



BioCarbon Fund
Initiative for Sustainable Forest Landscapes

ISFL Validation and Verification Requirements

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1. Introduction

1. These Validation and Verification Requirements (VVR) provide a set of requirements to ensure that the Validation and Verification criteria of the BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL) are fulfilled. This document shall be updated from time-to-time and readers should ensure that they are using the most current version of the document.

2. Objectives

2. The objective of the Validation and Verification Requirements is to:
 - a) Enhance the overall integrity and Transparency of the ISFL;
 - b) Establish the accreditation requirements for Validation and Verification Bodies (VVBs).
 - c) Provide clarity on the Validation and Verification process of the ISFL; and
 - d) Improve the Consistency, quality, and Transparency in the preparation, execution, and reporting of Validations and Verifications under the ISFL.

3. References

3. The following documents should be used as normative references for the application of the VVR:
 - a) ISFL Program Requirements: Provides the overarching requirements for ISFL ER programs;
 - b) ISFL Buffer Requirements: Provides the procedures for managing Uncertainty and Reversal Management Mechanism of ISFL ER Programs;
 - c) ISFL Process Requirements: Provides the procedures for the ISFL ER Program cycle and defines procedures to approve normative documents;
 - d) ISO 14064-3:2006 – Greenhouse Gases – Part 3: Specification with guidance for the Validation and Verification of Greenhouse Gas assertions;
 - e) ISO 14065:2013 – Greenhouse Gases – Requirements for Greenhouse Gas Validation and Verification Bodies for use in recognition and other forms of recognition;
 - f) ISO 14066: 2011 – Greenhouse Gases – Competence requirements for Greenhouse Gas validation teams and Verification teams;
 - g) IAF MD 6:2014 – IAF Mandatory Document for the Application of ISO 14065:2013.
4. Forms and templates: the following templates are used to capture data or information required in the ISFL processes and provides pre-defined fields and provides specific Guidelines:
 - a) Emissions Reductions Monitoring Report: Form and guidance to help ISFL Countries to prepare a monitoring report describing the Emissions Baseline and the results of the applicable Reporting Period;
 - b) Validation and Verification Report Templates: Forms and guidance to help VVBs to prepare the Validation and Verification Report.

- c) ISFL Program Document Template which contains information on ISFL ER Programs' compliance with the ISFL Requirements.

4. Glossary of Terms and Definitions

- 5. For the purposes of the VVR, the terms and definitions described in the ISFL Glossary of Terms shall apply. In addition to definitions in the ISFL Glossary, the following terms apply in this document:
 - a) "Shall" is used to indicate requirements to be followed;
 - b) "Should" is used to indicate that among several possibilities, one course of the action is recommended as particularly suitable;
 - c) "May" is used to indicate what is permitted.

5. Principles

5.1 General Principles

- 6. The Validation and Verification Body shall adhere to the following principles in its Validation/Verification:¹
 - a) Relevance: select the GHG sources, GHG Sinks, GHG reservoir, data and methodologies appropriate to the needs of the intended user²;
 - b) Completeness: include all relevant GHG Emissions and Removals, and all relevant information to support criteria and procedures;
 - c) Consistency: enable meaningful comparisons in ISFL ER Program-related information;
 - d) Accuracy and conservativeness: Estimations should be neither over- nor under-estimated and uncertainties should be reduced as far as practical. If this cannot be assured, use conservative assumptions, values, and procedures to ensure that reported Emission Reductions are not overestimated;
 - e) Transparency: disclose sufficient and appropriate ISFL ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.

¹ Based on the principles set out by ISO 14064-2:2006 – Greenhouse Gases – Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of Greenhouse Gas Emission Reductions or Removal enhancements; it is reproduced with the permission of the International Organization for Standardization (ISO). This standard can be obtained from any ISO member and from the website of the ISO Central Secretariat at the following address: <<https://www.iso.org/home.html>>. Copyright remains with ISO.

² "Intended users" include ISFL Program Participants, ISFL Contributors, VVBs, the FMT, buyers of Emission Reductions local and other stakeholders and the World Bank.

