Verification Guidelines

Version 1.0

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1. Introduction

1. These Verification Guidelines (VG) define the requirements for Verification of Emission Reduction Programs ("ER Program") under the Forest Carbon Partnership Facility Carbon Fund (FCPF CF).
2. The objective of the Verification Guidelines is to:
   a) Enhance the overall integrity of the FCPF Carbon Fund;
   b) Provide clarity on the minimum requirements for Verification under the FCPF Carbon Fund;
   c) Improve the consistency, quality and transparency in the preparation, execution and reporting of verifications under the FCPF Carbon Fund.

2. Normative references

3. Normative documents intend to set rules required to be complied with by ER programs and that are applicable for verification are the latest versions of the following:
   a) FCPF Methodological Framework: Provides the overarching guidance and act as a standard that is designed to achieve a consistent approach to carbon accounting and programmatic characteristics.
   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 from ER-PIN submission to payment of Emission Reductions.

4. Additionally, applicable templates are used to capture data or information required in the FCPF processes and provides pre-defined fields and specific guidance:
   a) ER Monitoring Report: Form and guidance to help REDD Country Participants to prepare a monitoring report describing the results of the applicable Reporting Period.
   b) Verification Report Template: Form and guidance to help Independent Reviewers to prepare the Verification Report.

3. Terms and Definitions

5. For the purposes of the VG, the terms and definitions described in the FCPF Glossary of Terms shall apply.

4. Verification process

6. The overall verification process including steps is described in the FCPF Process Guidelines. Other details on the verification process are provided in Section 7.

5. Requirements for Independent Reviewers

5.1 Accreditation

7. The Independent Reviewer shall be accredited under ISO 14065 for scope ISO 14064-2, specifically for Land Use and Forestry and the FCPF Carbon Fund[1], by an Accreditation Body that is a member of the International Accreditation Forum.

5.2 Technical Competence

8. The Independent Reviewer shall meet the requirements on Competence set out in ISO 14065 and in the following paragraphs.
9. The Independent Reviewer shall possess the relevant technical competences to perform verifications under the FCPF Carbon Fund. The verification team collectively shall have the following skills and competences:
   a) expertise in the forestry sector and/or REDD+ in REDD+ Countries; AND
   b) expertise in assessments of GHG assertions and emission reductions in the forestry sector; AND
   c) expertise in assessing GHG assertions and emission reductions at a national or jurisdictional scale;
   d) expertise on the IPCC Guidelines and guidance and GFOI Methods and Guidance Document.
10. The Independent Reviewer shall guarantee the inclusion of the following roles and competences in their verification teams:
    a) Team Leader:
       i. proven experience in leading and managing audit teams for not less than 2 complete audits; AND
       ii. proven expertise in auditing of data and information; AND
       iii. proven expertise to perform verifications of GHG assertions; AND
       iv. proven experience for not less than three complete audits of projects or programs in the forestry-sector and/or REDD+.
    b) Technical Expert(s)[2]:
       i. proven expertise in statistics applied to forest resource assessments and forest inventories; AND
       ii. proven relevant experience in REDD+ GHG accounting for not less than 3 years; AND
       iii. proven expertise in remote sensing and GIS applied to forest cover change assessments in REDD+ Countries.
    c) Technical Reviewer[3]:
       i. proven expertise to perform verifications of GHG assertions; AND
       ii. proven experience for not less than three complete audits of projects or programs in the forestry-sector and/or REDD+; AND
       iii. proven relevant experience in REDD+ GHG accounting for not less than 3 years;
       iv. proven expertise in statistics applied to forest resource assessments and forest inventories; AND

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[1] Accreditation bodies wishing 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.

[2] These competences may be covered by more than one Technical Expert or completely or partially by the Team Leader.

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

v. proven relevant experience in REDD+ GHG accounting for not less than 3 years; AND

vi. proven expertise in remote sensing and GIS applied to forest cover change assessments in REDD+ Countries.

11. The Independent Reviewer 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.
12. Expertise may be justified through experience, training or a combination of both experience and training.

5.3 Independent Reviewer Team

13. The different members of the team of Independent Reviewers will be involved in the different activities of verification as set out in the table below.

Table 1. Required competencies for each team member

Role	Competences	Activities				
		Desk review	Site visit	Reporting	Supervision	Technical review
Team Leader	• Team leading • Verification • Auditing forestry sector / REDD+	X	X	X	X	
Technical Expert(s)	• Forestry statistics • REDD+ Carbon accounting • Remote sensing and GIS in REDD+ Countries	X	X	X		
Technical Reviewer	• Verification and auditing • Forestry statistics • REDD+ Carbon accounting • Remote sensing and GIS in REDD+ Countries					X

5.4 Conflict of Interest

14. Verification under the FCPF requires a high level of neutrality and independence, and the selected Independent Reviewer shall act impartially and shall avoid unacceptable conflicts of interest.
15. The Independent Reviewer shall meet the requirements on impartiality set out in ISO 14065.

