



Validation and Verification Guidelines

Version 2.4

August 2021

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1. Introduction

1. These Validation and Verification Guidelines (VVG) provide a set of requirements to ensure that the Validation and Verification criteria of the Forest Carbon Partnership Facility Carbon Fund (FCPF CF) 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 Guidelines is to:
 - a) Enhance the overall integrity and transparency of the FCPF Carbon Fund;
 - b) Establish the accreditation requirements for Validation and Verification Bodies (VVBs).
 - c) Provide clarity on the Validation and Verification process of the FCPF Carbon Fund; and
 - d) Improve the consistency, quality, and transparency in the preparation, execution, and reporting of validations and verifications under the FCPF Carbon Fund.

3. References

3. The following documents should be used as normative references for the application of the VVG:
 - a) FCPF Methodological Framework: Provides the overarching requirements for ER programs;
 - b) Buffer Guidelines: Provides the procedures for managing uncertainty and reversal management mechanism of ER Programs;
 - c) Guidelines on the application of the MF: Guidelines that provide supplementary information on the application of the Methodological Framework;
 - d) Process Guidelines: Provides the procedures for the ER program cycle and defines procedures to approve normative documents;
 - e) ISO 14064-3:2006 – Greenhouse Gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions;
 - f) ISO 14065:2013 – Greenhouse Gases – Requirements for greenhouse gas validation and verification bodies for use in recognition and other forms of recognition;
 - g) ISO 14066: 2011 – Greenhouse Gases – Competence requirements for greenhouse gas validation teams and verification teams;
 - h) 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 FCPF processes and provides pre-defined fields and provides specific Guidelines:
 - a) Emissions Reductions Monitoring Report: Form and guidance to help REDD Country Participants to prepare a monitoring report describing the Reference Level and the results of the applicable Reporting Period;
 - b) Validation and Verification Report Template: Form and guidance to help VVBs to prepare the Validation and Verification Report.

4. Glossary of Terms and Definitions

5. For the purposes of the VVG, the terms and definitions described in the FCPF Glossary of Terms shall apply. In addition to definitions in the FCPF 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 user;²
 - b) Completeness: include all relevant GHG emissions and removals, and all relevant information to support criteria and procedures;
 - c) Consistency: enable meaningful comparisons in ER Program-related information;
 - d) Accuracy and conservativeness: Estimations should be neither over- nor underestimated 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 ER Program-related information truthfully to allow intended users to make decisions with reasonable confidence.

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.

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: <<http://www.iso.org>>. Copyright remains with ISO.

² “Intended users” include REDD Country Participants, VVBs, the FMT, buyers of Emission Reductions and local and other stakeholders.

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 member of IAF and that provides accreditation services to VVBs to assess GHG assertions in the land use and forestry sector. The FCPF Carbon Fund may submit a request for proposals from accredited VVBs for the purpose of conducting country-specific Validation and Verification engagements.³
9. FCPF CF Facility Management Team administers the FCPF's Carbon Fund. The FMT oversees the Validation and Verification process to ensure that all FCPF operations comply with applicable World Bank Group Policies and the Carbon Fund requirements. The FMT has several functions, *inter alia*:
 - a) Proposal of any normative document to the FCPF 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 REDD Country Participant;
 - e) Review of the Validation and Verification reports;
 - f) Management of the Carbon Asset Trading System, i.e. FCPF transaction registry.
10. The overall Validation and Verification process including steps is described in the FCPF Process Guidelines. Validation will occur concurrently to the first Verification, and the number of Verifications will depend on the number of Reporting Periods defined by each ER Program approved by the FCPF Carbon Fund.⁴ There should be at least two Reporting Periods and associated Verifications during the defined ER Program's Crediting Period, and the last Reporting Period (and Crediting Period) cannot be later than 31 December 2024. Upon the closure of the FCPF Carbon Fund on 31 December 2024, ER Programs may discontinue or may transition to another GHG Program.

7. Validation and Verification Requirements

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

11. 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, and shall have a legally enforceable agreement with the client, i.e. The World bank.
12. The VVB shall retain authority and responsibility for the validation and verification statements and shall have agreement from the REDD+ Country Participant on matters required under its accreditation.⁵

³ Accreditation bodies wishing to be selected to provide accreditation services under the FCPF will need to apply in written form to the FCPF Secretariat fcpfsecretariat@worldbank.org. The accreditation body and the FCPF Secretariat would then establish a communication and coordination mechanism to ensure the successful application of the requirements defined in the VG.

