



## REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: FSP  
THE GEF TRUST FUND

GEF

Submission Date: 15/June/2012

### PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3915

GEF AGENCY PROJECT ID:

COUNTRY(IES): Sudan

PROJECT TITLE: Sudan: Integrated Carbon Sequestration Project in Sudan

GEF AGENCY(IES): IFAD, (select), (select)

OTHER EXECUTING PARTNER(S): Butana Integrated Rural Development Project (IFAD Project), Forest National Corporation

GEF FOCAL AREA(s): Climate Change

GEF-4 STRATEGIC PROGRAM(s): CC-4; CC-6 (see preparation guidelines section on exactly what to write)

NAME OF PARENT PROGRAM/UMBRELLA PROJECT: N/A

Expected Calendar (mm/dd/yy)	
Milestones	Dates
Work Program (for FSPs only)	MAR 10
Agency Approval date	APR 12
Implementation Start	OCT 12
Mid-term Evaluation (if planned)	OCT 14
Project Closing Date	OCT 16

### A. PROJECT FRAMEWORK (Expand table as necessary)

Project Components	Indicate whether Investment, TA, or STA <sup>2</sup>	Expected Outcomes	Expected Outputs	GEF Financing <sup>1</sup>		Co-Financing <sup>1</sup>		Total (\$) c=a+ b
				(\$) a	%	(\$) b	%	
1. Afforestation and reforestation (A/R) activities successfully implemented and led to increased national carbon sequestration potential	Inv.	1. Afforestation and reforestation (A/R) activities successfully implemented and led to increased national carbon sequestration potential	1.1 10,000 ha increase of reforested area in sites with less than 40% of canopy cover 1.2 Agro-forestry initiatives involving land less farmers are implemented 1.3 Improved water harvesting systems are defined and implemented to support successful A/R activities.	2367.1		7 074.8		10 000.7
	TA		1.4 Define suitable erosion control measures to be implemented in the A/R areas	110.4		448.4		

2. Forest carbon stock is maintained in the long run, through conservation and improved management including protection from causes of deforestation and fires	TA	2. Forest carbon stock is maintained in the long run, through conservation and improved management including protection from causes of deforestation and fires	2.1 Participatory forest management promoted as a way to protect the carbon stock from drivers of deforestation (illegal felling, over grazing, poor management, etc)  2.2 Fire management system is improved and post-fire management plans are developed and implemented  2.3 Long-term sustainability of biomass carbon storage potential increased  2.4 Forest Micro-insurance schemes tested on a pilot base in two sites	554.8		352.1		906.9
3. Wide diffusion of highly efficient, biomass energy technologies, as appropriate, is promoted in the project area using climate-friendly incentives	TA	3. Wide diffusion of highly efficient, biomass energy technologies , as appropriate, is promoted in the project area using climate-friendly incentives	3.1 GHG emissions from biomass energy production at the community level reduced  3.2 The use of improved and modern climate friendly stoves using alternative energy sources is promoted to replace inefficient wood stoves	-		1 888.0		1 888.0
4. Institutional and technical capacities for monitoring forest carbon stock and associated GHG fluxes are developed at the national level and awareness is raised	TA	4. Institutional and technical capacities for monitoring forest carbon stock and associated	4.1 Enhancing national capacity to develop implement and monitor potential LULUCF projects including CDM, REDD or voluntary mechanisms	252.8		635.1		887.9

		GHG fluxes are developed at the national level and awareness is raised at the local level about the role of forest and biomass carbon stock in climate change mitigation	4.2 Enhancing local capacity to promote forestry awareness among the target group, and to develop, implement and monitor potential LULUCF projects				
5. Project Management	TA	5.1 FNC and BIRDP implement programmes and financial management systems to ensure effective implementation  5.2 An effective M&E system is put in place to ensure adequate implementation  5.3 Knowledge management promoted to ensure capturing of lessons learnt	5.1.1 Establish Project management structures including techniques, procedures, people, and systems that lead to effective implementation of the project. 5.1.2 Disseminate lessons learned thereby assuring regional coverage 5.1.3 Establish a dedicated project website and a database on climate change related issues and activities	364.9	660.6		1 025.5
<b>Total Project Costs</b>			(A) <b>3 650 000</b>	(B) <b>11 059 000</b>		(C) <b>14 709 000</b>	

<sup>1</sup> List the \$ by project components. The percentage is the share of GEF and Co-financing respectively of the total amount for the component.

<sup>2</sup> TA = Technical Assistance; STA = Scientific & Technical Analysis.

**B. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT (EXPAND THE TABLE LINE ITEMS AS NECESSARY)**

Name of Co-financier (source)	Classification	Type	Project	%*
IFAD	Exec. Agency	Loan	10 151 200	91.8%
National Government	Nat'l Gov't	In kind (National budget)	67 800	0.6%
Forest National Corporation (FNC)	Implementing Agency	Grant	840 000	7.6%
<b>Total Co-financing</b>			<b>B11 059 000</b>	<b>100%</b>

\* Percentage of each co-financier's contribution at CEO endorsement to total co-financing.

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

	Project Preparation a	Project b	Total c = a + b	Agency Fee	For comparison: GEF and Co- financing at PIF
GEF financing	100 000	A 3 650 000	3 750 000	365 000	3 650 000
Co-financing	125 500	B 11 059 000	11 184 500		10 950 000
<b>Total</b>	<b>225 500</b>	<b>14 709 000</b>	<b>14 934 500</b>		<b>14 600 000</b>

**D. GEF RESOURCES REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES)<sup>1</sup>**

GEF Agency	Focal Area	Country Name/ Global	(in \$)		
			Project (a)	Agency Fee (b) <sup>2</sup>	Total c=a+b
IFAD	Climate Change	Sudan	3,650,000	365,000	4,015,000
<b>Total GEF Resources</b>			<b>4,015,000</b>	<b>365,000</b>	<b>4,015,000</b>

<sup>1</sup> No need to provide information for this table if it is a single focal area, single country and single GEF Agency project.

<sup>2</sup> Relates to the project and any previous project preparation funding that have been provided and for which no Agency fee has been requested from Trustee.

**E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:**

Component	Estimated person weeks	GEF amount(\$)	Co-financing (\$)	Project total (\$)
Local consultants*	232	420 000	1 108 600	1 528 600
International consultants*	57	281 000	87 400	368 400
<b>Total</b>	<b>289</b>	<b>701 000</b>	<b>1 196 100</b>	<b>1 897 000</b>

\* Details to be provided in Annex C.

## F. PROJECT MANAGEMENT BUDGET/COST

<i>Cost Items</i>	<i>Total Estimated person weeks/months</i>	<i>GEF amount (\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	23	41 100	164 500	205 600
International consultants*	0	0	0	0
Office facilities, equipment, vehicles and communications		109 180	292 220	401 400
Others (Salaries)** <sup>1</sup>		118 620	79 080	197 700
Others (General Annual Operation Costs)		96 000	0	96 000
Contingencies		-	124 800	124 800
<b>Total</b>	<b>23</b>	<b>364 900</b>	<b>660 600</b>	<b>1 025 500</b>

\* Details to be provided in Annex C. \*\* For others, it has to clearly specify what type of expenses here in a footnote.

## G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? yes no

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

## H. DESCRIBE THE BUDGETED M & E PLAN:

Project monitoring and evaluation will be conducted in accordance with established IFAD and GEF procedures and will be provided by the project team with support from IFAD-GEF. The Strategic Results Framework provides indicators for project implementation along with their corresponding means of verification. These will form the basis on which the project's Monitoring and Evaluation system will be built.

The following sections outline the principle components of the Monitoring and Evaluation system to be implemented.

### 1.1 The Management Information System (MIS)

The MIS will be designed to generate quantitative verifiable information on the Project's performance. It will be in a form that is assisting the CSP, State Circle Coordination and Community Organizations to plan and finance their activities, compare physical progress against the planned targets and allow timely remedial action to be taken to correct problem areas in project implementation. The data produced through the MIS will be aimed at improving decision making and facilitating the work of the CSP and the State Circles by providing the means of focusing on implementation problems and ensuring effective communication and co-ordination between the implementing agencies and participating parties.

### 1.2 M& E Arrangement and Organization

The organization of M&E will be designed with the view of linking the M&E function with management of project activities. There will be 3 levels of M&E corresponding to the BIRD: CSP, FNC Circles and the Community Organizations.

The M&E at CSP level will be undertaken by an M&E Officer and an assistant M&E officer. The M&E Officer will also cumulate with her\his function the responsibility of deputy director. The M&E at CSP level will be mainly responsible for: the aggregation of the physical and financial data from the FNC Circle; verification of this data; analysing and reporting on trends in performance, gaps and successful results; negotiating corrective or enhancing measures with the Director of the CSP for endorsement; formulating the annual work plans and budgets of the project accordingly; organizing the baseline and impact studies.

<sup>1</sup> Salaries refer to the salaries of the Project Staff: National project manager; Monitoring and evaluation officer; Project State Coordinator; Finance, and administrative officer. Operational costs refers to the general operational costs associated to the Project Management Unit.

The M&E at the State Circle level will be carried out by the State circle Coordinator. S/He will be responsible for: the aggregation of the community monitoring reports and the reports of the development teams by locality; the analysis of the rate of achievement of the work plan and degree of community satisfaction with the project activities; the summary of lessons learned and recommendations for improving project implementation and results at community level.

The M&E at community level will be undertaken by the community organizations. The community organizations will designate up to 2 persons to prepare reports on the rate of implementation of the community work plan agreed with the extension teams; number of beneficiaries and their socio-economic and gender group; success and failure stories; overall assessment of project performance and recommendations for improvement.

Financial monitoring and reporting at all management levels will be the responsibility of the Financial Controller who will work closely with the M&E Officer and accountants in the CSP.

### 1.3 Lines of reporting

Both the M&E Officer and Financial Controller will be directly responsible, and report, to the CSP Director. The State locality will report to the M&E Officer with copy to the Financial Controller. The reports will also be copied with the Executive Officer and Extension Teams of the localities and discussed with them. The Community Organizations will submit their reports to the Extension Teams who in turn will submit it to the State Coordinator.

### 1.4 Discussion and decision-making

The Community Organizations will discuss their progress reports with the Project Extension Teams and agree on amendments to the work plans accordingly after endorsement of these by the State Circle Coordinator. The State locality Coordinators will discuss the progress reports with CSP Director and General Directors in the FNC States and agree on management decisions accordingly. The progress report and management decisions will then be submitted to the BIRD Director and then to Board of Directors of the BDA. The Board will be required to provide feedback with regards to strategic decision related to coordination matters between the states.

### 1.5 Participatory Approach to M& E

Participatory monitoring and evaluation is an important element of the Project and will be a valuable mechanism to gauge impacts. It will provide timely progress and impact reporting from the beneficiaries to Project management, thus enhancing bottom-up communication.

The participation of beneficiaries will be facilitated through mandatory annual work planning and budgeting requirements, annual implementation and planning workshops, and annual evaluation and beneficiary impact assessments. With the preparation of the AWPBs, it will be a requirement that the progress reported. This will include the following information collected and collated:

- Physical progress made in achieving the targets set by the sub-groups.
- Financial progress including balance sheet of sub-groups revenues and debts;
- Number of beneficiaries disaggregated by gender and socio-economic group;
- Beneficiary assessment of the project activities;
- Stories of success and failure; and
- Constraints and problems from previous year, and ways to resolve them.

