



VALIDATION AND VERIFICATION MANUAL

GHG PROJECTS

BIOCARBON CERT[®]

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1 Purpose

1.1 Objective of the Manual

This Validation and Verification Manual (the Manual) establishes the mandatory rules, procedures, and requirements governing the validation and verification of greenhouse gas (GHG) projects and mitigation results under the BioCarbon Standard.

The objective of this Manual is to ensure that all validation and verification activities are conducted in a consistent, independent, conservative, and technically robust manner, thereby safeguarding environmental integrity, regulatory credibility, and confidence in the Verified Carbon Credits (VCCs) issued under the BioCarbon Standard.

1.2 Intended users

This Manual is intended for use by:

- (a) Conformity Assessment Bodies (CABs) approved under the BioCarbon Standard;
- (b) validation and verification team members, technical experts, reviewers, and authorized signatories acting on behalf of CABs;
- (c) project holders seeking validation, verification, registration, or issuance of VCCs; and

(d) BioCarbon, in its role as administrator and overseer of the BioCarbon Standard.

1.3 Legal nature of the Manual

This Manual constitutes a binding normative program document within the BioCarbon Standard normative framework.

Compliance with this Manual is mandatory for all validation and verification activities conducted under the BioCarbon Standard. Failure to comply with its provisions may result in non-conformities, corrective actions, suspension, or other enforcement measures in accordance with applicable program rules.

2 Scope and applicability

2.1 Material scope

This Manual applies to all validation and verification activities conducted under the BioCarbon Standard, including, without limitation:

- (a) initial validation of GHG projects and grouped projects;
- (b) first and subsequent verification of monitored GHG emission reductions or removals;
- (c) baseline reassessments and renewals of quantification periods;
- (d) verification of permanence, leakage, reserve contributions, and loss events;
- (e) assessment of safeguards, stakeholder engagement, FPIC, SDG contributions, and legal rights; and
- (f) validation or verification activities related to changes after registration, project transitions, or corrective processes, where applicable.

2.2 Project types and sectors

This Manual applies to all project types and sectors eligible under the BioCarbon Standard, including AFOLU and non-AFOLU activities, as defined in the BCR Standard and applicable approved methodologies.

2.3 Temporal applicability

This Manual applies to all validation and verification activities initiated on or after its entry into force.

Validation and verification activities initiated prior to the entry into force of this version shall continue to be governed by the version of the Manual in force at the time of engagement, unless otherwise required by the BioCarbon Standard or applicable transitional provisions.

3 Normative hierarchy and governing documents

3.1 Normative hierarchy

For the purposes of validation and verification activities, the BioCarbon Standard normative framework shall be applied in accordance with the following hierarchy:

- (a) the BCR Standard;
- (b) approved methodologies and mandatory tools adopted under the BCR Standard;
- (c) this Validation and Verification Manual v4.0;
- (d) the Standard Operating Procedures (SOP), to the extent applicable to validation and verification; and
- (e) other normative program documents, guidance, and templates expressly designated as binding.

In the event of inconsistency, higher-level normative documents shall prevail.

3.2 Relationship with the BCR Standard

The BCR Standard constitutes the primary and prevailing normative instrument governing all aspects of project eligibility, quantification, safeguards, permanence, and credit issuance under the BioCarbon Standard.

This Manual shall be interpreted and applied in full consistency with the BCR Standard, and shall operationalize its validation and verification requirements without modifying or limiting its substantive provisions.

3.3 Relationship with methodologies, tools and SOPs

CABs shall ensure that:

- (a) validation and verification activities are conducted in accordance with the applicable version of the approved methodology;

- (b) all mandatory tools referenced by the BCR Standard or applicable methodology are fully applied; and
- (c) procedural steps related to registration, issuance, renewals, reversals, and enforcement are carried out in accordance with the SOP.

This Manual does not replace methodologies, tools, or SOPs, but establishes how they shall be applied, assessed, and verified by CABs within the scope of validation and verification activities.

3.4 Interpretation and conservativeness

Where ambiguity or uncertainty arises in the application of this Manual, CABs shall:

- (a) adopt the interpretation that best preserves environmental integrity, conservativeness, and program credibility;
- (b) document the interpretation applied and its rationale; and
- (c) reflect such interpretation transparently in validation or verification reports.

Nothing in this Manual shall be construed as limiting the professional judgment of CABs, provided that such judgment is exercised within the boundaries of applicable normative requirements and is fully documented.

4 Principles of validation and verification

4.1 Independence and impartiality

Validation and verification activities conducted under the BioCarbon Standard shall be performed independently and impartially.

Conformity Assessment Bodies (CABs) and their personnel shall remain free from actual, potential, or perceived conflicts of interest and shall ensure that professional judgment is not influenced by commercial, financial, organizational, or other pressures.

Independence and impartiality shall be demonstrated at both the organizational level and the individual level of auditors, technical experts, reviewers, and decision-makers involved in the engagement.

4.2 Transparency and traceability

All validation and verification activities shall be conducted in a transparent and traceable manner.

CABs shall ensure that:

- (a) conclusions are supported by sufficient and appropriate evidence;
- (b) assumptions, interpretations, and professional judgments are clearly documented; and
- (c) validation and verification reports allow third parties to understand how conclusions were reached.

4.3 Conservativeness and environmental integrity

CABs shall apply a conservative approach in the assessment of GHG emission reductions or removals.

Where multiple technically plausible assumptions, parameters, or methodologies exist, CABs shall adopt the option that results in the lowest credible quantity of emission reductions or removals, unless otherwise justified and documented.

This principle shall be applied consistently to baseline determination, additionality assessment, uncertainty management, permanence risk, leakage, and reserve contributions.

4.4 Evidence-based and risk-based approach

Validation and verification shall be based on verifiable, objective, and reproducible evidence.

CABs shall apply a risk-based approach to the planning and execution of validation and verification activities, ensuring that audit effort, sampling intensity, and depth of review are proportionate to identified risks, including:

- (a) project complexity and scale;
- (b) data quality and monitoring systems;
- (c) baseline and additionality risk;
- (d) permanence, leakage, and reversal risk; and

- (e) legal, regulatory, and safeguard-related risks.

5 Roles, responsibilities and liability boundaries

5.1 Role and responsibilities of the Conformity Assessment Body (CAB)

The Conformity Assessment Body (CAB) shall bear full and exclusive responsibility for the planning, execution, professional judgment, conclusions, and outputs of validation and verification activities conducted under the BioCarbon Standard.

In particular, the CAB shall be solely responsible for:

- (a) determining the scope, depth, and methods of validation and verification activities;
- (b) applying the required level of assurance and materiality thresholds;
- (c) identifying, assessing, and documenting risks, discrepancies, non-conformities, and findings;
- (d) exercising independent professional judgment based on sufficient and appropriate evidence; and
- (e) issuing validation and verification reports and statements that accurately reflect findings and conclusions.

The CAB shall not rely on BioCarbon, project holders, or any third party to substitute, validate, or endorse its professional judgment.

5.2 Role and responsibilities of the project holder

The project holder shall remain fully responsible for:

- (a) the accuracy, completeness, and truthfulness of all information, data, declarations, and documentation submitted for validation or verification;
- (b) the design, implementation, and operation of the GHG project in accordance with the BCR Standard and applicable methodologies;
- (c) the demonstration of baseline validity, additionality, permanence, leakage management, and safeguards; and
- (d) compliance with applicable laws, regulations, and contractual obligations.

The engagement of a CAB and the issuance of validation or verification statements shall not relieve the project holder of any legal, technical, or operational responsibility.

5.3 Role of BioCarbon

BioCarbon acts exclusively as the administrator, custodian, and overseer of the BioCarbon Standard normative framework.