5.5 Liability of Independent Reviewers

16. The Independent Reviewer shall demonstrate that it has evaluated financial risks associated with its activities and has arrangements (e.g. insurance, reserves) sufficient to cover liabilities arising from the activities in accordance to ISO 14065.
17. Verifications will be conducted under 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"), Independent Reviewers providing Services in the United States and all Contractors and Subcontractors incorporated in the United States should have a 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 Independent Reviewer 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 Independent Reviewer 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.

6. Principles

6.1 General Principles

18. The Independent Reviewer shall adhere to the following principles in its verification: relevance, completeness, consistency, accuracy and conservativeness and transparency:[4]
    a) Relevance: select the GHG sources, GHG sinks, GHG reservoir, data and methodologies appropriate to the needs of the intended user [5].
    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 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 ER Program-related information in a truthful manner to allow intended users to make decisions with reasonable confidence.

6.2 Principles Applicable to Independent Reviewers

19. In line with the ISO 14064-3, when carrying-out verification, Independent Reviewers shall apply the following general principles:
    a) Impartiality: Remain independent of the activity being verified, and free from bias and conflict of interest. Maintain objectivity throughout the verification to ensure that the findings and conclusions will be based on objective evidence generated during the verification process.
    b) Ethical conduct: Demonstrate ethical conduct through trust, integrity, confidentiality and discretion throughout the verification process.

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[4] 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.

[5] "Intended users" include REDD Country Participants, Independent Reviewers, the FMT, buyers of Emission Reductions and local and other stakeholders.

c) Evidence-based approach: Ensure the verification engagement employs a rational method for reaching reliable and reproducible verification conclusions and is based on sufficient and appropriate evidence.
d) Fair presentation: Reflect truthfully and accurately verification activities, findings, conclusions and reports.
e) Documentation: Document the verification and ensure it establishes the basis for the conclusion and conformity with the criteria.
f) Conservativeness: When assessing comparable alternatives, use a selection that is cautiously moderate.
g) Confidentiality: Ensure that confidential information obtained or created during verification activities is safeguarded and not inappropriately disclosed.
h) Due professional care: Independent Reviewers 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.

7. Verification basis

7.1 Objectives

20. Verification is the periodic assessment by an Independent Reviewer of the amount of ERs generated by the ER Program since the last Verification Report or, in the case of the first Verification, since the ER Program Start Date in accordance with the REDD Country Participant's MRV System and the Methodological Framework, and includes the written assurance by the Independent Reviewer that during the relevant Reporting Period the ER Program Measure(s) have achieved the ERs as reported in the Verification Report.
21. The objectives of the verification are to:
    a) Assess the extent to which reported ERs are materially accurate, i.e. free of material misstatements, errors or omissions;
    b) Assess the extent to which reported ERs and the revised Reference Level (if technical corrections[6] are applied) have been reported with transparent and coherent step-by-step process that enables reconstruction;
    c) Determine whether the ER Program has conducted the uncertainty analysis in compliance with the Methodological Framework and other applicable criteria;
    d) 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-PD;
    e) Assess the extent to which the ER Program has provided a complete and accurate report 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;
    f) Assess the extent to which the ER Program has provided 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;
    g) 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;

[6] The FMT Guidance Document on Methodological Framework 2: Guidance on Technical corrections to GHG emissions and removals reported in the reference period is available at https://bit.ly/2IenGi3

h) 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;
i) Determine whether the national or centralized REDD+ Programs and Projects Data Management System and ER transaction registry are implemented and operated in compliance with the Methodological Framework and other applicable criteria;
j) Identify an area of the Forest Monitoring System that requires attention and/or adjustment in future monitoring and reporting or identify areas of risk of future non-compliance[7];
k) Assess the extent to which the validated Reference Level or the revised Reference Level (if technical corrections are applied) is materially accurate, i.e. free of material misstatements, errors or omissions[8];
l) Determine whether technical corrections to the Reference Level, if applied, meet the requirements of the Methodological Framework and other applicable criteria.

