



**PROJECT IDENTIFICATION FORM (PIF)**

**PROJECT TYPE: MEDIUM-SIZED PROJECT**

**TYPE OF TRUST FUND: GEF TRUST FUND**

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**PART I: PROJECT IDENTIFICATION**

<b>Project Title:</b>	Sustainable Land Management and Climate Change Mitigation Co-benefits (SLM-CCMC)		
<b>Country(ies):</b>	Global	<b>GEF Project ID:</b>	5698
<b>GEF Agency(ies):</b>	UNEP	<b>GEF Agency Project ID:</b>	01252
<b>Other Executing Partner(s):</b>	UNEP DEWA, Colorado State University, World Bank	<b>Submission Date:</b>	07 March 2014
<b>GEF Focal Area (s):</b>	Land Degradation	<b>Project Duration (months):</b>	36
<b>Name of parent program (if applicable):</b>		<b>Agency Fee (\$):</b>	171,456

**A. FOCAL AREA STRATEGY FRAMEWORK<sup>1</sup>:**

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-Financing (\$)
LD-4 (Outcome 4.2)	GEFTF	1,804,800	2,200,000
<b>Total project costs</b>		<b>1,804,800</b>	<b>2,200,000</b>

**B. PROJECT FRAMEWORK**

**Project Objective:** The objective of this project is to create an environment which will make it easier for land management project managers to realise the climate change co-benefits of sustainable land management practices.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
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<sup>1</sup> Refer to the reference attached on the Focal Area Results Framework and LDCF/SCCF Framework when completing table A.

1. Training and outreach for existing tools - The CBP Simple and Detailed Assessment and WOCAT tools where appropriate	TA	1.1. Enhanced capacity to measure, monitor and model carbon benefits resulting from GEF land management projects in several GEF agencies (UNEP, UNDP, IFAD, FAO, ADB) and GEF for project personnel.	1.1.a Assessments of carbon benefits made using the Simple and Detailed Assessments for selected GEF projects implemented by UNEP, UNDP, IFAD, FAO, ADB.  1.1.b Documentation of good/best practice land management practices.  1.1.c Implementation of the CBP's Simple or Detailed Assessment in 5-7 GEF projects.  1.1d Project managers trained to document good/best land management practices, linked to CBP assessment for 5-7 GEF projects	GEF TF	540,000	625,000
2. Enhancement of existing tools - Enhancement of CBP tools and development of an interface to WOCAT tools and database	TA	2.1 Enhancement of tools allowing GEF agencies to: measure monitor and model carbon benefits associated with land management projects; align with the needs of carbon finance/certification schemes; access information on best land management practices in terms of carbon benefits and using this information to design and carry out better projects: capitalise on GEF and other investment in existing tools and technologies.	2.1 An enhanced set of tools to estimate carbon benefits which have enhanced efficacy in terms of spatial data and accessibility.  2.2.a. An enhanced set of tools to estimate carbon benefits which have direct relevance to specific carbon finance/ certification schemes.  2.3 A comprehensive tool set for estimating carbon benefits in land management interventions including an interlink between the CBP tools and the WOCAT tools for estimating carbon benefits of land management interventions documented in WOCAT.	GEF TF	644,800	625,000
3. Comparative analysis of carbon accounting tools for sustainable land management	TA	3.1 GEF and other managers of SLM projects using the most appropriate tools for their purpose and therefore improved accounting and reporting.	3.1. A guideline/manual for GEF and other managers of SLM projects for choosing the most appropriate tools to measure carbon benefits.	GEF TF	500,000	600,000
Subtotal					1,684,800	1,850,000
Project Management Cost (PMC)					120,000	350,000

<b>Total project cost</b>		1,804,800	2,200,000
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**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Private Sector	Colorado State University	Grant	450,000
GEF Agency	IFAD, UNEP, UNDP, FAO	In-kind	1,000,000
GEF Agency	World Bank	In-kind	500,000
Others	WOCAT	In-kind	250,000
GEF Agency	ADB	In-Kind	TBC
<b>Total Co-financing</b>			2,200,000

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

GEF Agency	Type of Trust Funds	Focal Area	Country Name/ Global	Grant Amount (\$ (a))	Agency Fee (\$ (b) <sup>2</sup> )	Total (\$) c=a+b
UNEP	GEF TF	Land Degradation	Global	1,804,800	171,456	1,976,256
<b>Total Grant Resources</b>				1,804,800	171,456	1,976,256

<sup>1</sup> In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table

<sup>2</sup> Indicate fees related to this project.