⁴ ER Programs have been approved by the FCPF governance after a due diligence conducted by the World Bank which included a Technical Assessment by a Technical Advisory Panel of the ER Program Documents against the FCPF Methodological Framework.

⁵ This is to ensure that the Accreditation Body has the right to access the ER Program information to facilitate the assessment of the VVB.

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

13. Validation and Verification under the FCPF requires a high level of neutrality and independence, and the selected VVB shall act impartially and shall avoid unacceptable conflicts of interest.
14. The VVB shall not take over any delegated activities from the ER program with regard to the preparation of the Monitoring Plan and estimated Emission Reductions.
15. If the VVB has performed a Validation/Verification of the ER program and wishes to perform the Verification for the same ER Program, it shall obtain authorization from the FMT.

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

16. Validations and Verifications shall be conducted under the World Bank contract and 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 VVB (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 VVB (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)

17. 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)

18. 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 FCPF program.

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

- 19. The Validation/Verification team as a whole and the technical reviewer⁶ shall demonstrate knowledge of the FCPF Carbon Fund as well as the following skills and competences:
 - a) Expertise in the forestry sector and REDD+ in REDD+ countries;⁷
 - b) Expertise in assessing GHG assertions and emission reductions in the forestry 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+;
 - f) Documented expertise in statistics applied to forest resource assessments and forest inventories;
 - g) Documented relevant experience in REDD+ GHG accounting for not less than three years;
 - h) Documented expertise in remote sensing and GIS applied to forest 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.
- 20. 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.
- 21. The FMT may require members of the Validation-Verification team to attend webinars and learning sessions in addition to complete an exam.⁸ The attendance to these sessions and successful completion of the exam is mandatory for those team members intending to conduct Validation and Verification under the FCPF.

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

- 22. The VVB shall guarantee the inclusion of the following roles and competences in the Validation/Verification teams:
 - a) Team Leader and Technical 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
 - iv. Knowledge of greenhouse information and data management systems and controls, including quality assurance and quality control techniques
 - b) Technical Expert(s):⁹

⁶ Called Peer reviewer under ISO 14064 – 3. Competences can be filled by more than one person.

⁷ VVB' team should engage a local forest expert to support the assessment process especially when a country visit can not be performed.

⁸ The virtual exam aims at identifying if VV team members are fully familiarized with the FCPF requirements, normative documents and with the scope of the validation/verification. The logistics for the exam will be organized by the FMT.

⁹ 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.

- i. Documented expertise in statistics applied to forest resource assessments and forest inventories; and
- ii. Documented experience in REDD+ GHG accounting for not less than 3 years; and
- iii. Documented expertise in remote sensing and GIS applied to forest cover change assessments in REDD+ Countries.

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

- 23. 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.
- 24. Evidence of the above competencies shall include evidence of relevant professional experience, complemented by appropriate training and education credentials.

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

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

7.10 Outsourcing (ISO 14065:2013, section 6.6)

- 26. 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)

- 27. 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
- 28. 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)

- 29. 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 FCPF requirements.

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

- 30. 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)

- 31. The level of assurance shall be reasonable, with respect to material misstatements, errors or omissions.¹⁰

8.2 Objectives

- 32. The general objectives for both Validation and Verification are:
 - a) Review of the ER Monitoring Report and supporting information to confirm the correctness of presented information;¹¹
 - b) Identify if the methodological steps and data are publicly available in accordance with applicable criteria;
 - c) Assess whether the start date of the crediting period proposed by the ER Program is in compliance with the definition provided in the FCPF Glossary of terms;
 - d) Assess the extent to which reported ERs /Reference Level¹² have been reported with a transparent and coherent step-by-step process that enables reconstruction and have meet the requirements of applicable criteria;
 - e) Assess the extent to which the reported GHG emissions / Emission Reductions / Reference Level (or the revised Reference Level if technical corrections are applied¹³) is materially accurate, i.e. free of material misstatements, errors or omissions;
 - f) Identify source(s) of Uncertainty due to both random and systematic errors related with the Reference Level setting and any sources of bias that can impact the estimate of the Total ERs, and determine whether the ER Program has conducted the Uncertainty analysis in compliance applicable criteria;¹⁴
 - g) Assess the Forest Monitoring System of the ER Program and validate that there are controls for sources of potential errors, omissions, and misstatements in place;

