**ISFL Emission Reductions (ER) Program Requirements**

Version 2

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# 1. Introduction

The BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL) is a multilateral facility that promotes and rewards reduced greenhouse gas (GHG) Emissions and increased sequestration through better land management, including Reduced Emissions from Deforestation and Forest Degradation (REDD+), climate smart agriculture, and smarter land use planning and policies.

The ISFL aims to catalyze the development of a low-carbon rural economy in each of its program areas that will simultaneously result in livelihood opportunities for communities and an overall reduction in GHG Emissions from the land.

The ISFL will achieve its objective of GHG emission reductions, while also addressing poverty and unsustainable land use, through four key design elements.

1. **Working at Scale:** Each ISFL Program focuses on an entire jurisdiction (state, province, or region) within a country, which provides programs with the opportunity to engage with multiple sectors affecting land use and increase its impact over a relatively large area. The ISFL utilizes an Integrated Landscape Approach in each jurisdiction, which requires stakeholders to consider the trade-offs and synergies between different sectors that may compete in a jurisdiction for land use – such as forests, agriculture, energy, mining, and infrastructure. In doing so, solutions can be identified to serve multiple objectives and influence a variety of sectors.
2. **Leveraging Partnerships:** In order to reduce GHG Emissions from land use across an entire jurisdiction while simultaneously creating livelihood opportunities, the ISFL will create partnerships with other public sector initiatives and private sector actors. Public-private partnerships (PPPs) are essential to mobilize capital and align objectives in order to create sustainable and scalable approaches for long-term improved land use.
3. **Incentivizing Results:** By taking on the immense challenges of convening public and private actors and creating an enabling environment for sustainable development, countries can expect to generate results – including a reduction in GHG Emissions. To incentivize countries to do so, the ISFL will provide significant results-based climate finance for a period of about 10 years by purchasing verified GHG emission reductions and Removals from the ISFL ER Program accounting area (Program Area) under emission reductions Payment Agreements (ERPAs).
4. **Building on Experience:** The ISFL reflects the demand for progression from relatively small-scale pilot projects to programs aimed at incentivizing sustainable land use at scale. To work at scale effectively, the ISFL builds on the experiences and lessons learned by the BioCarbon Fund's initial work piloting land use projects, REDD+ initiatives, and other sustainable forest and land use programs.

ISFL Programs may obtain upfront grant funding and/or results-based payments for emission reductions. The upfront grant funding is used to improve the enabling environments appropriate to achieving emission reductions; this might include technical assistance, policy development, and investment activities. ISFL programs that engage in ERPAs to receive results-based payments for GHG emission reductions and Removals are henceforth referred to as 'ISFL ER Programs'.

The purpose of this document is to set out requirements related to ISFL ER Programs. It is divided in the following sections:

- **World Bank Group Requirements for ISFL ER Programs:** ISFL ER Programs are subject to World Bank Group policies and procedures.
- **ISFL ER Program Design Requirements:** In order to ensure consistency with ISFL objectives, ISFL ER Programs shall meet specific design and implementation requirements related to technical design, benefits and benefit sharing, and assessment of land and resource tenure, amongst others.
- **Requirements for Greenhouse Gas Reporting and Accounting:** Although countries are already reporting their GHG Emissions and Removals from AFOLU to the UNFCCC, providing result-based payments for emission reductions from AFOLU using a Jurisdictional Approach is relatively untested. This section therefore provides the requirements for:
  - o Reporting of AFOLU related Emissions and Removals for the Program Area (ISFL Reporting). The process of ISFL Reporting supports the design of the ISFL ER program and is the basis for identifying important subcategories. It will compile existing data from the National Greenhouse Gas Inventory or similar processes that are appropriate for the jurisdiction being proposed for ISFL;
  - o Identification of subcategories that are eligible to receive result-based payments under the ISFL and the accounting of emission reductions by comparing monitored Emissions and Removals with a baseline (ISFL Accounting).

  The requirements for both ISFL Reporting and ISFL Accounting build on IPCC Guidelines for National Greenhouse Gas Inventories and other relevant UNFCCC documents and decisions. These requirements are meant for use in the ISFL only and do not preempt ongoing or future discussion under the UNFCCC on the implementation of the Paris Agreement.

- **Documents for ISFL ER Programs:** This section describes the various documents where information on compliance with the ISFL ER Program Requirements is described, including both World Bank Group documents and ISFL ER Program country documents.
- **ISFL ER Program Assessment Process:** This section describes the process for assessing documents for ISFL ER Programs.

ISFL ER Programs are expected to demonstrate conformity with this document and apply general principles of environmental integrity and conservativeness in order to be able to receive result-based finance from the ISFL. If not defined in the text of this document, capitalized terms used in this document are defined in the ISFL Glossary of Terms.

## 2. World Bank Group Requirements for ISFL ER Programs

2.1.1 ISFL ER Programs are developed and implemented in accordance with World Bank Group policies and procedures[1], including for social and environmental safeguards[2]. As part of these, ISFL ER Programs are required to consult with relevant stakeholders as part of their preparation and implementation.

## 3. ISFL ER Program Design Requirements

### 3.1 Scale and ambition

3.1.1 ISFL ER Programs are required to demonstrate that they are undertaken using a jurisdictional and Integrated Landscape Management[3] approach, in accordance with the ISFL's Vision[4].