The Extension Teams will assist the Community Organizations with the monitoring of the work plan and planning the new community development plan for the following year. Communities will be involved in the project self-evaluation process

**PART II: PROJECT JUSTIFICATION:** In addition to the following questions, please ensure that the project design incorporates key GEF operational principles, including sustainability of global environmental benefits, institutional continuity and replicability, keeping in mind that these principles will be monitored rigorously in the annual Project Implementation Review and other Review stages.

**A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED:**

The principal objective of the project is to promote a climate-friendly rural development path in Central and Eastern Sudan by increasing the carbon stock and reducing net GHG emissions in the country, while at the same time sustaining rural development in the project area.

Forestry is very important for rural development in satisfying the basic needs of societies at all stages of development. Forest products in the form of wood fuel, charcoal, construction poles, timber, gum, leaves, and native and processed medicines are still in high demand at varying levels. The means by which these products are obtained has varying impacts on forest cover and the ecosystem services it delivers.

The contribution of forest resources to the Sudanese national economy is at present far underestimated (3.3% of the GDP). Estimates are based solely on the income from timber and fail to consider the contribution to energy (more than 69% of the energy balance at present) and the value of other socio-economic and environmental benefits derived from forest resources. Forests contribute 30-70% of animal feed in rainy and dry seasons respectively and employ around 15% of the labour force in rural areas. Gum Arabic produced by Hashab trees (Acacia Senegal) is an export commodity that earns foreign exchange and also supports the livelihoods of more than two million persons in the dry lands of Sudan.

Country	Land area in million ha and (%)		Forest resources in million feddan* and (%)	
Sudan	187.8	73.4	51.96	32%
South Sudan	68.2	26.6	109.62	68%

**Source: FNC report Jan 2011**  
feddan equal 0.42 ha

The diversity in the soils and climate of the Sudan underlie the different patterns in land use. In the North, land use is characterized by highly mobile pastoral systems, while the central part of Sudan and much of the South is characterized by sedentary Agro-pastoral system (small-scale agriculture together with some animal husbandry). Large-scale agriculture rainfed and irrigated forms occur in the central and eastern regions and in close proximity to the river basins (where the project area is located).

The land tenure system in Sudan has greatly influenced the exploitation of natural resources. The 1970 Unregistered Land Act of Sudan states that all unregistered land is state owned, but local people have rights to its benefits. This applies to rangelands and other uncultivated or non-residential lands. Forest laws also include similar provisions to grant people access to resources inside the forest reserves. Although the customary systems of land tenure defined the use of communal lands, conflicts over land-use have occurred in a number of areas, due to scarcity of land-based resources and other environmental factors e.g. drought. However, since 1992 all national development plans called for the rational use of natural resources and environmental protection.

As reported in Sudan's Initial National Communication (INC) to the United Nations Framework Convention on Climate Change (UNFCCC), agriculture and land-use, land-use change and forestry (LULUCF) are the main emitters of greenhouse gases (GHGs) in Sudan. LULUCF generate net CO<sub>2</sub> emissions of about 15,577 Gg (corresponding to more than 75% of total CO<sub>2</sub> emitted). This was a consequence of a steady reduction in the stocked volume of forest resources in Sudan due to: (i) the expansion of agriculture in the absence of proper land-use and forest management planning, (ii) increased urbanization, (iii) fuel wood production (firewood and charcoal, which constitutes more than 70% of total

national energy consumption), (iv) and grazing. The continuous reduction in the forest stock has caused Sudan's forest to become a source of GHG emissions rather than a net GHG sink.

#### Land Area and Forest Resources in Sudan and South Sudan

The splitting of Sudan will have significant implications for the forestry sector and its current policies and programmes. The table below shows approximately how land and forest resources might be divided between the South (the new state of South Sudan) and the north (Sudan):

According to this preliminary assessment report by FNC, the forests in the north are mainly dry subtropical forests with low tree density, between 150-300 trees per fed, and are mostly classified as protected forest. Sudan is expected to lose around two thirds of its forest resources after separation from the South. Accordingly the forest cover will decrease from 67 million hectares to 21.8 million hectares, representing about 11% of the total area of Northern Sudan. This will lead to Sudan's classification as a low forest cover country. Moreover, separation from the South is expected to result in an increase in the deforestation rate from 0.74% (FAO) to 2.2%. This estimation is mainly based on the fact that, the largest share of deforestation presently occurs in north Sudan (about 90%). Furthermore, the average tree density per hectare will be reduced and consequently the annual allowable removal is expected to be reduced from 11 million cubic meters to about 8 million cubic meters. This is significant given that forest biomass consumption in Northern Sudan is approximately 22 million cubic meters (in 2010), which is twice more than the existing annual allowable removal. Such situation will lead to the rapid deterioration of the forest resource unless, significant and immediate efforts are made to increase the rate of afforestation (ideally, by at least hundred times the present rate) and to increase efforts to protect the remaining forest area in Northern of Sudan.

The Forest National Corporation (FNC) is self-financing and relies on the collection of revenues from fees and royalties from non-reserve forests and returns on investment and the proceeds from sales of wood products harvested within forest reserves. FNC accomplishments during the last two decades in the areas of reservation and afforestation deserve redoubling the availability of funds for the promotion of sound management and sustainable development. But unfortunately that was not the case in view of lack of finance from the three resources defined by FAO (26 % from own resources, 33 % from the national budget and 41 % from foreign donors). The contribution of the national budget during the past five years did not exceed 5% and the foreign aids did not exceed 9%.

The ratio of the corporation revenue during the past five years was 86 % of the expenditure. Fifty five percent of the revenue is used to meet the expenditure under Chapter 1 of the budget and 45 % to meet the costs of operation (forest reservation, afforestation, protection and desertification control). It can be concluded that insufficient financial resources do not allow FNC to respond fully to the forestry needs of the country and in particular needs to implement large-scale afforestation and reforestation programmes.

The Initial National Communication (INC) of Sudan indicates that forests could play a vital role in carbon sequestration in the country. The analysis carried out for the preparation of the INC suggests that afforestation and rehabilitation of rangelands are the most suitable options to achieve GHG emission reduction objectives in the country. In addition, the present very high rate of deforestation and forest degradation suggests that the Sudan's forest sector has the potential to play an important role in the current processes under the UNFCCC aiming at reducing emissions from deforestation and forest degradation in developing country, the so called REDD-plus.

The table below shows the potential available areas for afforestation, including areas of 10% and 5% of the rainfed and irrigated agricultural lands respectively.

**Potential Land for Afforestation and Reforestation in Sudan**

Potential sources of land	Potential Area Million (fed)
10% of mechanized rainfed agriculture schemes	3.5
5% of irrigated agriculture schemes	0.2
Waste land between latitudes 10 and 22° <sup>1</sup>	37.4
<b>Total</b>	<b>41.1</b>

The overall objective of Sudan's national implementation strategy for climate change is to promote sustainable development paths that improve Sudan's adaptive capacity and limit its growth in GHG emissions through integration of climate change issues and concerns into national policies, strategies and development plans.

The contribution of the forest sector to climate change mitigation and its devastating impacts and the associated carbon/development benefits is well recognized in the Sudan's Initial National Communication (INC). Despite that, Sudan is not committed under the UNFCCC to a GHG emission reduction target. However, being one of the most vulnerable countries to the devastating impacts of climate change, it is found imperative for the government to undertake steps to reduce GHG emissions with the overarching aim that these mitigation actions shall not only reduce emissions and enhance sinks but also simultaneously contribute to meeting the overall development priorities of the country. Therefore mitigation actions are also considered as very important drivers to national development through the opportunities they create for accessing investments, funding and technology transfer

The mitigation analysis in the INC focused mainly on the energy and the Land Use Change and Forestry (LUCF) sectors as being the dominant areas where GHG emission reductions could be achieved. In the LUCF sector the analysis showed that all options of afforestation and rehabilitation of degraded lands are possible for Sudan to both embark on a sustainability path and to contribute to national development priorities. The energy options also found to be an important possibility for Sudan to reduce its emissions growth particular with regard to biomass energy. At present energy use is still dominated by consumption of firewood and charcoal resources that are proceeding at unsustainable levels.

The analysis of these options indicated that all options have a reasonably good potential for carbon uptake. Regarding the cost effectiveness indicators, almost all LUCF options have showed very attractive economics compared to other countries. All have very low initial cost and present value of cost per ton of carbon. Social and environmental aspects have also been weighed in the selection of the options.

However, it is important to note, the limitations encountered during the analysis of the energy and LUCF mitigation options. Among those limitations, lack of technical and institutional capacity and lack of good quality data indicated as the most important limitations. Good quality activity data and basic national parameters e.g. emissions factors, in addition to technical expertise in estimation and monitoring of forest and biomass carbon stocks are necessary for both improving GHG estimates and for developing good quality mitigation actions and measures. Unfortunately, to date, none of these mitigation options have been implemented due to lack of technical and financial resources.

## **B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL AND/OR REGIONAL PRIORITIES/PLANS:**

This project is consistent with the national strategy for REDD-plus, CNS, as well as other national strategies, policy statements and legal framework at national and State levels.

As indicated above, this project is directly linked to the national implementation strategy for climate change in Sudan as described in Sudan's Initial National Communication to the United Nations Framework Convention on Climate Change (UNFCCC), and is based on the mitigation options defined under both the energy and LULUCF sector in the INC. Also, the project is directed to

The Initial National Communication (INC) of Sudan indicates that forests could play a vital role in carbon sequestration in the country. The analysis carried out for the preparation of the INC suggests that afforestation and rehabilitation of rangelands are the most suitable options to achieve GHG emission reduction objectives in the country. In addition, the present very high rate of deforestation and forest degradation suggests that the Sudan's forest sector has the potential to play an important role in the current processes under the UNFCCC aiming at reducing emissions from deforestation and forest degradation in developing country, the so called REDD-plus.

## **C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND STRATEGIC PROGRAMS:**

This proposal is consistent with the GEF strategy on climate change. In particular, the present proposal is in line with the GEF-4 strategic objectives of (i) reducing GHG emissions from land-use, land-use change and forestry (LULUCF), and (ii) promoting sustainable biomass energy production. The focus of the intervention is on LULUCF activities and sustainable production and use of biomass energy. The activities promoting the production and efficient use of energy from biomass will be carried out without conflicting with other environmental and development objectives.

### **C. JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES.**

The GEF intervention will cover the costs associated with Government efforts to reduce GHG emissions through a series of project activities that complement those of the IFAD Butana Integrated Rural Development (BIRD) project, and which add value by addressing the causes of deforestation and forest degradation through:

- Afforestation/reforestation activities leading to an increase in carbon sequestration potential and a number of co-benefits including enhanced forest ecosystem services and biodiversity conservation.
- Capacity building amongst key institutions to monitor and report on carbon stocks from the LULUCF sector to inform policy and awareness raising amongst stakeholders on the range of benefits from sustainable forest resource management carbon stock management and maintenance with a view to future participation in established carbon markets.
- Promotion of sustainable and more efficient energy production at community level to reduce pressure on forest resources and ultimately, GHG emission.