**E. PROJECT PREPARATION GRANT (PPG)<sup>2</sup>**

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)</u>
•		
• (up to) \$50k for projects up to and including \$1 million	20,000	1,900

**PPG AMOUNT REQUESTED BY AGENCY (IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY**

Type of Trust Funds	GEF Agency	Focal Area	Country Name/ Global	PPG (\$) (a)	Agency Fee (\$) (b)	Total (\$) c=a+b
GEFTF	UNEP	Land degradation	Global	20,000	1,900	21,900
<b>Total Grant Resources</b>				20,000	1,900	21,900

**PART II: PROJECT JUSTIFICATION<sup>3</sup>**

**A. PROJECT OVERVIEW**

<sup>2</sup> On exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>3</sup> Part II should not be longer than 5 pages

**A.1. Project Description.** Briefly describe the project, including ; 1) the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project, 4) incremental cost reasoning and expected contributions from the baseline , the GEFTE, LDCF/SCCF and co-financing; 5) global environmental benefits (GEFTE, NPIF) and adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up.

***A.1.1. Global environmental problems, root causes and barriers that need to be addressed:***

Emissions of greenhouse gases (GHGs) from agriculture, land use, land use change and forestry account for approximately 33% of all global emissions with root causes being an increasing global demand for food and fibre coupled with unsustainable land management practices. It is therefore widely acknowledged that the way in which land is used and managed has a major role to play in the mitigation of global climate change.

Sustainable Land Management (SLM) has the potential not only reduce GHG emissions, by reducing emissions from biomass burning, biomass decomposition and the breakdown of soil organic matter (SOM), but also to sequester carbon (C) through practices that increase biomass production and promote the build-up of SOM. There is, therefore, substantial climate change co-benefits associated with SLM activities.

The Global Environment Facility (GEF) finances a wide range of SLM activities in developing countries from reforestation and agro-forestry projects, to projects that protect wetlands or foster sustainable farming methods. The carbon benefits of these and other non-GEF SLM projects are likely to be considerable.

One of the barriers to the assessment of global carbon benefits resulting from SLM is access to and application of suitable quantification tools and well documented and harmonized datasets on SLM practices.

***Colorado State University***

The Natural Resource Ecology Laboratory (NREL) at Colorado State University is a world leader in terrestrial greenhouse gas assessment and mitigation. For over 30 years NREL have led the development of ecosystem biogeochemical modelling. NREL have developed tools for carbon and GHG accounting at a variety of scales (from national to project) which are being used throughout the world. One set of tools are those developed under the GEF's Carbon Benefits Project (CBP). The CBP tools were developed specifically to allow GEF land management projects to estimate the impact of land management projects on carbon stock changes and GHG mitigation. Three options are provided a Simple Assessment, a Detailed Assessment and a Dynamic modelling option. The tools have been applied in projects in Africa, Asia and Latin America.

***WOCAT***

The World Overview of Conservation Approaches and Technologies (WOCAT) is an established global network of Soil and Water Conservation (SWC) specialists, contributing to sustainable land management (SLM). Since 1992, WOCAT has built up standardized tools for knowledge management and decision support for up scaling SLM. Good practices are described and their impacts are assessed in view of economic, environmental and social costs and benefits. Thus, the growing database provides relevant information to be used for assessing carbon benefits of various land management options. WOCAT has a database of approximately 500 technologies for the conservation of soil and water. The technologies are country specific and provide an invaluable resource for thousands of land managers, project specialists and advisors. During the development of the Carbon Benefits Modelling Tools, content from WOCAT was used to help populate the Simple Assessment with default information on cropping, grassland and forest land systems. In order to minimize duplication of basic data collection on land management and to use synergies between WOCAT and CBP, the tools and databases need to be linked and harmonized. Linking the tools together will supply users looking for best SLM practices with information on the likely carbon/GHG impacts of these practices. It will also supply users designing GHG mitigation projects with a database of potential C friendly SLM practices. This will save time, money and effort and capitalise on the substantial investment already made by GEF and other agencies on the development of these tool sets.

***Carbon Accounting Programmes in the World Bank***

The World Bank is the largest multilateral funding agency in areas such as energy, climate change mitigation and adaptation, forestry and environmental conservation, agricultural development, and socio-economic development. The Bank has also initiated many projects related to climate change, particularly in the land-use sectors. The Bank was the first agency to launch “The BioCarbon Fund,” which pilots innovative carbon payments in the land-use sector. Further, the Bank was one of the first agencies to launch a large program on REDD, the Forest Carbon Partnership Facility. The Bank also hosts the Global Environment Facility (GEF), which has a dedicated program on REDD, land degradation, and sustainable forest management.

The main themes supported by the World Bank include economic management, human development, environment and natural resources management, rural development, financial and private sector management, public sector governance, trade and integration, social development including gender issues, social protection and risk management, and urban development. These themes are further divided into sectors, and some examples of sectors presently under project operations are as follows:

- Land-related sectors—agriculture, fishing, and forestry, water, sanitation, and flood protection
- Energy sector—energy and mining
- Finance, education, health, industry and others— public administration, law and justice, information and communications, education, finance, health and other social services, industry and trade, and transportation.