### 3.2 Analysis of drivers of AFOLU Emissions and Removals to inform program design

3.2.1 The design of the ISFL ER Program shall be informed by the contribution of key sources and sinks to the total GHG Emissions and Removals in the Program GHG Inventory (described in section 4.1) and an analysis of trends. Together these shall be the basis to specify interventions to address the key drivers of AFOLU Emissions and Removals and to identify the entities that would undertake them.

3.2.2 For the analysis of trends, ISFL ER Programs shall identify the key drivers of AFOLU Emissions and Removals, by performing a qualitative historical analysis (or quantitative if data are available) to identify those subcategories for which Emissions or Removals have changed significantly over the base period, and a qualitative analysis of the subcategories likely to show a significant increase of Emissions or decrease of Removals in the future.[5]

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[1] Information on the World Bank's operational policies and procedures can be found here:
https://policies.worldbank.org/sites/ppf3/Pages/Manuals/Operational%20Manual.aspx
[2] Information on the World Bank's safeguards policies can be found here: https://www.worldbank.org/en/projects-operations/environmental-and-social-framework
[3] This term is taken from The Little Sustainable Landscapes Book, a resource developed by more than 20 organizations active in landscape initiatives (Denier et al. 2015). Jurisdictional approach refers to scale and governance (i.e. policy). ISFL programs are expected to follow ILM (with a climate mitigation focus) at a jurisdictional scale.
[4] The ISFL Vision can be found here:  http://www.biocarbonfund-isfl.org/ISFL%20Documents
[5] Such a qualitative analysis maybe based on expert judgement and include, *inter alia*, the following criteria:
- Uptake of mitigation techniques and technologies: Emissions from a subcategory have decreased or Removals have increased through the use of mitigation techniques
- Expected growth: subcategory is likely to show increase of Emissions or decrease in Removals in the future

3.2.3    The design of the ISFL ER Program and the analysis of trends shall be updated at the conclusion of each ISFL ERPA Phase[6] during the lifetime of the ISFL ERPA (ERPA Term).[7] The ISFL ER Program's policies and measures shall be improved or adjusted as the Program GHG Inventory is iterated over time with better data and methods.

3.2.4    Prior to ERPA signing with the ISFL, countries shall develop and agree a time bound plan with the World Bank[8] to increase the Completeness of the scope of accounting and improve data and methods for the subsequent ISFL ERPA Phases during the ISFL ERPA Term.[9]

3.2.5    ISFL ER Programs shall identify GHG sources and sinks that may be impacted by the proposed ISFL ER Program and assess their associated risk for Displacement. The ISFL ER Program shall have in place and implement, by the time of Verification, an effective strategy to mitigate and/or minimize, to the extent possible, potential Displacement, prioritizing key sources of Displacement risk. Based on the ISFL reporting requirements as described in Section 4.1, ISFL ER Programs shall report on changes in major sources and sinks and any Displacement risks associated with those sources and sinks for each ISFL ERPA Phase.

## 3.3    Non-Carbon Benefits

3.3.1    ISFL ER Programs inherently provide social and environmental benefits beyond reduced Emissions or increased carbon sequestration and the mitigation of social and environmental risks, which may include, but are not limited to, improving local livelihoods, building transparent and effective governance structures, promoting improvements on clarifying land tenure, and enhancing or maintaining biodiversity and/or other ecosystem services. These Non-Carbon Benefits are considered during program selection and design. Non-Carbon Benefits are monitored and reported by each ISFL ER Program through the World Bank Group and ISFL's monitoring and evaluation (M&E) mechanisms[10] and are documented in World Bank Group documents related to the ISFL ER Program (see 5.1.1 below).

## 3.4    Feedback and Grievance Redress Mechanism

3.4.1    ISFL ER Programs are required to identify an appropriate Feedback and Grievance Redress Mechanism (FGRM) before implementation of ISFL ER Program activities. The FGRM can be developed on an ISFL ER Program-specific basis or otherwise exist and will be assessed by the World Bank.

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[6] An ISFL ERPA Phase may also be known as "Crediting Period" or "Accounting Period" as specified in the ISFL Glossary of Terms

[7] An ISFL ERPA Term may include 2 or more ISFL ERPA Phases.

[8] The World Bank is the Trustee of the ISFL.

[9] Completeness here means that the accounting scope increases towards covering all subcategories, pools and gases included in the latest IPCC guidelines that are significant in the full geographic coverage of the ISFL ER Program Area.

[10] The ISFL's Monitoring, Evaluation, and Learning Framework can be found here: http://www.biocarbonfund-isfl.org/sites/biocf/files/documents/ISFL%20MEL%20Framework.pdf

3.4.2   A description of FGRM procedures shall be made public at the local, ISFL ER Program, and national levels, in a language understandable to relevant stakeholders.

## 3.5    Land and resource tenure assessment

3.5.1   ISFL ER Programs are required to undertake and make publicly available an assessment of the land and resource tenure regimes present in the Program Area, including land and resource tenure rights, the legal status of such rights, areas subject to significant conflicts or disputes, and any potential impacts of the ISFL ER Program on existing land and resource tenure in the Program Area. ISFL ER Programs shall demonstrate that the assessment has been conducted in a consultative, transparent, and participatory manner, reflecting inputs from relevant stakeholders. ISFL ER Programs are required to provide a description of the implications of the land and resource tenure assessment for program design, and for the ISFL ER Program's ability to transfer Title to ERs to the ISFL (see 3.7.1 below).

