

TERMS OF REFERENCE FOR BACKGROUND PAPER AND ANALYSIS OF COUNTRY DATA TO SUPPORT DEVELOPMENT OF A COMPREHENSIVE LANDSCAPE METHODOLOGICAL APPROACH FOR THE BIOCF ISFL

CONTEXT AND PURPOSE

The BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL) seeks to promote reduced greenhouse gas emissions from land-use. The Initiative will support reducing deforestation and forest degradation in developing countries (REDD+), increasing sustainable agriculture, and smarter land-use planning, policies and practices. The ISFL is currently operating in Colombia, Ethiopia, Indonesia, and Zambia. Contributors to the ISFL include Germany, Norway, the United Kingdom, and the United States of America.

The ISFL designs programs that focus on an integrated approach to the entire landscape with the ultimate goal of reducing greenhouse gas emissions and producing co-benefits such as improvements to livelihoods or agricultural productivity. For example, an ISFL program could coordinate efforts in sustainable agricultural production projects, agro-forestry schemes, assisted natural regeneration, energy projects, water management, and REDD+ to align objectives and maximize impacts in the jurisdiction. Ultimately, jurisdictions that implement these measures are expected to generate emission reductions that can be purchased by the BioCF ISFL through a results-based financing mechanism.

The ISFL therefore seeks to develop a methodological approach that will support results-based payments for comprehensive accounting of emission reductions from AFOLU. With this, the Initiative builds on a growing consensus for the need for broad scale greenhouse gas accounting of emission reductions from land-use, both in terms of spatial scale and comprehensiveness.

Countries are already reporting their GHG emissions using Intergovernmental Panel on Climate Change (IPCC) methods that allow for comprehensive national reporting of greenhouse gas emissions from the land-use sector. However further work might be required to develop cost effective approaches to account for emission reductions with sufficient confidence to allow for result-based payments in the future. To start the development of its methodological approach, the ISFL recently hosted a workshop. The workshop brought together representatives of the ISFL Contributors and an international group of experts to take stock of the latest thinking on issues related to comprehensive accounting and to discuss priority issues that need to be addressed as part of the ISFL methodological approach. For a summary of the workshop, please visit <http://www.biocarbonfund-isfl.org/methodology>.

As follow up on the workshop it was decided that the ISFL will produce a document that will support future discussions on the development of a comprehensive landscape methodological approach.

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Comprehensive Landscape Methodological Approach

OBJECTIVES

The objective of this consultancy is to produce the abovementioned document that will support future discussions on the development of a comprehensive landscape methodological approach. The document itself will have the following two objectives:

1. Describe and analyze the IPCC guidelines to ensure that ISFL Contributors have a common understanding of the guidelines and the decisions required to build the ISFL methodological approach.
2. Provide an analysis of available relevant data in ISFL Program countries. As part of this analysis, an understanding of the quality of data sets will also be ascertained.

TASKS

Task # 1: Provide a description of the key concepts in the IPCC guidelines to ensure that ISFL Contributors have a common understanding of the IPCC

The BioCF ISFL will build its methodological approach on IPCC Good Practice Guidance and the national greenhouse gas (GHG) inventories that countries are already submitting to the UNFCCC. However, at the moment, it is not yet clear if this can be applied directly to the result-based finance programs under the ISFL or if additional guidance or decisions are required.

The ISFL Contributors are therefore seeking to get a better understanding of the IPCC guidelines and the key concepts and limitations therein. For this the following sub-tasks are envisioned:

- a) Provide a short overview of the purpose, use and underlying approach of both the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006 IPCC Guidelines) and the 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry (GPG-LULUCF)
- b) Identify the key concepts in both the 2006 IPCC Guidelines and the GPG-LULUCF and provide a non-technical explanation on how these key concepts are applied for AFOLU. The explanation should help the ISFL Contributors to understand the usefulness and limitations of the 2006 IPCC Guidelines and the GPG-LULUCF for quantifying emission reductions from AFOLU for result-based payments. The key concepts should include - but are not necessarily limited to -: land-use categories, selection of carbon pools, key category analysis, and the distinction between managed and un-managed lands

Task # 2: Provide an analysis of available historic relevant data in ISFL program countries

In the context of REDD+, Reference Emission Levels (RELs) take into account historic data, and adjust for national circumstances. When considering a REL for comprehensive accounting, it is unclear if the same approach can be used. The ISFL is therefore seeking a better understanding of activity data availability and

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Comprehensive Landscape Methodological Approach

data quality in the different ISFL countries, in order to determine the appropriate approach for setting RELs in the ISFL.