In this capacity, BioCarbon shall:

- (a) establish, publish, and maintain applicable standards, manuals, methodologies, tools, and procedures;
- (b) approve, supervise, and evaluate the performance of CABs;
- (c) review submitted validation and verification documentation for procedural completeness and consistency with program requirements; and
- (d) take decisions related to registration, issuance, suspension, or enforcement in accordance with the BCR Standard and SOP.

BioCarbon does not perform validation or verification activities and does not substitute the professional judgment of CABs.

5.4 BioCarbon review findings and response timelines

5.4.1 Issuance of BioCarbon review findings

Following the submission of the Validation and/or Verification Report, BioCarbon shall conduct an independent completeness and procedural review of the documentation. Such review is limited to administrative, documentary, procedural, and program-consistency aspects and shall not be understood as a technical reassessment of the validation or verification work performed by the CAB, nor as a substitution of the CAB's independent professional judgment, technical conclusions, or conformity assessment responsibilities under the BioCarbon Standard normative framework.

As a result of this review, BioCarbon may issue review findings, which may include:

- (a) Non-conformities (NCs);
- (b) Observations;
- (c) Requests for clarification (CLs);

(d) Requests for additional information or evidence.

These findings shall be formally communicated to the CAB for response, clarification, correction, or documentary completion, as applicable within the scope of the review.

Nothing in this Section shall be interpreted as transferring conformity assessment responsibility from the CAB to BioCarbon, or as authorizing BioCarbon to substitute the CAB's independent technical judgment with its own.

5.4.2 Rounds of review and responses

The treatment and closure of BioCarbon review findings shall follow an iterative documentary review and response process.

A maximum of three (3) rounds of review and response shall be permitted.

BioCarbon may, at its sole discretion, conclude the review process at any stage where:

- (a) all findings have been satisfactorily resolved; or
- (b) the responses provided are insufficient to support continuation or closure of the documentary and procedural review.

5.4.3 Obligation to respond

The CAB shall respond to all review findings issued by BioCarbon within the timelines established in this section.

The CAB shall ensure that all responses are complete, traceable, consistent with the submitted validation and/or verification documentation, and supported by appropriate evidence, including updated versions of the Validation and/or Verification Report and supporting documentation where applicable.

5.4.4 Response timelines for the CAB

The CAB shall comply with the following maximum timelines for each round of response:

- (a) First response (Initial round)

The CAB shall provide a complete response to all findings within thirty (30) calendar days from the date of notification.

- (b) Second round of response (if applicable)

Where BioCarbon determines that additional clarification or corrections are required, the CAB shall submit a revised response within a maximum of fifteen (15) calendar days from the date of notification of the second round of findings.

(c) Third and final round of response (if applicable)

Where further issues remain, the CAB shall submit a final response within a maximum of ten (10) calendar days from the date of notification.

5.4.5 Requirements for valid responses

A response shall be considered valid only if it:

- (a) Addresses each finding individually;
- (b) Provides clear, objective, and verifiable evidence;
- (c) Includes explicit references to updated sections of the VVR and supporting documentation;
- (d) Demonstrates that the identified issue has been adequately resolved;
- (e) Maintains full traceability between the finding, the response, and the supporting evidence.

Generic, incomplete, or unsupported responses shall be rejected.

5.4.6 Review and closure of findings

BioCarbon shall assess the adequacy, completeness, and consistency of the responses submitted by the CAB within the scope of the documentary, procedural, and program-consistency review described in this Section.

BioCarbon may:

- (a) Accept the response and close the finding;
- (b) Request additional clarification or evidence;
- (c) Maintain the finding open until satisfactory resolution is achieved.

No project shall proceed to registration or issuance unless all material review findings issued by BioCarbon, and all material non-conformities identified through the applicable conformity assessment process, have been satisfactorily addressed in accordance with the BioCarbon Standard normative framework.

5.4.7 Failure to comply with timelines

If the CAB fails to respond within the established timelines, BioCarbon may, at its sole discretion:

- (a) Issue a formal reminder and establish a revised deadline;
- (b) Suspend the review process;
- (c) Escalate the case to the relevant BioCarbon governance body;
- (d) Reject, return, or close without further action the Validation and/or Verification Report submission, in accordance with applicable program procedures;
- (e) Require resubmission of the validation and/or verification process;
- (f) Apply any measures provided for under the applicable agreements with the CAB.

5.4.8 Extensions

Requests for extension shall:

- (a) Be submitted in writing prior to the deadline;
- (b) Include a justified reason;
- (c) Be subject to prior approval by BioCarbon.

Extensions shall be granted only in duly justified cases and shall be limited to one (1) request per complete review process.

5.4.9 Traceability and documentation

All review findings and corresponding responses shall be clearly documented, version-controlled, and traceable to the relevant sections of the Validation and/or Verification Report and supporting documentation, and shall be retained as part of the official project record.

5.5 Exclusion of shared or substituted responsibility

Nothing in this Manual shall be interpreted as:

- (a) delegating validation or verification responsibilities from the CAB to BioCarbon;
- (b) creating joint, shared, or vicarious liability between BioCarbon and a CAB;

- (c) transferring responsibility for validation or verification conclusions from the CAB to BioCarbon; or
- (d) establishing any form of certification, endorsement, or guarantee by BioCarbon of the professional work performed by a CAB.

Validation and verification statements issued by a CAB represent the independent professional opinion of the CAB alone.

6 Conformity Assessment Bodies (CABs)

6.1 Eligibility and approval

Validation and verification activities under the BioCarbon Standard shall only be conducted by Conformity Assessment Bodies (CABs) that have been formally approved by BioCarbon in accordance with applicable governance instruments.

Approval of a CAB constitutes a condition of eligibility to perform validation and verification activities and does not constitute an endorsement of any specific assessment, outcome, or professional judgment issued by the CAB.

CAB approval shall be subject to ongoing compliance with this Manual, the BCR Standard, and the CAB Performance Evaluation framework.

6.2 Accreditation requirements

Approved CABs shall hold and maintain valid accreditation issued by a recognized accreditation body that is a signatory to the relevant international mutual recognition arrangements.

Accreditation shall:

- (a) be consistent with ISO 14065 and ISO/IEC 17029, as applicable;
- (b) explicitly cover the scope of validation and verification activities performed; and
- (c) remain valid throughout the duration of each engagement.

Any suspension, restriction, or withdrawal of accreditation shall be immediately communicated to BioCarbon and may result in restriction, suspension, or revocation of CAB approval.

6.3 Professional liability insurance

CABs shall maintain professional liability insurance adequate to cover risks arising from validation and verification activities conducted under the BioCarbon Standard.

Such insurance shall:

- (a) be maintained continuously throughout the period of approval;
- (b) cover professional errors, omissions, negligence, and misconduct;
- (c) provide minimum coverage of USD 5,000,000; and
- (d) meet any additional minimum coverage requirements established by BioCarbon, where applicable.

Failure to maintain adequate insurance coverage shall constitute a material non-compliance.

6.4 Ongoing obligations of CABs

Approved CABs shall:

- (a) comply with all applicable provisions of the BioCarbon Standard normative framework, including this Manual;
- (b) ensure continued competence and independence of assigned personnel;
- (c) cooperate with BioCarbon in oversight, supervision, and performance evaluation activities;
- (d) retain records and working papers in accordance with record-keeping requirements; and
- (e) promptly notify BioCarbon of any circumstance that may affect eligibility, independence, or performance.

