unit, agrometeorological units, universities/colleges of agricultural institutions etc. | They will provide the basic support in gathering and analyzing weather data and diffusing climate advice to key local stakeholders. Ultimately, they may provide early warning systems, publication of agro-met. and phonological bulletins (decadal, monthly or weekly) and bio-met. information for poultry, and on different breeds etc. They will also benefit from capacity building under the project. |
| Local Cooperatives | Farmers' cooperative systems exist, to share burdens in terms of workload, debt and access to markets. This is the case in the demonstration areas. | Introducing new knowledge, they can also benefit from capacity development under the project. Their capacity will be developed through the project. |
| International organisations | UNDP Country office and other UN agencies, UNMIL, FAO, GEF Focal point, other Multilateral agencies. | Guide the project and ensure it is well implemented, and benefits from best international knowledge and practices. |

B.6. Outline the coordination with other related initiatives:

Collaborations at the demonstration site level are set out by this project providing the climate change adaptation additionality to the already established baseline, which is being implemented by a variety of partners.

C. GEF AGENCY INFORMATION:

C.1 Confirm the co-financing amount the GEF agency brings to the project:

UNDP CO is providing US\$ 100,000 in cash co-financing to the project implementation. The CO has also supported the PPG phase. The dedicated amount of cash co-financing is proportional to the overall UNDP country office track funding available for Liberia.

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

Reflecting the PRS and the internationally-agreed Millennium Development Goals, Liberia and the United Nations system have embarked on their first **United Nations Development Assistance Framework (UNDAF)** (2008-2012). The UNDAF emphasizes rapid acceleration of the pace of economic growth as the foundation for Liberia's poverty reduction and sustained development. It also promotes growth in the early years of recovery in an equitable and inclusive way, creating equal opportunities for all Liberians regardless of origin, ethnicity and gender or social/family background. It highlights that gender inequality in Liberia represents a major obstacle to poverty reduction and is a key constraint in sustainable economic growth. UNDAF also emphasizes the need for explicit strategies to ensure the inclusion of youth, who represent the majority of the population.

Addressing UNDAF Pillar 2 on equitable socio-economic development, the **UNDP Country Program Action Plan (CPAP)** has one pillar on pro-poor economic development. Programs on promoting food security and long-term environmental sustainability are being implemented under this pillar. Implementing community as well as policy level support programs are the key approaches to the delivery of the CPAP, and addressing climate change risks in the context of the CPAP are seen as critical for long-term sustainability. Building climate change resilience in sectors relevant to pro-poor economic development, including for food security and agriculture, are key strategies addressed by UNDP Liberia.

UNDP's comparative advantage in designing and supporting this LDCF project is particularly strong because of the Program's long-term involvement in setting the development agenda of the country. As part of the UNDP's CPAP, programs on promoting food security and long-term environmental sustainability are being implemented. Building climate change resilience in sectors relevant to pro-poor economic development, including for food security and agriculture, are key strategies addressed by UNDP Liberia.

UNDP has strong mandates and capacities to develop national capacities for integrating climate change risks/opportunities into social equity, economic growth and environmental protection issues at all levels of development decision making. Integrating climate change risks into sustainable management of environment and natural resources and into Poverty Reduction Strategies, key national development frameworks and sector strategies is the key business of UNDP in Liberia as set out in the CPAP.

At the heart of UNDP's capacity building approach is the promotion of innovative and alternative climate resilient land practices and livelihoods, and developing the capacity of local government, community and indigenous groups to manage climate change risks – all major components of this proposal.

UNDP's Energy and Environment Unit has an adequate staff complement and has an established track record of managing project portfolios successfully.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