A substantial number of categories or types of projects typically funded by the World Bank to advance its major themes provide multiple benefits including environment conservation, enhanced food production and security, and economic development as well as providing C-benefits, typically as co-benefits. Examples of these types of projects under the World Bank portfolio include: The Uttar Pradesh Sodic Land Reclamation Project (UPSLRP III) in India; The Sanata Catarina Rural Competitiveness Project in Brazil; The Agricultural Growth Project in Ethiopia; The China Integrated Modern Agriculture Development Project (IMAD); and the Integrating Climate Change in the Implementation of the Plan Maroc Vert in Morocco. Carbon, its enhancement, and its monitoring in developmental and NRM projects, particularly in the land-related sectors, is of paramount interest to World Bank clients, project developers, and project evaluators.

## **IRD**

The IRD (Institut de recherche pour le développement) is a French research organization focusing on development research with an emphasis on interdisciplinarity. For over 65 years, IRD has focused its research on the relationship between man and its environment, in Africa, the Mediterranean, Latin America, Asia and the French tropical overseas territories. The IRD team involved in this proposal have expertise on tools to appraise GHG budget, as demonstrated by its close collaboration with FAO concerning the ex-ante C-balance Tool (EX-ACT, [www.fao.org/tc/exact/](http://www.fao.org/tc/exact/)) and the AgER project. During the AgER project (Carbon balance: Agriculture at the Regional Scale) IRD worked with Ademe and FAO to do a preliminary review of existing GHG calculators and tools in the agriculture and forestry sector, at farm, region and country level and proposed a simple prototype (<http://ird.t-t-web.com/Select-en.php>) to help users select the most appropriate calculator for a landscape-scale GHG assessment of activities in AFOLU sectors. The IRD team is also participating in the COMET-Global project consortium (JPI-FACCE call on Agricultural Greenhouse Gas Research) which aims to develop a user-friendly, web-served tool for full GHG accounting at the farm-scale for each of the countries in consortium (USA, European countries and Australia). In addition the IRD team participated in the GEFSOC project and the Modelling Component of the GEF Carbon Benefits Project.

### ***A.1.2. Baseline scenario and any associated baseline projects:***

The Global Environment Facility (GEF) has maintained a long-term interest in estimating the carbon benefits of the SLM activities it supports in order to understand the global carbon benefits that might be achieved by such activities. Such estimation would allow the GEF to surmise the global C impact of these activities and report this to the relevant conventions (UNFCCC, UNCCD etc.). This interest led to investment in the development of a suite of tools to measure, monitor and report on the impact of land management projects on carbon stock changes and greenhouse gas (GHG) emissions, through the GEF's Carbon Benefits Project (CBP) (<http://carbonbenefitsproject-compa.colostate.edu/>). The tools include a Simple Assessment and a Detailed Assessment which is online tools based on the IPCC method. The Simple Assessment is suitable for a quick assessment at any stage, including proposals, utilizing pre-populated information on cropping, grassland and

forestry systems. The Detailed Assessment is suitable for detailed reporting in projects with a reasonable focus on climate change mitigation and allows users to use their own country or project specific emission and stock change factors, leading to reduced uncertainty (e.g. a more precise and or accurate estimation).

The GEF Scientific and Technical Advisory Panel (STAP) recently reviewed the tools and reported that the Simple Assessment is suitable for use in GEF projects now and recommended further development of both the Simple and Detailed Assessment, providing several specific recommendations. In addition, interest has been shown in comparing the GEF CBP tools with other available tools to develop a matrix, which matches scope, remit and geographic focus with SLM activity.

The baseline scenario would be as follows: Uptake of the CBP tools would continue in a limited ad-hoc way with no structured training events. Some uptake has occurred via the efforts of the CBP team working as consultants (IFAD project in Swaziland, WB project in Ethiopia) however continuity of reporting across GEF projects would not be achieved, making the estimation of global carbon benefits resulting from GEF investment in natural resource management difficult. Recommendations for the improvement of CBP tools which came out of a comprehensive GEF STAP review would not be implemented and significant opportunities to help GEF projects estimate carbon benefits and potentially link to carbon financing would be missed. Links to the WOCAT resources would not be made or would be very limited meaning GEF project managers using the CBP tools would not benefit from already available and growing information on good land management practices in a multitude of environments and be able to assess the carbon benefits. Confusion about which carbon and GHG accounting tools to use for specific purposes would persist.