### **D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

Coordination will be ensured with national policies and government activities. As a fundamental condition, coordination will be guaranteed with the activities supported by the IFAD-supported “Butana Integrated Rural Development Project”. In particular, the FNC/IFAD/GEF intervention will coordinate activities related to sustainable use of natural resources with those carried out in the baseline. Also, the proposal will be complementary to relevant climate change and non-climate change ongoing and past operations in the country. For instance, the proposed intervention will be complementary to and will build on the lessons learned from the “Community-based rangeland rehabilitation for carbon sequestration and biodiversity” that addresses land degradation as a cause of reduced ecosystem’s ability to sequester carbon and maintain biodiversity. The project aimed to increase carbon sequestration through sustainable management of rangeland and land use. The project will also build on the lessons learned from the UNDP/GEF supported “Conservation and management of habitats and species and sustainable community use of biodiversity in Dinder National Park”. To the extent possible and where relevant, coordination will be also promoted with the UNDP/LDCF NAPA implementation. Concerning the use of biomass energy the project will learn from other experiences in Sudan as well as projects carried out in other countries (e.g. the World Bank/GEF supported activities in these fields in Ethiopia, Senegal, Mali, Burkina Faso and Madagascar).

This project is closely linked to BIRD in a complementary manner that expected to enhance the sustainability of the outputs to be achieved through the implementation of its planned activities. The project is well linked to the national forest programme (NFP) developed and being implemented by FNC. All the outputs of the project, when implemented, are expected to contribute directly to the attainment of the objectives of the NFP. The project is also expected to contribute significantly to the currently on-going efforts by FNC to build capacities and prepare for participation in climate change mitigation in particular in the area of CDM and REDD+. Good coordination between the institutions, through the steering committee is necessary to optimise the use of resources and to avoid overlaps between the activities of each institution.

This project also linked to the efforts currently undertaken by the designated national authority (DNA) of the CDM in Sudan to promote access to carbon market.

The project is also linked the objectives of Sudan’s NAPA and the its prioritized activities for Gedarif and River Nile states that aim towards building the capacities of the local communities in Butana area to adapt to the recurrent drought and climate variability in the Butana.

**E. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING :**

Incremental reasoning: The GEF intervention will cover the incremental costs associated to the Government efforts to reduce the national GHG emission balance. In more detail, the GEF intervention will cover the following:

- Afforestation/reforestation activities to increase the national carbon sequestration potential. Under a business-as-usual (BAU) scenario, the LULUCF sector will continue to be a main source of carbon emissions in the country. Baseline activities will focus on the development and improvement of rangelands, including by developing in consultation with the Pastoralist Union and the Framers Union community resource management maps and range management plans. The GEF intervention will support afforestation activities that counterbalance possible negative impacts of range development activities. Afforestation activities will be developed in a synergistic manner with the baseline activities developed along the BAU scenario. As a result of the GEF intervention, vegetation cover will be increased of approximately 10,000 ha in the Butana region, leading to an incremental carbon uptake of 380 KtC (or 1,393.46 KtCO<sub>2</sub>e). Significant co-benefits will be generated in terms of increased resilience of the ecosystems, with regards to resistance to climatic shocks due to climate change, and improved biodiversity conservation.
- Carbon stock management and maintenance. Without the GEF intervention, the drivers of deforestation and forest degradation will continue. This may hamper the long-term sustainability of the project outcomes in component 1. With the GEF intervention, the forest management system will be improved, including through the development of a cost-effective methodology to measure carbon stocks and fluxes and improved post-fire management systems. Micro-insurance schemes may be tested on a pilot base to reduce the risk of loss of the carbon stock. In a long-term perspective this would make the forest asset more competitive and appealing in the carbon market.
- Capacity building at the national level for monitoring and reporting on carbon stock and changes and awareness raising on biocarbon stock at the local level. Business as usual capacity building activities focus on developing community-based organizations; locality and state staff is trained on planning, budgeting skills, gender analysis and in formation of community and apex organizations. Experts at the national and local level are not trained on methods for GHG emission reporting from the LULUCF sector. Also, data on carbon stock and fluxes are not available and local population use natural resources in an inefficient manner, ignoring the carbon sequestration potential/benefits deriving from LULUCF activities. The GEF alternative will support capacity building at the national level to enable national experts in concerned institutions to monitor and report effectively on carbon sequestration changes and improvements. Also, a national carbon stock inventory will be created and relevant national climate change policies will include effectively information related to changes in carbon emissions from the LULUCF sector. In addition, the GEF alternative will increase the awareness of the local communities on the potential of sustainable resources management for carbon mitigation and the benefits they may get from involving and maintaining these activities.
- Promotion of sustainable energy production at the community level. Under a business as usual scenario, energy production from biomass is undertaken in an unsustainable manner. The GEF intervention will stimulate biomass energy production from a diversified set of sources and through the adoption of modern environmentally-friendly technologies. This will be carried out in an integrated way with the other project activities.

The table below summarizes the two scenarios (without and with GEF intervention).

<b>Outcomes</b>	<b>Without GEF intervention</b>	<b>With GEF intervention</b>
1.Afforestation/reforestation activities to increase the national carbon sequestration potential.	Emissions from LULUCF continue to increase and forestry remains the primary source of carbon emissions in the country.	Contribution of forestry sector to carbon emissions reduction increased. Incremental carbon uptake of 380

	Sudan continues to generate GHG emissions and follows a non-carbon neutral rural development path. Agriculture and range development do not consider climate change mitigation potential of LULUCF activities.	KtC (over 10,000 ha) generated. Vegetation cover in the Butana area is increased over 10,000 ha, generating relevant co-benefits for the environment (CC adaptation, biodiversity, and desertification).
2. Forest carbon stock is maintained in the long run, through conservation and improved management including protection from causes of deforestation and fires	Deterioration and reduction in the forest carbon stock of Butana region due to continued deforestation and forest degradation, which in turn result in the accelerated environmental degradation and desertification in the area.	Carbon stock is managed and maintained in a sustainable manner. A cost-effective methodology to measure carbon stocks and fluxes is developed and used. The forest management system is improved and post-fire management practices are introduced. Innovative carbon loss risk sharing/transfer mechanisms are tested on a pilot base.
3. Wide diffusion of highly efficient, biomass energy technologies, as appropriate, is promoted in the project area using climate-friendly incentives.	Biomass is the most consumed type of energy in Sudan (approx. 87% of the national energy needs). Direct burning of fuel-wood and crop residues are largely used in the country, but their inefficient use causes economic losses and affects adversely human health. In a business as usual scenario biomass will continue to be used inefficiently and traditional stoves will continue to be used.	Modern and sustainable practices and technologies for biomass energy production, conversion and use are promoted. Use of improved and modern climate-friendly stoves is promoted. Percentage reduction of GHG emissions through the promotion of sustainable energy production from biomass.
4. Institutional and technical capacities for monitoring forest carbon stock and associated GHG fluxes are developed at the national level and awareness is raised at local level about the role of forest and biomass carbon stock in climate change mitigation	Only a limited number of experts are trained on methods for GHG emission reporting from the LULUCF sector. Policy makers and technicians are not able to use existing methods and data are not available. Local population uses natural resources in an inefficient manner and is not aware of the carbon sequestration potential/benefits deriving from LULUCF activities. Capacity building activities focus on developing community-based organizations; locality and state staff is trained on planning, budgeting skills, gender analysis and in formation of apex organizations.	Sudanese government enabled to integrate climate change issues into the LULUCF sectors. Policy makers and technicians are trained in the use of relevant LULUCF mapping techniques and measurements. A national carbon stock inventory is created and national CC policies are more receptive of changes in land use/forestry. Local communities are aware of the potential of sustainable resources management for carbon mitigation and participate in the management of the natural resources

The estimates provided for the annual removal per hectare of the selected species are based on the best available data. The average value for the annual removal per hectare (tCO<sub>2</sub>/ha/yr) included in Table 12 of the Project Design Document represents the actual carbon removal of the project. This value still need to be adjusted by subtracting any baseline removal, project emissions and leakage, as appropriate, in order to obtain the net carbon removal of the project which is the actual carbon credits of the project that can be sell in the carbon market. However, we believe the estimates provided reasonably show the potential carbon sequestration that the project may achieve if implemented in accordance with the prescribed activities. This assumption is based on the following:

- The potential A/R areas described in this document indicate that the Baseline removal can be neglected (assumed equal zero) based on current CDM rules (either bare lands or lands with less than 2% tree crown cover)
- Leakage that attributable to the planting of the A/R areas is unlikely to occur, because no displacement of human activities is expected in this project (leakage will be negligible =0)
- Project emissions could be minimized (to a negligible level) by best planning of the A/R activities, e.g. selecting A/R areas within close proximity (as described in this document), best practice in land preparation, etc

After the project implementation commences and the A/R areas is finally defined, a carbon accounting model (for the A/R CDM or/and the voluntary market) will be developed (international expert assistant may be needed). In this carbon model the estimation of project net removal will be based on an approved A/R CDM methodology that takes into consideration the baseline carbon stock change, project implementation emissions, any leakage attributable the project and the actual removals achieved by the project. The current planned activities in this project document imply the development of carbon market model, however, it might need to be explicitly mentioned in the project document, as part of the A/R activities that “ a model for accessing CDM or voluntary market will be developed based on the project planned A/R activities for the purpose of generating revenue that can be used in sustaining the A/R programme after the project termination.

Finally, the project is not expected to include certification processes.