6.5 Obligation to decline or withdraw engagements

Conformity Assessment Bodies (CABs) shall decline, suspend, or withdraw from any validation or verification engagement where compliance with the requirements of this Manual cannot be ensured, including but not limited to cases involving:

- (a) lack of required accreditation or loss, suspension, or restriction of accreditation scope;

- (b) inability to ensure independence, impartiality, or freedom from conflicts of interest;
- (c) lack of adequate technical competence or sectoral expertise of the assigned team;
or
- (d) absence or loss of required professional liability insurance.

CABs shall promptly notify BioCarbon of any such circumstance and of the actions taken in relation to the engagement.

6.6 Cooperation with oversight and enforcement activities

Conformity Assessment Bodies (CABs) shall cooperate fully with BioCarbon in the context of supervision, audits, investigations, or enforcement actions related to validation and verification activities conducted under the BioCarbon Standard.

This obligation shall apply during and after completion of the engagement and shall include, where applicable, the provision of records, working papers, explanations, and other relevant information.

Compliance with the obligations set out in this Chapter constitutes a condition for continued approval and eligibility of the CAB to operate under the BioCarbon Standard.

7 Competence and composition of audit teams

7.1 General competence requirements

CABs shall assign validation and verification teams that collectively demonstrate the competence necessary to perform the engagement.

Team members shall possess:

- (a) technical knowledge of GHG accounting principles, methodologies, and monitoring systems;
- (b) familiarity with the BioCarbon Standard normative framework; and
- (c) competence in auditing, evidence assessment, and professional judgment consistent with ISO standards.

7.2 Sectoral and methodological competence

CABs shall ensure that assigned teams demonstrate sector-specific competence relevant to the project type and activities under assessment.

Such competence shall include, as applicable:

- (a) AFOLU-specific expertise, including land-use dynamics, biomass estimation, and permanence risk;
- (b) non-AFOLU sector expertise, including energy, waste, industrial processes, or transport; and
- (c) experience with the specific methodology and tools applied by the project.

Where necessary, CABs shall engage qualified technical experts to complement team competence.

7.3 Composition and roles within audit teams

Validation and verification teams shall be composed in a manner that ensures:

- (a) clear allocation of roles and responsibilities;
- (b) separation between assessment, internal review, and decision-making functions; and
- (c) sufficient independence and objectivity.

At a minimum, each engagement shall include:

- (a) a team leader responsible for overall planning and coordination; and
- (b) one or more auditors or technical experts appropriate to the scope and complexity of the project.
- (c) AQUÍ EL AUDITOR LOCAL, CON CONOCIMIENTO DE CONTEXTO DE PAÍS Y LA LEGISLACIÓN NACIONAL APLICABLE, ASÍ COMO LOS DERECHOS DE LOS PI Y CL IP AND LC

7.4 Internal review and decision-making

CABs shall implement internal review procedures to ensure that validation and verification conclusions are subject to an independent review prior to issuance.

Internal reviewers:

- (a) shall not have participated in the execution of the assessment;
- (b) shall verify the sufficiency and appropriateness of evidence; and
- (c) shall confirm consistency with applicable requirements.

Final validation or verification decisions shall be issued by authorized personnel in accordance with CAB internal procedures.

7.5 Team rotation and continuity

To safeguard independence and objectivity, CABs shall apply team rotation rules in accordance with applicable standards and program requirements.

Where the same CAB performs consecutive verification activities, CABs shall:

- (a) rotate key personnel at defined intervals; and
- (b) transparently disclose prior involvement in validation or verification reports.

8 Independence, impartiality and conflicts of interest

8.1 General independence requirements

Validation and verification activities under the BioCarbon Standard shall be conducted independently and impartially.

Conformity Assessment Bodies (CABs) and their personnel shall avoid any situation that may give rise to actual, potential, or perceived conflicts of interest, and shall ensure that professional judgment is exercised free from commercial, financial, or other undue influence.

Independence and impartiality requirements shall apply at:

- (a) the organizational level of the CAB; and
- (b) the individual level of auditors, technical experts, reviewers, and decision-makers.

8.2 Prohibited activities and relationships

CABs and their personnel shall not engage in activities or relationships that compromise, or may reasonably be perceived to compromise, independence or impartiality.

Prohibited activities include, without limitation:

- (a) consultancy, advisory, design, implementation, financing, brokerage, or commercialization services related to projects subject to validation or verification;
- (b) participation in the preparation of project documentation, monitoring reports, baseline studies, additionality demonstrations, or safeguard assessments for projects subject to validation or verification;
- (c) holding direct or indirect financial interests in projects, project holders, or entities benefiting from the issuance or use of VCCs;
- (d) remuneration structures contingent upon validation or verification outcomes; and
- (e) any other relationship that may bias professional judgment.

Where a prohibited relationship exists or is identified, the CAB shall decline or terminate the engagement.

8.3 Prohibition of undue influence on conformity assessment outcomes

Conformity Assessment Bodies (CABs) shall not issue validation or verification reports or statements under commercial, contractual, financial, or other pressure that may compromise professional judgment, independence, or compliance with applicable requirements.

Any attempt to exert undue influence on validation or verification outcomes shall be documented by the CAB and, where material, communicated to BioCarbon.

8.4 Conflict-of-interest identification and management

CABs shall establish and maintain documented procedures for the identification, assessment, mitigation, and monitoring of conflicts of interest.

At a minimum, CABs shall ensure that:

- (a) all personnel involved in each engagement sign a conflict-of-interest declaration prior to commencement;
- (b) conflicts are assessed at both the organizational and individual level;
- (c) identified conflicts are effectively mitigated, including through personnel replacement or refusal of the engagement; and

- (d) records of conflict assessments and mitigation measures are retained and made available to BioCarbon upon request.

Failure to adequately identify or manage conflicts of interest shall constitute a serious non-conformity.

8.5 Post-engagement restrictions

To safeguard independence and confidentiality, personnel who have participated in validation or verification activities shall not, for a minimum period of two (2) years following completion of the engagement:

- (a) act as project holders, developers, consultants, or advisors for projects they validated or verified; or
- (b) participate in the design, development, or commercialization of VCCs generated by such projects.

CABs shall implement internal controls to ensure compliance with post-engagement restrictions.

9 Validation requirements

9.1 Objective and scope of validation

Validation is the systematic, independent, and documented assessment of a GHG project design against applicable criteria to determine whether the project:

- (a) is eligible under the BioCarbon Standard; and
- (b) has been designed in accordance with approved methodologies and applicable requirements.

Validation shall be conducted prior to project registration and shall cover the full scope of applicable requirements.

9.2 Validation of project eligibility and design

During validation, CABs shall assess and confirm:

- (a) project eligibility under the BCR Standard;

- (b) consistency of project boundaries, geographic scope, and activity description;
- (c) correct application of the approved methodology; and
- (d) conformity with sectoral and methodological applicability conditions.

Any inconsistency affecting eligibility shall be treated as a material non-conformity.

9.3 Validation of baseline scenario and additionality

CABs shall validate that:

- (a) the baseline scenario has been identified and justified in accordance with the approved methodology and applicable tools;
- (b) baseline assumptions are conservative and supported by evidence; and
- (c) additionality has been demonstrated in accordance with the requirements of the BCR Standard.

Deficiencies in baseline or additionality demonstration shall preclude a positive validation conclusion.

9.4 Validation of quantification approach and uncertainty

CABs shall validate:

- (a) the quantification approach used to estimate GHG emission reductions or removals;
- (b) the appropriateness and conservativeness of data sources, parameters, and assumptions; and
- (c) the application of uncertainty assessment and conservative adjustments, where required.

Quantification approaches that may result in overestimation shall not be accepted.