5.2 Principles Applicable to Validation and Verification Bodies

7. In line with the ISO 14064-3:2006, when carrying-out Validation/Verification, VVBs shall apply the following general principles:
 - a) Impartiality: Remain independent of the Activity being validated and verified, and free from Bias and conflict of interest. Maintain objectivity throughout the validation and Verification to ensure that the findings and conclusions will be based on objective evidence generated during the Validation and Verification process. Impartiality shall be demonstrated by complying with the requirements set by the ISO 14065:2013;
 - b) Ethical conduct: Demonstrate ethical conduct through trust, integrity, confidentiality, and discretion throughout the Validation and Verification process;
 - c) Evidence-based approach: Ensure the Validation and Verification engagement employs a rational method for reaching reliable and reproducible Validation and Verification conclusions and is based on sufficient and appropriate evidence;
 - d) Fair presentation: Reflect truthfully and accurately Validation and Verification activities, findings, conclusions, and reports;
 - e) Documentation: Document the Validation and Verification and ensure it establishes the basis for the conclusion and conformity with the criteria;
 - f) Conservativeness: When assessing comparable alternatives, use a cautiously moderate selection;
 - g) Confidentiality: Ensure that confidential information obtained or created during Validation and Verification activities is safeguarded and not inappropriately disclosed;
 - h) Due professional care: VVBs shall exercise due professional care and judgment in accordance with the importance of the task performed and the confidence placed by clients and intended users.

6. Administration

8. The Validation and Verification Body shall be accredited under ISO 14065 for scope ISO 14064-2, specifically for Land Use and Forestry by an Accreditation Body that is a signatory of the IAF Multilateral Recognition Arrangement (MLA) for ISO 14065. The ISFL may submit a request for proposals from accredited VVBs for the purpose of conducting country-specific Validation and Verification engagements.
9. ISFL Fund Management Team administers the ISFL. The FMT oversees the Validation and Verification process to ensure that all ISFL operations comply with applicable World Bank Group Policies and the ISFL requirements. The FMT has several functions, *inter alia*:
 - a) Proposal of any normative document to the ISFL governance system;
 - b) VVB selection;
 - c) Completeness check and posting of the final ER-PD and ER Monitoring Report;
 - d) Communication between the VVB and the ISFL Country;

- e) Review of the Validation and Verification reports;
 - f) Management of the Carbon Asset Trading System, i.e. ISFL Transaction Registry.
10. The overall Validation and Verification process including steps is described in the ISFL Process Requirements. Validation will occur before the first Verification, and the number of Verifications will depend on the number of Reporting Periods defined by each ISFL ER Program . ISFL ER Programs shall report the results of the compilation of a GHG inventory during the ISFL ER Program design and every second year during the ISFL ERPA Phase (meaning at least two Reporting Periods per ISFL ERPA Phase), but the periodicity of accounting will be defined by each ISFL ER Program being expected a total of 2-3 monitoring and Verification events.
 11. The ISFL defines multiple ISFL ERPA Phases which are defined by each ISFL ER Program but shall be at least two and the latest shall not be later than 31 December 2029. Upon the closure of the ISFL on 31 December 2030, ISFL ER Programs may discontinue or may transition to another GHG Program.
 12. ISFL ER Programs shall revise their Emission Baselines upon the conclusion of the ISFL ERPA Phase as required by the ISFL Program Requirements. This new Emission Baseline shall be used to estimate Emission Reductions during the applicable ISFL ERPA Phase. Each ISFL ERPA Phase shall be subject of Validation by a VVB.

7. Validation and Verification Requirements

7.1 Legal and Contractual Matters (ISO 14065:2013, Section 5.2)

13. The Validation and Verification Body shall be a legal entity, or a defined part of a legal entity, such that it can hold legally responsible for all its Validation or Verification activities. The VVB shall retain authority and responsibility for the Validation and Verification statements.

7.2 Avoidance of Conflict of interest (ISO 14065:2013, Section 5.4.2)

14. Validation and Verification under the ISFL requires a high level of neutrality and independence, and the selected VVB shall act impartially and shall avoid unacceptable conflicts of interest between the VVB performing Validation and/or Verification or with the ISFL and ER Programs under Validation and Verification.
15. The VVB or any of the VVB's family members shall not take over, promote, deal with, or otherwise have a fiduciary relationship with any delegated activities from the ISFL ER Program with regard to the preparation of the ERPD, Monitoring Plan and estimated Emission Reductions. Otherwise, VVBs are required to disclose such conflict of interest before agreeing on performing Validation and Verification.
16. VVBs shall have in place a mechanism to identify and address any conflict of interest that may arise while performing the Validation and/or Verification services.
17. If the VVB has performed a Validation/Verification of the ISFL ER Program and wishes to perform the Verification for the same ISFL ER Program, it shall obtain authorization from the FMT.