## 3.6    Benefit sharing

3.6.1   ISFL ER Programs are required to develop a benefit sharing mechanism outlining the means by which benefits (both monetary and non-monetary) from ERs will be distributed in the Program Area. This benefit sharing mechanism shall be clear, effective, and transparent and have broad support from relevant stakeholders. The design of the benefit sharing mechanism shall respect customary rights to lands and territories so that incentives are applied in an effective and equitable manner. The benefit sharing mechanism shall take into account ways to sustain successful program interventions in order to further reduce Emissions and potentially attract additional finance for related results.

3.6.2   An ISFL ER Program's benefit sharing mechanism shall be described in detail in a plan (Benefit Sharing Plan) that is designed in a consultative, transparent, and participatory manner appropriate to the country context and that reflects inputs and broad community support by relevant stakeholders. At least an advanced draft of the Benefit Sharing Plan will be made publicly available prior to signature of the ERPA with the ISFL[11], and disclosed in a form, manner and language understandable to the affected stakeholders of the ISFL ER Program. The Benefit Sharing Plan shall contain the following information:

  i.   The categories of potential Beneficiaries, describing their eligibility to receive potential benefits under the ISFL ER Program and the types and scale of such potential benefits that may be received, taking into account beneficiary demographics (gender, age), drivers of

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[11] A final version of the Benefit Sharing Plan is expected to be submitted to the Trustee prior to ERPA signature with the ISFL. However, in the event that a final version of such Benefit Sharing Plan has not been submitted to the Trustee (World Bank) prior to ERPA signature, such final Benefit Sharing Plan may become a Condition of Effectiveness of the ERPA. In any case, an advanced draft version of such Benefit Sharing Plan reflecting the stakeholder engagement process, acceptable to the World Bank, is required prior to ERPA signature

net Emissions from land use, and sustaining successful program interventions, amongst other considerations.

    ii.    Criteria, processes, and timelines for the distribution of benefits.

    iii.    Monitoring provisions for the implementation of the Benefit Sharing Plan, including, as appropriate, participation by the Beneficiaries themselves.

3.6.3    The design and implementation of the Benefit Sharing Plan comply with relevant applicable laws, including national laws and any legally binding national obligations under relevant international laws.

3.6.4    Information on the implementation of the Benefit Sharing Plan is annexed to each ISFL ER Program Monitoring report and interim progress report (where applicable) and is made publicly available.

## 3.7    ISFL ER Program transactions

3.7.1    ISFL ER Programs shall work with the host country to select an appropriate arrangement to avoid double counting, including double issuance, double selling/use, or double claiming, in order to track the emission reductions to ensure that any emission reductions that have been generated, monitored and verified under the ISFL ER Program and paid for by the ISFL are not used again by any entity for sale, public relations, compliance or any other purpose unless otherwise agreed by the parties to an ERPA and, where relevant, consistent with any applicable guidance adopted under the Paris Agreement. For this purpose, ISFL ER Programs will identify a Transaction Registry to register, track, and as appropriate retire or cancel ER units generated under the ISFL ER Program.

3.7.2    Based on national needs and circumstances, the Transaction Registry might be complemented with the use of a (national) Program and Projects Data Management System that supports registering of and reporting on projects/programs.

## 4.    Requirements for Greenhouse Gas Reporting and Accounting

## 4.1    ISFL Reporting

4.1.1    ISFL ER Programs shall report on all AFOLU related Emissions and Removals in the Program Area (ISFL Reporting). This shall inform the program design (section 3.2) and the determination of the subcategories that are eligible for ISFL Accounting (section 4.3).

4.1.2    ISFL ER Programs shall, for the purpose of ISFL Reporting, compile a GHG inventory of all AFOLU categories, subcategories, gases and pools[12] in the Program Area (Program GHG Inventory) utilizing existing data that have been collected using best available methods and approaches that

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[12] Refer to Annex 1 for an overview how the terms 'category' and 'subcategory' are used in the context of this document.

are consistent with the most recent IPCC guidance and guidelines. In accordance with the IPCC guidance and guidelines, the Program GHG Inventory shall apply the basic principles of Transparency, Accuracy, Completeness, Consistency over time and Comparability as defined by the IPCC.

4.1.3 The Program GHG Inventory shall utilize best available methods and existing data. This may include the use of Activity Data Proxies if needed, and IPCC Tier 1 data and methods if no data are available to apply higher Tier methods. ISFL ER Programs are encouraged to apply higher Tiers over time, as possible.

4.1.4 The Program GHG Inventory shall be comparable in its use of definitions, categories and subcategories with national processes such as the national GHG inventory, REDD+ and the Biannual Update Report. The Program GHG Inventory Programs may select definitions, categories, or subcategories that are different from the ones that have been used in national processes, if this increases the likelihood of being able to assess the impacts of ISFL interventions. In that case, an explanation shall be provided to clarify how methodological Consistency will be maintained with the national GHG inventory so that Program GHG Inventory can be integrated with and inform the national GHG inventory.

4.1.5 The Program GHG Inventory shall be compiled during ISFL ER Program design and every second year during the ISFL ERPA Term following the national GHG inventory process.