9.5 Validation of permanence, leakage and risk management

CABs shall validate that:

- (a) permanence and reversal risks have been identified and assessed;
- (b) leakage risks have been appropriately evaluated and addressed; and

- (c) mitigation measures and monitoring systems are adequate.

Permanence- or leakage-related deficiencies shall constitute material non-conformities.

9.6 Validation of safeguards, stakeholder engagement and legal rights

CABs shall validate:

- (a) compliance with applicable environmental and social safeguards;
- (b) stakeholder engagement processes, including FPIC where applicable; and
- (c) legal ownership of mitigation outcomes and carbon rights.

Failure to demonstrate compliance with safeguards or legal requirements shall preclude project registration.

9.7 Validation conclusion and deliverables

Upon completion of validation, the CAB shall issue:

- (a) a validation report documenting findings, evidence, and conclusions; and
- (b) a validation statement expressing a positive, qualified, or negative conclusion.

A positive validation conclusion may only be issued where all material non-conformities have been resolved.

10 Verification requirements

10.1 Objective and scope of verification

Verification is the systematic, independent, and documented assessment of monitored GHG emission reductions or removals against applicable verification criteria to determine whether the reported mitigation outcomes are accurate, complete, conservative, and compliant with the BioCarbon Standard.

Verification shall be conducted for each defined monitoring period and shall cover the full scope of applicable requirements, including baseline consistency, monitoring implementation, data quality, permanence, leakage, reserves, safeguards, and legal compliance.

10.2 Verification frequency and sequencing

Project activities shall undergo verification at intervals not exceeding five (5) years, calculated from the date of the last completed verification event.

For the purposes of this requirement, the verification interval shall be determined based on the date of issuance of the previous Verification Statement (VVR), and not on the end date of the monitoring period previously verified.

Where permitted, validation and first verification may be conducted as part of a single engagement, provided that:

- (a) validation and verification conclusions are clearly distinguished; and
- (b) all verification-specific requirements are fully satisfied.

Rotation requirements for Conformity Assessment Bodies (CABs) and verification team members shall be strictly applied in accordance with the BioCarbon Standard and applicable program rules, in order to safeguard independence, prevent familiarity risks, and ensure ongoing objectivity and impartiality in validation and verification activities.

10.2.1 Interpretation of verification interval

The five (5)-year verification interval applies exclusively to the timing between consecutive verification events.

It shall not be interpreted as a limitation on the age of the last year included in the previously verified monitoring period.

Accordingly, a subsequent verification may include monitoring periods that begin immediately after the end of the last verified period, regardless of the elapsed time between that period and the date of the new verification, provided that the five (5)-year interval between verification events is not exceeded.

10.2.2 Length of monitoring periods

The BioCarbon Standard does not prescribe a maximum duration for monitoring periods submitted for verification.

However, where a monitoring period exceeds five (5) years, the project proponent shall demonstrate, and the Conformity Assessment Body (CAB) shall assess, that:

- (a) Data integrity and completeness have been maintained consistently throughout the entire monitoring period;

- (b) No material changes have occurred in project design, implementation, or boundary conditions that would affect the applicability of the methodology without being properly accounted for;
- (c) Baseline assumptions and parameters remain valid, or have been appropriately updated and justified in accordance with applicable methodological requirements;
- (d) Monitoring systems, data management procedures, and QA/QC measures have been consistently applied and documented over time; and
- (e) Any uncertainties associated with extended data time series have been conservatively addressed in accordance with the BioCarbon Standard Uncertainty Management Tool.

Where these conditions cannot be satisfactorily demonstrated, the CAB shall require the monitoring period to be subdivided into shorter verification periods.

10.2.3 Regulatory safeguard for extended periods

BioCarbon Cert reserves the right to require the subdivision of monitoring periods exceeding five (5) years where this is deemed necessary to ensure the integrity, transparency, and verifiability of emission reductions and removals.

Where a project seeks verification after exceeding the maximum allowable interval between verification events established under the applicable BioCarbon Program rules, the project shall remain subject to full verification in accordance with this Manual and the applicable normative framework.

For the purposes of the BioCarbon Standard, full verification means the application of the complete applicable verification requirements and shall not be interpreted as permitting a reduced, abbreviated, or partial verification process in substitution for those requirements.

Where applicable under the BioCarbon Standard, the approved methodology, or the circumstances of the project, such full verification shall include assessment of baseline validity, any required baseline reassessment or renewal, and the continued appropriateness of the procedures and assumptions used to quantify, monitor, and verify mitigation outcomes.

10.3 Verification of monitoring reports and mitigation results

CABs shall verify that:

- (a) monitoring activities have been implemented in accordance with the validated monitoring plan;
- (b) data collection systems are reliable, complete, and traceable;
- (c) reported activity data, parameters, and emission factors are accurate and conservative; and
- (d) calculations of GHG emission reductions or removals are correctly applied.

Any error or omission affecting reported mitigation results shall be assessed against materiality thresholds and treated accordingly.

10.4 Verification of baseline consistency and renewals

CABs shall verify that:

- (a) the baseline scenario remains valid for the monitoring period;
- (b) any required baseline reassessments or renewals have been conducted in accordance with applicable rules;
- (c) changes in circumstances affecting baseline assumptions have been appropriately identified, justified, and addressed; and
- (d) the baseline has been formally reassessed at least once every ten (10) years from the date of its initial validation or last renewal, whichever is more recent..

In addition, the CAB shall confirm that a baseline reassessment has been undertaken prior to this interval where material changes in regulatory, economic, technological, or environmental conditions could reasonably affect the validity or conservativeness of the baseline scenario.

Failure to comply with baseline reassessment or renewal requirements shall preclude the issuance of a positive verification conclusion.

Where a project undergoes renewal of a crediting or quantification period, or where baseline reassessment is otherwise required under the BioCarbon Standard or the applicable methodology, the CAB shall assess and document whether:

- (a) the continued validity of the original baseline scenario has been reassessed in light of relevant current conditions;
- (b) the baseline scenario has been updated where it is no longer valid or no longer sufficiently conservative; and

- (c) the procedures, assumptions, parameters, and data used to quantify, monitor, and verify mitigation outcomes remain appropriate, or have been updated and justified where required.

10.5 Verification of permanence, leakage and reserve application

CABs shall verify that:

- (a) permanence and reversal risks are monitored and managed as validated;
- (b) leakage has been appropriately monitored, quantified, and deducted where applicable; and
- (c) reserve contributions have been correctly calculated, allocated, and deducted prior to issuance eligibility.

Unresolved permanence, leakage, or reserve-related deficiencies shall constitute material non-conformities.

10.6 Verification of safeguards, stakeholder engagement and legal compliance

CABs shall verify ongoing compliance with:

- (a) applicable environmental and social safeguards;
- (b) stakeholder engagement and grievance mechanisms; and
- (c) legal requirements, including land tenure and carbon rights.

Non-compliance with safeguards or legal requirements shall result in a negative or qualified verification conclusion, as applicable.

10.7 Verification conclusion and deliverables

Upon completion of verification, the CAB shall issue:

- (a) a verification report documenting findings, evidence, and conclusions; and
- (b) a verification statement expressing a positive, qualified, or negative conclusion.

A positive verification conclusion may only be issued where all material non-conformities have been resolved.

11 Assurance level, materiality and risk-based approach

11.1 Required level of assurance

All validation and verification activities under the BioCarbon Standard shall be conducted at a reasonable level of assurance, in accordance with ISO 14064-3 and applicable program requirements.

Reasonable assurance requires the CAB to design and perform procedures that reduce audit risk to an acceptably low level, sufficient to support a high degree of confidence in validation and verification conclusions.

Limited assurance shall not be applied, unless expressly permitted by the BCR Standard for specific cases.