#### ***A.1.3. The Proposed Alternative:***

The proposed alternative is a medium sized project which will capitalise on exiting GEF investment and further enable GEF and other SLM projects to realise the climate change co-benefits of sustainable land management. The project would comprise of three components:

#### **COMPONENT 1 - Training and outreach**

During the Carbon Benefits Project (2009 - 2013) more than 100 people from Africa, Asia and Latin America were trained to use the Simple Assessment, Cost Benefit Analysis and DPSIR (social analysis). This was in addition to personnel from the four GEF projects in Kenya, Niger/Nigeria and China and one non-GEF project in Brazil which helped to develop the system. Training workshops were held in China, Malaysia, Brazil and Kenya. Each event ran at full capacity with participants from all over the three continents covered and many interested participants having to be turned away. The interest from GEF projects and government personnel involved in SLM activities is therefore high. In addition, several of the GEF agencies (UNDP, IFAD, FAO, and ADB) have begun using or communicated an interest in using the tools and sending personnel to training events. The tools are currently available in five languages (soon to be six) with plans to add more in the future.

Parallel, training on WOCAT tools for sharing best SLM practices, assessing their impacts and using this knowledge for decision making has taken place on over 50 countries world-wide and a database has been built up. WOCAT has a track record for attractive and user-friendly presentation of land management option and for training in compiling this knowledge. It has also developed a methodology for participatory multi-stakeholder workshops to use this knowledge for local and regional decision making.

The project will hold a series of training events over a three year period. Target groups would be GEF project managers from geographical areas not covered by previous training events (the Indian sub-continent, West Africa, South Africa, Central America and Eurasia) and personnel from GEF agencies (UNDP, IFAD, FAO, ADB). The second group would receive training with the aim of positioning them to train others in the future. This would include development of more training materials (course packages, online demonstration videos, further exercises and tutorials etc.) which could easily be used by others for training purposes.

In addition 5 -7 projects nominated by the GEF would be targeted for full implementation of the CBP Modelling tools. These would be projects which are just starting implementation and are committed to using

the CBP Simple or Detailed Assessment. The opportunity would also be taken to document SLM practices in these projects and provide training on the WOCAT tools where relevant. Over the three years these projects would receive initial training on the CBP modelling tools, assistance with assembling and analysing activity data (land use/management information) for the Baseline Situation (termed 'Initial Land Use' in the CBP), help developing baseline and project scenarios for a specific report period and advise on field sampling activities to develop project specific stock change and emission factors if using the Detailed Assessment. This support and training over the three year period would ensure the tools are fully implemented in these projects.

#### Component 1 Outcomes:

Outcomes 1.1: Enhanced capacity to measure, monitor and model carbon benefits resulting from GEF land management projects in several GEF agencies (UNEP, UNDP, IFAD, FAO, ADB) and GEF for project personnel.

Outcome 1.2: Implementation of the CBP's Simple or Detailed Assessment in 5-7 GEF projects.

Outcome 1.3: Enhanced capacity to document good/best land management practices linked to the CBP assessment for 5-7 GEF projects.

#### Component 1 Outputs:

Output 1.1a: Assessments of carbon benefits made using the Simple and Detailed Assessments for selected GEF projects implemented by UNEP, UNDP, IFAD, FAO, ADB.

Output 1.1b: Documentation of good/best practice land management practices.

### **COMPONENT 2 Enhancement of existing tools**

*Partners – Colorado State University (CSU), World Overview of Conservation Approaches and Technologies (WOCAT). Co-funding - CSU, WOCAT.*

This component would comprise of two parts which would lead to the enhancement of the GEF CBP Modelling Tools developed with prior GEF investment. The first part would directly address GEF STAP recommendations supplied during the evaluation of the CBP modelling tools to further develop the existing tools. The second part would make direct links between the CBP modelling tools and existing tools and database of WOCAT, a global initiative and network related to documentation, assessment and sharing of SLM.

**Part 1.** In the GEF Scientific and Technical Advisory Panel (STAP) evaluation of the CBP tools, a number of enhancements were recommended for the Simple and Detailed Assessment. These were aimed at addressing the changing needs of GEF projects, taking advantage of new technologies and linking with other initiatives.

The following enhancements will be made:

- (1) Develop a global database of region-specific factor values (linking in with the EF database of the IPCC).

One of the attractive features of the CBP tools is they allow users to either use default information on how land management practices may affect carbon stock changes and GHG emissions (by using 'emission factors' provided by the IPCC) or users can enter their own region/country or project specific factors instead. This is advantageous as often factors provided by the IPCC are much generalised across climate regions. Currently specific factors entered into the Detailed Assessment are only accessible to the user who entered them. We will add an optional feature to collect these factors and make them accessible to future users. In addition we will develop a link to the IPCC Emissions Factor Data Base to access these factors as well.

- (2) Enhance the reports produced by the CBP assessments

The CBP currently produces a summary report which is a PDF document and a detailed report which is an Excel file. Both will be enhanced and reorganised to include more graphical representation of outputs, easier navigation in the Detailed Report and as far as possible alignment with the individual needs of GEF implementing agencies as well as the GEF.