This task involves an analysis of available relevant data in ISFL program countries with a special focus on the target jurisdictions (Orinoquía in Colombia, Oromia in Ethiopia, Eastern Province in Zambia, the jurisdiction in Indonesia is in the process of being determined). The consultant is expected to coordinate with relevant World Bank staff in arranging and carrying out in-country tasks.

The following sub-tasks are envisioned:

- a) Annex I contains a potential list with activity data that would be necessary for Tier 1 comprehensive accounting of emission reductions from the whole land-use sector. The consultant will review and complete this list to allow for Tier 2 accounting.
- b) Based on the outcome of sub-task a), the consultant will create a checklist that will help for each of the activity data identified in sub-task a) to:
 - Identify the type(s) of primary or secondary data available for that particular activity. For example for 'Amount of N fertilizer' this could include fertilizer sales data, fertilizer production/import/export data or fertilizer application data;
 - Identify the source of data for each of the primary or secondary data. Distinguish between global data sets (such as for example FAOSTAT) and local data (such as data from relevant ministries) and compare if both are available for the same activity data;
 - Identify the historic time-series available for each of the primary or secondary data by identifying the frequency that data have been collected and how far back in time data is available; and
 - Assess the quality of the primary or secondary data.
- c) Complete the checklist for each of the target jurisdictions through a combination of desk review and in-country visit. The desk review should at a minimum include the country's BUR, National Communication(s) and global datasets (such as FAOSTAT, CGIAR, etc.). The in-country visit should be used to reach out to relevant government and non-government institutions in the particular countries to understand their perspectives and the availability and quality of available data. This sub-task should also coordinate with other ongoing work in country. For example, in Colombia a review of data availability has already started and the consultant is expected to build on that work where required.
- d) Provide an assessment of how far the country/jurisdiction is removed from being able to undertake comprehensive Tier 2, Approach 3 based accounting of emission reductions. This should both assess the availability and the quality of historic data for setting a Reference Level and the efforts required for monitoring emission reductions in the future.

Task # 3: Identify key decisions and options going forward

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Building on the key concepts defined in task 1 and the findings of task 2, this task involves the identification of the key decisions that need to be made by the BioCF ISFL in order to apply the 2006 IPCC Guidelines and the GPG-LULUCF for quantifying emission reductions from AFOLU for result-based payments. In addition, the consultant shall identify options for these key decisions and provide pros and cons of each option in terms of costs, feasibility in the target jurisdictions, environmental integrity of the emission reductions and impact on the timelines for monitoring and reporting emission reductions. The following key decisions should be included as part of this task but the consultant should also add relevant decisions based on their expertise:

- Should the ISFL strive for a fully comprehensive approach and how will the initiative deal with the big differences in data quality that exists between different land uses and between different countries?
- How should the concept of key category analysis be applied in the context of the ISFL? What are the appropriate minimum thresholds to be considered as a key category in the context of ISL programs? Should there be a minimum quality requirement for key categories, for example in terms of Tier used, and if so, what is the appropriate minimum requirement?
- How can historic data be used to develop a reference emissions level for ISFL programs and what is the appropriate historic period (or base year)?
- How can the monitoring and reporting approach balance the costs of collecting data and the need for showing results with sufficient confidence to allow for results-based payments?

Task # 4: Present and explain the results of the first three tasks to the ISFL Contributors

The consultant will participate in a meeting with the ISFL Contributors (along, potentially, with external experts and representatives from ISFL target countries) to present and explain the results of the first three tasks. The World Bank will be responsible for the organization of the meeting but the consultant will be expected to prepare presentations and background materials. The meeting would be expected to be 2 or 3 days and could take place either in Washington DC, a location in Europe or in one of the ISFL Program countries.