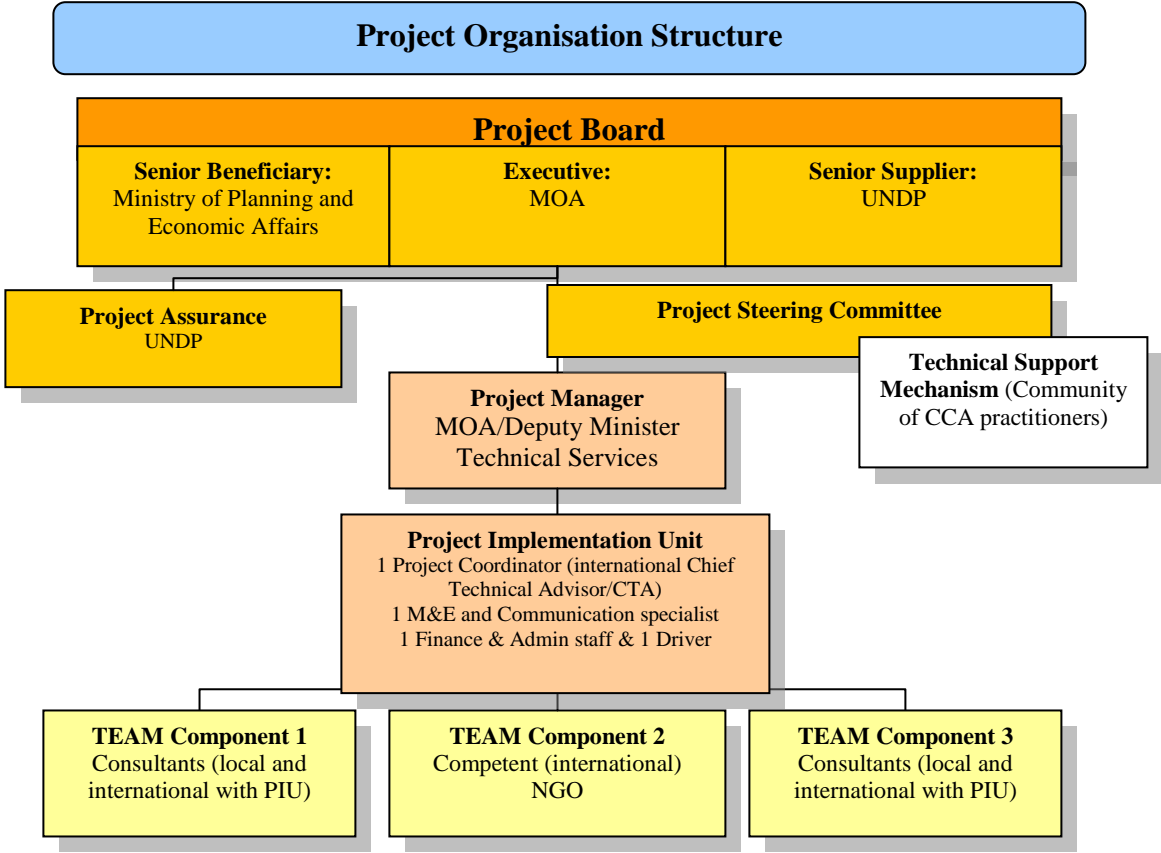
A. INSTITUTIONAL ARRANGEMENT:

THIS IS A SINGLE AGENCY PROJECT IMPLEMENTED BY UNDP.

B. PROJECT IMPLEMENTATION ARRANGEMENT:

The project will be implemented by the UNDP under its Direct Execution (DEX) Modality. The project is a four year intervention expected to run from September 2011 to September 2015. The implementing partner for this project in Liberia is MOA, which shall oversee project implementation and will subcontract whenever necessary and within the legal framework of UNDP and the Government of Liberia. The project will potentially be implemented in close collaboration with an international NGO working with project stakeholders and partners especially at the demonstration sites.

The project will be executed by UNDP. This means that UNDP will have full responsibility under the DEX modality to ensure accountability, transparency, timely implementation, management and achievement of results. This also means that all aspects of the project will be implemented in line with UNDP’s rules and regulations. Through its Energy and Environment Project, UNDP will work closely with the implementing agency, the MOA, during the implementation of the project. UNDP will be responsible for providing certified accounts to the donor on all expenditures conducted under these project documents.



The **Project Board** is responsible for making management decisions for a project in particular when guidance is required by the Project Manager. The Project Board plays a critical role in project monitoring and evaluations by quality assuring these processes and products, and using evaluations for performance improvement, accountability and learning. It ensures that required resources are committed and arbitrates on any conflicts within the project or negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Manager and any delegation of its Project Assurance responsibilities. Based on the approved Annual WorkPlan, the Project Board can also consider and approve the quarterly plans (if applicable) and also approve any essential deviations from the original plans.