(4) Add functionality to deal with leakage and permanence.

Mapping functions in the CBP description module allow for leakage zones to be designated, more guidance and functionality will be added.

(5) Add guidance and features to highlight how the Detailed Assessment could be used in carbon markets and certification schemes.

This would include working with the Voluntary Carbon Standard (VCS) with the aim of ultimately gaining VCS approval and potentially other verification standards as the GEF and implementing agencies deem necessary.

(6) Add extra features to enhance the mapping tools in the CBP system

This would include adding functions to open (where available) cadastral layers that could be selected as polygons (project or parcel boundaries).

(7) Add further options for forestland calculations

Sections would be added in the guidance module to help identify those projects which are primarily forestry projects and these projects would be steered to more detailed options for data input.

**Part 2.** WOCAT and LADA are already moving ahead with a project to link the two toolsets. The addition of comprehensive standardised tools to assess carbon benefits (such as those developed by the CBP modelling component) would provide great additional value and capitalise on previous GEF investment.

We propose the following activities to further link and integrate WOCAT and the Carbon Benefits Project Modelling Tools:

1) Develop a user-friendly interface between the SLM technology database of WOCAT and the CBP tools (Simple / Detailed Assessment) and adjust the tools to minimize overlap of data acquisition and maximize synergies in assessing C/GHG impacts and associated benefits of SLM.

2) Develop a link between the CBP Simple/Detailed Assessment and WOCAT which allows users to run the Simple Assessment or Detailed Assessment for specified management practices in a selection of areas and generate estimated C/GHG impacts.

3) For the Simple Assessment Use WOCAT SLM technology database information to expand the list of pre-populated options of cropping, grassland and forest land systems.

4) For the Detailed Assessment a specific Carbon Benefit module linked to the WOCAT database to collect additional information needed for a detailed assessment

5) Use and further populate the WOCAT SLM technology online database to make predictions of above and below ground C stock changes/GHG emissions at the field/plot level. In addition use existing results as well as newly generated data from the comparative case studies of the 5 to 7 pilot projects in WOCAT projects in Ethiopia and Tajikistan and also to validate the CBP model estimations.

6) Use/ build up on WOCAT to add a section to the CBP Guidance module on location, appropriate C friendly sustainable land management practices and associated carbon impacts.

Component 2 Outcomes:



2.1 Enhancement of tools allowing GEF agencies to: measure monitor and model carbon benefits associated with land management projects; align with the needs of carbon finance/certification schemes; access information on best land management practices in terms of carbon benefits and using this information to design and carry out better projects: capitalise on GEF and other investment in existing tools and technologies

#### Component 2 Outputs:

2.1a An enhanced set of tools to estimate carbon benefits which have enhanced efficacy in terms of spatial data and accessibility.

2.1b An enhanced set of tools to estimate carbon benefits which have direct relevance to specific carbon finance/certification schemes.

2.1c A comprehensive tool set for estimating carbon benefits in land management interventions including an interlink between the CBP tools and the WOCAT tools for estimating carbon benefits of land management interventions documented in WOCAT.

### **COMPONENT 3. Comparative analysis of carbon accounting tools for sustainable land management**

*Partners - World Bank, Eco&Sols-IRD, FAO, UNEP, CSU. Co-financing - World Bank, FAO, UNEP*

The CBP Modelling Tools provide just one example of GHG accounting tools with numerous options available for single commodity or single land use analysis, analysis at different scales or in specific geographical regions, or for specific purposes (e.g. for certification with particular schemes). In addition some tools are for straight forward accounting whilst others allow a comparison of a baseline with a project scenario. There is, therefore, a need for clear and comprehensive guidance to help the managers of GEF and other SLM projects choose the most appropriate tool for the job.

Work in this area has already made good progress with four major reviews of GHG accounting tools for the Agriculture, Forestry and Other Land Use (AFOLU) sector having been completed in the past 3 years (Driver et al. 2010, Denef et al., 2011, Milne et al. 2012 & 2013 and Colomb et al., 2013). Milne et al. (2012), focused specifically on tools which are suitable for landscape scale assessments in developing country areas dominated by smallholders (with relevance to many GEF projects) and Colomb et al. (2013) developed a decision tree which can point users to the most appropriate tool. FAO are currently now working to develop this further into a dynamic application which runs in Excel (Bernoux, pers. com). In addition there have been World Bank studies to test tools in assessing the carbon footprint of World Bank projects.

This component would pilot and compare several greenhouse gas assessment tools in SLM projects across the GEF and also World Bank regions focussing specifically on GEF projects. The 5 - 7 projects identified in Component 1 would be included in this list as would the CBP WOCAT test case projects. The study will build on existing work to answer questions such as:

Which GHG tools are available (drawing on the 4 existing reviews and WB WORK?)