7.2 Level of assurance

22. The level of assurance shall be reasonable, with respect to material misstatements, errors or omissions[9].

7.3 Scope

23. The scope of verification covers:
    a) The ER Program Accounting Area as defined in the ER Program's Final ER Program Document (ER-PD);
    b) The GHG sources and sinks associated with any of the REDD+ Activities accounted for as set in the ER Program's Final ER-PD;
    c) The selected Carbon Pools and greenhouse gases accounted for as set in the ER Program's Final ER-PD;
    d) The applicable Reporting Period as set in the applicable MR;
    e) The Reference Period as set in the ER Program's Final ER-PD for purposes of assessment of the validated Reference Level or the revised Reference Level;
    f) The REDD Country Participant's Forest Monitoring System as described in the ER Program's Final ER-PD;
    g) The national or centralized REDD+ Programs and Projects Data Management System and ER transaction registry.

7.4 Criteria

24. The Independent Reviewer shall complete its verification following the general principles set out in Section 6.1.
25. The criteria for the verification are:

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[7] the independent reviewer shall refrain from providing recommendations related to compliance of the ER Program with requirements of the Carbon Fund

[8] Only applicable to the first verification.

[9] It is expected that Independent Reviewers 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 Earth Observation data obtained via sampling, as emission factors are generally fixed in the Final ER-PD. Independent Reviewers may reach a reasonable level of assurance in this case by assessing the extent to which the sampling plan has been implemented in accordance with REDD Country Participant's Standard Operating Procedures and QA/QC Procedures.

a) The Methodological Framework's criteria and indicators that are applicable for monitoring and reporting and presented in the following table. Other criteria and indicators are related to policy and design decisions (e.g. forest definition, REDD+ activities included, Carbon pools and GHG gases);

Table 2. Criteria and Indicators applicable to monitoring.

Criteria and Indicators	Topic
6	Data availability.
7-9	Uncertainty analysis.
14	Consistency of monitored estimates with RL.
17.3, 17.4	Monitoring and reporting of displacement mitigation.
18.2, 19-21	Monitoring and accounting of reversals.
22-23	Calculation of Emission Reductions.
37 - 38	REDD projects and programs DMS and ER transaction registry

b) Other applicable Guidelines[10], e.g. Buffer Guidelines, Guidelines on the application of the MF;
c) Guidance contained in the ER Monitoring Report Template and Verification Report Template;
d) The validated methodologies and methods used to estimate GHG emissions and removals as described in the ER Program's Final ER-PD and its ER Monitoring Plan;

26. The following documents may be considered as documents that provide acceptable methods for satisfying requirements provided in the above criteria:
    a) 2006 IPCC Guidelines[11];
    b) 2013 IPCC Wetlands Supplement[12];
    c) GFOI 2016 Methods and Guidance Document[13].

7.5 Materiality level

27. The threshold for quantitative materiality with respect to the aggregate of misstatements, errors or omissions relative to the total reported GHG emissions and removals or emission reductions shall be 1%.
28. Qualitative materiality refers to intangible issues that affect the GHG assertion (e.g. issues with management system and controls, poorly managed documentation) and non-compliance with the requirements of the Methodological Framework and other applicable criteria.

8. Verification Planning

[10] https://www.forestcarbonpartnership.org/guidelines-and-templates
[11] https://www.ipcc-nggip.iges.or.jp/public/2006gl/
[12] https://www.ipcc-nggip.iges.or.jp/home/docs/wetlands/Wetlands_Supplement_precopyedit.pdf
[13] https://www.reddcompass.org/download-the-mgd

8.1 *General*

29. The planning of verification of reported ERs shall follow a risk-based approach[14] in compliance with *ISO 14064-3.*

8.2 Risk assessment

30. The Independent Reviewer shall conduct a risk assessment of the sources and the magnitude of potential errors, omissions and misstatements:
    a) the inherent risk of a material discrepancy occurring;
    b) the risk that the controls of the ER Program will not prevent or detect a material discrepancy;
    c) the risk that the Independent Reviewer will not detect any material discrepancy that has not been corrected by the applicable management system and controls.
31. The verification will include evidence-gathering activities and techniques as described in ISO *14064-2.* The Independent Reviewer will use amongst others the following evidence to plan the verification:
    a) The MR for the relevant reporting period and all supporting documentation including spreadsheets, spatial information, maps and/or synthesized data);
    b) The ER-PD sections related to carbon accounting (Section 7 to 13) and all supporting documentation (including spreadsheets, spatial information, maps and/or synthesized data);
    c) Annex to the MR including any proposed technical corrections to the Reference Level;
    d) If applicable, the MR and Verification Report of the previous reporting period and all supporting documentation (including spreadsheets, spatial information, maps and/or synthesized data);
    e) Country visits or, as applicable, field visits[15] and teleconferences with the REDD Country Participant or other Stakeholders.
32. 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 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 Independent Reviewers assessment.