7.3 Liability and financing (ISO 14065:2013, Section 5.5)

18. Validations and Verifications shall be conducted under the World Bank contract.

19. Verifications shall be subject to the following additional requirements:

- a) Subject to Section 13 of the General Terms and Conditions for Consulting Services (August 2016) (“General Conditions”), VVB providing Services in the United States and all Contractors and Subcontractors incorporated in the United States should have Professional Liability insurance in the amount of USD 5,000,000 per claim and in the aggregate.
- b) Subject to Section 14 of the General Terms and Conditions for Consulting Services (August 2016) (“General Conditions”), the selected VVB shall indemnify and hold the Trustee and the Bank, its officers, officials and employees harmless from any and all claims, injuries, damages, losses or suits, including reasonable attorney fees, arising out of or in connection with the Independent Reviewer’s (including subcontractors or anyone for whom they may be responsible) performance under this Contract, except for injuries and damages caused by the sole negligence of the Trustee or the Bank.
- c) Subject to Sections 15 and 16 of the General Conditions, the Trustee or the Bank may, as appropriate, hold the selected VVB liable and request payment of damages for excess Emission Reductions that have been erroneously verified when such error is the result of the Independent Reviewer’s (including subcontractors or anyone for whom they may be responsible) negligence, fraud or intentional misconduct.

7.4 Management and personnel (ISO 14065:2013, Section 6.1)

20. The Validation and Verification Body shall:

- a) establish, implement, and document a method for evaluating the competence of the Validation/Verification team personnel against the requirements outlined in ISO 14065:2013, ISO 14066:2011, and this guidance; and
- b) maintain records to demonstrate the competency of the Validation/Verification team and personnel in accordance with this guidance.

7.5 Competences of Personnel (ISO 14065:2013, section 6.2)

21. The Validation and Verification Body shall:

- a) Identify and select competent team personnel for each engagement;
- b) Ensure appropriate Validation and Verification team composition
- c) Ensure that the Validation/Verification team includes a team leader who is responsible for the engagement planning and management of the team;
- d) Ensure continued competence of all personnel conducting Validation and Verification activities, including continual professional development and training for validators and verifiers to maintain and/or develop competencies; and

- e) Conduct regular evaluations of the competence assessment process to ensure that it remains relevant for the ISFL.

7.6 Validation and Verification Team Knowledge (ISO 14065:2013, section 6.3.2)

22. The Validation/Verification team as a whole and the technical reviewer³ shall demonstrate knowledge of the ISFL as well as the following skills and competences:
- a) Expertise in the AFOLU sector and REDD+ in REDD+ countries;
 - b) Expertise in assessing GHG assertions and Emission Reductions in the AFOLU sector;
 - c) Expertise in assessing GHG assertions and Emission Reductions at a national subnational or jurisdictional scale;
 - d) Expertise on the IPCC Guidelines and GFOI Methods and Guidance Document;
 - e) Documented experience for not less than three complete Validation and Verification audits of projects or programs in REDD+ and the AFOLU sector;
 - f) Documented expertise in statistics applied to forest resource assessments and forest inventories;
 - g) Documented relevant experience in REDD+ and AFOLU GHG accounting for not less than three years;
 - h) Documented expertise in remote sensing and GIS applied to forest and land cover change assessments in REDD+ Countries;
 - i) Ability to communicate clearly in the local language or guarantee the presence of an interpreter and/or translator.
23. The VVB shall provide to the Accreditation Body and the FMT enough evidence to prove their competence abilities and skills of the management and accomplishment of the products requested.

7.7 Validation and Verification Team Technical Expertise (ISO 14065:2013, section 6.3.3)

24. The VVB shall guarantee the inclusion of the following roles and competences in the Validation/Verification teams:
- a) Team Leader and Independent Reviewer:
 - i. Documented experience in leading and managing audit teams for not less than two complete audits;
 - ii. Documented expertise in auditing of data and information;
 - iii. Documented experience for not less than three complete audits of projects or programs in REDD+ and other AFOLU activities.; and

³ Called Peer reviewer under ISO 14064 – 3. Competences can be filled by more than one person.

- iv. Knowledge of greenhouse information and data management systems and controls, including Quality Assurance (QA) and Quality Control (QC) techniques
- b) Technical Expert(s)⁴:
- i. Documented expertise in statistics applied to forest and land cover resource assessments and terrestrial inventories; and
 - ii. Documented experience in REDD+ and AFOLU GHG accounting for not less than 3 years; and
 - iii. Documented expertise in remote sensing and GIS applied to forest and land cover change assessments in REDD+ Countries.