#### **F. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MANAGEMENT MEASURES:**

The table below includes the risks and mitigation measures:

<b>Risk</b>	<b>Mitigation measures</b>
Bio-physical and Socio-economic risks in A/R activities	Provision of good and timely technical support and implementation of targeted training programmes
Lack of follow up and participation of the local population	Project has been developed adopting a participatory approach that should ensure the full involvement of the local population in the implementation of the proposed activities. In addition, capacity building and sensitization programmes will be carried out to respond effectively to this risk
People/local population will continue to over-use forest resources, including illegal felling, overgrazing and poor management	The association of the loan with the GEF intervention will shift pressure on forests and provide incentives to diversify income generation activities.. The project will promote participatory forest management as a way to protect the carbon stock from drivers of deforestation. The project will form, with involvement of farmer/herders trade unions, and farmers participating in forest plantation establishment in the agriculture

	land or degraded forest bare land inside forest reserves A/R activities, joint management committees to shoulder the management of these plantations including their locations, establishment, protection and use, conditions and availability for grazing, and coordinate with fire protection committees for better protection. The project will tailor awareness campaigns, particularly among nomads and rangeland grazers, on the importance of modern utilization and protection of rangeland, and lawful rights and privileges on forest and range reserves.
Low survival rates of the trees	Adoption of suitable planting techniques. FNC will provide tractors and Delfino ploughs to adopt the most successful water harvesting technique. This is expected to increase the survival rate up to 85%, according to studies carried out by the FNC for the Butana area
Weak community based social organizations	Careful selection in order to work with the most effective and influential CSOs
At the splitting of Sudan most forest resources will be in Southern Sudan, increasing pressure on forests in the north	Increase sustainable management efforts and fuel wood economy
Climate change (less rainfall)	The natural resources management and water development activities undertaken in the IFAD baseline project should be able to mitigate this risk. Furthermore, as forest management, afforestation and production of energy from alternative sources are expected to contribute to diversify the income of local population, the project should be able to produce co-benefits in terms of climate change adaptation that would lessen the impact of climate change.
Fire risk	Fire risk management plan (FRMP) to reduce fire risk on A/R activities of CSPS in Butana will particularly address forest fires attributed to nomadic grazers caused by sheer negligence of cooking and campfires and the farmers who burn the crop residues to tidy up and to keep the grazers off their farms, in addition to other causes.
Erratic rainfall and drought	The project will build capacities of local institutions and communities on the design and use of water harvesting techniques and adopt most suitable water harvesting techniques to capture rains and runoff water. Furthermore, the project will involve local communities in the process of drought-resistant species and spacing selection for A/R project activities making use of accumulated indigenous knowledge.
High costs of protection and management	Involvement of local communities and participatory natural resource management

Continued demand for wood	To reduce felling of trees for household energy consumption (i) the project will promote the use of improved fire-wood cooking stoves and liquid petroleum gas (LPG) at household level, (ii) the project will build the capacities of local communities, particularly women, to build and use improved firewood cook stoves, e.g. Badia stove. (iii) Because use of LPG has its own risks, similar training to build capacities of women on the use of the LPG and safety requirements will be extended by the project. To sustain the supply of LPG, the project will coordinate with LPG distributing companies to establish centres of refilling of gas cylinders in well-populated areas (v) the project will promote the use of LPG in bakery industry in some selected areas in Butana e.g. Abu Dilaig town in the Butana part of Khartoum State.
Uncertainty in financial markets and credit risk.	The project will develop with insurance companies that extend agricultural insurance a multi-peril micro insurance policies to cover irrigated, private and communal agroforestry plots and home gardens, and rainfed plantations.
Sudan has been subjected to a trade embargo for a number of years, which constrains access to the carbon markets	The project will promote through BDA and other relevant institutions for a better opportunity of carbon marketing
Changes in the perspective of compliance market and voluntary market due to the International financial crises. That could reduce the size of the market and increase competition between projects reducing the carbon price in the market.	Use the best community based standards available (Gold standard or Social Carbon) for the Butana projects increasing credibility and competitiveness among other projects in Africa. Also create a specific brand and Marketing campaign for the Butana projects. Another important measure will be capacitated and trainee the Sudanese in charge for the sales of the carbon credits generated by Butana project.

#### G. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

Project objective aims to promote a climate-friendly rural development path in Central and Eastern Sudan by increasing the carbon stock and reducing net GHG emissions in the country, while at the same time sustaining rural development in the project area. The GEF resources will be provided in the form of grant and will be mostly co-funded through an IFAD loan to the Government of Sudan.

The GEF financing will be used to finance the implementation of on-the-ground, direct carbon sequestration (A/R) and biomass emission reduction measures that will be monitored and evaluated to assess implementation success and potential for replication in other areas of the country. The GEF intervention is required for supporting the development of the potential for carbon sequestration and emission reduction, as well as contributing to enhancing rural development, and building of the required awareness to conserve, and capacity to manage, monitor and report, the carbon stock and changes at both the national and local levels. The GEF funds will serve as a catalyst for supporting revision of the national approach for forest management and utilization to take into account, in addition to national priorities, global challenges and commitments as well as possible market benefits. Project management and Monitoring and Evaluation costs are maintained at the lowest possible level.

The project is designed in such a way to accommodate the highest possible active community participation. Use of already existing community organizations and various ones to be established by the project will more add to cost reduction. The involvement of local communities and the promotion of participatory approaches for natural resource management will reduce costs of protection and management. FNC capacity and experience will ensure the better

technical implementation and performance to achieve the project objectives. A more detailed assessment and possible mitigation measures of this type of risk will be done during the project formulation.

To further contribute to cost effectiveness the project aims to establish data base of various project activities, their analysis to reach to low-cost implementation of activities and higher cost-effectiveness in achievement of project objectives and sustainability after the project completion.

The GEF intervention will be developed in synergy with the IFAD-supported Butana Integrated Rural Development (BIRD) Project. The preceding of this project by BIRD paves the way for smooth implementation of project activities. Use of management structures of existing BIRD project and that of FNC present at the states where project sites are means to achieve objectives at reduced costs. Use of already accumulated experiences of BIRD as related to community involvement in natural resource management will lead to high cost-effectiveness of project management. A common management structure will contribute at reducing the transaction costs.

The silvicultural techniques, including land preparation, to be used by the project are made at a lower carbon emission. Similarly adoption of alternative energies contributes to low carbon emissions. Maintenance costs are low improving project sustainability.

The risk of low survival of the trees will be mitigated through the adoption of suitable planting techniques. FNC will provide tractors and Delfino plough to adopt the most successful water harvesting technique. This is expected to increase the survival rate up to 85%, according to studies carried out by the FNC for the Butana area, thereby improving cost-effectiveness of the project.

Afforestation/reforestation mitigation options are also cost-effective with prices ranging between \$15–30 per tonne. On the basis of the data contained in the Sudanese Initial National Communication, afforestation and rehabilitation activities are able to generate an average incremental carbon uptake of 38.8 ktC/ha.

The project relies heavily on raising awareness and building of capacities to encourage the prevention act of communities against the drivers of desertification. Prevention is much cheaper than the cost of dealing with the social, economic and environmental consequences of natural resource degradation.

### **PART III: INSTITUTIONAL COORDINATION AND SUPPORT**

#### **A. INSTITUTIONAL ARRANGEMENT:**

The project will be implemented, by the Forest National Corporation (FNC) in collaboration with IFAD-Khartoum and all relevant national institutions at both national and state level. FNC is an organization under the Ministry of Environment, Forestry and Physical Development established in 1989 as a semi-autonomous parastatal institution responsible for the development of the forest resources in Sudan. FNC has developed technical capacities and long experiences in working with international and national organizations in multiple areas relating to forest resources development including afforestation and reforestation, forest resources assessment and forest management. FNC has offices and technical staff at national, State and local levels.

Forests National Corporation established a national REDD+ unit to develop the framework for a REDD+ strategic plan. Such work was done in collaboration with the United Nations Development Programme (UNDP) and Higher Council for Environment and Natural Resources (HCENR). It is therefore most important that the FNC REDD+ unit be closely involved in the project implementation, in order to guarantee maximisation of replication/scaling up opportunities and the interiorisation of the experiences of the project.

The implementation of this project will build on the capacities and technical expertise of FNC. FNC will be the leading agency responsible for the oversight and coordination of the different activities through its offices and staff in the relevant states and in close collaboration with IFAD-Khartoum and BIRD, the climate change Unit of HCENR and other relevant institutions. The effective involvement of local communities and relevant stakeholders, and their support and commitment to the implementation of the proposed activities, will ensure the achievement of the overall outcomes of the project.

The role of the BIRDP is essential in the project for having developed related activities in the project area for quite some time, and also part of the counterpart funding for the BCSP will be provided by the BIRDP. Representatives of BIRDP (members of the board of directors) will be required to play an active role in the projects steering committee in order to facilitate smooth implementation and coordination between the two initiatives. The Project Management Units

of both projects will also need to meet on a regular basis in order to guarantee efficient field level coordination, thus facilitating team building of key staff of implementing partners, avoid overlap between the two projects and guarantee maximum synergy and optimal application of the available funds. It is suggested that the steering committee decide on the proper way for this collaboration between the two project management units to take shape. In this sense it would be useful for the two management units to be physically located near to each other (if possible).BIRDP should institutionalise a joint planning processes that leads to a Joint Annual Work plans and Budgets as instruments for appropriate sequencing of all activities.

A committee will be established among the organisations and local communities involved in the project in order to administer the revenues generated by the project (carbon credits). This committee will take care of the distribution of these revenues to the involved communities based on the policy guidance that the project will provide in terms of channelling of the funds. The framework for the management of the available funds will have to be established during the first year of project implementation.

FNC will be represented in the BDA board of directors and the project will present the joint annual work plan and budget to the board and the progress report and any other issues related to Carbon sequestration project.

FNC will be responsible : for the management of the project; to prepare the joint AWPB with the BDA; Prepare progress reports of the project ; Submit the AWPB and progress report of the project to the BDA Board of Directors ;Provide technical guidance to the SCUs of Gadaref and Gezira in the implementation of the project activities, Also will be in charge to prepare the project implementation manual. Other responsibilities also may include to create a good channel of communication to keep BDA and all the main stakeholders informed of all changes in the implementation plan; Audit the project accounts including the GEF financing, the carbon revenues and the BIRDP contribution, and finally co-manage with the BDA the funds related to the carbon revenues using the strategy joint defined between FNC and BDA.

BDA will be responsible : to prepare the AWPB for the project; Integrate the approved work plan and budget of the project in the SCUs AWPB; Provide timely financing to the project; Carry out the regular supervision of the project in a regular basis and report to FNC and the Board of Directors of BDA accordingly and also play an important role in a co-management with the FNC the funds related to the carbon revenues that could be generated.

Three models was presented related with the management of the resources generated by the carbon credits from the Butana Project during the preparation Phase: A joint venture between FNC and BDA; A forest Fund managed by FNC, and a Community fund Managed by BDA. FNC and BDA agreed with a joint venture model that will be detailed during the implementation phase and will be in charge to coordinate and manage all the development activities to Bring the carbon credits to the market. Also the potential main resource generated by the carbon credit will be reinvested in the Butana region.

## **B. PROJECT IMPLEMENTATION ARRANGEMENT:**

The project will be implemented over a period of four years. The project will establish a management unit (PMU). FNC will host and guide the project management unit, which in turn will work closely with the project steering committee (PSC) and IFAD-Khartoum/BIRD and FNC offices, and relevant stakeholders in each of the relevant states to implement the project. The activities of the Project management unit will focus on coordination of all technical activities. Initially, this will involve the convening of a workshop which will be held at the beginning of the project activities to raise the awareness about the project at both the national and the state levels. The workshop participants will include all relevant stakeholders including representatives of the Civil Society Organizations, and the media. The workshop will discuss the project work plan, priorities and area coverage.