¹⁰ It is expected that VVBs will be able to reach a reasonable level of assurance. Emission reductions reported by ER programs will mostly rely on activity data estimated based on satellite-based data obtained via sampling, as emission factors are generally fixed in the Final ER-PD. VVBs may reach a reasonable level of assurance in this case by assessing the extent to which the activity data collection and estimation has been implemented in accordance with REDD Country Participant's Standard Operating Procedures and QA/QC Procedures.

¹¹ Although the ER-PD provides information on the Program design, REDD Country Participants will provide a description to the RL as an annex to the ER MR of the first Reporting Period.

¹² Only applicable to Validation. Reference Levels will be reported in the ER Monitoring Report. Reference Levels may be exactly the same as described in the ER-PD, but if Technical Corrections have been applied, the Reference Level described in the ER Monitoring Report will be the modified version not consistent with the ER-PD. The Guidelines on the application of the methodological framework Number 2: Guidance on Technical corrections to GHG emissions and removals reported in the reference period is available in the FCPF requirements page <https://www.forestcarbonpartnership.org/requirements-and-templates>

¹³ Only applicable to the first verification.

¹⁴ VVBs are expected to use the guideline on uncertainty analysis of emission reductions.

- h) Identify components of the Forest Monitoring System that require attention and/or adjustment in future monitoring and reporting or identify areas of risk of future non-compliance;¹⁵
33. The specific objectives for extended Validation are:
- a) Determine that the ER Program’s scope in terms of sources, sinks and carbon pools is in accordance with the applicable Validation criteria;
 - b) Assess whether the ER Program’s methods are in accordance with applicable Validation criteria as the latest IPCC Guidelines;
 - c) Assess if the Reference level is in accordance with applicable Validation criteria.
34. The specific objectives of the Verification are:
- a) Assess the extent to which the methodologies and methods used to estimate GHG emissions and removals during the Reporting Period are consistent with the Reference Level and with the Monitoring Plan as described in the ER Monitoring Report;
 - 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 on changes in major drivers in the ER Accounting Area;
 - c) Assess the extent to which the ER Monitoring Report contains a complete and accurate report on the mitigation, to the extent possible, of significant risks of Reversals identified in the assessment, and addresses the sustainability of ERs;
 - d) Determine whether the ER Program has quantified ERs allocated to the Uncertainty, Reversal, and Pooled Reversal Buffer during the Reporting Period in compliance with the Methodological Framework and other applicable criteria;
 - e) Assess the extent to which systems to avoid that ERs generated under the 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;
 - f) Determine whether the national or centralized REDD+ Programs and Projects Data Management System are implemented and operated in compliance with the Methodological Framework and other applicable criteria.
35. ER Programs wishing to generate CORSIA¹⁶ eligible Emissions Units” (as defined under CORSIA) shall be subject to a Validation with extended objectives, i.e. covering objectives specified in paragraph 32 and 33. Objectives in paragraph 33 shall not apply to Validation of all other ER programs.

8.3 Criteria

36. The VVB shall complete its Validation/Verification following the general principles set out in Section 5.
37. The criteria for Validation, Validation with extended objectives, and Verification are:
- a) The Methodological Framework’s criteria and indicators that are applicable for Validation, extended Validation and Verification are presented in the following table. Paragraph 32, 33 and 34 clarify the application of the different criteria and indicators to Validation and Verification.

¹⁵ the VVB shall refrain from providing recommendations related to compliance of the ER Program with requirements of the Carbon Fund

¹⁶ CORSIA is the Carbon Offsetting Scheme for International Aviation, ICAO

Table 1. Criteria and Indicators applicable to Validation and Verification.