7.8 Validation and Verification Team Data and Information Auditing (ISO 14065:2013, section 6.3.4)

25. The Validation/Verification team as a whole shall demonstrate detailed knowledge of ISO 14064-3:2006, including demonstrated ability to develop a risk-based Validation/Verification approach, perform Validation/Verification procedures including assessing data and information systems and controls, collect sufficient and appropriate evidence and draw conclusions based on that evidence.
26. Evidence of the above competencies shall include evidence of relevant professional experience, complemented by appropriate training and education credentials.

7.9 Specific ISFL ER Program Validation/Verification Team Competencies (ISO 14065:2013, section 6.3.5)

27. The Validation/Verification team shall have:
- a) Understanding of the scale of the Emissions Baseline to assess;
 - b) Expertise to assess the implementation of the PR;
 - c) Expertise to quantify the effect of underlying assumptions on the Emissions Baseline;
 - d) Expertise to evaluate sources of Uncertainty and the effects of Uncertainty on the Emissions Baseline and Emissions Reductions;
 - e) Understanding of how Displacement will be assigned and accounted; and
 - f) Understanding of how existing mitigation projects are incorporated into the ISFL ER Program.

⁴ These competences may be covered by more than one Technical Expert or partially by the Team Leader (i.e. Team Leader holds one of the three required competences), yet this shall not impact the quality of the audit.

7.10 Outsourcing (ISO 14065:2013, section 6.6)

28. The VVB shall not outsource Validation or Verification activities.

7.11 Communication of Responsibilities to a Client or Responsible Party (ISO 14065:2013, Section 7.2)

29. The VVB shall have a process to inform the responsible party of its responsibility to make all necessary arrangements for the Validation or Verification, including provisions for examining satellite-based reference data as well as the process and personnel involved in the analysis of satellite data, data controls, and Quality Assurance; and

30. The VVB shall have in place provisions that allow the Accreditation Body as well as FMT to assess the Validation or Verification process.

7.12 Records (ISO 14065:2013, Section 7.5)

31. The VVB shall keep records on the Validation/Verification process for a minimum of seven years, including:

- a) ER Monitoring Report and any related information;
- b) Validation and Verification Report and related internal documentation;
- c) Identification of team members and criteria for the selection of teams;
- d) Working papers with data and information reviewed by the team to allow an independent party to assess the quality of Validation and Verification activities and conformance with ISFL requirements.

8. Agreement (ISO 14065:2013, Section 8.2.3, ISO 14064-3:2006, Section 4.3)

32. The Validation/Verification basis agreed between the VVB and the FMT following the ISO 14065:2013, Section 8.2.3 and ISO 14064-3:2006, Section 4.3 and in accordance with the following sections.

8.1 Level of Assurance (ISO 14064-3:2006, Section 4.3.1)

33. The level of assurance shall be reasonable, with respect to material misstatements, errors or omissions and the application of the applicable criteria.

8.2 Objectives

34. The specific objectives for Validation are:

- a) Ensure that the information provided in the ER-PD is correct and complete;
- b) Assess the conformance of the ER-PD against the applicable criteria as presented in the following table.

Table 1. Detailed objectives of the Validation

Aspect	Objectives
Risk for displacement	<ul style="list-style-type: none"> ▪ Correctness and completeness of the information provided in the analysis of displacement risk • Expert judgement on the effectiveness of the proposed strategy to mitigate and/or minimize, to the extent possible, potential Displacement
Ability to transfer title to ERs	<ul style="list-style-type: none"> • Expert judgement whether the analysis of the ability to transfer title to ERs or any roadmap towards demonstrating such ability prior to ERPA signature is comprehensive and conclusive. • Expert judgement on risks of contests/disputes to title to ERs and mitigation measures.
Double counting	<ul style="list-style-type: none"> • Correctness and completeness of the information provided whether parts of the program area, or projects in the program area, are included in other GHG initiatives and if this creates a risk of double counting, and/or double payment
Double claiming	<ul style="list-style-type: none"> • If applicable, expert judgement whether the Program and Projects Data Management System is sufficient, secure, and robust • If the ISFL ER Program is not using the World Bank’s transaction registry for FCPF and ISFL ER Programs, expert judgement whether the transaction registry is sufficient, secure, and robust • If applicable, expert judgement of the data management and registry systems to recognize nested projects and avoid multiple claims to ERs
ISFL Reporting	<ul style="list-style-type: none"> • Assess whether the GHG Inventory is comparable in its use of definitions, categories and subcategories with national processes such as the national GHG inventory, REDD+ and the Biannual Update Report • Assess whether the best available data sets, methods, models and assumptions have been used in the ISFL Reporting and that the inventory applies the general IPCC principles of Transparency, Completeness, Consistency, Accuracy and comprehensiveness.