OUTPUTS AND REPORTING

The expected outputs include:

- **Output 1:** Inception report which is expected to contain: (i) a work plan for the different tasks and a preliminary list of contacts to be interviewed during the in-country visit; (ii) the draft checklist as described in task 2 b); and (iii) the structure of final report.
- **Output 2:** Once the consultant has completed task 2 for one or two of the target countries, the consultant will provide information on the progress and preliminary findings to World Bank staff and the Contributors to the ISFL. This information will be provided through a conference call (max

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two hours) and the consultant will prepare a short PowerPoint presentation and answer questions. The World Bank will be responsible for the logistics of organizing the conference call.

- **Output 3:** Draft report completing all identified tasks. The draft report will be submitted for peer review by World Bank staff and external experts.
- **Output 4:** Presentation of the draft report during 2-3 meeting with ISFL Contributors and, potentially, external experts/peer reviewers. The World Bank will be responsible for the logistics of organizing the meeting.
- **Output 5:** Final report, taking into account the feedback received from peer reviewers and during the meeting.

The reports should be presented in politically neutral terms and plain English so as to be accessible to a broad audience.

TIMELINE

The outputs are expected to be delivered according to the following timeline:

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| • Inception report and draft checklist | • May 20, 2016 | |
| • Conference call with World Bank staff and the Contributors to the ISFL to provide information on the progress and preliminary findings | • Week of June 27, 2016 | |
| • Draft report for peer review | • August 19, 2016 | It is expected that the meeting to present the draft report will be organized in September |
| • Final report based on reviewer comments and other input received during meeting | • October 7, 2016 | |

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Comprehensive Landscape Methodological Approach

QUALIFICATIONS

The consultant is expected to have the following qualifications:

- Excellent understanding of GHG accounting approaches and in particular the 2006 IPCC Guidelines for National Greenhouse Gas Inventories and the 2003 Good Practice Guidance for Land Use, Land-Use Change and Forestry;
- Proven track record of writing reports and papers that help policy makers understand technical issues related to GHG accounting; and
- Contacts and working history with relevant government agencies and other institutions in the four target countries (Colombia, Ethiopia, Indonesia and Zambia) or clearly defined partners with these contacts or history.

**Annex I: Potential list with activity data that would be necessary for Tier 1
comprehensive accounting of emission reductions from the whole land-use
sector**

Category	Potential activity data
Mineral N fertilizer	N fertilizer types and %N in fertilizer
	Amount of N fertilizer added to soils
	Subdivide fertilizer between paddy rice and non-paddy rice
Non-Manure Organic N Amendments	Sewage Sludge: Amount of dry matter mass and %N content of these organic amendments
	Composted organic material: Amount of dry matter mass and %N content of these organic amendments
	Other organic material: Amount of dry matter mass and %N content of these organic amendments
Carbonate Lime Addition	Amount of carbonate lime added to soils including limestone and dolomite
Livestock and Manure Management	Total number of livestock by category and subdivided by mean annual temperature
	Number of days alive per year
	Proportion of manure management systems by livestock category and mean annual temperature
	Typical animal mass for livestock categories
Land Representation	Managed land base
	Definitions, classifications and sub-categories for land uses, including cropland, grassland, forest land, settlements, wetlands and other lands
	Land use area data
	National climate map
	National ecological zone map
	National soil map
Forest Land	Distribution of age class/diameter classes for different land use subcategories (subdivided by climate, ecological zone, and soil types if available)
	Fuelwood gathering
	Wood removals for timber
	Forest disturbance data, separated by climate, ecological zone and soil type if possible
	Amount of area in shifting cultivation
	Drainage of organic soils, separated by climate and ecological zone if possible
Grasslands	Grassland condition (amount of improved, degraded, native/nominal condition)
	Trees in grassland
	Drainage of organic soils
	Grassland burning
Croplands	Types of crops
	Yields of annual crops

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Comprehensive Landscape Methodological Approach

	Residue management for annual crops
	Cropland rotations and intensity
	Cropland management for each rotation, for example tillage practices, fertilization practices etc
	Trees in cropland (agroforestry trees and perennial tree crops)
	Drainage for organic soils
	Rice management practices