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

The project is fully aligned with the original PIF. Co-financing estimation has not increased. Allocation across components has been respected. No change in the baseline investment

## ANNEX A: PROJECT RESULTS FRAMEWORK

Expected Outcomes	Expected Outputs	Activities	Indicators
1. Afforestation and reforestation (A/R) activities successfully implemented and led to increased national carbon sequestration potential	<p>1.1 10,000 ha increase of reforested area in sites with less than 40% of canopy cover</p> <p>1.2 Agro-forestry initiatives involving land less farmers are implemented</p> <p>1.3 Improved water harvesting systems are defined and implemented to support successful A/R activities.</p> <p>1.4 Define suitable erosion control measures to be implemented in the A/R areas</p>	<p>1.1.1 Define and map areas for A/R based on agreed criteria as follow: (4 Kha) in the agriculture land based on the provision in the Forest Act (10% of rainfed agriculture schemes to be retained under forests) (6 Kha) in the degraded forest bare land inside forest reserves</p> <p>1.1.2 Define and assess the baseline on the selected A/R areas based on the rules and definitions of the Kyoto Protocol</p> <p>1.1.3 Rehabilitation of up to four central (Showbak, Fao, Rufa'a, etc) and communal nurseries for production of seedlings of selected species for the different A/R activities</p> <p>1.1.4 Implement suitable, reduced tillage land preparation practices</p> <p>1.1.5 Implement A/R involving local communities, in the selected areas using seedlings, seeds, and enhancement of natural regeneration</p> <p>1.1.6 Establish a forest monitoring system and develop data for ex post estimation of carbon fluxes</p> <p>1.2.1 Awareness raising and technical capacity building, of the targeted farmers</p> <p>1.2.2 Define suitable models for agroforestry in irrigated area in collaboration with landless farmers, based on successful national and regional experiences and practices</p> <p>1.2.3 Prepare implementation agreements with farmers based on existing experiences and taking into consideration the objective of carbon sequestration and climate change mitigation</p> <p>1.3.1 Screen, assess and select suitable water harvesting techniques from the experiences available in the Butana area or in other similar areas in other parts of Sudan</p> <p>1.3.2 Develop site-specific contour maps for the selected A/R areas</p> <p>1.3.3 Implement the selected water harvesting systems or techniques in the A/R areas and assess their effectiveness in supporting improved A/R activities</p> <p>1.4.1 Study on erosion control</p> <p>1.4.2</p>	<p>1.a) # of ha of afforestation in sites with less than 40% canopy cover</p> <p>1.b) # of communities/house -holds participating in increasing national carbon sequestration potential through A/R</p> <p>1.c) Baseline on A/R assessed</p> <p>1.1.a) # of ha. Invested in afforestation in sites with less than 40% of canopy cover</p> <p>1.1.b) Volume of increment carbon uptake</p> <p>1.1.c) Nurseries established</p> <p>1.1.d) Monitoring system in place</p> <p>1.2.a) # of land less communities involved in agro-forestry activities</p> <p>1.2.b) Area under agroforestry</p> <p>1.3.a) Area with water harvesting systems (ha)</p> <p>1.3.b) # of hafirs (reservoirs) and wells dug</p> <p>1.3.c) # of water harvesting micro-catchments constructed</p> <p>1.4.a) Study completed</p> <p>1.4.b) # and area of control measures implemented</p>

Expected Outcomes	Expected Outputs	Activities	Indicators
2. Forest carbon stock is maintained in the long run, through conservation and improved management including protection from causes of deforestation and fires	<p>2.1 Participatory forest management promoted as a way to protect the carbon stock from drivers of deforestation (illegal felling, over grazing, poor management, etc)</p> <p>2.2 Fire management system is improved and post-fire management plans are developed and implemented</p> <p>2.3 Long-term sustainability of biomass carbon storage potential increased</p> <p>2.4 Forest Micro-insurance schemes tested on a pilot base in two sites</p>	<p>2.1.1. Define geographical boundary encompassing one or more adjacent forest reserves and the A/R areas in Gedarif or Gezeera States</p> <p>2.1.2 Assess the forest biomass carbon stock and deforestation rates suing remote sensing technology and ground surveying</p> <p>2.1.3 Identify and assess all factors causing deforestation and forest degradation</p> <p>2.1.4 Prepare and implement forest management plans using participatory approaches with the objective of reducing deforestation and forest degradation, while addressing local needs and other causes of deforestation</p> <p>2.1.5 Increase forest reserves area and potential for carbon sequestration</p> <p>2.2.1 Design and execute fire management plans in the A/R areas and as part of the forest management plans that contain fire lines network</p> <p>2.2.2 Prepare and implement post-fire management plans using participatory approaches</p> <p>2.3.1 Revise forest policies and legislation to enhance participatory forest protection and management</p> <p>2.3.2 Strengthen and raise institutional and community capacities in the use of remote sensing technology for monitoring and controlling fire risks</p> <p>2.3.3 Monitor and prevent deforestation and forest degradation in Butana</p> <p>2.4.1 define properties to be ensured and estimate their values, define perils covered and excluded, time duration, and premium payment</p> <p>2.4.2 prepare at least two insurance contracts for (1) irrigated forestry, including agroforestry, home gardens and community nursery, and (2) rain fed dry land forestry (part of 2.4.3)</p> <p>2.4.3 special study on micro insurance</p>	<p>2.a) carbon stock\ tons\ha</p> <p>2.b) # of stakeholders involved in maintaining forest carbon stock in the long run.</p> <p>2.1a) # of community forests registered and managed by local communities in a participatory manner</p> <p>2.1b) # of community and home nurseries established</p> <p>2.1c) # of seedlings produced</p> <p>2.2a) Fire Risk Management Plan elaborated</p> <p>2.2b) # of fire lines opened</p> <p>2.2c) # of fire brigades</p> <p>2.3a) increase in carbon stock by X tons per year</p> <p>2.3.b) Area of forest reserves increased by X%</p> <p>2.4a) # of communities enrolled in forest micro-insurance.</p> <p>2.4b) # of micro insured forests.</p>
3. Wide diffusion of highly efficient, biomass energy technologies, as appropriate, is promoted in the project area using climate-friendly incentives.	3.1 GHG emissions from biomass energy production at the community level reduced	<p>3.1.1 Assess household and total consumption and/or demand for biomass energy of the targeted communities</p> <p>3.1.2 Identify barriers and enabling factors for energy technology, e.g. suitable applications, know-how and the differences in local circumstances of targeted communities</p> <p>3.1.3 Address any potential barriers for dissemination and use a combination of revolving input and climate-friendly incentive systems e.g. successful household</p>	<p>3a). use of LPG in 6,000 households</p> <p>3.b) use of improved wood stoves in 7,000 households</p> <p>3.2a) # of improved and modern climate friendly stoves used in the project area (6,000 LPG).</p> <p>3.2.b) # of households using improved wood stoves (7,000)</p>

Expected Outcomes	Expected Outputs	Activities	Indicators
	3.2 The use of improved and modern climate friendly stoves using alternative energy sources is promoted to replace inefficient wood stoves	<p>tree planting to promote wide dissemination</p> <p>3.1.4 Build technical capacity of the targeted groups in construction and use of improved stoves</p> <p>3.1.5 Distribute improved stoves to households and install suitable applications in local institutions</p> <p>3.1.6 Establish monitoring system to ensure successful diffusion and use of the energy technologies and for assessment of associated emissions reductions</p> <p>3.2.1 Identify barriers and enabling factors for LPG technology, e.g. suitable applications, availability of services, know-how and the differences in local circumstances of targeted communities</p> <p>3.2.2 Build technical capacity of local people to use LPG cooking facilities and address any potential barriers for dissemination of LPG technology such as refilling and service stations</p> <p>3.2.3 Prepare and disseminate appropriate standard safety measures to enhance the safe use of LPG in the target areas</p> <p>3.2.4 Define and use incentives that encourage tree planting and forest conservation to disseminate LPG cooking facilities. Use FNC experience in this area</p> <p>3.2.5 Based on BIRD experience, develop and implement a system to use the project resources allocated for the dissemination of LPG cooking facilities as revolving input</p>	
4. Institutional and technical capacities for monitoring forest carbon stock and associated GHG fluxes are developed at the national level and awareness is raised at the local level about the role of forest and biomass carbon stock in climate change mitigation	<p>4.1 Enhancing national capacity to develop implement and monitor potential LULUCF projects including CDM, REDD or voluntary mechanisms</p> <p>4.2 Enhancing local capacity to promote forestry awareness among the target group, and to</p>	<p>4.1.1. Training sessions for policy makers and technicians;</p> <p>4.1.2. Analysis and processing of relevant time series data for monitoring land use change and carbon fluxes and stocks.</p> <p>4.1.3. Test at the local level state of the art GIS for LULUCF monitoring and up scale the outcomes at the national level;</p> <p>4.1.4. conduct specific studies to generate local data and parameters for better estimation of carbon stock change and GHG fluxes</p> <p>4.1.5. establishment of a baseline and monitoring system for deforestation and forest degradation</p> <p>4.2.1 Training sessions for policy makers and technicians;</p> <p>4.2.2 Plan and execute 20 training sessions for 120</p>	<p>4.a) Monitoring system for measurement of carbon stock and associated carbon fluxes in place and fully operational, including baseline.</p> <p>4.1a) # of baseline surveys and data collected on deforestation and forest degradation</p> <p>4.1b) # of analyzed and processed relevant time series data for monitoring land use change and carbon fluxes and stocks;</p> <p>4.1c) # of technicians trained in GIS</p> <p>4.1.d# of training and awareness raising events</p> <p>4.1e) # of studies to generate data for better estimation of carbon stock changes and fluxes</p>

Expected Outcomes	Expected Outputs	Activities	Indicators
	develop, implement and monitor potential LULUCF projects	technicians 4.2.3 Organise awareness-raising campaigns at local community level 4.2.4 Training for development of non-wood forest products-based traditional and intermediate technology to process non-wood forest products in cottage industry or use of these products (fruits, seeds, honey) for sales, and establish pilot projects.	4.1f) # of MRV models established for carbon stock change and fluxes 4.1g) GIS tested for LULUCF monitoring 4.2a) #. of training sessions in awareness raising campaigns for communities and policy makers 4.2b) # of participants in training and awareness events 4.2c) # of pilot projects on non-wood forest products
5. Project Management	5.1 FNC and BIRDP implement programmes and financial management systems to ensure effective implementation	5.1.1 Establish Project management structures including techniques, procedures, people, and systems that lead to effective implementation of the project. 5.1.2 Disseminate lessons learned thereby assuring regional coverage 5.1.3 Establish a dedicated project website and a database on climate change related issues and activities	5.1.a) Project implementation on schedule 5.1.b) website accessible

## **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)

### ➤ **Responses to the STAP Review (February 11, 2012)**

- **STAP:** Please briefly explain how comments from STAP review have been addressed, and modify CEO endorsement document as needed.

- 1. IFAD may wish to review the project outputs because they appear to be outcomes. For example, "participatory forest management ..." is an outcome (not an output) of forest and carbon stock management.

**Response:** A revision was made and the project outputs/outcomes have been modified accordingly.

- 2. The proposal expects to generate multiple global environment benefits. Climate change mitigation and adaptation benefits are defined more clearly than biodiversity, sustainable forest management, and land degradation benefits. Greater details on biodiversity, sustainable forest management and land degradation would clarify what benefits the project intends to deliver in these areas.

**Response:** The project document includes a detailed description of the above points.

- 3. The proposal could be more specific by defining the methods that will be used to estimate and analyse the results of carbon stocks from litter, forest biomass and soil.

**Response:** A specific and detailed analysis was undertaken and is provided in the project document.

- 4. A good description of the baseline is provided. However, quantitative estimates will be required using scientific methods.

**Response:** A group of national scientists was part of the design and detailed consultation and working sessions for the development of the project provided the scientific basis for the estimates.

- 5. Capacity building: Rationale for national level capacity building for policy makers is necessary, since this is a small project covering about 10,000 ha.