8.3 Verification Plan

33. The Independent Reviewer shall develop a documented verification plan in compliance to ISO14064-3. This shall address, as a minimum, the following:
    a) verification objectives;
    b) verification scope;
    a) identification of the verification team and their roles on the team;

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[14] 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/how/verification/verification-program-requirements document/

[15] It is expected that field visits or on-site visits will not be common in the verification of jurisdictional programs. In most of 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. In these cases, the Independent Reviewer may conduct the verification without a field visit as the evidence-gathering activities are not required to be conducted in the field. There might be exceptions where the verifier identifies field visits as part of the evidence-gathering activities.

b) schedule of verification activities including country/site visits.

34. The verification plan shall be revised as necessary during the course of the verification process. The Independent Reviewer shall communicate the verification plan to the FMT and the REDD Country Participant, and any further revision.

8.4 Sampling Plan

35. The Independent Reviewer shall develop a sampling plan or evidence-gathering plan based on the results of the risk assessment and in compliance to ISO14064-3. This sampling plan should 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 should take into account:
    a) The basis of verification, i.e. level of assurance, materiality threshold, verification scope, verification 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) if sampling is applied, methodologies for determining representative samples;
36. The sampling plan shall be amended, when necessary, based on any new risks or material concerns that could potentially lead to errors, omissions and misrepresentations that are identified throughout the verification process, and each version shall be approved by the Team Leader.
37. The Independent Reviewer shall use the sampling plan as an input to develop the verification plan and it should not be shared with the REDD Country Participant.

8.5 Assessment of Forest Monitoring System

38. The Independent Reviewer shall assess the Forest Monitoring System of the ER Program and its controls for sources of potential errors, omissions and misstatements. For this, the Independent Reviewer 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.

9. Evaluation of the GHG Assertion

39. The Independent Reviewer shall evaluate whether the evidence collected in the assessments is sufficient and if it supports the GHG assertion made by the ER Program. The Independent Reviewer shall consider materiality in evaluating the collected evidence.
40. Based on this evaluation, the Independent Reviewer shall conclude whether or not the GHG assertion is without material discrepancy, and whether the verification activities provide the level of assurance established in Section 7.2. In line with ISO14065, conclusions on the GHG assertion shall be drawn by person(s) different from those who conducted the verification activities.

41. In case the REDD Country Participant amends the GHG assertion, the Independent Reviewer shall evaluate the modified GHG assertion to determine whether the evidence supports the modified GHG assertion.

10. Issuing Non-Compliances & Observations

42. The Independent Reviewer shall, after the country or field visit (as applicable), issue a list of findings including the list of observed non-compliances and observations. 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 Independent Reviewer 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 prove conformity is insufficient;
        ii. mistakes have been made in applying assumptions, data or calculations which could have a material influence on the results;
        iii. non-compliance with relevant criteria;
        iv. the REDD+ Country Participant has failed to implement or made inadequate progress with the MINOR CAR from previous verifications.

    b) MINOR Corrective Action Requests (mCAR) shall be issued where:
        i. the evidence provided to prove conformity is insufficient, but does not lead to a material error, omission or misstatement, and/or a breakdown in the systems delivery[16];
        ii. mistakes have been made in applying assumptions, data or calculations which could have a material influence on the future results;

    c) Observations (OBS) shall be issued where:
        i. there is no objective evidence to prove that there is a non-conformity, but the Independent Reviewer observes practices and/or methods that could result in future MCAR and mCAR;
        ii. the Independent Reviewer wishes to identify an area of the Forest Monitoring System that requires attention and/or adjustment in future monitoring and reporting[17].
43. The Independent Reviewer shall make sure that all MCARs are suitably closed out by the REDD Country Participant prior to issuing a positive opinion.

11.Verification Statement

44. The Verification Report issued by the selected Independent Reviewer shall comprise of, at a minimum, the following elements as required by the Verification Report Template provided in Annex:
    a) A description of the level of assurance, scope, criteria and materiality level applied;

[16] 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.

[17] the independent reviewer shall refrain from providing recommendations related to compliance of the ER Program with requirements of the Carbon Fund

b) A description of the activities undertaken as part of the verification including the evidence-gathering procedures used to assess the GHG assertion;
c) An overview of the findings of the verification in relation to 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 verification opinion, addressed to the FCPF Carbon Fund, on the GHG assertion whether representing an unmodified, modified or adverse opinion; and
f) A statement of the quantity of Verified ERs the ER Program has generated during the relevant reporting period.

Document information

Version	Date	Description
1.0	26 September 2019	Initial version approved by Carbon Fund Participants during a three-week non-objection period.