<p>Selection of subcategories for accounting</p>	<ul style="list-style-type: none"> • Correctness and Completeness of the data and information provided on the choice of the subcategories • Assess whether the quality and baseline setting requirements have been applied correctly and the choice of the subcategories is correct and justified • Assess whether all significant pools and sources of Greenhouse Gas Emissions are included. If a major Carbon Pool/or gas is excluded, assess whether this has been sufficiently explained and justified, provided it is not a significant pool.
<p>Emissions Baseline</p>	<ul style="list-style-type: none"> • Assess whether the methods used to construct are in line with the IPCC and best practice approaches as defined, for example by the GFOI • Correctness and Completeness of the data used to construct the Emissions Baseline • Assess whether the baseline requirements have been applied correctly and the Emissions Baseline estimate is calculated correctly
<p>Monitoring and Emission Reduction Estimation</p>	<ul style="list-style-type: none"> • Assess whether the data and methods proposed for monitoring are consistent enough with the data and methods used for the determination of the baseline to allow for meaningful comparison and calculation of the Emission Reductions • Assess whether the proposed monitoring methods and arrangements are in place as described in the Program Document and are technically capable of collecting the data
<p>Uncertainty analysis</p>	<ul style="list-style-type: none"> • Assess whether the Uncertainty in the Emissions Baseline has been correctly identified and assessed in accordance with IPCC good practice • Assess whether the Uncertainty in the data and parameters to be monitored has been correctly identified and assessed and if the proposed approach to manage and reduce Uncertainty reflects good practice
<p>Reversals</p>	<ul style="list-style-type: none"> • Correctness and Completeness of the data and assumption used in the assessment of the Reversal Risk • Assess whether the ISFL Buffer Requirements have been applied correctly

35. The specific objectives of the Verification are:

- a) Review of the ER Monitoring Report and supporting information to confirm the correctness of presented information;
- b) Assess the extent to which the ER Monitoring Report includes a complete and accurate report, to the extent possible, on the implementation of its strategy to mitigate and/or minimize potential Displacement and on any changes in major sources and sinks;
- c) Assess the extent to which reported ERs have been reported with a transparent and coherent step-by-step process that enables reconstruction and have meet the requirements of applicable criteria;
- d) Assess the extent to which the reported GHG Emissions/Emission Reductions are materially accurate, i.e. free of material misstatements, errors or omissions;
- e) Identify sources of Uncertainty due to both random and systematic errors related can impact the estimate of the Total ERs, and determine whether the ISFL ER Program has conducted the Uncertainty analysis in compliance applicable criteria;
- f) Assess the ISFL ER Program monitoring systems and controls to validate that there are controls for sources of potential errors, omissions, and misstatements in place;
- g) Identify components of the monitoring system that require attention and/or adjustment in future monitoring and reporting or identify areas of risk of future non-compliance⁵;
- h) Assess the extent to which the methodologies and methods used to estimate GHG Emissions and Removals during the Reporting Period are consistent with the Emissions Baseline and with the Monitoring Plan as described in the ER-PD;
- i) Determine whether the ISFL ER Program has quantified ERs allocated to the Uncertainty and Reversal Buffer during the Reporting Period in compliance with the applicable criteria;
- j) Assess the extent to which systems to avoid that ERs generated under the ISFL ER Program have not been counted or compensated for more than once have been adequately implemented and confirm that issuance has not occurred in other known registries;
- k) Determine whether the (national) Program and Projects Data Management System is implemented and operated in compliance with the ISFL Program Requirements and other applicable criteria.

⁵ the VVB shall refrain from providing recommendations related to compliance of the applicable criteria

8.3 Criteria

36. The VVB shall complete its Validation/Verification following the general principles set out in Sections 5.

37. The criteria for Validation and Verification are:

- a) The ISFL Program Requirements sections/paragraphs that are applicable for Validation and Verification are presented in the following table.

Table 2. Criteria and Indicators applicable to Validation and Verification.