**Response:** Capacity building activities have been mainstreamed throughout the project.

- 6. PIF, quoting National Communication, states that 15,577 Gg (15 Mt) CO<sub>2</sub> states as coming from the LULUCF sector, which seems to be an insignificant proportion of the national GHG emissions.

**Response:** During the design of the project, specific calculations were undertaken which resulted in a significant amount of 2,801,880 tons Co<sub>2</sub> equivalent.

- 7. Butana region seems to be an arid region with average rainfall of 100 to 250 mm and the expected output states that about 38 tonnes of carbon per hectare as the net benefit. This seems to be high for the arid region.

**Response:** As mentioned, a scientific analysis of the characteristics of the region and its soils have been undertaken and the corresponding calculations have been included in the project document.

- 8. Butana region is arid and is likely to be adversely impacted by climate change. Thus it is desirable to consider the potential climate impacts on the project area as well as the species choice for the reforestation program.

**Response:** Details included in the project document.

- 9. Component 1 – a. It is unclear how the selection of tree species will be made for the afforestation efforts. For example, will communities be involved in selecting the species based on their needs? Also, it is not clear whether all species will be indigenous to the project area.

Response: Details included in the project document.

- 9. Component 1 – b. Perhaps the proposal could address the potential challenges of maintaining the irrigated plantation once the project ends. This is based on the assumption that irrigation systems would be a new practice in the region, requiring added investments that are made possible mainly through the project. Therefore, the proposal may wish to consider how the communities will continue managing the irrigated plantations after the project ends. Further, irrigation could be a luxury for forestry projects given the arid condition of the Butana region. There could be conflicts for water for food production versus forestry.

Response: This comment was very important in guiding the criteria for the selection of sites and species. Details are included in the project document.

- 9. Component 2 - a. The project will need to consider how to monitor wood harvesting because it will likely affect the live carbon pool. The project could note how it intends to monitor and estimate the removal of biomass from the plantations.

Response: Details for M&E included and budgeted for in the project document.

- 9. Component 2 - b. Forest management can contribute to soil moisture, which can strongly determine carbon assimilation in dry areas, such as in the Sahel - <http://www.cbmjournal.com/content/pdf/1750-0680-3-7.pdf> This component is tied intricately to afforestation and its ability to sequester carbon not only above ground, but below ground too. Perhaps the proposal can also reflect the importance of forest management on soil carbon.

Response: The implementing agency is the Forest National Corporation, which is responsible for forest management in Sudan. Therefore, forest management on soil carbon is a central issue all along the project.

- 9. Component 3 – a. Training field practitioners is essential. Building capacity at the field level is important for designing carbon inventories, collecting local specific data, and designing monitoring systems. This could be noted in the proposal, since it does not specify that field practitioners will receive capacity building.

Response: As mentioned before, capacity building activities and training of field practitioners have been mainstreamed throughout the project.

- 9. Component 3 – b. The proposal notes that targeted capacity building will ensure that "...mitigation benefits are monitored and reported correctly". Perhaps "analyzed" can also be added to this statement.

Response: The project document has been modified accordingly.

- 9. Component 3 – c. The project aims to establish a national carbon stock inventory system. This could be a very expensive component and its sustainability will be a challenge beyond the project period. Thus the rationale for the National Carbon Inventory needs to be reconsidered.

Response: This has been considered during the design of the project and the Government contribution will cover the majority of the cost.

➤ **Responses to the GEF Secretariat Review (January 23, 2012)**

- Question 4: Which GEF Strategic Objective/Program does the project fit into? Please see <http://www.thegef.org/gef/node/3631> for a copy of the CEO endorsement template for GEF4, and use that template

for the CEO endorsement document. The Table A for GEF5 is not used for these GEF4 projects, and the objectives remain CC-6 and CC-4 rather than the GEF5 CCM-1 and CCM-5 as listed in this CEO endorsement submission.

Response: The resubmission is done using the GEF4 template.

- Question 8: Is the global environmental benefit measurable? The GEF is measurable, and an M&E system and national carbon monitoring system are part of the project. In carbon benefit estimates for the tracking tool, the approach should be more transparent, by adding a few paragraphs to the CEO endorsement text or on an Annex. See response to question 23.

Response: The RfCE has been modified accordingly. The following paragraphs have been added:

*"The estimates provided for the annual removal per hectare of the selected species are based on the best available data. The average value for the annual removal per hectare (tCO<sub>2</sub>/ha/yr) (see PDR, Table 12) represents the actual carbon removal of the project. This value still need to be adjusted by subtracting any baseline removal, project emissions and leakage, as appropriate, in order to obtain the net carbon removal of the project which is the actual carbon credits of the project that can be sell in the carbon market. However, we believe the estimates provided reasonably show the potential carbon sequestration that the project may achieve if implemented in accordance with the prescribed activities. This assumption is based on the following:*

- *The potential A/R areas described in this document indicate that the Baseline removal can be neglected (assumed equal zero) based on current CDM rules (either bare lands or lands with less than 2% tree crown cover)*
- *Leakage that attributable to the planting of the A/R areas is unlikely to occur, because no displacement of human activities is expected in this project (leakage will be negligible =0)*
- *Project emissions could be minimized (to a negligible level) by best planning of the A/R activities, e.g. selecting A/R areas within close proximity (as described in this document), best practice in land preparation, etc.*

*After the project implementation commences and the A/R areas is finally defined, a carbon accounting model (for the A/R CDM or/and the voluntary market) will be developed (international expert assistant may be needed). In this carbon model the estimation of project net removal will be based on an approved A/R CDM methodology that takes into consideration the baseline carbon stock change, project implementation emissions, any leakage attributable the project and the actual removals achieved by the project. The current planned activities in this project document imply the development of carbon market model, however, it might need to be explicitly mentioned in the project document, as part of the A/R activities that " a model for accessing CDM or voluntary market will be developed based on the project planned A/R activities for the purpose of generating revenue that can be used in sustaining the A/R programme after the project termination".*

- Question 9: Is the project design sound, its framework consistent & sufficiently clear (in particular for the outputs)?
  - a) The project framework lists a 10,000 ha increase in reforested areas. In Annex 6, table 1, it the list on the left shows these total hectares (the GEF funding to go towards the non-irrigated areas, which is 9000 ha of Acacia types). However, the quantities to be funded are 6630 ha. The project is focused on outputs of 9000 ha of Acacia, not just 6630 hectares, and the budget should be consistent. In the same table, GEF funding goes towards 10,000 ha of implementation of erosion control measures. Are the 6630 ha for planting within the 10,000 ha for erosion control? Activities to afforest/reforest the missing 3,370 ha should clearly be budgeted for or made consistent through the documents.

Response: Changes in the Project Document and in the Cost Tables have been introduced. The total increase in reforested areas is 10,000 ha (4,000 ha of acacia; 5,000 ha of seyal mix in the degraded forest bare land; 1,000 ha of irrigated plantation in the degraded forest bare land inside forest reserves).

- b) In the project framework (currently Table B) please split component 1 into two rows, one row for TA and one row for INV. At PIF stage, several more items were listed as INV, such as the micro-insurance. Please re-evaluate what is an investment and what is a TA and modify as appropriate.

Response: A revision was made and the RfCE has been modified accordingly.

- c) The GEF contributions to the components in Table B sum to \$3,650,100, which is not equal to the listed total project costs and the grant amount. Please modify numbers so these sum to the appropriate amount.

Response: The difference was due to the roundup made by the Costab software. Now, the numbers have been corrected. The total sum is \$3,650,000.

- d) In Table B of the CEO endorsement document, the GEF grant amount for component 2 is listed as \$715,200. This matches the summary for this component in Annex 6, components by Financiers table. However, in Annex6, Table 2 (Forest carbon stock/a), project document, the sum of the GEF funding amounts that correspond to the items in Table B, component 2 is \$635.50. Please justify this difference or modify as appropriate. Also, please check that the summary of GEF funded items in Annex 6 of the project document match the GEF amounts for the other matching components in Table B of CEO endorsement, and modify the differences or justify.

Response: The numbers have been revised and changed accordingly.

- e) In Table C, the type of co-financing is listed as a grant-loan. Please label as a grant or as a loan, as appropriate.

Response: The RfCE has been modified accordingly.

- Question 10: *Is the project consistent with the recipient country's national priorities and policies?* Please under section A.2. list the consistency with the Initial National Communication (the consistency is described in depth in section B.1. so please just summarize this briefly in A.2.).

Response: The RfCE has been modified accordingly.

- Question 11: *Is the project consistent and properly coordinated with other related initiatives in the country or in the region?* Sudan has observer status in the UNREDD program. Please mention if the project is consistent with any activities related to that, especially in terms of national carbon estimation.

Response: The required mention has been added to the Project Document, paragraph 318: “*(...) Currently Sudan has observer status in the UNREDD programme. The CSP will reinforce the knowledge and capacity in relation to this programme, and will also reinforce cooperation and share knowledge with the other African countries already member of the UNREDD Programme. The national carbon estimation will be updated and reinforced by the SCSP*”.

- Question 13: *Has the cost-effectiveness sufficiently been demonstrated in project design?* It is not yet demonstrated. Please divide the amount of the GEF grant by the revised carbon benefits for a \$/tCO<sub>2</sub> estimate, and discuss cost-effectiveness in those \$/tCO<sub>2</sub> terms.

Response: The carbon benefits have been revised and the changes have been included in the Project Document, paragraph 364: *“Based on the revenues generated by the project for the first four years each dollar provided by GEF generates US\$ 1.21, whereas for the whole 20 year period the ratio is 1 to 5.36. These estimates are on the conservative side, using values at the lower end of the scale. It must be noted that revenues during the first couple of years are relatively low, due to the fact that not all plantations will have been planted yet. The revenues will be used to considerably increase the reforestation areas and if they will be able to reinvest the resources to increase the beneficiaries and to implement a larger area 5 times bigger than SCSP”*.

- Question 14: *Is the project structure sufficiently close to what was presented at PIF?* It is similar although the project budget seems to indicate a slightly different mixture of outputs. This will be revisited in the revision.

Response: The final outputs of the project are based on consultation during project design process, the IFAD Quality Enhancement process, and on the meetings held with the implementing partners that will be implementing the project on the ground. Even when they may present small differences from the ones at PIF, the overall objective and purpose of the project has not been changed.

• Question 19: Is the GEF funding level of project management budget appropriate?

- a) In the CEO endorsement revision, which will be using the GEF4 template as discussed in #4, we expect the amount listed in the project management cost row to be the same as at the PIF stage, or less. As at the PIF stage, project management costs in the GEF funding column cannot exceed 10% of the total GEF funding.

Response: Management Costs to be GEF funded (Component 5) have been revised and do not exceed 10% of the total GEF funding.

- b) The estimates in Table E for consultants to be hired for project management do not match the amounts for consultants in Table F. Please check these numbers, and modify as appropriate.

Response: The numbers have been revised and changed accordingly.

• Question 20: Is the GEF funding level of other cost items (consultants, travel, etc.) appropriate?

- a) The estimates in Table E of the CEO endorsement document for estimated person weeks and GEF grant amounts for local and international consultants do not match the sum of the personnel for technical assistance in Annex 6. Please check these numbers, and modify as appropriate.