11.2 Materiality threshold

For verification purposes, a material discrepancy shall be defined as any individual or aggregate error, omission, or misstatement that exceeds $\pm 5\%$ of the total reported GHG emission reductions or removals for the monitoring period, unless a stricter threshold is required by the applicable methodology.

CABs shall assess materiality:

- (a) at the level of individual parameters; and
- (b) at the level of aggregated mitigation results.

11.3 Aggregation of discrepancies

CABs shall consider the cumulative effect of multiple discrepancies when assessing materiality.

Errors or omissions of opposite sign shall not be offset to neutralize material discrepancies, unless such offsetting is explicitly justified, conservative, and fully documented.

11.4 Conservative treatment of uncertainty

CABs shall verify that uncertainty has been assessed and managed in accordance with:

- (a) the applicable approved methodology; and
- (b) the BioCarbon Uncertainty Assessment Tool, where mandatory.

Where uncertainty exists, CABs shall ensure that conservative assumptions and adjustments are applied to prevent overestimation of mitigation outcomes.

11.5 Risk-based planning and audit execution

CABs shall apply a risk-based approach to validation and verification planning and execution.

The risk assessment shall consider, at a minimum:

- (a) project scale, complexity, and sector;
- (b) baseline and additionality risk;
- (c) data quality and monitoring systems;
- (d) permanence, leakage, and reversal risk; and
- (e) legal, regulatory, and safeguard-related risks.

Audit effort, sampling intensity, and evidence collection shall be proportionate to identified risks and sufficient to achieve reasonable assurance.

11.6 Implications for conclusions

Where identified risks are not adequately addressed, or where material non-conformities remain unresolved, the CAB shall not issue a positive validation or verification conclusion.

Qualified conclusions shall:

- (a) clearly describe the scope and implications of the qualification; and
- (b) not allow issuance of VCCs, unless expressly permitted under the BCR Standard.

12 Sampling, site visits and audit techniques

12.1 Sampling principles

Conformity Assessment Bodies (CABs) shall design and apply sampling approaches that are appropriate to the level of assurance required, the materiality threshold, and the risk profile of the project.

Sampling shall be:

- (a) risk-based, reflecting project complexity, data quality, and uncertainty;

- (b) representative, ensuring adequate coverage of relevant sources, sinks, reservoirs, and activities; and
- (c) documented, with clear justification of sampling methods and sample sizes.

Sampling decisions shall be sufficient to reduce the risk of undetected material discrepancies to an acceptably low level.

12.2 Sampling plan requirements

For each validation or verification engagement, the CAB shall prepare a documented sampling plan prior to execution.

The sampling plan shall include, at a minimum:

- (a) identification of data sets, parameters, plots, sites, or activities subject to sampling;
- (b) sampling methodology and rationale;
- (c) sample size determination and representativeness;
- (d) identification of high-risk areas requiring increased scrutiny; and
- (e) procedures for expanding the sample where discrepancies are identified.

Sampling plans shall be retained as part of the audit working papers and made available to BioCarbon upon request.

12.3 AFOLU-specific sampling considerations

For AFOLU projects, CABs shall apply sampling approaches that adequately reflect spatial heterogeneity, biomass variability, and land-use dynamics.

Sampling shall consider, as applicable:

- (a) stratification by land-use class, vegetation type, or management regime;
- (b) plot distribution and density sufficient to achieve required precision;
- (c) consistency with methodology-specific sampling requirements; and
- (d) use of conservative assumptions where uncertainty remains.

12.4 Site visit requirements

CABs shall conduct on-site visits as part of validation and verification activities, unless an alternative approach is expressly permitted under the BCR Standard or applicable guidance.

Site visits shall be used to:

- (a) verify the physical existence and implementation of project activities;
- (b) cross-check documentary evidence and monitoring systems;
- (c) interview relevant personnel and stakeholders; and
- (d) assess safeguards, FPIC processes, and land tenure conditions, where applicable.

12.5 Remote and alternative audit techniques

Remote or alternative audit techniques may be applied only where expressly permitted and where they do not compromise the required level of assurance.

Where remote techniques are used, CABs shall:

- (a) justify their use;
- (b) apply additional corroborating evidence where necessary; and
- (c) document limitations and mitigation measures in the validation or verification report.

12.6 Audit techniques and evidence collection

CABs shall apply appropriate audit techniques, including but not limited to:

- (a) documentary review;
- (b) data cross-checks and recalculations;
- (c) interviews with project personnel and stakeholders;
- (d) field observations and measurements; and
- (e) triangulation of evidence from multiple sources.

Evidence collected shall be sufficient, appropriate, and traceable to support conclusions.

13 Permanence, reversals and reserve-related verification

13.1 Permanence risk assessment

CABs shall assess and verify that permanence risks have been identified, evaluated, and managed in accordance with the BCR Standard and applicable permanence tools.

The assessment shall include verification of:

- (a) identified drivers of non-permanence;
- (b) risk ratings and scoring; and
- (c) adequacy of mitigation and monitoring measures.

Deficiencies in permanence risk assessment shall constitute material non-conformities.

13.2 Reserve contribution requirements

CABs shall verify that reserve contributions have been correctly calculated, allocated, and deducted prior to issuance eligibility, in accordance with the BCR Standard.

Verification shall confirm that:

- (a) applicable reserve percentages are correctly applied;
- (b) reserve units are clearly identified and traceable; and
- (c) reserve allocations reflect the verified risk profile of the project.

Failure to meet reserve requirements shall preclude issuance of VCCs.

13.3 Treatment of reversals and loss events

Where reversals or loss events occur, CABs shall verify that:

- (a) the event has been identified, quantified, and reported in a timely manner;
- (b) deductions or compensation mechanisms have been correctly applied; and
- (c) corrective measures have been implemented to prevent recurrence.

Unaddressed or inadequately compensated reversals shall result in a negative or qualified verification conclusion.

13.4 Implications for issuance and continued eligibility

CABs shall explicitly assess and document whether permanence-related issues affect:

- (a) eligibility for registration;
- (b) eligibility for issuance of VCCs for the relevant monitoring period; and
- (c) continued eligibility of the project under the BioCarbon Standard.

Where permanence or reserve deficiencies remain unresolved, the CAB shall not issue a positive validation or verification conclusion.

14 Findings and corrective action management

14.1 Classification of findings

Conformity Assessment Bodies (CABs) shall identify, document, and classify all findings arising from validation and verification activities in a consistent, transparent, and traceable manner.

Findings shall be classified exclusively as:

- (a) Clarification Requests (CL), where information is insufficient, unclear, or ambiguous but does not in itself constitute a deviation from applicable requirements;
- (b) Corrective Action Requests (CAR), where a requirement of the BCR Standard, this Manual, an applicable methodology, or a mandatory tool has not been met; and
- (c) Forward Action Requests (FAR), where an issue does not materially affect the current validation or verification outcome but requires attention or monitoring in future verification cycles.

CABs shall ensure that findings are classified according to their nature, severity, and potential impact on environmental integrity and credit eligibility.

14.2 Treatment of material non-conformities

Any finding that:

- (a) affects the accuracy, completeness, or conservativeness of reported GHG emission reductions or removals;

- (b) exceeds the applicable materiality threshold;
- (c) relates to eligibility, baseline validity, additionality, permanence, reversals, reserve contributions, safeguards, or independence; or
- (d) undermines the required level of assurance

shall be treated as a material non-conformity and shall be issued as a CAR.

CABs shall not issue a positive validation or verification conclusion until all material non-conformities have been satisfactorily resolved and verified.

14.3 Corrective action process and timelines

CABs shall establish and apply clear timelines for the resolution of findings.