Paragraph	Topic	Validation	Verification
3.2.5	Displacement	X	X
3.7	Mitigation of risk of double counting and double claiming	X	X
4.1, 4.2, 4.3	ISFL Reporting and selection of subcategories for accounting	X	
4.2 4.4	Emissions Baseline	X	
4.5	Monitoring and Emission Reduction estimation	X	X
4.6	Uncertainty analysis	X	X
4.7.1	Risk of Reversals	X	X
4.7.2-7.4	Addressing Reversals		X

- b) Other applicable Requirements, e.g. Buffer Requirements;
- c) Guidelines contained in the ISFL ER Program Document Template, ER Monitoring Report Template, the Validation Report Template and the Verification Report Template;
- d) For Verification, the validated methodologies and methods used to estimate GHG Emissions and Removals as described in the ISFL ER Program Document;

38. The following documents may be considered as documents that provide acceptable methods for satisfying requirements provided in the above criteria:

- a) 2006 IPCC Guidelines⁶;

⁶ IPCC, "2006 IPCC Guidelines for National Greenhouse Gas Inventories", <https://www.ipcc-nggip.iges.or.jp/public/2006gl/>

- b) 2013 IPCC Wetlands Supplement⁷;
 - c) GFOI 2016 Methods and Guidance Document⁸.
39. In cases where a requirement requires clarification from FMT and/or the Accreditation Body, the VVB shall submit a request for interpretation to FMT and the Accreditation Body and shall include the following:
- a) Name and title of the individual submitting the request for clarification;
 - b) Reference in the documentation, including referenced clauses or section of requirements;
 - c) ER Program Identification (if the clarification is specific to a certain geographic area please specify);
 - d) Needed clarification;
 - e) Proposed interpretation by the VVB.
40. The FMT and Accreditation Body shall review the request for clarification and provide a response to the VVB. FMT and the Accreditation Body may request a meeting to discuss the specific issue requiring clarification.

8.4 Scope

41. The scope of Validation/Verification covers:
- a) The ISFL ERPA Phase of the applicable to the ISFL ER Program;
 - b) The selected Baseline Period (Validation) and the applicable Reporting Period (Verification);
 - c) The ER Program Area as defined in the ER Program's Final ER Program Document (ER-PD);
 - d) The GHG sources and Sinks associated with any of the AFOLU Activities accounted for as required by the Methodological Framework;
 - e) The Carbon Pools and Greenhouse Gases to be accounted for as required by the ISFL Program Requirements;
 - f) The ISFL ER Program's monitoring system as described in the ER Monitoring Report;
 - g) The (national) Programs and Projects Data Management System.

8.5 Materiality level

42. In respect of quantitative matters, discrepancies will be identified and quantified by the audit team based on the audit team's recalculation, based on the guidance found in the indicators in the assessment checklist. Where the methodology used in production of the ER-PD does not follow the guidance in the assessment checklist, a discrepancy between the output produced by the audit team

⁷ IPCC, "2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands", https://www.ipcc-nggip.iges.or.jp/home/docs/wetlands/Wetlands_Supplement_precopyedit.pdf

⁸ GROI, "GFOI 2016 Methods and Guidance Document", <https://www.reddcompass.org/download-the-mgd>

and the information reported in the ER-PD will likely result, and any such discrepancies will be evaluated for materiality according to the following criteria:

- a) A discrepancy in the Program GHG Inventory and/or the process used to select subcategories eligible for ISFL Accounting (including a discrepancy in the ordering of subcategories by total GHG Emissions and Removals on an absolute basis) will be considered material if it results in an incorrect determination of the subcategories eligible for ISFL Accounting.
 - b) A 1.00% materiality threshold applies to any over-estimation of the Emissions Baseline⁹.
43. In respect to reporting of information in the ER-PD or the ER MR Any errors in the reporting of factual information will be considered material if the incorrectly reported information is directly or indirectly required to be reported in the ER-PD by the assessment criteria.
44. Any discrepancies identified as material through application of the applicable criteria will be treated as nonconformities in the assessment process. Any discrepancies not identified as material through application of the above criteria will inherently be considered immaterial. It is possible that discrepancies may be identified that do not need to be corrected immediately but that will require corrective action or mitigation at some later time. Under this situation, a special type of finding, termed an Observation will be issued.

8.6 Uncertainty

45. It may be noted that the concept of materiality, as defined above, is distinct from the concept of uncertainty, which is defined in ISO 14064-2:2006 as “parameter associated with the result of quantification which characterizes the dispersion of the values that could be reasonably attributed to the quantified amount”. There is no inherent relationship between Uncertainty and materiality.¹⁰ To reduce the risk of uncertainty, programs must deposit ERs into the “Uncertainty Buffer”.

⁹ The materiality analysis will be carried out by first calculating the difference between the reported Emissions Baseline and the assessment team’s calculation of the same quantity, and then dividing by the reported Emissions Baseline. If the resulting quantity is greater than 1.00%, the discrepancy is considered material. Otherwise, the discrepancy is not considered material.

Under-estimation of the Emissions Baseline will not be considered a material discrepancy.