Response: The numbers have been revised and changed accordingly.

- b) Annex 6, table 5 lists 3 vehicles for a total of \$125,000 to be paid for with GEF funding. Please use co-financing to pay for vehicles.

Response: The costs of the vehicles are going to be shared with other financer (e.g. BIRDp).

- c) Three tractors are being purchased as part of the cofinancing at \$35,000 with an additional accessory each of \$13,000. Please justify the cost of the additional \$125,000 tractor from GEF funding, and why all these tractors are needed, especially when only 10,000 hectares are involved. It may be more appropriate for the GEF to finance one of the smaller tractors.

Response: Three tractors are already in possession of FNC/BIRDp. One extra powerful tractor will be bought since water harvesting and erosion control activities will require structures of considerable size.

- d) Please check other items in Annex 6 that are summed into rows in Table E or Table F for consistency. If the sum of the items does not match, please explain.

Response: The numbers have been revised and changed accordingly.

- e) Briefly explain how the funding (\$120,000) will be used to establish the baseline and monitoring system (Annex 6, Table 4). What will the \$80,000 be used for in Year 1?

Response: The justification has been included in the Project Document, paragraph 287: "*The establishment of the baseline will be done through contracting of a consultancy. The baseline will consider historical deforestation data using satellite imagery (20, 10 and 5 years ago) as well as the present rate to develop a monitoring tool that will be used for the validation and verification of the carbon credits generated by the project activities, associated with carbon fluxes and stocks*". The \$80,000 will cover the cost of the consultancy to develop the baseline. The costs for the following years are directed to cover the monitoring activities and, therefore, are lower than Year 1 since all indicators and means of verification have been already established.

- f) In Annex 6, Table 2, for "assessing the forest biomass carbon stock", does the 9 pers\_month mean 1 person employed for 9 months in each year, or something else ? Please explain briefly what types of activities these people will do, for instance will there be field measurements involved or is the monitoring primarily from the office using aerial photos or remote sensing observations?

Response: Since carbon monitoring efforts require specialized equipment, methods and qualified personnel, the project will hire one person for nine months each year to conduct this activities. The system involves field measurements as well as technical methods. Among others instances, the assessment will involve the following activities:

- baseline determination of pre-project carbon pools in biomass, soils and standing litter crop;
- establishment of permanent sample plots for periodic measurement of changes in carbon pools;
- plotless vegetation survey method to measure carbon stored in non-project areas or areas with sparse vegetation;
- calculation of the net difference in carbon accumulated in project and non-project land uses;
- use of SPOT satellite images as gauges of land-use changes, and as base maps for a microcomputer-based geographic information system;
- computer modelling of changes in carbon storage for periods between field measurements, and
- a database of biomass partitioning for selected species.

- Question 23: *Has the Tracking Tool3 been included with information for all relevant indicators?* Since this is a GEF4 CC6 and CC4 project, in the tracking tool only fill out the General Data, objective 2 and objective 5 LULUCF. The other sections will remain blank. For the good management practices row in the LULUCF section, certification was not mentioned in the project. Based on what is written, #2 prescriptions for management seems more accurate. If there is to be certification, please add to the text of the CEO endorsement.

Response: It has been specified that the project does not include certification, furthermore the Tracking Tool has been modified accordingly.

- Question 24: *Does the proposal include a budgeted M&E Plan that monitors and measures results with indicators and targets?* Yes, a budgeted M&E plan is included with indicators and targets. There appears to be an inconsistency in the budgeted amounts. The M&E plan in Annex 3 requests a total of \$42,000. In Annex 6, table 5 mid-term and final evaluation is \$50,000. Yet the framework table requests \$640,000 from GEF and lists additional cofinancing for this activity, so this appears to be an inconsistency. Also, M&E costs are generally much less than \$640,000 in total (including cofinancing), so please reconsider these activities and costs, and modify as appropriate. Please explain what appear to be inconsistencies.

Response: The amounts in the Project Document have been revised and adapted to the budget. The total in Component 5 (to be funded by GEF) is \$364,900 and do not refer only to M&E activities but to the entire management of the project. Mid-term and Final Evaluation remain as before (\$50,000).

➤ Responses to the GEF Secretariat Review (May 7, 2012)

- Question 4: There is one row missing, that of Project management costs (see document at <http://www.thegef.org/gef/node/3631>) It looks like at least part of component 5 should instead be identified as project management costs (PMCs), so please revise. The PMCs are needed to go in a separate row.

Response: The Project Management Costs are those presented under Component 5. Therefore, the Component's name has been modified accordingly (from "*Successful implementation of project achieving agreed objectives / Monitoring and Evaluation / Knowledge management*" to "*Project Management*").

- Question 9: b) What was meant by splitting Component 1 by TA and INV was to also provide separate funding amounts for each one. Please also provide a separate GEF financing and Co-financing line for the TA.

Response: The table has been updated.

- Question 9: e) Please revisit this item in Table B and complete the row of information for FNC.

Response: The table has been updated.

- Question 20: a) The person weeks in Table E now match the estimates in Annex C, but the GEF amounts still do not match. Please revise the GEF amounts to match Annex C.

Response: The table has been revised and updated.

- Question 20: c) Thank you for the explanation. However, the GEF will not provide funding for the \$125,000 tractor. Please revise budget.

Response: The budget has been revised and modified accordingly.

- Question 23: a) The mid-term and terminal evaluation Tracking tools are not to be filled out now, but at the mid-term and project end respectively, so please remove those from the submission.

Response: The corresponding modification has been done.

- Question 23: b) In the objective 1 section of the tracking tool, it is unclear what these estimates are referring to. Objective 1 was not a GEF4 objective. Please clear all the entries in objective 1 of the tracking tool or provide an explanation.

Response: The entries have been cleared.

- Question 23: d) The tCO<sub>2</sub>e estimates in the LULUCF section and documentation are acceptable for a beginning estimate. Please place these in the excel version and include it separately in the submission.

Response: The required excel table is added to the resubmission package.

## ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF RESOURCES

<b>Position Titles</b>	<b>\$/ Person week*</b>	<b>Estimated Person weeks**</b>	<b>Tasks To Be Performed</b>
<b>For Project Management</b>			
<b>Local</b>			
Short-term consultant	1787	23	Implementation support
<b>International</b>			
-	-	-	-
<u>Justification for travel, if any:</u> The project will be implemented across a large area – travel will be required to provide technical support in the field and supervise project activities, as well as to interact with the stakeholders and to ensure effective project implementation.			
<b>For Technical Assistance</b>			
<b>Local</b>			
Baseline assessment	1750	8	Increase of reforested areas
Study erosion control	1750	1.5	Define a suitable erosion control measure
Institutional capacity	1750	101	Long-term sustainability of biomass carbon
Rainfed dry land forest	1750	17	Forest micro-insurance scheme
Special study on micro-insurance	1750	4.5	Forest micro-insurance scheme
Test at the local level state of the art	1750	28	Enhancing national capacity
Establishment of a baseline and monitoring. System	1750	80	Enhancing national capacity
<b>International</b>			
Assess forest biomass	2500	21	Participatory forest management
Define property to be ensured	2500	21	Forest micro-insured scheme
Irrigated forestry	2500	30	Forest micro-insured scheme
Training session for policy makers	2500	16	Enhancing national capacity
Analysis and processing of data	2000	30.5	Enhancing national capacity
<u>Justification for travel, if any:</u> This activity will require intensive field work (site visits, interaction with stakeholders etc.).			

\* 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 PPG was instrumental in providing detailed information for the full project design. The carbon accounting undertaken helped in ensuring the sustainability of the project. The consultations with different stakeholders during project design have helped in raising the awareness about this project and in getting various views in terms of technical and institutional issues. The PPG reached its objectives.

### **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 Amount (\$)</i>				<i>Co-financing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent Todate</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
1. Technical design of investment needs associated to a mitigation strategy centred on forestry activities.	Completed	40 800	38 978	1 822	0	30 200
2. Identification and assessment of a cost-effective risk management plan.	Completed	14 400	13 900	500	0	4 600
3. Assessment of capacity building and awareness needs for climate change monitoring and measurement at both institutional and local level.	Completed	6 000	4 600	1 400	0	3 200
4. Planning and designing M&E systems.	Completed	4 500	3 430.27	1 069.73	0	4 500
5. Economic and financial analysis	Completed	3 900	2 850	1 050	0	3 900
6. Stakeholder consultations	Completed	0	0	0	0	12 500
7. Contingencies	Completed	0	0	0	0	5 000
8. Travels	Completed	30 400	30 085.33	0	314.67	5 000
9. PPG management	Completed	0	0	0	0	20 000
<b>TOTAL</b>	<b>Completed</b>	<b>100 000</b>	<b>93 843.60</b>	<b>5 841.73</b>	<b>314.67*</b>	<b>88 900</b>

\* 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**

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

**GEF Trust Fund CEO Endorsement/Approval Template Preparation Guidelines**  
 (This template applies to both FSPs and MSPs)

**Unlock instruction:** The template, by default, is locked to allow the pull-down menu to function. However, in order to access the various documents through the hyperlink, the template has to be in unlocked format. To unlock the template follow this path: Go to **View >Toolbars>Forms**. You will then see a pop up menu like this. Click on the right-most icon (a lock) to unlock. When inputting information in the fields in the template, please use the “locked” mode.

**Submission date:** self-explanatory

**PART I: PROJECT INFORMATION**

The first part is the project core information and standard selections are provided to the extent possible for ease of preparation. The Strategic Programs for each focal area have to be filled in manually, due to limitations by Microsoft Word which prevented the provision of the full range selections for all focal areas through the pull-down menu. For convenience, the strategic programs (SP) in each focal area are listed below. Please write exactly as indicated below. For example, fill in **BD-SP1-PA**, not just SP1 or any other combination.