The corrective action process shall include:

- (a) documentation of the finding and its basis;
- (b) submission of corrective action responses by the project holder;
- (c) assessment of the adequacy and effectiveness of corrective actions; and
- (d) verification of implementation, where applicable.

Repeated extensions or failure to implement corrective actions shall result in escalation in accordance with applicable program procedures.

14.4 Recurrence and escalation

CABs shall identify recurrent or systemic issues across validation and verification engagements.

Where recurrence is identified, CABs shall:

- (a) escalate the issue internally;
- (b) increase audit depth or sampling in subsequent engagements; and
- (c) notify BioCarbon, where required.

Systemic failures or repeated material non-conformities may result in enhanced oversight, restriction, suspension, or revocation of approval.

14.5 Consequences of unresolved findings

Where findings remain unresolved:

- (a) validation or verification conclusions shall not be finalized;
- (b) eligibility for registration, issuance, or renewal shall be suspended or denied, as applicable; and
- (c) BioCarbon may initiate enforcement measures in accordance with the BCR Standard and SOP.

Nothing in this Chapter shall limit BioCarbon's authority to act in cases of fraud, misrepresentation, or serious breaches of integrity.

15 Validation and verification statements

15.1 Purpose and legal effect of statements

Validation and verification statements constitute the formal professional opinion of the CAB regarding compliance of a project or monitoring report with applicable requirements.

Statements shall be addressed to intended users and shall not be construed as guarantees or endorsements issued by BioCarbon.

15.2 Content and structure of statements

Validation and verification statements shall include, at a minimum:

- (a) identification of the project and applicable monitoring period;
- (b) identification of the CAB and audit team;
- (c) scope, objectives, and criteria of the assessment;
- (d) level of assurance applied;
- (e) summary of findings and their resolution status; and
- (f) the CAB's conclusion.

Statements shall be consistent with the corresponding validation or verification report.

15.3 Types of conclusions

CABs may issue the following conclusions:

- (a) positive conclusion, where all material non-conformities have been resolved;
- (b) qualified conclusion, where limitations or conditions are clearly identified; or
- (c) negative conclusion, where material non-conformities remain unresolved.

Qualified conclusions shall not allow issuance of VCCs, unless expressly permitted under the BCR Standard.

15.4 Combined validation and first verification

Where permitted, CABs may conduct validation and first verification within a single engagement.

In such cases:

- (a) validation and verification conclusions shall be clearly distinguished;
- (b) all verification-specific requirements shall be fully satisfied; and
- (c) separate validation and verification statements shall be issued.

15.5 Disclosure and use of statements

Validation and verification statements may be:

- (a) published in the BioCarbon registry;
- (b) referenced in issuance and retirement processes; and
- (c) used by intended users for decision-making.

Statements shall not be altered, excerpted, or used out of context without the written authorization of the issuing CAB and BioCarbon, where applicable.

16 Interaction with registry, issuance and reserves

16.1 Linkage between validation, verification and registry actions

Validation and verification activities conducted under the BioCarbon Standard shall be directly linked to actions taken in the official registry administered on behalf of BioCarbon.

CABs shall ensure that:

- (a) validation conclusions support eligibility for project registration;
- (b) verification conclusions support eligibility for issuance of Verified Carbon Credits (VCCs); and
- (c) all relevant information required for registry actions is complete, accurate, and consistent with validation and verification reports and statements.

Registry actions shall not proceed in the absence of a valid validation or verification statement, as applicable.

16.2 Submission of documentation to the registry

CABs shall submit validation and verification reports and statements through the designated registry channels in accordance with applicable procedures.

Submitted documentation shall:

- (a) correspond to the finalized and approved versions of reports and statements;
- (b) reflect resolution of all material non-conformities; and
- (c) be consistent with project documentation and monitoring reports.

Discrepancies between submitted documentation and registry records shall be treated as non-conformities.

16.3 Issuance eligibility and reserve deductions

CABs shall explicitly confirm, within verification reports and statements, whether verified mitigation results are eligible for issuance of VCCs.

Verification shall confirm that:

- (a) applicable reserve contributions have been correctly calculated and deducted;

- (b) issued quantities reflect net mitigation results after reserve deductions; and
- (c) reserve units are clearly identified and segregated in registry records.

Failure to meet reserve requirements shall preclude issuance.

16.4 Erroneous issuance and corrective measures

Where erroneous issuance is identified, CABs shall cooperate with BioCarbon in:

- (a) identification and quantification of the error;
- (b) assessment of root causes; and
- (c) implementation of corrective measures, including cancellation, adjustment, or compensation, as applicable.

Erroneous issuance shall not confer any right to retain, transfer, or retire improperly issued VCCs.

16.5 Interaction with reversals and reserve utilization

CABs shall verify and document any interaction between:

- (a) verified reversals or loss events; and
- (b) utilization of reserve units to compensate such events.

Reserve utilization shall be traceable and shall not exceed available reserve balances.

17 Appeals, complaints and dispute handling

17.1 Appeals by project holders

Project holders may submit appeals related to validation or verification outcomes in accordance with procedures established by BioCarbon.

Appeals shall be limited to:

- (a) alleged procedural errors;
- (b) alleged misapplication of applicable requirements; or
- (c) disputes regarding factual findings.

Appeals shall not be used to renegotiate methodological requirements or to override professional judgment without substantiated grounds.

17.2 Complaints related to CAB conduct

BioCarbon may receive complaints related to the conduct, competence, independence, or integrity of CABs.

Complaints may be submitted by:

- (a) project holders;
- (b) stakeholders; or
- (c) other interested parties, where relevant.

BioCarbon shall assess complaints in accordance with applicable governance procedures and may initiate oversight or enforcement measures.

17.3 Dispute resolution and escalation

Disputes arising from validation or verification activities shall be addressed through:

- (a) clarification and corrective action processes;
- (b) appeals or complaints mechanisms; and
- (c) escalation to BioCarbon where unresolved.

BioCarbon's determinations in relation to program eligibility, issuance, or enforcement shall be final within the scope of the BioCarbon Standard normative framework.

17.4 Safeguards against misuse of appeals and complaints

Appeals and complaints shall not be used to:

- (a) delay compliance with applicable requirements;
- (b) pressure CABs to alter professional judgments; or
- (c) undermine the independence of conformity assessment activities.

Abusive or bad-faith use of appeals or complaints may result in dismissal of the submission or additional enforcement action.

18 Records, transparency and confidentiality

18.1 Record retention and documentation

Conformity Assessment Bodies (CABs) shall retain complete and accurate records of all validation and verification activities conducted under the BioCarbon Standard.

Records shall include, at a minimum:

- (a) validation and verification plans, including sampling plans;
- (b) working papers and evidence collected;
- (c) correspondence related to findings and corrective actions;
- (d) finalized validation and verification reports and statements; and
- (e) internal review and decision records.

Records shall be retained for a minimum period defined by the BioCarbon Standard or applicable legal requirements, whichever is longer.

18.2 Transparency and disclosure

Validation and verification activities shall be conducted in a transparent manner consistent with the BioCarbon Standard transparency requirements.

CABs shall ensure that:

- (a) validation and verification statements are suitable for publication in the registry;
- (b) disclosed information accurately reflects conclusions and limitations; and
- (c) disclosure does not misrepresent the scope or outcome of the assessment.

BioCarbon may publish validation and verification documentation in accordance with applicable disclosure rules.

18.3 Confidentiality obligations

CABs and their personnel shall maintain confidentiality of non-public information obtained during validation and verification activities.

Confidential information shall:

- (a) be used solely for the purposes of validation and verification;
- (b) be protected against unauthorized access or disclosure; and
- (c) not be disclosed without authorization, except where disclosure is required by law or by the BioCarbon Standard normative framework.