¹⁰ Taking the Emissions Baseline as an example, it is possible for an Emissions Baseline to be calculated using highly uncertain data sources and, as such, to have a high degree of associated uncertainty. However, if the audit team is able to replicate the calculation of the Emissions Baseline and confirm that the Emissions Baseline is free from calculation errors and has been calculated in a manner consistent with the indicators in the assessment checklist, the extent of any discrepancy between the Emissions Baseline and the audit team’s recalculation may be quite small.

9. Validation and Verification Planning (ISO 14065:2006, Section 8.3.3)

9.1 General

46. The planning of Validation and Verification of reported ERs shall follow a risk-based approach¹¹ in compliance with *ISO 14064-3: 2006*.

9.2 Risk assessment

47. The VVB shall conduct a risk assessment of the sources and the magnitude of potential errors, omissions, and misstatements as required by *ISO 14064-3: 2006, Section 4.4.1*.

48. The Validation/Verification shall include evidence-gathering activities and techniques as described in *ISO 14064-3:2006*. The VVB shall use amongst others the following evidence to plan the verification:

- a) The ER MR and all supporting documentation including spreadsheets, spatial information, maps and/or synthesized data);
- b) Annex to the MR including information on the Emissions Baseline;
- c) Previous ER MR, Validation and/or Verification Reports
- d) Country visits or, as applicable, field visits¹² and teleconferences with the ISFL Program Participant or other Stakeholders.

9.3 Validation/Verification Plan

49. The VVB shall develop a documented Validation/Verification plan in compliance with ISO 14065:2013 and ISO 14064-3:2006. Additionally, the Validation/Verification plan shall include:

- a) Kick off and closing meeting for each individual ER Program
- b) Desk review
- c) site visit(s) by the Validation/Verification team, including the technical experts.
- d) Interviews with key stakeholders

50. The VVB shall communicate the Validation/Verification plan to the FMT and the ISFL Program, including any further revision.

¹¹ The risk-based approach consists of an auditing approach based on areas of highest perceived risk of material misstatement. Areas that display low complexity or have minimal bearing on the eligibility or quantification of program Emission Reductions should receive lower priority and attention relative to areas with high complexity and significant implications for program eligibility or Emission Reductions. More information on this approach may be found at <https://americancarbonregistry.org/carbon-accounting/verification/acr-vv-guideline-v1-1.pdf/view> or <http://www.climateactionreserve.org/wp-content/uploads/2017/02/2017-Verification-Program-Manual.pdf>

¹² Most ER Programs, reported Emission Reductions will rely on Activity Data estimates through Earth Observation data obtained in a centralized Forest Monitoring System with few field data.

51. The Validation/Verification plan shall be revised as necessary during the course of the audit process. The VVB shall communicate the Validation and Verification plan at the start of the beginning of the Validation/Verification and the revised version at the conclusion. The initial Validation/Verification plan shall be provided to the FMT and the ISFL Program Participant no later than 15 days before the Validation/Verification start date.

9.4 Sampling Plan

52. The VVB shall develop a sampling plan or evidence-gathering plan based on the results of the risk assessment and in compliance with ISO 14065:2013 and ISO 14064-3:2006. This sampling plan shall include a plan for sampling sources of errors to assess the degree to which they are free of material errors, mistakes, and misstatements. The sampling plan shall take into account:

- a) The basis of Validation/Verification agreed, i.e. level of assurance, materiality threshold, scope, and criteria;
- b) The assessment of 'inherent risk', 'risk of control failure' and the 'risk of detection' for all possible measured, estimated or calculated parameters;
- c) amount and type of evidence (qualitative and quantitative) necessary to achieve the agreed level of assurance, including an indication on whether sampling will be used to detect a material error, mistake or misstatement;
- d) when sampling is applied, methodologies for determining representative samples.

10. Validation and Verification Process

10.1 Validation and Verification (ISO 14065:2013, section 8.4)

53. The VVB shall perform Validation and Verification activities following the requirements of ISO 14065:2013 and ISO 14064-3:2006.

10.2 Evaluation of the GHG Assertion (ISO 14064-3:2006, Section 4.8)

54. The VVB shall evaluate whether the evidence collected in the assessments is sufficient and if it supports the GHG assertion made by the ER Program. The VVB shall consider materiality in evaluating the collected evidence.

55. Based on this evaluation, the VVB shall conclude whether or not the GHG assertion is without material discrepancy, and whether the Validation/Verification activities provide the level of assurance established in Section 8.1. In line with ISO14065:2013, conclusions on the GHG assertion shall be drawn by a person(s) different from those who conducted the Validation/Verification activities.