Criteria / Indicators	Topic	Validation	Validation -Extended	Verification
3	Scope and methods		X	
4	Carbon pools and GHG		X	
5	IPCC guidelines		X	
6	Data availability	X	X	X
7, 8, 9.1	Identification and address source(s) of uncertainty	X	X	X
9.2, 9.3	Estimation of residual uncertainty			X
10-13	Reference level		X	
14.1	Consistency of monitored estimates with RL.			X
14.2, 14.3	Robust Forest Monitoring System		X	
15	National Forest Monitoring System		X	
16	Community participation in Monitoring and Reporting		X	
17.3, 17.4	Monitoring and reporting of displacement mitigation			X
18.2	Addressing reversals			X
19	Account for reversals			X
22	Calculation of Emission Reductions.			X
23	Double counting			X
37	REDD projects and programs DMS			X

- b) Other applicable Guidelines,¹⁷ e.g. Buffer Guidelines, Guidelines on the application of the MF;
 - c) Guidelines contained in the 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 Reference Level annex of the ER Monitoring Report;
38. The following documents may be considered as documents that provide acceptable methods for satisfying requirements provided in the above criteria:
- a) 2006 IPCC Guidelines;¹⁸
 - b) 2013 IPCC Wetlands Supplement;¹⁹
 - c) 2019 refinement to the 2006 IPCC Guidelines;²⁰
 - d) GFOI 2016 Methods and Guidance Document;²¹
 - e) FCPF Guidance Notes;²²
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;

¹⁷ <https://www.forestcarbonpartnership.org/resources>

¹⁸ <https://www.ipcc-nggip.iges.or.jp/public/2006gl/>

¹⁹ https://www.ipcc-nggip.iges.or.jp/home/docs/wetlands/Wetlands_Supplement_precopyedit.pdf

²⁰ <https://www.ipcc-nggip.iges.or.jp/public/2019rf/index.html>

²¹ <https://www.reddcompass.org/actions>

²² <https://www.forestcarbonpartnership.org/resources>

- 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. If the FMT deems that the clarification is needed for other VVBs, the FMT will publish the clarification as a program announcement.²³

8.4 Scope

41. The scope of Validation/Verification covers:
- a) The Crediting Period of the FCPF program applicable to the ER Program;
 - b) The selected Reference Period (Validation) and the applicable Reporting Period (Verification);
 - c) The ER Program Accounting 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 REDD+ Activities accounted for as required by the Methodological Framework;
 - e) The Carbon Pools and greenhouse gases to be accounted for as required by the Methodological Framework;
 - f) The REDD Country Participant’s Forest Monitoring System as described in the ER Monitoring Report;
 - g) The national or centralized REDD+ Programs and Projects Data Management System.

8.5 Materiality level

42. The threshold for quantitative materiality concerning the aggregate of misstatements, errors or omissions relative to the total reported GHG emissions and removals or emission reductions shall be 1%.
43. Qualitative and quantitative materiality refers to “errors”, “omission” and “misrepresentation” that either individually or in the aggregate form affect the GHG assertion. The following criteria have been determined for the assessment of whether a given discrepancy is material:
- a) Qualitative issues related to management system and controls, poorly managed documentation, and non-compliance with the applicable requirements of the Methodological Framework and other applicable criteria;
 - b) Any errors in reporting factual information in the ER Monitoring Report as required by the FCPF Methodological Framework;
 - c) A 1% materiality threshold applies to any over-estimation of Reference Level and ERs. Under-estimation of the Reference Level or Emission Reductions will not be considered a material discrepancy.
44. Any material discrepancy identified by the VVB through the application of the above criteria will be considered as non-conformities as described in Section 11.

²³ <https://www.forestcarbonpartnership.org/requirements-and-templates#remf011>

8.6 Uncertainty

45. Uncertainty is the level of statistical uncertainty related to the estimation of ERs to be generated during the Crediting Period under the ER Program which accounts for, among others, errors related to Reference Level estimation, GHG emission monitoring and ER estimation. There is no inherent relationship between uncertainty and materiality. To reduce the risk of uncertainty, programs must deposit ERs into the “Uncertainty Buffer”.

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 approach²⁴ 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 Reference Level;
 - c) Previous ER MR, Validation and/or Verification Reports, and the Technical Assessment Report prepared by the TAP as part of the FCPF’s ER Program approval process, and all supporting documentation (including spreadsheets, spatial information, maps, and/or synthesized data);
 - d) Country visits or, as applicable, field visits²⁵ and teleconferences with the REDD Country Participant or other Stakeholders.
49. The Technical Assessment Reports of the relevant ER Program and the recommendations made in the relevant Carbon Fund Meeting Chair’s Summary should serve as background information for the Validation and first Verification. Several opportunities for improvement have been identified in these documents and could serve as additional information to understand inherent errors and management controls and guide the VVBs assessment.