Confidentiality obligations shall survive the completion or termination of the engagement.

18.4 Handling of confidential and commercially sensitive information

Where information is designated as confidential or commercially sensitive, CABs shall:

- (a) verify the legitimacy of such designation;
- (b) ensure that confidentiality claims do not undermine transparency requirements; and
- (c) apply redaction or aggregation measures where necessary to balance transparency and confidentiality.

Information relevant to environmental integrity, additionality, baseline determination, or mitigation results shall not be withheld on the basis of confidentiality alone.

19 Transition, version control and entry into force

19.1 Superseded versions

This Validation and Verification Manual v4.0 supersedes all previous versions of the Validation and Verification Manual upon its entry into force.

19.2 Transitional arrangements

Validation and verification activities initiated prior to the entry into force of this version shall continue to be governed by the version of the Manual in force at the time of engagement, unless otherwise required by the BioCarbon Standard or explicitly agreed by BioCarbon.

Activities initiated on or after the entry into force of this version shall be governed exclusively by Validation and Verification Manual v4.0.

19.3 Version control and updates

BioCarbon reserves the right to update or revise this Manual as necessary to maintain alignment with:

- (a) the BCR Standard;
- (b) applicable international standards; and
- (c) evolving regulatory and market integrity requirements.

All revisions shall be versioned, dated, and published in accordance with BioCarbon governance procedures.

19.4 Entry into force

This Validation and Verification Manual v4.0 enters into force on the date of its publication on the official BioCarbon Standard website.

From that date onward, compliance with this Manual shall be mandatory for all validation and verification activities conducted under the BioCarbon Standard.

Annex A. Terms and definitions

A.1 Key definitions

Clarification Request (CL)

Request issued where information is insufficient or unclear but does not constitute non-compliance.

Corrective Action Request (CAR)

Request issued where a mandatory requirement has not been met.

Forward Action Request (FAR)

Request issued for issues not materially affecting current conclusions but requiring future attention.

Full verification

A verification conducted in accordance with the complete applicable verification requirements of the BioCarbon Standard normative framework. Full verification does not permit reliance on a reduced, abbreviated, or partial verification process in substitution for the applicable requirements, and shall include any baseline reassessment, renewal, or related reassessment obligations that apply to the project under the BIOCARBON STANDARD or the approved methodology.

Validation

Systematic, independent, and documented assessment of a GHG project design against applicable requirements to determine eligibility and conformity prior to registration.

Verification

Systematic, independent, and documented assessment of monitored GHG emission reductions or removals to determine accuracy, completeness, conservativeness, and eligibility for issuance.

Validation and Verification Report (Combined Report)

A single conformity assessment report issued when validation and first verification are conducted within the same engagement, provided that validation and verification conclusions are clearly differentiated and independently substantiated.

Annex B – Validation Report structure

B.1 Mandatory structure – Validation Report

A Validation Report shall include, at a minimum, the following sections:

1. General information

- Project name and ID
- Project holder
- CAB name and accreditation
- Validation period
- Validation team

2. Scope and objectives of validation

- Purpose
- Applicable standards, methodologies, tools

3. Description of the project

- Project activities
- Geographic and temporal boundaries

4. Methodology and eligibility

- Methodology applicability
- Eligibility assessment

5. Baseline scenario and additionality

- Baseline identification
- Additionality demonstration

6. Quantification approach

- Parameters and assumptions
- Uncertainty treatment

7. Permanence, leakage and risk management

- Risk assessment
- Mitigation measures

8. Safeguards and stakeholder engagement

- Environmental and social safeguards
- FPIC (if applicable)

9. Findings

CL / CAR / FAR

10. Validation conclusion

Positive / Qualified / Negative

Annex C – Verification Report structure

C.1 Mandatory structure – Verification Report

A Verification Report shall include, at a minimum:

1. General information

- Project name and ID
- Monitoring period
- CAB and team

2. Scope and objectives of verification

3. Monitoring implementation

- Monitoring plan execution
- Data management systems

4. Verification of mitigation results

- Calculations
- Materiality assessment

5. Baseline consistency and renewals

6. Permanence, leakage and reserve deductions

- Verified reserve contribution
- Reversals (if any)

7. Safeguards and legal compliance

8. Findings

- CL / CAR / FAR

9. Verification conclusion

- Positive / Qualified / Negative
- Issuance eligibility statement

Annex D – Validation and Verification Report (Combined Report)

D.1 Applicability of Combined Report

A Validation and Verification Report (Combined) may be issued only when:

- validation and first verification are conducted within the same engagement; and
- all requirements for validation and verification are independently met.

D.2 Mandatory principles

In a Combined Report:

- validation and verification shall remain conceptually and analytically distinct;
- findings shall specify whether they relate to validation or verification;
- conclusions shall be separate and explicit.

D.3 Mandatory structure – Combined Report

1. General information

- Project identification
- CAB and team
- Engagement scope

2. Applicable normative framework

3. Part A – Validation

- Scope and objectives
- Eligibility and methodology
- Baseline and additionality
- Validation findings
- Validation conclusion

4. Part B – Verification

- Monitoring period
- Data verification
- Materiality and uncertainty
- Reserve deductions
- Verification findings

- Verification conclusion

5. Summary of findings

- CL / CAR / FAR matrix
- Resolution status

6. Statements

- Validation Statement
- Verification Statement

Annex E – Minimum content requirements for Validation and Verification Statements

E.1 General provisions

Validation and verification statements issued under the BioCarbon Standard shall be prepared and issued by the Conformity Assessment Body (CAB) in accordance with its internal procedures and accredited conformity assessment processes.

BioCarbon does not prescribe or provide templates for validation or verification statements. CABs may use their own statement formats, provided that all mandatory content requirements set out in this Annex are met.

Failure to include any of the mandatory elements defined herein shall constitute a non-conformity.

E.2 Validation Statement – mandatory minimum content

A Validation Statement shall include, at a minimum, the following elements:

1. Identification of the project

- Project name and unique project identifier
- Project holder

2. Identification of the CAB

- Name and legal identity of the CAB
- Accreditation body and accreditation scope
- Statement of independence and impartiality

3. Scope and objective of the validation

- Confirmation that the statement relates to a validation engagement
- Reference to the validated project design

4. Applicable normative framework

- BioCarbon Standard
- Applicable version of the Validation and Verification Manual
- Approved methodology and mandatory tools

5. Level of assurance

- Explicit statement that validation was conducted at a reasonable level of assurance

6. Validation conclusion

- Clear statement of a positive, qualified, or negative validation conclusion
- Where qualified, explicit description of limitations or conditions

7. Date and authorization

- Date of issuance
- Name, role, and signature (or equivalent authorization) of the responsible CAB representative

E.3 Verification Statement – mandatory minimum content

A Verification Statement shall include, at a minimum, the following elements:

1. Identification of the project and monitoring period

- Project name and unique project identifier
- Monitoring period covered by the verification

2. Identification of the CAB

- Name and legal identity of the CAB
- Accreditation body and accreditation scope
- Statement of independence and impartiality

3. Scope and objective of the verification

- Confirmation that the statement relates to a verification engagement
- Reference to the verified monitoring report

4. Applicable normative framework

- BioCarbon Standard
- Applicable version of the Validation and Verification Manual
- Approved methodology and mandatory tools

5. Level of assurance and materiality

- Explicit statement that verification was conducted at a reasonable level of assurance

- Confirmation of the applied materiality threshold ($\pm 5\%$), unless otherwise required

6. Verification conclusion

- Clear statement of a positive, qualified, or negative verification conclusion
- Explicit statement on eligibility or non-eligibility for issuance of Verified Carbon Credits (VCCs)

7. Date and authorization

- Date of issuance
- Name, role, and signature (or equivalent authorization) of the responsible CAB representative

E.4 Statements issued in combined validation and verification engagements

Where validation and first verification are conducted within a single engagement:

- Validation and verification shall remain analytically distinct; and
- Separate conclusions for validation and verification shall be clearly identified, whether issued as:
 - separate statements, or
 - clearly separated sections within a single document.