Under what conditions are they applicable for assessing SLM GHG footprint expanding on FAO and WB work

How is the GHG assessment carried out?

The work would be conducted in collaboration with GEF, UNDP, FAO, IFAD, UNEP, ADB, AfDB, and IAB. The assessment will also undertake a mapping of the different carbon accounting tools with the wide range of potential carbon sequestration activities thereby developing a resource for GEF and other managers of SLM projects to choose the most appropriate tool.

Such an activity will include a wide range of tools and models including:

#### Multi Source Tools:

The CBP Simple and Detailed Assessment

Exact

USAID AFOLU Calculator

Cool Farm

Single source tools:

The WB CAT-AR (Carbon Assessment Tool for Afforestation and Reforestation)

The WB CAT-SFM (Carbon Assessment Tool for Sustainable Forest Management)

Soil Carbon Sequestration Webtool of the World Bank

Models:

CBP Dynamic Modelling Option (GEFSOC)

DNDC

Component 3 Outcome:

Outcome 3.1: GEF and other managers of SLM projects using the most appropriate tools for their purpose and therefore improved accounting and reporting.

Component 3 Output:

Outputs 3.1: A resource for GEF and other managers of SLM projects to choose the most appropriate tools to measure carbon benefits.

**COMPONENT 4. Project Management**

The project will be coordinated by Colorado State University with all other partners reporting to them. A project coordinator with previous experience of managing one GEF MSP and one GEF FSP on related topics will be responsible for the day to day running of the project, including all scientific and financial reporting. A monitoring and evaluation plan will be designed and agreed with the GEF and the implementing agency.

***A.1.4. Incremental/additional cost reasoning***

This project builds on previous GEF investment in the development of a set of tools to measure, monitor and model carbon stock changes and GHG emissions under the Carbon Benefits Project. GEF investment in this project was US\$ 5,526,265 with co-financing of approximately US\$ 3,000,000. In addition there has been investment in the use of the tools by IFAD ~\$30,000, the World Bank through a CARE project in Ethiopia ~ \$101,700. This gives a baseline of at least ~\$8,657,965. In addition there has been in-kind investment in the CBP tools by UNDP. The alternative cost reasoning (baseline plus the increment) would be \$11,957,965 with an increment of \$3,300,000 from GEF and co-financers. Additionally, the project builds on investments made through the WOCAT programme and network partners since 21 years. The proposed project capitalizes on the developed tools and databases. The GEF resources are required to maximise the returns on these investments through increased uptake and application of the carbon benefit tools so that sustainable land management co-benefits can be realised.

***A.1.5. Global environmental benefits***

All of the activities in this project are aimed at enabling land managers to realise the climate change co-benefits of sustainable land management practices; by helping to estimate the carbon/GHG impacts and additional benefits of geographically specific land management practices, by improving accessibility to accounting options for specific purposes and by building capacity. In turn this will contribute to increased global climate change mitigation benefits through sustainable land management.

***A.1.6. Innovativeness, sustainability and potential for scaling up***

### ***Innovativeness***

Many aspects of the project are innovative. The project will deliver the first example of a globally applicable online GHG accounting tool-set linked to a global database of geographically appropriate sustainable land management practices (WOCAT). This will help realise the project objective of creating an environment which will make it easier for land managers to realise the climate change co-benefits of sustainable land management practices. In addition, several of the enhancements suggested by GEF STAP (which will be implemented in Component 2) are highly innovative and synergetic. For example where available the project will provide region-specific emissions and stock change factor values in a global database and develop links (automated if possible) to the IPCC Emission Factor (EF) database. Currently any emission or stock change factors developed in project scale accounting tend to remain with the institutions which developed them, meaning efforts can be duplicated and resources wasted. In addition, the project will add a function to the tool set to allow users to access (where available) cadastral layers that could be selected as polygons (project or parcel boundaries). Component 3 is innovative as it will provide the first attempt to review the relevance of existing GHG accounting tools to the needs of GEF SLM project managers.

### ***Sustainability***

Component 1 will deliver training which will not only enable participants to use the CBP tools to make assessments of carbon benefits but will also put them in a position to train others. Through these activities the project aims to develop a sustainable network of personnel in GEF projects and GEF agencies who can continually pass on the necessary expertise to estimate carbon benefits in land management projects. In addition, WOCAT has a strong existing training programme in which the CBP tools will be incorporated ensuring the sustainability of the linked toolset. Furthermore WOCAT is designed as a long-term programme, supporting UNCCD and other conventions, GEF and non-GEF funded projects (e.g. WB, IFAD, ADB, AU and GIZ). The involvement of multiple GEF agencies in the project is specifically designed to encourage longer term support of the tools by the agencies through the development of longer term training programs (with agency personnel becoming the trainers). The development of more training materials (course packages, online demonstration videos, further exercises and tutorials etc.) will also lessen the need for face to face training in the future making use of the simpler tools self sustaining.