9.3 Validation/Verification Plan

50. 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) site visit(s) by the Validation/Verification team, including the technical experts.
51. The VVB shall communicate the Validation/Verification plan to the FMT and the REDD Country Participant, including any further revision.

²⁴ 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>

²⁵ 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.

52. 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 REDD Country Participant no later than 15 days before the Validation/Verification start date.

9.4 Sampling Plan

53. 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 source(s) 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.

54. The sampling plan shall only be shared with the FMT.

10.Validation and Verification Process

55. The Validation and Verification process is a multistep process which begins after the finalization of the completeness check by the FMT and it ends upon the issuance of the Final Validation and Verification Reports for completeness check by the FMT. Refer to the Process Guidelines for further details.

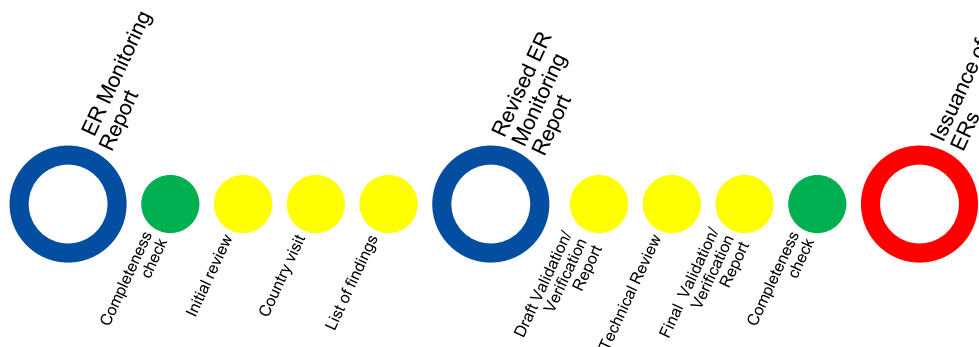


Figure 1. Summary of the Validation and Verification Process. In yellow, activities conducted by the VVB.

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

56. 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)

57. 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.
58. 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.
59. In case the REDD 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 Forest Monitoring System

60. 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 Forest Monitoring System;
 - e) Systems and processes that support the Forest Monitoring System, including Standard Operating Procedures and QA/QC procedures;
 - f) Results of previous assessments, if available and appropriate.

11. Issuing Non-Compliances & Observations

61. The VVB shall, 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. MAJOR Corrective Action Request (MCAR) shall be issued where:
 - i. the evidence provided to demonstrate conformity is insufficient, unclear or not transparent and may lead to a material error, omission or misstatement, and/or a breakdown in the systems delivery;
 - ii. underlying assumptions used to develop the reported estimates²⁶ are not supported by data;
 - iii. material errors, omissions or misstatements have been made in applying assumptions, in data or calculations;
 - iv. non-compliance with Validation and Verification criteria;
 - v. the REDD+ Country Participant has failed to implement or made inadequate progress with the mCARs from the previous verification;
 - b. MINOR Corrective Action Requests (mCAR) shall be issued where:

²⁶ i.e. Reference Level, GHG emissions in Reporting Period or Emission Reductions

- i. the evidence provided to demonstrate conformity is insufficient, unclear or not transparent, but does not lead to a material error, omission or misstatement, and/or a breakdown in the systems delivery;²⁷
 - ii. non-material errors, omissions or misstatements have been made in applying assumptions, in data or calculations;²⁸
 - c. Observations (OBS) shall be issued where:
 - i. there is no objective evidence to prove that there is a non-conformity, but the VVB observes practices and/or methods that could result in future MCAR and mCAR;
 - ii. the VVB wishes to identify an area of the Forest Monitoring System that requires attention and/or adjustment in future monitoring and reporting.²⁹
62. The VVB shall make sure that:
- a. all MCARs are suitably closed out by the REDD Country Participant prior to issuing a positive Validation/Verification opinion;
 - b. all mCARs issued at Verification shall be suitably closed out by the REDD Country Participant at the time of the next Verification;
 - c. all mCARs issued at Validation shall be suitably closed out by the REDD Country Participant at the beginning of subsequent Crediting Period.³⁰