In order to ensure UNDP’s ultimate accountability for the project results, Project Board decisions will be made in accordance to standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition. In case consensus cannot be reached within the Board, the final decision shall rest with the UNDP Project Manager.

Potential members of the Project Board are reviewed and recommended for approval during the PAC meeting. Representatives of other stakeholders can be included in the Board as appropriate. The Board

contains three distinct roles, including: (1) **An Executive**: the individual representing the project ownership to chair the group, which will be the MOA. (2) The **Senior Supplier**: individual or group representing the interests of the parties concerned which provide funding for specific cost sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the Board is to provide guidance regarding the technical feasibility of the project. In the case of this project this will be UNDP. (3) The **Senior Beneficiary**: individual or group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Board is to ensure the realization of project results from the perspective of project beneficiaries. This is the Ministry of Planning and Economic Affairs, on behalf of the Government of Liberia.

The **Project Assurance** role supports the Project Board Executive by carrying out objective and independent project oversight and monitoring functions. The Project Manager and Project Assurance roles should never be held by the same individual for the same project. UNDP fulfils the Project Assurance role.

On request by the various stakeholders consulted during the PPG phase, a **Project Steering Committee** fulfilling the functions of a **Technical Support Mechanism** will be established. The MOA or EPA would potentially chair this committee (or take turns). The Project Manager or the Technical Project Coordinator will serve as Secretary to the SC. The composition of the SC will be inclusive of public and private sector representatives, representatives of research institutions, University, NGOs and civil society, as well as interested donors; where appropriate members of the National Climate Change Committee will be part of the SC. As the management of the project is overall overseen by the Project Board, the functions of the SC will be mostly technical and management oriented. The **Technical Support Mechanism** will form a national community of CCA practitioners, providing a technical pool of expertise that will support project implementation and a platform for technical discussion.

Project Manager: The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the Board. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. IN the case of the Liberia project the Project Manager will be the Deputy Minister of Technical Services of MOA or his delegate.

Project Support – Project Implementation Unit: The Project Support role provides project administration, management and technical support to the Project Manager as required by the needs of the individual project or Project Manager. Three distinct staff members are currently foreseen in the structure. Considering the generally low human resource capacity it is envisaged that a Technical Project Coordinator, who will most likely be an international Chief Technical Advisor, supports the Project Manager at MOA. Additionally One M&E and Communications expert (same person with adequate skills or two persons part-time) will be hired to support the important communication and outreach work. A full-time Finance and Admin Manager will be hired.

Project implementation will be supported by **implementation teams** under the three outcomes of the project design. The teams will include county level staff of MOA as well as relevant representatives of the county administration as relevant. It is envisaged to select an international NGO to spearhead especially the implementation of activities under outcome 2 with local partners at the demonstration sites. It is critical that this outreach and participatory farmers action research and adaptation action is implemented under best available international practice to be effective. At the time of project preparation initial consultations with Oxfam have taken place, as Oxfam has demonstrated their capacity to carry out a project of this nature in Liberia and has already been part of the baseline activities especially in Grand Gedeh. Although conclusive arrangements will only be finalized once the project is approved, it is likely that the team will be based in Grand Gedeh working closely with the communities in Gbarzon District. They would also coordinate with, and support the work of, Care in Panta District in Bong County, in conjunction with CARI. To this end they would have two field vehicles and be expected to spend 75% of their time in the field (25% with Oxfam). The other 25% will be spent in Monrovia with the other component managers of the full project as well as

holding workshops and producing documents and communications materials for the dissemination of their work.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF

The proposed project follows and substantiates the rationale set out in the PIF. The PIF initially set out three project outcomes, which have been reduced to two. The in the PIF specified outcome 3” Lessons learned and best practices from pilot demonstration measures, capacity development initiatives and policy changes disseminated to stakeholders and development partners” has been removed as stand-alone outcome and has been integrated into the other two outcomes, as appropriate.

The PIF expected outputs have been slightly revised during the project preparation process. The content remains largely the same as in the PIF, but the order of presentation and the wording have been altered to improve the structure of the project. This is most visible under outcome 2, where some more specific planning has taken place during the PPG phase, which has led to a more explicit formulation of outputs. It is to be noted that the initially foreseen three demonstration sites have been reduced to two, mostly as the learning at these two sites can generate extremely interesting results. Additionally, due to the still very poor infrastructure in Liberia, any meaningful local level implementation will be resource intensive. It was decided during the PPG phase that a focus on two demonstration sites will be more effective.