4.1.6 If during the ISFL ERPA Term improvements are made to the definitions, methods and data used, these improvements shall be implemented in a manner that ensures time-series Consistency across all years of the inventory, including previous Program GHG Inventories. In the case of methods and/or datasets differing, methodological approaches provided by IPCC Guidelines for National Greenhouse Gas Inventories to ensure time series Consistency are applied.

4.1.7 The results of the Program GHG Inventory shall at least be reported at the level of subcategories with their associated Carbon Pools and gases, and the Activity Data, Emission Factors, methods, information on the underlying assumptions used, and results shall be provided to the national government of the program to inform the national GHG inventory as appropriate.


## 4.2 Quality and baseline setting requirements for ISFL Accounting

4.2.1 Building on the Program GHG Inventory, ISFL ER Programs shall identify subcategories that are eligible to receive result-based payments under the ISFL (refer to Section 4.3) and account for the Total Net Emission Reductions across these eligible subcategories by comparing monitored Emissions and Removals with a baseline (ISFL Accounting).

4.2.2 If the subcategories that are eligible to receive result-based payments under the ISFL include subcategories related to direct emissions from livestock, such as enteric fermentation and manure management, ISFL ER Programs can choose to use an emission intensity approach for estimating emission reductions from these sub-categories if the eligible subcategories comply with the following criteria:

i. **The combined GHG emissions across the eligible livestock related subcategories form a significant source of GHG emissions in the ISFL ER Program and are at least 5 percent of**

**GHG inventory of all AFOLU categories as reported following the requirements of section 4.1;**

ii. The combined population of the applicable livestock species shows a growing trend in the Program Area during the Baseline Period (as defined in accordance with 4.2.8 below). The data used for establishing this trend shall be a time series covering the whole Baseline Period. The trend showing the growth rate in livestock population should be established using a linear regression. Non-linear regression may be used with justification when linear regression is not a best fit to smoothen variations and does not appropriately represent the livestock growth rate and its projected evolution;

iii. ER programs shall implement interventions to reduce emissions from livestock sub-categories in their jurisdictions as part of program implementation

    a. Data demonstrating the implementation of interventions to reduce livestock related emissions shall be presented at validation and verification. Evidence will include: Government budget, implementation of sector policies, regulations, plans, programs, NAMA, NDC roadmap, and other public and private investment supporting program interventions;

    b. Data and evidence on continuation of interventions to reduce emissions from livestock sub-categories beyond the program period shall be presented at validation and verification of programs in each ERPA phase.

4.2.3 ISFL ER Programs shall account for the Total Net Emission Reductions across eligible subcategories by estimating the baseline and monitoring Emissions and Removals for the eligible subcategories using at minimum IPCC Tier 2 methods and data. Subcategories are considered to meet Tier 2 if all the significant[13] pools and gasses are estimated using Tier 2 methods and data. ISFL ER Programs are encouraged to improve data and methods, and to move to a higher tier over time, as possible.

4.2.4 For accounting emission reductions from land use change-related subcategories, Approach 3 shall be used for land representation; Approach 2 may be used if this is not possible if ancillary information is available that allows to track land over time.

4.2.5 For ISFL Accounting, ISFL ER Programs shall define a GHG Emissions Baseline (Emissions Baseline) for the Program Area as a benchmark for assessing performance. If an emission intensity approach for eligible livestock sub-categories is applied in accordance with 4.2.1 and 4.2.2 above, the baseline emission intensity shall be used as the benchmark for those subcategories.

4.2.6 The Emissions Baseline shall be constructed based on the average annual historical GHG Emissions and Removals[14] over a historical period (Baseline Period) of approximately 10 years. This Emissions Baseline shall be constructed based on at least two data points.

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[13] Significant here refers to the individual pools or gases that make up at least 25% of the absolute level of the total GHG Emissions and Removals in the subcategory, and the pools and gases that, when listed in the relative magnitude of contribution to the Emissions of the overall subcategory, contribute to 60% of the cumulative Emissions.

[14] Alternatively, for subcategory(ies) where legacy effects are significant, ISFL ER Programs may use the GHG Emissions and Removals resulting from average annual historic activities if it can be documented that this is more conservative for the relevant subcategory(ies) and the required data is available.

4.2.7    If the emission intensity approach is used, the emission intensity (EI) will be calculated using equation 1 and by combining the emissions of the eligible subcategories and livestock species:

$$EI = \frac{Emissions}{Production}$$   *Equation 1*

*Where:*
- *Production: Amount of protein from milk and meat produced from all included livestock species, expressed in kg;*
- *Emission intensity: Emission per unit of protein produced, expressed in CO2e / kg protein.*

4.2.8    The end date for the Baseline Period for each ISFL ERPA Phase is a date in the two calendar years prior to two calendar years before the ISFL Fund Management Team shares the complete advanced draft ER-PD with a Validation and Verification Body for Validation. An alternative start-date of the Baseline Period may be allowed only with a convincing justification, and is not more than 15 years before the end date of the Baseline Period.