Biodiversity	Climate Change	International Waters	Land Degradation	POPs*	ODS*	SFM*
<b>BD-SP1-PA</b> Financing	<b>CC-SP1-</b> Building EE	<b>IW-SP1-Coastal</b> Marine Fisheries	<b>LD-SP1-Agriculture</b>	<b>POPs-SP1-</b> CapacityB	<b>ODS-SP1</b>	<b>SFM-SP1-</b> Financing
<b>BD-SP2-Marine PA</b>	<b>CC-SP2-</b> Industrial EE	<b>IW-SP2-Nutrient</b> Reduction	<b>LD-SP2- Forest</b>	<b>POPs-SP2-</b> Investment		<b>SFM-SP2-PA</b> Networks
<b>BD-SP3-PA</b> Networks	<b>CC-SP3-RE</b>	<b>IW-SP3-</b> Freshwater Basins	<b>LD-SP3-Innovation</b>	<b>POPs-SP3-</b> Demonstration		<b>SFM-SP3-</b> LULUCF
<b>BD-SP4-Policy</b>	<b>CC-SP4-</b> Biomass	<b>IW-SP4-</b> Toxics/Ice				<b>SFM-SP4-</b> Policy
<b>BD-SP5-Markets</b>	<b>CC-SP5-</b> Transport					<b>SFM-SP5-</b> Markets
<b>BD-SP6-Biosafety</b>	<b>CC-SP6-</b> LULUCF					<b>SFM-SP6-</b> Biomass
<b>BD-SP7-Invasive</b> Alien Species (IAS)						<b>SFM-SP7-</b> Forest
<b>BD-SP8-ABS-</b> Capacity Building						

\* POPs = Persistent Organic Pollutants; ODS = Ozone Depleting Substance; SFM = Sustainable Forest Management

**Indicative Calendar:** Most dates are expected dates and may change as new developments unfold. The only date that is actual is the date that the project (in the form of PIF) was approved in a work program (Indicate the Council work program month, e.g. April 2008). The purpose of these dates is to see the implementation timeline of the project. For example, the Agency approval date will be included in the CEO Endorsement letter to the Agencies. The GEF Management Information System will be sending alerts to the Agencies about a month prior to the dates indicated in the letter to alert Agencies of the impending deadlines. It is therefore advisable that should there be any delay in the milestone dates in the endorsement/approval letter, Agencies should inform GEFSEC immediately and seek GEF CEO's concurrence to the new dates/milestones. For all other dates on the template (i.e. Mid-term review, project grant closing date, etc.), Agencies should inform GEFSEC of any deviation from those indicated in the CEO Endorsement Request so that the GEFSEC database could be updated to reflect the changes. Agencies should also indicate any change in the milestone dates in its annual report submitted to GEFSEC. In order to have avoid confusion on the various terms under the Indicative Calendar section, please refer to the definitions below:

**GEF Agency Approval** - The date on which the GEF Agency Board or Management approves the Grant proposal. This is equivalent to the WB's Board approval date, UNDP's Project Document's signature date, or IFAD's approval date.

**Implementation Start** - The date on which project becomes effective and disbursement can be requested. This is the equivalent to the WB's grant/legal agreement effectiveness date and UNDP's Project Document Signature Date. This is also the trigger date for the Trustee to allow Agencies to apply for disbursement.

**Project Closing** - This is the date when all project activities are financially committed, but not necessarily all disbursements completed. Generally, Agencies provide a grace period of 6 months, or more, for final disbursement after project closing, but the sums paid may not be increased from the amounts originally committed. Agencies should submit a report to GEFSEC and the Trustee on the financial closure of the project.

- A. Project Framework: The main objective of the section is to sketch out the overall design of the project and to provide information about what the GEF grant will finance in relation to other sources of funding.

Since many agencies utilize their own terminology for project design, it is important to clarify what the Secretariat is asking for under each heading. The definitions are based on those developed by OECD/DAC, *Glossary of Key Terms in Evaluation and Results-Based Management* (2002).<sup>2</sup>

**Project Objective** (refers to OECD/DAC *development objective*): intended impact contributing to global environmental benefits via one or more development interventions.

**Outcomes:** The likely or achieved short-term and medium-term effects of an intervention's outputs (e.g. energy efficiency of existing heat and hot water supply companies in X city improved, new trust fund for the conservation of the PAs established, laws and bylaws approved to reduce impact of forestry practices on biodiversity)

**Outputs:** The products, capital goods and services which result from a development intervention relevant to the achievement of outcomes. At CEO Endorsement, outputs should be concrete and where applicable should reflect targets that have been established during project preparation (e.g. 10 staff trained to operate and maintain an early warning system, data capture in 5 regions of costal lowlands).

The **Project Component** is the division of the project into its major parts; an aggregation of a set of concrete activities (e.g. strengthening regulatory and legal frameworks, introduction of innovative financial mechanisms, investment to overcome financial barriers, institutional capacity building)

The financing of the project should be broken down by Project Component. Indicate also for component whether it is of investment in nature, technical assistance, or scientific and technical analysis.

The percentage under the GEF and co-financing is the percentage of GEF or co-financing to the total amount for the component, i.e. the amount listed under GEF and Co-financing for a particular component will add up to 100% of the component total, i.e., calculate horizontally.

- B. Sources of Confirmed Co-financing for the Project: Indicate the sources of co-financing that are confirmed with the names of co-financiers in the first column, select co-financing classification in the second column (e.g. project government contribution, GEF Agencies, bilateral aid agencies, multilateral agencies, private sector, NGO and others). Select in the 3<sup>rd</sup> column the type of co-financing (whether it is a grant, guarantee, soft loan, hard loan or in-kind contribution). The commitment letters from all co-financiers should be submitted no later than the four-week Council circulation period and before GEFSEC issues CEO endorsement letter.
- C. Financing Plan Summary for the Project (\$): Similarly, this will be an update of the table presented at PIF but with firm amounts at this stage. Please note that the co-financing amounts do not receive an Agency fee. Total in the Project column (3<sup>rd</sup> column, last row) should match the total project costs amount in Table A (the last column by last row). The project preparation column should include all the approved PDF-A/B/Cs and PPG. However, the amount of PDF-A/B/C that was approved under GEF-3 should clearly indicate in the footnote as this amount would not be counted against the GEF-4 resources allocated to the country/focal area. But this amount would be added to the total GEF grant provided for this project. In case there are uncommitted amount of PPG, this amount should be excluded. All uncommitted PPG amounts at the time of CEO endorsement should be returned to Trustee. Details of implementation of the PDF/PPG should be reported in Annex D. Project grant in the 3<sup>rd</sup> column included GEF resource and co-financing at CEO endorsement while the project grant in the last column includes the GEF resources and co-financing at PIF stage.
- D. GEF Resources Requested by Agency (ies), Focal Area(s) and Country (ies): This table provides the share of the project and project preparation amounts by focal area, Agency and country. For biodiversity and climate change

<sup>2</sup> The full glossary in English, French and Spanish is posted on the following website:

<http://www.oecd.org/dataoecd/29/21/2754804.pdf>

focal areas, this section provides the amount of resources used by the country from its RAF allocation. For single country, single focal area and single Agency implemented projects, this table could be skipped. In providing Agency fee amount, especially where there is split between/among Agencies, the rule is that total amount should not exceed 10% following the Fee Policy provisions. If for whatever reason the amount is less than 10%, please provide explanation since we will follow whatever amount Agency requested as long as it is within the 10% limit. The explanation should be included in the cover letter that accompanies the submission of Request for CEO Endorsement/Approval to GEFSEC.

- E. Consultants working for technical assistance components: If there are consultants who will work on technical assistance components in the project, list the total estimated person weeks/months needed for the GEF resources. Details of consultant information should be provided in Annex C.
- F. Project Management Budget/Cost: The main items supported by GEF as project management includes consultant services, travel and office facilities, etc. Provide the total estimated consultant person weeks/months needed and amount by sources (GEF and co-financing) for the project management with more detailed information to be included in Annex C. The issue of what could be included under project management budget is under review in the ongoing Administrative Cost Study. Once the study is completed, there will be more clarity on what items could be charged as project management budget/cost.
- G. Non-grant if there is non-grant elements included, check yes and complete Annex E to provide *Calendar of Expected Reflows*. If no non-grant instruments, continue to H.
- H. Describe the M&E plan with budgeted amount. Include a table as necessary.

#### **PART II: PROJECT JUSTIFICATION:**

Several questions in this section are similar to those at PIF stage. When it is the case (see questions B, C and D), you may just indicate something like "same as PIF" when no new information is available or relevant. Please note however that for other questions (for instance on cost-effectiveness and global environmental benefits), a more in-depth discussion of the issues is needed here than at the PIF stage.

In any case, if there are clear and specific answers to the questions of Part II in your project document, you may simply cite the relevant pages/paragraphs without having to cut and paste the text into the template.

- A. When discussing the issue, state the background and baseline, discuss how the project seeks to address it (GEF alternative), and the expected value added of GEF involvement and global environmental benefits to be delivered (incremental reasoning).
- B. State if the proposed project is consistent with country and/or regional priorities and how it builds on ongoing programs, policies and political commitments. Responding to this question will also show country ownership of this project.
- C. Describe the project's consistency with the GEF focal area strategies and strategic programs. All projects have to be consistent with the focal area strategies to be eligible for GEF financing.
- D. Justify the type of financing support with resources provided by the GEF. For instance, explain the rationale to provide a loan rather than a grant, or setting up of revolving funds, etc.
- E. Describe the coordination with other GEF agencies, organizations, and stakeholders involved in related initiatives; if similar projects exist in the same country/region, including GEF projects, report on synergies/complementarities with this proposal and demonstrate that there is no duplication.
- F. Refer to the June 2007 Council paper on incremental reasoning which is linked to this section. The objective is to describe the situation on what would happen without GEF support and what would be the expected change in global environmental benefits. This differs from Section A in the sense that the former describes what the project will deliver while this section describes the question: what if there is no GEF support?
- G. The objective is to ensure that in designing the project, all risks, including climate change risk have been taken into consideration and that proper measures are in place and that the project is resilient to climate change. Please outline the risk management measures, including improving resilience to climate change that the project proposes to undertake.

- H. Demonstrate that the selected project design is the best use of the GEF funding for achieving the global environmental benefits described in the project (e.g. \$/ton of CO<sub>2</sub> abated). Show the proposed project is cost-effective through demonstration of alternatives that may not be as cost effective.

**PART III: INSTITUTIONAL COORDINATION AND SUPPORT**

- A. *Institutional Coordination*: if more than one GEF Agency is involved, discuss the responsibility and role of each Agency and how each will undertake the tasks in the project.
- B. *Project Implementation Arrangement*: Explain the roles of each GEF Agency, if this is a joint project, as well as role of executing partners, and how each Agency and executing partner(s) will undertake the project.

**PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF**: When discussing the alignment, you may like to consider the expected global environmental benefits, co-financing, GEF grant requested and incremental reasoning.

**PART V: AGENCY(IES) CERTIFICATION**: This section provides Agency(ies)' certification to the submission as well as contact information for project.

**ANNEX A: PROJECT RESULTS FRAMEWORK**: Self-explanatory

**ANNEX B: RESPONSES TO PROJECT REVIEWS**: Agencies' responses to comments received during PIF stage from Council, other Agencies, GEFSEC, Convention Secretariat and STAP. To the extent possible, the responses should be reflected in the Agency's project document as well as Request for CEO Endorsement. In this section, just highlight the responses and direct readers to how the comments have been incorporated into the documents. In some cases, comments maybe responded through brief clarifications in this section.

After review of the Request for CEO Endorsement (RCE), GEFSEC may provide further comments on the RCE and Council may also provide comments when RCE is being circulated before CEO endorsement. These should be responded and RCE resubmitted to GEFSEC before final CEO endorsement.

**ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF RESOURCES**: Provide all consultants to be hired for the project which may include those for project management and those for technical assistance. They may also be local or international consultants. This annex should provide unit cost for each consultant, their position titles, estimated person weeks needed for each consultant associated with the tasks to be performed in the last column and provide justification for travel, if applicable.

**ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS**: This annex should give a full picture of how preparation funding was used, and the activities financed. Respond the questions in A and B and provide figures in C. The important information in the table is to clearly indicate the funding utilization status. All uncommitted money will be returned to the GEF Trust Fund. Please provide the expected fund return date here, if available.

**ANNEX E: CALENDAR OF EXPECTED REFLOWS**: If non-grant instrument is included in the project, please provide calendar of expected reflows to GEF Trust Fund and/or GEF Agency.