### ***Potential for scaling-up***

Component 1 of the project will specifically scale up use of tools developed in a previous project co-financed by the GEF - The Carbon Benefits Project (CBP). Through this project scaling up will occur in countries and regions which have previously not received training in the tools and are perhaps unaware of them. In addition during the project use of the CBP tools will be scaled up to WOCAT project countries. Potential for further scaling up after the end of this project is great. The existing tools are already available in five languages and more will be added during this project. This will further facilitate use in a wide range of countries. The GEF agencies involved in the project deal with a wide range of countries and their involvement in this project is aimed at promoting use of the toolset as widely as possible.

### **A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project and/or its preparation:**

Stakeholders include;

Managers of sustainable land management projects (GEF and non-GEF).

Considerable interest in using the tools and receiving training has been shown by a number of projects. These will be involved in the project preparation to ensure their needs are met.

Land managers (farmers, pastoralists and foresters).

The land management projects involved will include land managers. For these projects, project managers will be required to engage with land managers prior to the start of this project to raise awareness about carbon and GHG accounting.

## GEF agencies

Several GEF agencies have already provided input to this PIF (UNEP, FAO, UNDP, and WB). These agencies and others (IFAD, ADB) will be involved in the drafting of Component 1 (Training and Outreach). All of these agencies have requested training sessions on the CBP tools and shown willingness to either host trainers and provide venues or pay for personnel to travel to training sessions.

## Organisations managing carbon markets

During the preparation of the project document we will engage with VCS and other carbon finance schemes to provide input on how the tool kit can be aligned with the needs of different financing and certification schemes.

**A.3 Risks. Indicate risks, including climate change risks, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (Table format acceptable).**

Risk	Rating	Risk Mitigation Strategy
1, Data sharing between GEF/SLM projects and publically available databases such as WOCAT/ IPCC EF could be viewed as a problem by project managers.	M	In the current CBP system all information entered is password protected and can only be accessed by the information providers (password holders) and the system administrators. It is not shared with other users of the tool or third parties. This set-up will be maintained with users having the option to share part of their data with the other linked tools ONLY if they want to and on the understanding that this information will then be in databases which can be accessed by others. This will be clearly stated in the CBP system and users will have to agree to specified terms before any data is transferred to WOCAT or other linked systems.

**A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives.**

The project will be coordinated by Colorado State University, with UNEP as the GEF agency. Component 2 will involve work sub-contracted to WOCAT. In addition, the World Bank (working in conjunction with Eco&Sols-IRD, France) will be sub-contracted to carry out work on Component 3.

At the core of this project is coordination with other initiatives as the objective is to create an environment which will make it easier for land managers to realise the climate change co-benefits of sustainable land management practices. This involves indentifying and working with activities which are already ongoing. Links with the GEF LADA consortium will be in place from the offset through the WOCAT/LADA initiative currently being co-funded by the GEF. In addition FAO and LADA projects will be amongst those participating in training workshops in Component 1. Component 1 will train project managers from GEF projects which are already running or are awaiting approval. In each geographic region (identified as not having received training under the GEF CBP) GEF implementing agencies (UNEP, UNDP, FAO and WB) will be approached to nominate project managers to attend training sessions. In addition, links will be made with GEF programmes operating in the relevant geographic areas (the Indian sub-continent, West Africa, South Africa, Central America and Eurasia) to help identify trainees. For example in India, the GEF Sustainable Land and Ecosystem Management Partnership Programme, UNDP and FAO will be approached to identify personnel who would benefits from CBP-WOCAT training.

Links have already been developed with the UNCCD Knowledge Management Science and Technology (KMST) office and the project intends to work closely with KMST to; 1) offer training to personnel in relevant UNCCD supported activities 2) ensure the aims and objectives of the UNCCD are prioritised throughout the project.

Component 1 will also identify 5 -7 projects nominated by the GEF for full implementation of the CBP Modelling tools. Projects which have shown strong interest to date include: Multiplying environmental and carbon benefits in high Andean ecosystems (ID 00810) and Establishment of incentives for the conservation of ecosystem services of global significance (ID 3920). During the development of the full proposal feedback from GEF Secretariat, GEF STAP and GEF implementing agencies will be sought to identify appropriate projects.