56. In case the ISFL Country Participant amends the GHG assertion, the VVB shall evaluate the modified GHG assertion to determine whether the evidence supports the modified GHG assertion.

10.3 Assessment of Monitoring System

57. For Validation and Verification, the VVB shall assess the Forest Monitoring System of the ER Program and its controls for sources of potential errors, omissions, and misstatements. For this, the VVB shall consider:
- a) The selection and management of GHG related data and information;
 - b) Processes for collecting, processing, consolidating and reporting GHG data and information;
 - c) Systems and processes that ensure the Accuracy of the data and information;
 - d) Design and maintenance of the monitoring system;
 - e) Systems and processes that support the monitoring system, including Standard Operating Procedures and QA/QC procedures;
 - f) Results of previous assessments, if available and appropriate.

11. Issuing Non-Compliances & Observations

58. The VVB shall, after the desk review and after the country or field visit (as applicable), issue a list of findings including the list of observed non-compliances and clarifications. While doing so it shall refer to the specific requirement, the objective evidence used to raise the finding and the description of the finding. The VVB shall use the following gradation to identify the level of non-compliance:
- a. **Non-Conformity Request (NCR)** shall be issued when (1) a clear non-conformity with respect to a specific requirement or (2) a material discrepancy. Closure of an NCR required that the VV team be provided with evidence that the underlying issue resulting in issuance of the NCR had been duly addressed.
 - b. **New Information Requests (NIR)** shall be issued when the VV team determines that they have not been furnished with sufficient information to make a decision regarding conformance, a New Information Request (NIR) will be issued. After the response is received, the VV team will evaluate the submission and determine if adequate information has been provided or if additional findings (NIR, NCR, OBS) should be issued.
 - c. **Observations (OBS)** shall be issued where:
 - i. An area where immaterial discrepancies existed between the observations, data testing results or professional judgment of the VVB team and the information reported or utilized (or the methods used to acquire such information) within the ER-PD/ER MR.
 - ii. An area where the expert judgement of the VVB team suggested that there were opportunities for improvement in the areas falling within the assessment scope.
 - iii. An area which presented a risk of future non-conformance.
59. The VVB shall make sure that:
- a. all NCR and NIR are suitably closed out by the ISFL Program Participant prior to issuing a positive Validation/Verification opinion;

- b. all OBS issued at Verification shall be suitably closed out by the ISFL Program Participant at the time of the next Verification.

12. Validation/Verification statement

12.1 Review and Issuance of the Validation/Verification statement (ISO 14065:2013, Section 8.5)

60. Technical Review: In addition to the requirements of ISO 14065:2013 and ISO 14064-3, the individual(s) conducting the Technical Review shall evaluate Validation/Verification records to determine if the VV team collected sufficient evidence to support the conclusion.

12.2 Content of the Validation/Verification statement

61. The Validation/Verification Statement issued by the selected VVB shall include, at a minimum, the following elements as required by the Validation Report and Verification Report Templates:
- a) A description of the level of assurance, scope, criteria and materiality level applied;
 - b) A description of the activities undertaken as part of the Validation/Verification including the evidence-gathering procedures used to assess the GHG assertion;
 - c) An overview of the findings of the Validation/Verification concerning how the ER Program meets the applicable criteria, including information on how any non-conformities were addressed;
 - d) A description of opportunities for future technical improvements in the form of Observations;
 - e) A VVB's opinion on the Accuracy and Completeness of the ER-PD/ER Monitoring Report;
 - f) A VVB's opinion, addressed to the ISFL, on the GHG assertion whether representing a positive or negative opinion; and
 - g) A statement of the quantity of Baseline Emissions and the Total ERs, Buffer ERs and Net ERs that the ER Program has generated during the relevant Reporting Period.

12.3 Facts discovered after the Validation and Verification statement (ISO 14065:2013, Section 8.7)

62. In addition to the requirements of ISO 14065:2013, the VVB shall:
- a) Evaluate the facts to determine if they could materially affect the Validation or Verification statement;
 - b) Evaluate the facts to determine if they could materially affect the buffer pool;
 - c) Communicate the results to the FMT.
63. Appeals (ISO 14065:2006, Section 9) against a VVB decision related to the Validation/Verification of an ER program shall be handled in accordance with the VVB's internal policy. The results of the appeal are made available to both FMT and the Accreditation Body.

64. Complaints (ISO 14065:2013, Section 10). VVBs shall actively cooperate with the FMT during the management of complaints related to the VVB or complaints received against the ER program raised by stakeholders. The resolution of complaints shall be made available to the FMT and the Accreditation Body.

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