Under outcome 1 a specific activity relating to the establishment of an agro-meteorological centre has been dropped as specific support for this activity is being sourced from elsewhere.

The indicative budget from the PIF has been retained and is allocated according to the initially detailed framework. The costs for outcome 3 have been distributed under outcomes 1 and 2 in line with mainstreamed knowledge management activities.

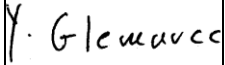
PART V: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

- A. **RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S):** (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

| NAME | POSITION | MINISTRY | DATE (MM/dd/yyyy) |
|-----------------------|---------------------------|---------------------------------|--------------------------|
| Johansen Voker | Acting Executive Director | ENVIRONMENTAL PROTECTION AGENCY | 03/24/2010 |
| | | | |
| | | | |

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 CEO endorsement/approval of project.

| Agency Coordinator, Agency Name | Signature | Date (Month, day, year) | Project Contact Person | Telephone | Email Address |
|--|---|--|--|------------------|---------------------------|
| Yannick Glemarec Executive Coordinator UNDP/GEF |  | August 24, 2011 | Tom Twining-Ward Regional Technical Advisor UNDP/GE(LECRDS) | 0027823330571 | tom.twining-ward@undp.org |
| | | | | | |

ANNEX A: PROJECT RESULTS FRAMEWORK

| <p>This project will contribute to achieving the following Country Program Outcome as defined in CPAP or CPD: Expected CP Outcome(s): CP Pillar 1: Pro-poor economic development: Component: Sustainable local economic recovery a. Community-based recovery and development incl. food-security and b. Sustainable management of environment</p> | | | | | |
|--|--|---|--|---|---|
| <p>Country Program Outcome Indicators: <i>There are no targets and indicators formulated for the food security outcome in the UNDP CPAP.</i></p> | | | | | |
| <p>Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy OR 2. Catalyzing environmental finance OR 3. Promote climate change adaptation OR 4. Expanding access to environmental and energy services for the poor.</p> | | | | | |
| <p>Applicable GEF Strategic Objective and Program: Adaptation to Climate Change: Objective 1: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level and Objective 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level</p> | | | | | |
| <p>Applicable GEF Expected Outcomes: Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses; and Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas</p> | | | | | |
| <p>Applicable GEF Outcome Indicators: (following AMAT tool) Indicator 1.3.1: Households and communities have more secure access to livelihood assets. Indicator 2.2.1: No. and type of targeted institutions with increased adaptive capacity to reduce risks of and responses to climate variability.</p> | | | | | |
| | Indicator | Baseline | Targets End of Project | Source of verification | Risks and Assumptions |
| <p>Project Objective¹¹ <i>To increase resilience of poor, agricultural-dependent communities and decrease vulnerability of agricultural sector to climate change in Liberia.</i> (equivalent to output in ATLAS)</p> | <p>% change in projected food production in target areas given existing and projected climate change (AMAT indicator 1.2.8)</p> | <p>Upland: Not currently measured Lowland: % tons/year of low-land rice - site specific information</p> <p><i>Baselines to be established during inception</i></p> | <p>Upland & lowland: Formal tracking system established to cover diversified food commodities Lowland: 10% average annual increase of rice production due to cultivation of traditional rice varieties as ‘adaptation option’</p> <p>Application beyond demonstration sites due to policy up-scaling actions</p> | <p>Local level assessments at demonstration sites (Questionnaire based appraisal - CBA) APRs/PIR</p> | <p>Unusual and catastrophic climatic events during project implementation Unavailability of requisite human resources and data Insufficient institutional support and political commitment Non-compliance by primary proponents for the successful implementation of this project Stakeholder relations</p> |
| <p>Outcome 1¹²: Strengthened institutional and individual capacity to plan and manage climate change in the agriculture sector in Liberia. (equivalent to activity in ATLAS)</p> | <p>No. of staff trained on technical adaptation themes (AMAT indicator 2.2.1.1)</p> <p>Sectoral strategies that include specific budgets for adaptation action (AMAT</p> | <p>Technical staff: 0 County level staff: 0 University students: 0</p> <p>Type and level: No budget allocations</p> | <p>Technical staff: 60 (30 women and 30 men) County level staff: 30 (10 in each county) (10 women and 10 men) University students: 100 (50 women and 50 men)</p> <p>(to be disaggregated by theme and by gender)</p> <p>Type and level: Budget allocations included in:</p> | <p>Course/training/ professional updating event lists of participants APRs/PIR</p> <p>Policy reviews as part of APRs/PIR</p> | <p>Unavailability of requisite human resources and data Insufficient institutional support and political commitment Stakeholder relations</p> <p>Unavailability of requisite human resources and data Insufficient institutional support and political commitment</p> |

