
GL-MS-005 — Accreditation and Certification of VVBs (Validation & Verification Bodies)

Accreditation , Operation and Supervision Procedure in the Greenline Carbonsat Registry

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Normative basis:

ICVCM — Core Carbon Principles (CCPs); ICROA Code of Best Practice ; ISO 14065;
ISO/IEC 17029; ISO 19011; GHG Protocol Project Accounting .

Methodological integrations:

GL-M-001 (core); GL-MC-004 (calculation/reporting — VVB package §9–11); GL-MS-002 (issuance gate : additionality/permanence/ leakage); GL-MS-007 (legal compliance: KYC/KYB; AML/ABC); GL-MS-012 (data/QA/QC); GL-GR-010 (data & versions guide).

Co-benefits :

Opt-in and evaluated exclusively by Greenline. Institute in accordance with GL-MS-003 (outside the scope of VVB accreditation).

GREENLINE CARBONSAT

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1. Introduction

1. Objective and scope

This methodology establishes the requirements and procedures for the accreditation, approval, operation, and supervision of independent validation and verification entities . Bodies (VVBs) — within the scope of the Greenline Registry Carbonsat .

The central objective is to ensure that only technically competent, independent, and accredited VVBs (Verification Verification Bodies) participate in the verification processes of Greenline 's methodological cycles , in accordance with principles of integrity, traceability, and transparency.

The scope of **GL-MS-005** covers:

- Initial accreditation and renewal of VVBs .
- Rules of conduct (declarations of independence, rotation, prohibition of conflicts).
- Ongoing supervision (performance audits, complaints and appeals).
- Sanctions, suspension, and re-accreditation.
- Publication of the official list of approved VVBs in the Greenline Registry. Carbonsat .

This standard **does not** address socio-environmental co-benefits (exclusive scope of **GL-MS-003**), nor does it define the calculation of CO₂eT (competence of **GL-MC-004**).

2. Integrations methodological

GL-MS-005 is supplementary and should be applied in conjunction with the following normative documents:

- GL-M-001 — Master methodology, which defines the REDD cycle for ex-post inventory and the requirement for independent verification.
- GL-MC-004 — Calculation Methodology; defines the VVB Package (§9–11) that the entity must verify.
- GL-MS-002 — Governance of additionality, permanence and leakage ; the issuance decision depends on verification conducted by an approved VVB.
- GL-MS-007 — Legal compliance (KYC/KYB; AML/ABC), applied as a prerequisite for VVB accreditation and applicant screening.
- GL-MS-012 — Data quality criteria (QA/QC) that VVB must verify in each cycle.
- GL-GR-010 — Data Reference Guide; VVB must attest to the use of approved fonts/versions.

3. Principles of integrity

The accreditation and operation of VVBs (Virtual Life Support Companies) must, as a mandatory requirement:

- Independence: absence of ties that compromise impartiality (financial, technical, advisory).
- Competency: Specific technical expertise in LULUCF projects, remote sensing, inventory calculation, and data QA/QC.
- Traceability: all VVB actions must be documented with URIs , hashes , and auditable records, ensuring reproducibility and preventing double counting.
- Transparency: publication of accredited VVBs , decision history, and oversight audits in the Greenline Registry. Carbonsat .

Legend of Abbreviations

- VVB — *Validation & Verification Body (an independent validation and verification entity).*
- QA/QC — *Quality Assurance / Quality Control (quality assurance and control).*
- URI — *Uniform Resource Identifier (digital resource identifier).*

- *Hash* — Cryptographic signature of integrity (e.g., SHA-256).
- *KYC/KYB* — Know Your Customer / Know Your Business.
- *AML/ABC* — Anti-Money Laundering / Anti-Bribery and Corruption .

2. Terms, Definitions and References

1. Terms and acronyms

For the purposes of this methodology, the following terms and acronyms apply:

- **VVB Accreditation:** the process of evaluating and approving an independent entity to act as a Validation & Verification Body within the Greenline framework. Carbonsat .
- **Approval:** formal act of recognizing accreditation, authorizing VVB to operate within the methodological cycles.
- **Witness Audit :** Witness audit conducted by Greenline Carbonsat as part of the accreditation or supervision process for a VVB.
- **Scope of activity:** a set of typologies or domains (e.g., LULUCF, data QA/QC, legal compliance) in which VVB is authorized to operate.
- **VVB rotation:** requirement to replace an entity or lead verifier after a maximum number of consecutive cycles, preventing conflicts of interest.
- **Conflict of interest (COI):** a circumstance in which the independence or impartiality of VVB may be compromised, directly or indirectly.