The third component of the project will work in conjunction with GEF, UNDP, FAO, IFAD, UNEP, ADB, AfDB, and IAB. It will therefore work with the majority of the GEF's implementing agencies. Component 3 will on provide information on available tools and match project needs to the appropriate tools. In order to do this links to appropriate programmes in each of the implementing agencies will be established. In addition, links to other initiatives outside of the GEF will be a major part of the project as it will be necessary to form links with the developers of GHG tools and protocols. The team is in a good position to do this with team members having led 2 major reviews of available GHG tools (Colomb et al. 2013; Milne et al. 2012, 2013).

## **B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

### **B.1. National strategies and plans or reports and assessments under the relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, Biennial Update Reports, etc.**

This project is global and multi-country. It will work with GEF project managers from a variety of countries depending on where need and interest arise under the guidance of GEF STAP. There will be a focus on training in regions which did not receive training under the previous CBP project namely the Indian sub-continent, southern Africa, West Africa and Eurasia. The project will work with projects in non-Annexe 1 countries to help them to contribute to the realisation of some of the aims and objectives of the UNFCCC which requires all Parties to formulate and implement programmes containing measures to mitigate climate change. In particular; "Article 4, paragraph 1(d): Promote sustainable management, and promote and cooperate in the conservation and enhancement, as appropriate, of sinks and reservoirs of all GHGs not controlled by the Montreal Protocol, including biomass, forests as well as other terrestrial ecosystems."

The project will also work with GEF projects in arid and semi-arid areas to help them contribute to the realisation of some of the aims and objectives of the UNCCD, by indentifying and promoting best practices for the maintenance and build up of soil organic matter which in turn contributes to the mitigation of desertification and drought in addition to the sequestration of atmospheric carbon. This will be further strengthened by the projects collaboration with the KMST office of the UNCCD.

### **B.2 GEF focal area and/or fund(s) strategies, eligibility criteria and priorities**

This proposed work will address of the priorities of the GEF focal area of Land Degradation (LD). The project will help to further promote sustainable land management through recognition of the climate change co-benefits it achieves. The work addresses the following priorities of the LD focal area: to promote sustainable agriculture by recognising multiple benefits that arise from it, to take a landscape approach to land management and assessments of the benefits that arise, and to promote the sustainable management of rangelands and forests. This will be realised by the linking of existing carbon benefits tools to a data base of best practice technologies for sustainable land management (WOCAT). Through the CBP, GEF has already provided support to create a methodology for estimating carbon stocks and avoided emissions. This project will further capitalize on this support by ensuring that training and information on the methodology are provided to GEF and other project managers. It will also provide guidance to GEF and other project managers on the range of tools and methods that are available and how to match specific tools and methods to the requirements of individual projects.

### **B.3 The GEF Agency's comparative advantage for implementing the project**

UNEP, through its Division of Early Warning and Assessment acted as the implementing agency for the GEF's Carbon Benefits Project (CBP). It is therefore well connected with all of the partners in this proposed project plus it has the technical and scientific capacity to act as the implementing agency. In addition through its work with the CBP, and other programs with a related focus, UNEP has a solid foundation in sustainable land management in relation to climate change mitigation.

UNEP's comparative advantage derives from its mandate to coordinate UN activities with regard to the environment, including its convening power, its ability to engage with different stakeholders to develop innovative solutions and its capacity to transform these into policy- and implementation-relevant tools. UNEP's comparative advantages in the GEF are also aligned with its mandate, functions and Medium Term Strategy and its biennial Programme of Work (2014- 2015). The proposed project is consistent with the Climate change and the Environmental Governance thematic priorities outlined in UNEP's Medium-term Strategy. These focal areas and key foci will be met in the following way:

UNEP's science and technical focus will bring comparative advantages as summarised in the following table:

Areas of UNEP comparative advantage in the GEF (all Focal Areas)		UNEP Thematic Priority Areas					
		Climate Change	Disasters & conflicts	Ecosystems management	Environmental governance	Harmful substances & hazardous wastes	Resource efficiency
1. Sound science for national, regional and global decision-makers	Early warning and emerging issues	X			X		
	Science to Policy linkages	X			X		
	Environmental monitoring and assessment	X			X		
	Norms, standards, and guidelines	X			X		
	Enabling Activities for MEAs and synergies						
2. Cooperation, coordination and partnerships (regional or international)	Trans-boundary cooperation	X					
	Regional, or South-South cooperation	X			X		
	Global transformative actions	X					


3. Technical assistance and capacity building at country level (contribution to Bali Strategic Plan)	Technology assessment, demonstration, and innovation						
	Capacity building	X			X		
	Lifting barriers to market transformation						
4. Knowledge management, awareness raising and advocacy		X			X		

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

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

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)

**B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date (MM/DD/YYYY)	Project Contact Person	Telephone	Email Address
Brennan Van Dyke Director, GEF Coordination Office, UNEP		March 07, 2014	Mohamed Sessay Portfolio Manager, GEF BD/LD/BS	+254 20 762 4294	Mohamed.sessay @unep.org

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