¹¹ Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR

¹² All outcomes monitored annually in the APR/PIR. It is highly recommended not to have more than 4 outcomes.

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| | indicator 1.1.1.2) | | PRsii Agriculture policy (LASIP) Low-land rice production support programs | | Non-compliance by primary proponents for the successful implementation of this project Stakeholder relations |
| Outcome 2: Innovative, sustainable, socially appropriate adaptive measures piloted at the community level. (equivalent to activity in ATLAS) | Climate resilient agricultural practices introduced to promote food security (AMAT indicator 1.2.1.3) % of targeted households that have adopted resilient livelihoods under existing and projected climate change (AMAT indicator 1.3.1.1) | Type and level: 0 (aside already existing local coping mechanism) No. of targeted households to be confirmed for each of the three demonstration site during inception of local level activities. 0% of targeted households is the baseline. | Type and level: at least 4 different innovations at each demonstration site (including the formal identification of locally existing coping strategies which are furthered and formalized as local adaptation measures) 80% of targeted households have adopted resilient livelihoods at demonstration sites. | Local level assessments at demonstration sites (Questionnaire based appraisal - CBA) APRs/PIR | Unavailability of requisite human resources and data Stakeholder relations |

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF/LDCF/SCCF RESOURCES

| <i>Position Titles</i> | <i>\$/ Person Week*</i> | <i>Estimated Person Weeks**</i> | <i>Tasks To Be Performed</i> |
|--|-----------------------------|-------------------------------------|---|
| For Project Management | | | |
| Local | | | |
| Finance and Admin staff | 192 | 275 | Set up and maintain project files; Collect project related information data; Update plans; Administer Project Board, SC and other relevant meetings; Administer project revision control; Establish document control procedures; Compile, copy and distribute all project reports; Responsible for the financial management tasks under the responsibility of the Project Coordinator; Provide support in the use of Atlas for monitoring and reporting; Review technical reports; Monitor technical activities carried out by responsible parties |
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| International | | | |
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| Justification for travel, if any: Visits to field demonstration sites. | | | |
| For Technical Assistance | | | |
| Local | | | |
| Project Coordinator/Chief Technical Advisor | 192 | 500 | Provide technical inputs and guidance to all technical project components; Plan the activities of the project and monitor progress against the initial quality criteria; Mobilize goods and services to initiative activities, including drafting TORs and work specifications; Monitor events as determined in the Project Monitoring Schedule Plan, and update the plan as required; Manage requests for the provision of financial resources; Monitor financial resources and accounting to ensure accuracy and reliability of financial reports; Responsible for preparing and submitting financial reports to UNDP on a quarterly basis; Manage and monitor the project risks log; Prepare the Project Progress Report; Prepare the Annual Review Report; Annual Performance Report (APR)/Project Implementation |