Each conclusion shall independently meet the applicable mandatory content requirements set out in Sections E.2 and E.3 of this Annex.

E.5 Legal effect and limitations

Validation and verification statements issued by CABs under the BioCarbon Standard:

- represent the independent professional opinion of the issuing CAB;
- do not constitute guarantees, warranties, or endorsements by BioCarbon; and
- shall be interpreted exclusively within the scope and limitations expressly stated therein.

Annex F – Crosswalk between the BCR Standard and the Validation and Verification Manual v4.0

F.1 Purpose and scope of the crosswalk

This Annex provides a normative crosswalk between the requirements of the BCR Standard and the corresponding provisions of the Validation and Verification Manual v4.0 of the BioCarbon Standard.

The purpose of this crosswalk is to:

- (a) demonstrate how each substantive requirement of the BCR Standard is operationalized, assessed, and enforced through validation and verification;
- (b) ensure transparency and traceability for external reviewers; and
- (c) confirm that no requirement of the BCR Standard remains unaudited or unenforced.

This Annex is informative in structure but normative in effect, as it clarifies the mandatory linkage between the Standard and this Manual.

F.2 Principles governing interpretation of the crosswalk

The following principles apply to the interpretation of this Annex:

- (a) Completeness: every requirement of the BCR Standard relevant to project eligibility, quantification, safeguards, permanence, and issuance is mapped to at least one section of the Validation and Verification Manual v4.0;
- (b) Non-duplication: the crosswalk does not restate BCR Standard requirements, but identifies where and how they are assessed during validation or verification;
- (c) Normative precedence: in the event of any inconsistency, the BCR Standard prevails;
- (d) Operational clarity: references indicate the exact chapter or section where CAB obligations are defined; and
- (e) No creation of new obligations: this Annex does not introduce additional requirements beyond those already established in the BCR Standard and the Validation and Verification Manual v4.0.

F.3 Structure of the crosswalk

The crosswalk table is structured as follows:

BCR Standard requirement	Nature of requirement	VVM v4.0 reference(s)	Assessment stage
Section / requirement identifier	Eligibility / Quantification / Safeguards / Permanence / Governance	Chapter and section of VVM v4.0	Validation / Verification / Both

Where a requirement applies to both validation and verification, both stages are indicated.

F.4 Crosswalk table (core requirements)

(Note: the content below is normative; the full table constitutes an integral part of this Annex.)

BCR Standard	Nature of requirement	VVM v4.0 reference(s)	Assessment stage
Project eligibility criteria	Eligibility	Chapter 9	Validation
Methodology applicability	Eligibility / Quantification	Chapters 9, 10	Validation / Verification
Baseline determination	Quantification	Chapters 9, 10	Validation / Verification
Additionality	Eligibility	Chapter 9	Validation
Monitoring plan requirements	MRV	Chapters 9, 10	Validation / Verification

BCR Standard	Nature of requirement	VVM v4.0 reference(s)	Assessment stage
Data quality and traceability	MRV	Chapters 10, 11, 12	Verification
Reasonable assurance	Assurance	Chapter 11	Validation / Verification
Materiality threshold ($\pm 5\%$)	Assurance	Chapter 11	Verification
Uncertainty management	Quantification	Chapter 11	Validation / Verification
Permanence risk assessment	Permanence	Chapters 9, 13	Validation / Verification
Reserve contributions	Permanence	Chapters 10, 13, 16	Verification
Reversals and loss events	Permanence	Chapters 13, 16	Verification
Leakage assessment	Environmental integrity	Chapters 9, 10, 13	Validation / Verification
Safeguards (environmental & social)	Safeguards	Chapters 9, 10	Validation / Verification
FPIC (where applicable)	Safeguards	Chapter 9	Validation
Legal rights and carbon ownership	Governance	Chapters 9, 10	Validation / Verification

BCR Standard	Nature of requirement	VVM v4.0 reference(s)	Assessment stage
CAB independence	Governance	Chapters 4, 8	Both
CAB competence	Governance	Chapters 6, 7	Both
Findings and corrective actions	Enforcement	Chapter 14	Both
Validation statement	Governance	Chapter 15	Validation
Verification statement	Governance	Chapter 15	Verification
Issuance eligibility	Issuance	Chapters 10, 16	Verification
Erroneous issuance	Enforcement	Chapter 16	Verification
Appeals and complaints	Governance	Chapter 17	Both
Record retention and transparency	Governance	Chapter 18	Both

F.5 Use of the crosswalk by CABs and reviewers

Conformity Assessment Bodies (CABs) **shall use this crosswalk** as a reference to ensure that all applicable BCR Standard requirements are addressed during validation and verification.

External reviewers, accreditation bodies, and program assessors **may rely on this Annex** to:

- (a) verify completeness of the validation and verification framework;
- (b) identify the audit stage at which specific requirements are assessed; and

(c) confirm alignment between the BioCarbon Standard normative instruments.

F.6 Updates and maintenance

This Annex shall be updated whenever:

- (a) the BCR Standard is revised; or
- (b) material changes are introduced to the Validation and Verification Manual v4.0.

Updates to this Annex do not modify substantive requirements, but maintain traceability and clarity across the normative framework.

History of Document

Type of document. Normative Program Document

Validation and verification Manual of GHG projects.

Version	Date	Description
1.0	April 17, 2020	Initial version
1.1	October 19, 2020	Updated version Starting date
1.2	January 19, 2021	Updated version Section 8.3
1.3	April 5, 2021	Updated version Validation and Verification Bodies (VVOs) changed to Conformity Assessment Bodies (CABs) Liability Insurance section now in section 10.1.3 Clarifications and definitions about other greenhouse gas projects
2.0	February 18, 2022	Updated version Mitigation initiatives and other GHG projects now referred to as GHG projects.
2.1	February 13, 2023	Updated version The first party auditory was eliminated
2.2	October 19, 2023	Updated version Updated Section 9. OEC and consecutive verifications Section 10.1.3 updated. Professional Liability Insurance Minor editorial changes
2.3	January 9, 2024	Updated version Transition period for the use of the updated version

Version	Date	Description
2.4	March 23, 2024	Updated version Section 8.1. General requirements, scope of the validation or verification Section 8.2.1. Team competence Section 9.1. Validation
2.5	June 17, 2024	Updated version Professional indemnity insurance
3.0	June 13, 2025	Full revision of the Validation and Verification Manual to ensure alignment with the BioCarbon Standard v4.0 and all operational procedures under the BioCarbon GHG Program. This version introduces structural improvements, strengthens alignment with ISO 14064-3 and ISO 14065, and integrates full compliance with the Core Carbon Principles (ICVCM), the CORSIA Eligibility Criteria, and Article 6 of the Paris Agreement. Key additions include: (i) risk-based validation and verification procedures, (ii) assurance and materiality protocols, (iii) traceable classification and resolution of findings, (iv) a new section on appeals, complaints and dispute resolution, and (v) provisions for version control and continuous improvement.
4.0	April 05, 2026	Consolidated revision aligning the Manual with the current BioCarbon Standard normative framework and strengthening validation and verification requirements, including assurance level, materiality, baseline reassessment and renewal, full verification requirements, permanence, CAB obligations, and enforcement provisions.