## 4.3    Identification of eligible subcategories for ISFL Accounting

4.3.1    ISFL ER Programs shall identify the subcategories eligible for ISFL Accounting in a ISFL ERPA Phase according to the following 3 steps:

**Step 1:** Initial selection of subcategories;

**Step 2:** Review of the available data and methods for the subcategories from the initial selection against the quality and baseline setting requirements for ISFL Accounting;

**Step 3:** Final selection of the subcategories eligible for ISFL Accounting.

4.3.2    The identification of subcategories eligible for ISFL Accounting shall be performed during program design and shall be updated before the start of each ISFL ERPA Phase.

### *Step 1: Initial selection of subcategories*

4.3.3    ISFL ER Programs shall list all the subcategories from the Program GHG Inventory, with the associated Carbon Pools and gases, in order of the relative magnitude of contribution of these subcategories to the absolute level of the total GHG Emissions and Removals in the Program GHG Inventory.

4.3.4    From this list, all ISFL ER Programs shall initially select the following subcategories:

   i.    Any subcategories involving conversions from or to forest land;

   ii.   Forest land remaining forest land;

   iii.  Any subcategories involving conversions between land-use categories other than forest land that, cumulatively with the conversions from or to forest land, amount to 90% of the absolute level of the total GHG Emissions and Removals associated with all land use conversions in the Program GHG Inventory; and

     iv.    The single most significant of the remaining subcategories in order of the relative magnitude of contribution of these subcategories to the absolute level of the total GHG Emissions and Removals in the Program GHG Inventory.

4.3.5    Additional non-forest related subcategories may be included at the discretion of the ISFL ER Program if the quality requirements in Section 4.2 are met, provided there is a clear rationale for including these subcategories in terms of improving ISFL ER Program mitigation performance.[15]

4.3.6    ISFL ER Programs shall also account for any subcategories that were accounted during previous ISFL ERPA Phase(s).


***Step 2: Review of the available data and methods for the subcategories from the initial selection against the quality and baseline setting requirements for ISFL Accounting.***

4.3.7    ISFL ER Programs shall review the historic Activity Data and Emission Factors available for the subcategories selected in step 1, and the methods used to collect these Activity Data and Emission Factors against the quality and baseline setting requirements for ISFL Accounting listed in Section 4.2.

4.3.8    ISFL ER Programs shall review the historic Activity Data and Emission Factors available for the subcategories selected in step 1, and the methods used to collect these Activity Data and Emission Factors against the quality and baseline setting requirements for ISFL Accounting listed in Section 4.2.

4.3.9    For ISFL ER Programs that use the emissions intensity approach for estimating emission reductions from livestock, the same requirements apply. Data on production that is required as part of IPCC Tier 2 methods for calculations of emissions (for example milk production and protein content of milk; and meat production, dressing percent and protein content of meat) shall also meet these requirements. Other parameters required to estimate production shall meet the general requirements of Tier 2, i.e. use of country specific data and emission factors at minimum.

4.3.10    For Subcategories referenced in paragraph 4.3.4ii, jurisdiction-specific Activity Data Proxies may be considered if Tier 2 methods and data are not available to meet the requirement of paragraph 4.2.3.

4.3.11    For Subcategories listed in paragraph 4.3.4iv, if 10 years of historical data are not available at the beginning of the first ISFL ERPA Phase to construct the Emissions Baseline, a Baseline Period of 5 years may be considered for the first ISFL ERPA Phase with sufficient justification, with the requirement to construct the Emissions Baseline using an approximate 10-year Baseline Period for subsequent ISFL ERPA Phases where possible.

4.3.12    In summary, for the subcategories referred to in step 1, the following quality and baseline setting requirements for ISFL Accounting shall apply:

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[15] In accordance with paragraph 3.2.3, the program's policies and measures shall be improved or adjusted as the Program GHG Inventory is iterated over time with better data and methods.

| Subcategory | Emissions Baseline setting | Methods and data[16] | Spatial information |
|---|---|---|---|
| Any subcategories involving conversions from or to forest land | Historical Baseline Period of 10 years | At minimum Tier 2 methods and data for setting the Emissions Baseline and monitoring | Approach 2 or 3 for setting the Emissions Baseline and monitoring |
| Forest Land remaining Forest Land | Historical Baseline Period of 10 years | At minimum Tier 2 methods and data for setting the Emissions Baseline and monitoring, using jurisdiction-specific proxies as necessary | Approach 2 or 3 for setting the Emissions Baseline and monitoring |
| Any subcategories involving conversions between land-use categories other than forest land | Historical Baseline Period of 10 years | At minimum Tier 2 methods and data for setting the Emissions Baseline and monitoring | Approach 2 or 3 for setting the Emissions Baseline and monitoring |
| The most significant of the remaining non-forest subcategories in order of the relative magnitude of contribution of these subcategories | Historical Baseline Period of 10 years as default<br><br>Where not possible and convincing justification is provided, at least 5 years for the first ISFL ERPA Phase | At minimum Tier 2 methods and data for setting the Emissions Baseline and monitoring | |
| Additional non-forest related subcategories included at the discretion of the program | Historical Baseline Period of 10 years | At minimum Tier 2 methods and data for setting the Emissions Baseline and monitoring | |

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[16] Subcategories are considered to meet Tier 2 if all the significant pools and gasses are estimated using Tier 2 methods and data. ISFL ER Programs are encouraged to move to a higher tier over time, as possible.