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|--|-------|-----|---|
| | | | Review (PIR); Prepare the AWP for the following year, as well as Quarterly Plans if required. |
| M&E expert & Communications specialist | 192 | 325 | <p>Provide technical expertise and guidance to all project components, and support the Project Coordinator in the coordination of the implementation of planned activities under the LDCF project as stipulated in the project document/work plan; Specifically responsible for the technical input into the development of a M&E framework and its implementation; Be responsible for the communication work under all project components; provide support to PM/CTA; Provide technical inputs into the work of the Steering Committee, and other relevant institutions implicated in the project management and implementation arrangements; Give input into the development of technical activities under the various project outcomes; Undertake regular reporting in line with project management guidelines.</p> <p>Be responsible for the dissemination of project lessons through the Adaptation Learning Mechanism (ALM)</p> <p>Develop guidelines for the documentation and codification of lessons learned, best practices, and experiences that did not work.</p> <p>Systematically e.g. through the M&E component and special studies, document lessons learned.</p> <p>Develop a 'plan' for the type of knowledge to be generated, and how, including a dissemination plan.</p> <p>Develop specifically targeted learning materials for specific Liberian target groups (mainly those in Components 1 and 2) and disseminate according to dissemination plan.</p> <ul style="list-style-type: none"> • Share knowledge with international community e.g. through UNDP Adaptation Learning Mechanism (ALM). |
| Field staff | 768 | 275 | Outreach and community work at demonstration sites. |
| Drivers | 576 | 125 | |
| International | | | |
| Agro-ecological expert | 3,000 | 48 | Jointly with the communities identify and analyse the present farming systems, both with women and men and if necessary |

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| | | | through special meetings with women to ensure a gender sensitive approach and planning. Enter into negotiations with the community and identified farm leaders in a series of on farm validations of possible responses to the problems identified and prioritized between them. |
| Livelihoods expert | 3,000 | 48 | Through a participatory approach, develop a detailed analysis of livelihood and land use systems of participating communities with the communities themselves. |
| Humid tropical forest specialist | 3,000 | 48 | Jointly with community leaders, a program of classifying forest resources used by villagers including a plant inventory. It must be clear from the beginning, with formal due procedure, that this knowledge is the property of the community or person who exercises it. |
| Organizational, training and communications specialist | 3,000 | 48 | Experiences with the local farmers and participating NGOs and support structures and results disseminated according to impact and relevance at a wider level. As part of the program of knowledge dissemination, organize farmer to farmer extension systems with farmer interchange and visits between them as well as radio programs. Collaborate on M&E and documentation of experiences. |
| Justification for travel, if any: Intense travel to demonstration sites and partial placement at these, particularly under project component 2. | | | |

* Provide dollar rate per person week. ** Total person weeks needed to carry out the tasks.

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

THE KEY OBJECTIVES OF THE PPG PROCESS WAS TO TIMELY DRAFT THE PROJECT DOCUMENT FOR SUBMISSION TO THE GEF STRICTLY ADHERING TO THE DEADLINES AND ENSURING QUALITY CONTROL IN CLOSE CONSULTATION WITH THE TEAM LEADER. MORE SPECIFICALLY, THE TEAM WAS EXPECTED TO PRODUCE UNDP PROJECT DOCUMENT WITH MINIMUM REQUIREMENTS AND AN ACCOMPANYING GEF CEO ENDORSEMENT REQUEST USING THE APPROPRIATE TEMPLATES. ALL OBJECTIVES WERE ACHIEVED THROUGH A HIGHLY PARTICIPATORY PROCESS.

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:

| <i>Project Preparation Activities Approved</i> | <i>Implementation Status</i> | <i>GEF/LDCF/SCCF Amount (\$)</i> | | | | <i>Cofinancing (\$)</i> |
|--|--|----------------------------------|-----------------------------|-------------------------|----------------------------|-------------------------|
| | | <i>Amount Approved</i> | <i>Amount Spent To date</i> | <i>Amount Committed</i> | <i>Uncommitted Amount*</i> | |
| Needs assessment and technical feasibility of adaptation options | The relevant activities have been undertaken and project proposal submitted to GEFSEC. | 40,000 | 40,000 | | | 5,000 |
| Project Development | | 10,000 | 20,000 | | | 15,000 |
| Consultations with key stakeholders | | 15,000 | 3,000 | | | 12,500 |
| Financial plan and co-funding scheme | | 10,000 | 12,000 | | | 2,500 |
| PPG Management Budget Costs | | | | | | 10,000 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| Total | | 75,000 | 75,000 | | | 45,000 |

* Any uncommitted amounts should be returned to the GEF Trust Fund. This is not a physical transfer of money, but achieved through reporting and netting out from disbursement request to Trustee. Please indicate expected date of refund transaction to Trustee.

ANNEX E: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF Trust Fund or to your Agency (and/or revolving fund that will be set up)