12.Validation/Verification statement

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

63. 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

64. 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 to the Forest Monitoring System in the form of Observations;
 - e) A VVB's opinion on the accuracy and completeness of the ER Monitoring Report;
 - f) A VVB's opinion, addressed to the FCPF Carbon Fund, on the GHG assertion whether representing a positive or negative opinion; and

²⁷ For instance, the REDD Country Participant might be using a protocol for collecting the data that has some defects, but it enables nonetheless to collect data that is free of material misstatements.

²⁸ Any non-material error, omission and misstatement should be corrected as far as practical.

²⁹ the VVB shall refrain from providing recommendations related to compliance of the ER Program with requirements of the Carbon Fund.

³⁰ At the time of the current version of the VVG the FCPF only considers one Crediting Period.

- g) A statement of the quantity of Total ERs, Buffer ERs and Net ERs that the ER Program has generated during the relevant Reporting Period.³¹

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

- 65. 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.
- 66. 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.
- 67. 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.

³¹ Only applicable to Verification.

Annex – Additional Guidelines for VVBs

Audit planning

1. In addition to the sampling, validation, and verification plan requirements stated in ISO 14065:2013 and ISO 14064-3:2006, the VV team shall include and document the following in their planning process:
 - a. **Sampling plan** – The sampling plan shall include an evaluation of all source(s) of uncertainty presented in Table 1 and evaluation of the uncertainty of the estimate of emissions reductions (section 2.2). The risk assessment used to develop the sampling plan shall clearly document the risk (inherent, control, detection) for each element of the project and how the sampling plan was developed to address the source(s) and types of risk. The sampling plan shall document which validation/verification team member(s) is responsible for evaluating each element of the project.
 - b. **Validation plan** – The validation plan shall include a detailed list of the ER program components that will be evaluated and shall include an evaluation of the processes and systems designed to support the development of the ERPD. The validation schedule shall reflect the estimated time required to complete the sampling plan.
 - c. **Verification plan** – The verification plan shall include a detailed list of the ER program components that will be evaluated, including the estimation of uncertainty and the propagation of uncertainty through the ER estimates. The verification schedule shall reflect the estimated time required to complete the sampling plan.
2. Amendments to the sampling and validation/verification plans, including justification for the change, shall be documented. All versions (e.g. original approved plan and any revisions) shall be saved as different versions. The final version of the plans shall be documentary in nature and be revised to reflect the process at the conclusion of the validation or verification.

Document information

Version	Date	Description
2.4	August 2021	<p>The following changes were made:</p> <ul style="list-style-type: none"> • The accreditation requirements for VVBs provided in Section 6 were clarified. • Clarification was made in Section 7.1 regarding who is the “client” and the need to facilitate the accreditation body’s work. • The term Independent Reviewer has been replaced by Technical reviewer or VVB where applicable. • It has been clarified in Section 7.6 that the VVB team should include a local forest expert. • The terms full and partial Validation were removed and additional clarifications on the applicable criteria to validation and verification were included to Section 8.3. • Clarifications have been made in Section 9.4 regarding the sharing of the sampling plan.
2.3	March 2021	<p>Changes made:</p> <ul style="list-style-type: none"> • Reference to the 2019 refinement to the IPCC Guidelines has been included. • Validation of crediting period start date included under objectives. • VV team members now required to undergo a training and exam.
2.2	November 2020	Annex was revised to remove information on the evaluation of uncertainty analysis as this has been superseded by the Guidelines on Uncertainty Analysis of Emission Reductions.
2.1	June 2020	Annex including additional guidance for the preparation of sampling plans and the evaluation of the uncertainty assessment.
2	April 2020	<p>Version approved virtually by Carbon Fund Participants. Changes made:</p> <ul style="list-style-type: none"> • Inclusion of more requirements related to Administration and Validation/Verification • Inclusion of Validation into the Validation and Verification Guidelines.

		<ul style="list-style-type: none">• Revised the definitions of Major and Minor Corrective Action Requests.
1	26 September 2019	The initial version approved by Carbon Fund Participants during a three-week non-objection period.