***Step 3: Final selection of the subcategories eligible for ISFL Accounting.***

4.3.13   For each ISFL ERPA Phase, ISFL ER Programs shall only account for those subcategories for which step 2 has shown that the historic Activity Data and Emission Factors available, and the methods used to collect these Activity Data and Emission Factors, meet the quality and baseline setting requirements for ISFL Accounting listed in Section 4.2 while taking into account the provisions of paragraph 4.3.10 and 4.3.11.

4.3.14   If a subcategory selected in step 1 has historic data available to construct an Emission Baseline over a Baseline Period of approximately 10 years but these data do not meet the other quality requirements of Section 4.2, it can only be included for accounting in the ISFL ERPA Phase if all the quality requirements can be met through the application of improved methods and data. ISFL ER Programs that intend to include such a subcategory need to ensure that the quality requirements can be met at the latest at the end of the ISFL ERPA Phase. In this case, ISFL ER Programs shall provide an interim Emissions Baseline at the beginning of the ISFL ERPA Phase using best available data to be able to provide ex-ante estimations of the emission reductions.

4.3.15   Each relevant subcategory selected in step 1 that does not have sufficient historic data available to construct an Emission Baseline over a Baseline Period of approximately 10-year period at the start of a ISFL ERPA Phase (with the exception of the subcategories that meet the requirements of 4.3.11), cannot be included for accounting and the calculation of the emission reductions and Removals in that ISFL ERPA Phase. In this case the ISFL ER Program shall monitor the Emissions for that subcategory in accordance with the quality requirements of Section 4.2 for the ISFL ERPA Phase and these monitored data collected during the ISFL ERPA Phase (and potentially earlier ISFL ERPA Phases) shall be used to estimate the Emissions Baseline during the subsequent ISFL ERPA Phase in order to fulfill the Baseline Period requirements outlined in Section 4.2[17].

## 4.4   Emissions Baseline for ISFL Accounting

4.4.1   For each ISFL ERPA Phase, ISFL ER Programs shall determine an Emissions Baseline comprising those subcategories that are eligible for ISFL Accounting in the ISFL ERPA Phase as determined by the steps in Section 4.3.

4.4.2   The Emissions Baseline shall be expressed as tonnes of $CO_2e$[18] per year, or if an emission intensity approach is used in accordance with the equation in 4.2.7.

4.4.3   The Emissions Baseline shall be updated for each ISFL ERPA Phase.

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[17] For example, assuming two ISFL ERPA Phase, if a subcategory in the ISFL ER Program does not meet the requirements at the start of the first ISFL ERPA Phase, it cannot be accounted in the first ISFL ERPA Phase. For the second ISFL ERPA Phase, the baseline would be based on the inventory data from the first ISFL ERPA Phase.

[18] To determine $CO_2$ equivalent, ISFL ER Programs shall use the Global Warming Potential (GWP) over a time interval of 100 years.

## 4.5 Monitoring and determination of emission reductions for ISFL Accounting

4.5.1 ISFL ER Programs shall estimate all the subcategories and their associated Carbon Pools and gases included in the scope for ISFL Accounting following the quality requirements in Section 4.2. The measured Emissions and Removals shall be expressed as tonnes $CO_2$e per year.

4.5.2 In estimating the subcategories and their associated Carbon Pools and gases included in the scope for ISFL Accounting, ISFL ER Programs shall ensure Methodological Consistency[19] between the Emissions Baseline and the monitored net GHG Emissions.

4.5.3 ISFL ER Programs determine the Total Net Emission Reductions across the eligible subcategories by comparing monitored Emissions and Removals with a baseline as follows:

> *Actual GHG net Emissions minus Net Emission Baseline for the Program Area equals Net emission reductions*

4.5.4 For ISFL ER Programs that use the emissions intensity approach for estimating emission reductions from livestock, the emissions reduction of an ER program ($ER_{ERP}$) of $N_{years}$ is calculated as the difference between the average annual emission intensity of an ER Program during implementation ($EI_{ERP}$) and the average annual emissions intensity of the baseline ($EI_{baseline}$); multiplied by the average annual protein production in an ER Program

$$ER_{ERP} = (EI_{ERP} - EI_{baseline}) \times Average\ Annual\ Protein\ Production_{ERP} \times N_{years} \qquad \text{\textit{Equation 2}}$$

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[19] Methodological Consistency implies that same methods and datasets have been used to calculate the Emission Baseline and the actual GHG Emissions and Removals. In case methods and/or datasets differs, methodological approaches provided by IPCC Guidelines to ensure time series consistency are applied.

4.5.5   For ISFL ER Programs that use the emissions intensity approach, the Total Net Emission Reductions for the ISFL Program shall be calculated by applying the calculation from 4.5.3 to the non-livestock subcategories and combining this with the results of equation 2 in section 4.5.4

4.5.6   ISFL ER Programs that use the emissions intensity approach for eligible subcategories can only claim Emission Reductions if the other, non-livestock, eligible subcategories achieve Net Emission Reductions as calculated in accordance to 4.5.3 above.

4.5.7   For ISFL ER Programs that use the emissions intensity approach for eligible subcategories, a cap will be applied to the emissions of the combined eligible livestock subcategories. If the emissions exceed the cap in a particular year, the emission reductions from the eligible livestock subcategories for that year will be considered as zero. In addition, the difference between the actual emissions and the cap shall be considered as an increase in emissions from livestock and will be subtracted from the net emission reductions from the other subcategories as calculated in accordance with 4.5.3.

4.5.8   The cap as referred to in 4.5.7 is equal to the average annual emissions of the projected trend in the ERPA phase, based on the continuation of the historical trend in GHG emissions from the eligible livestock sub-categories during the Baseline Period. For determining the trend.

  i.   Data requirements shall be consistent with data requirements for setting the baseline, i.e. the trend shall be based on a time series covering the whole Baseline Period, combined with Tier 2 emission factors calculated on one or more years.

  ii.  The trend in GHG emissions from the eligible livestock related sub-categories shall be established using a linear regression applicable to the Baseline Period.

  iii. To apply the linear regression for the Baseline Period, the program shall divide the whole Baseline Period into two equal periods and compare the growth rates of each period. If the growth rate of GHG emissions computed for the second period is at least 10% lower than the growth rate of emissions computed for the  first period, and if the decrease cannot be directly related to an external factor (e.g. policy change, economic shock, natural disaster, disease outbreak), then the growth rate of emissions of the second period shall be used to set the cap.

  iv.  Notwithstanding iii. above, the growth rate used to calculate the cap for each ERPA Phase shall not exceed the growth rate calculated under iii above or the growth rates observed in any of the prior ERPA phases. If this occurs the lowest previous growth rate will always be used to calculate the cap.

4.5.9   The cap is fixed for the ERPA phase and revised before the beginning of each subsequent ERPA phase using the same methodology.


## 4.6    Uncertainty and uncertainty set-aside factor for ISFL Accounting

4.6.1   ISFL ER Programs shall systematically identify and assess sources of uncertainty in the determination of the Emissions Baseline and the monitoring of Emissions and Removals following the most recent IPCC guidance and guidelines.

4.6.2    ISFL ER Programs shall, to the extent feasible, follow a process of managing and reducing uncertainty in the determination of the Emissions Baseline and the monitoring of Emissions and Removals[20].

4.6.3    ISFL ER Programs shall quantify the uncertainty of the emission reductions using a Monte Carlo simulation[21]. The uncertainty of the emission reductions shall be combined into a single combined uncertainty estimate and reported at the two-tailed 90% confidence level.

4.6.4    ISFL ER Programs shall set aside a portion of emission reductions calculated in Section 4.5.3 in a buffer reserve[22] to reflect the level of uncertainty associated with the estimation of emission reductions during the ISFL ERPA Phase. The portion to be set aside shall be equal to the uncertainty set-aside factor in the following table:

| Aggregate uncertainty of emission reductions as determined in accordance with 4.6.3 | Uncertainty set-aside factor |
|---|---|
| ≤ 15% | 0% |
| > 15% and ≤ 30% | 4% |
| > 30 and ≤ 60% | 8% |
| > 60 and ≤100% | 12% |
| > 100% | 15% |

If in accordance with 4.2.1, ISFL ER programs account use Tier 1 methods and data for some pools and gasses that are not considered significant they may, if the overall effect on uncertainty for the program is likely to be substantial and this is not reflected in the aggregate uncertainty of emission reductions calculated, be required to set aside an additional portion of emission reductions.

4.6.5    A discount of 15% will be applied to the share of net Emissions reductions calculated using Activity Data Proxies and methods if uncertainty of the Activity Data Proxies is not included in the aggregate uncertainty of emission reductions.

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[20] Good practice requires that bias be prevented wherever possible, such as by using appropriate QA/QC procedures. Where biases cannot be prevented, it is good practice to identify and correct them when developing a mean estimate of the  emission reductions. In particular, the point estimate of the  emission reductions that is used for requesting payment shall be free of biases as much as it is practical and possible.

[21] The Monte Carlo analysis is suitable for detailed subcategory-by-subcategory assessment of uncertainty and shall be applied in accordance with the procedures outlined in the IPCC guidelines. Additional methods for analyzing uncertainty may be applied by the ISFL ER Program for comparison with the Monte Carlo simulation.

[22] If the aggregate uncertainty of Emissions is reduced over the ISFL ERPA Term, the uncertainty set-aside factor will be reduced appropriately. A certain amount of  emission reductions that were set aside in the buffer reserve for an initial ISFL ERPA Phase may be released in a subsequent ISFL ERPA Phase if uncertainty is reduced.

### 4.7 Reversals

4.7.1 ISFL ER Programs shall undertake an assessment of the anthropogenic and natural risk of Reversals that might affect emission reductions during the ISFL ERPA Term and, as feasible, the potential risk of Reversals after the end of the last ISFL ERPA Phase.

4.7.2 ISFL ER Programs shall set aside a portion of emission reductions calculated in Section 4.5.3 in a buffer reserve, appropriate for the ISFL ER Program's assessed level of risk of Reversals, which in the event of a Reversal during the ISFL ERPA Term will be used to cover such Reversals. The portion to be set aside shall be determined using an ISFL approved risk assessment and buffer tool[23]. A certain amount of emission reductions that were set aside in the buffer reserve for an initial ISFL ERPA Phase may be released in a subsequent ISFL ERPA Phase if the risk of Reversals is reduced.

4.7.3 ISFL ER Programs shall monitor and report major Emissions that may lead to Reversals of emission reductions during any ISFL ERPA Phase.

4.7.4 The ISFL ER Program, building on discussions and decisions under the UNFCCC, will have in place a robust Reversal Management Mechanism[24] to address the risk of Reversals after the ISFL ERPA.


## 5. Documents for ISFL ER Programs

5.1.1 There are two sets of documents developed in the preparation and implementation of ISFL ER Programs:

   i. Documents authored by ISFL ER Program countries, including but not limited to ISFL ER Program Documents (which contain information on ISFL ER Programs' compliance with the ISFL Requirements) and Benefit Sharing Plans. Versions of ISFL ER Program Documents will be made public on the ISFL website upon submission to the World Bank.

   ii. World Bank Group documents that appraise/assess ISFL ER Programs, including but not limited to Project Appraisal Documents (PADs) and/or Carbon Finance Assessment Memorandums (CFAMs)[25]. These documents will be made public, including on the ISFL website, according to World Bank Group policies and procedures.

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[23] To be developed including a maximum set aside.

[24] The criteria to confirm if a proposed ER Program Reversal Management Mechanism is robust is provided in the ISLF Buffer Requirements.

[25] Including related to World Bank safeguards (http://www.worldbank.org/en/programs/environmental-and-social-policies-for-projects/brief/environmental-and-social-safeguards-policies) and monitoring and evaluation (http://www.biocarbonfund-isfl.org/sites/biocf/files/documents/ISFL%20MEL%20Framework.pdf).

## 6. ISFL ER Program Assessment Process

6.1.1    ISFL ER Programs undergo due diligence and supervision led by the World Bank Group throughout their preparation and implementation to ensure that they are in compliance with World Bank Group policies and procedures. The World Bank Group will appraise/assess all sections of ISFL ER Program country documents, including on FGRMs, for compliance with the ISFL ER Program Requirements.

6.1.2    ISFL ER Program Documents will be assessed by an independent third party for its compliance with ISFL ER Program Requirements, which will be utilized by the World Bank Group and ISFL Contributors when making decisions about ISFL ER Programs. In addition, the ISFL ER Programs will be subject to Verification of the amount of ERs generated by the ISFL ER Program.

## Annex 1 - Greenhouse Gas Sources and Sinks Categories

The following table shows how these terms have been used in the context of this document to indicate different levels of aggregation. It is recognized that this table might not always be consistent with the terminology used by countries in their greenhouse gas inventories. ISFL ER Programs may choose to use the terminology from their national greenhouse inventory as long as the principles of these ISFL ER Program Requirements are adhered to (for example the level of aggregation an analysis is performed) and the documents submitted to the ISFL clearly outline the countries' own terminology and different levels of aggregation. The following table provides examples of this terminology.

| | Categories | Subcategories |
|---|---|---|
| Livestock | A. Enteric fermentation | Cattle |
| | | Sheep |
| | | Swine |
| | | Other livestock |
| | B. Manure management | Cattle |
| | | Sheep |
| | | Swine |
| | | Other livestock |
| | | Indirect N2O Emissions |
| Other | C. Rice cultivation | Irrigated |
| | | Rain-fed |
| | | Deep water |
| | | Other |
| | D. Agricultural soils | Direct N2O Emissions from managed soils |
| | | Indirect N2O Emissions from managed soils |
| | E. Prescribed burning of savannahs | Forest land |
| | | Grassland |

| | F. Field burning of agricultural residues | Cereals |
|---|---|---|
| | | Pulses |
| | | Tubers and roots |
| | | Sugar cane |
| | | Other |
| | G. Liming | Limestone CaCO3 |
| | | Dolomite CaMg(CO3)2 |
| | H. Urea application | |
| | I. Other carbon-containing fertilizers | |
| | J. Other | |
| LULUCF | A. Forest Land | Forest land remaining forest land |
| | | Land converted to forest land |
| | B. Cropland | Cropland remaining cropland |
| | | Land converted to cropland |
| | C. Grassland | Grassland remaining grassland |
| | | Land converted to grassland |
| | D. Wetlands | Wetlands remaining wetlands |
| | | Land converted to wetlands |
| | E. Settlements | Settlements remaining settlements |
| | | Land converted to settlements |
| | F. Other land | Other land remaining other land |
| | | Land converted to other land |
| | G. Harvested wood products | |

**Notes to the table:**
The subcategories related to Land Use conversions are generically presented as "Land Converted to", but these may be disaggregated per Land Use conversions, e.g. Land converted to Forestland (LF) would be Cropland to Forestland (CF), Grassland to Forestland (GF), Wetland to Forestland (WF), Settlement to Forestland (SF)

**Document History**

| Version | Date | Notes |
|---|---|---|
| Version 1 | September 2017 | Initial version adopted by the ISFL Contributors |
| Version 1.1 | April 2020 | Minor revision to Program Requirements. The following changes were made:<br>• Change 'Should' or 'Must' to 'Shall' and all 'Could' to 'May.'<br>• ERPA Phase was replaced by ISFL ERPA Phase<br>• Glossary of terms was removed and replaced by the ISFL Glossary of Terms<br>• ERPA was replaced by ISFL ERPA where applicable.<br>• Terms included in the ISFL Glossary of Terms were capitalized. |
| Version 2 | April 2021 | Two changes approved by the ISFL Contributors:<br>• The definition of the end date for the baseline period clarified<br>• The emissions intensity approach for estimation of livestock GHG emissions included |