2. References regulations

GL -MS-005 is based on and adheres to the following standards and frameworks:

- ISO 14065 — Requirements for bodies validating and verifying greenhouse gases.
- ISO/IEC 17029 — Conformity assessment: general principles and requirements for validation and verification bodies.
- ISO 19011 — Guidelines for auditing management systems.
- IPCC 2006/2019 — Guidelines for national GHG inventories, for inclusion in LULUCF.
- GHG Protocol Project Accounting — Standard for quantifying and reporting emission reductions at the project level.
- ICVCM Core Carbon Principles (CCPs) — Integrity principles for high-quality carbon credits.
- ICROA Code Code of Best Practice — Code of best practices for organizations in voluntary carbon markets.
- External standards compared (Verra VCS, Gold Standard, ART-TREES, Cercarbono) — used as benchmarks, without claiming automatic equivalence.

Captions and Abbreviations

- *COI — Conflict of Interest.*
- *ICVCM — Integrity Council for the Voluntary Carbon Market.*
- *ICROA — International Carbon Reduction and Offset Alliance.*
- *IPCC — Intergovernmental Panel on Climate Change .*
- *ISO — International Organization for Standardization .*
- *VCS — Verified Carbon Standard (Verra).*
- *GS — Gold Standard for the Global Goals .*
- *ART-TREES — Architecture for REDD+ Transactions – The REDD+ Environmental Excellence Standard.*
- *QA/QC — Quality Assurance / Quality Control .*
- *VVB — Validation & Verification Body.*

3. VVB Eligibility

1. Requirements organizational

The entity applying to become a Validation & Verification Body (VVB) must demonstrate:

- Legal, financial, and operational independence from verified applicants, consultants, and stakeholders.
- A formal, auditable, and up-to-date Quality Management System (QMS) covering audit planning, verification, independent review, nonconformity handling, and continuous improvement.
- Adequate professional insurance (civil liability / errors and omissions) compatible with the scope of validation and verification.
- Data protection and information security in accordance with applicable international standards and laws (e.g., privacy by design principles, access controls, encryption, secure retention), preferably with reference to recognized standards (e.g., ISO/IEC 27001 or equivalent).
- Ethics and impartiality: documented policies for preventing and managing conflicts of interest (organizational and individual), including due diligence. due diligence Pre -engagement and declarations of independence by cycle.

2. Accreditations recognized

It is mandatory that the VVB be accredited by an accreditation body that is a member of the International Accreditation Forum (IAF) within the relevant scope, including:

- ISO 14065 — GHG validation and verification bodies.
- ISO/IEC 17029 — Conformity assessment: general principles and requirements.
- Other equivalent international standards accepted by the IAF and Greenline Carbonsat, duly evidenced.

3. Competence put scope

VVB must demonstrate, cumulatively, technical competence and practical experience in the following areas:

- a) Forestry projects and land use (LULUCF)
 - Technical interpretation of methodologies based on ex-post inventory (**GL-M-001** / **GL-MC-004**) and their artifacts (VVB package, metadata, series, hashes).
 - Assessment of leakage and territorial context indicators according to applicable guidelines.

- b) Remote sensing and complementary evidence
 - Capacity to assess (not calculate) the use of official remote sensing and geospatial data for eligibility, monitoring, and governance evidence purposes, including:
 - Additionality and permanence (inputs for the **GL -MS-002** gate).
 - Co-benefits (inputs from module **GL-MS-003** , when selected).
 - Verification of consistency of sources/versions, time windows, masks and trails (URIs / hashes), in alignment with **GL-MC-004** and **GL-MS-012** .

- c) MRV and project documentation in the voluntary market.
 - Proven experience in reviewing dossiers and documents typical of the project lifecycle, including: PIN, PDD/PD, Monitoring Plans, Monitoring Reports, Sampling Plans/Reports (when applicable), Verification Reports, and Public Summaries.
 - Operational knowledge of the flows of programs/registries in the voluntary market, for benchmarking and procedural consistency purposes (without claiming automatic equivalence).

- d) Data quality, uncertainty, and reproducibility
 - QA/QC verification of data and processes according to **GL-MS-012** ; assessment of uncertainties and technical exclusions and their respective remediation (CAPA) before the decision.
 - Reproducibility check: scripts/notebooks, library versions, execution evidence, and reconciliation.

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- e) Compliance, due diligence and integrity
- Proficiency in KYC/KYB and AML/ABC applicable to the VVB role (as per **GL-MS-007**), including independence and anti-bribery controls in the verification chain.
 - Stakeholder management and complaint/appeal mechanisms in the context of validation/verification.
- f) Project and deadline management in the voluntary market.
- Planning and conducting audits (on-site/ remote), managing schedules and milestones (scoping , solicitations , data requests , technical Q&A), peer review, and issuing verification opinions within program deadlines and requirements.
 - Interface with records (submissions, corrections, responses to findings) and maintenance of complete trails (URIs / hashes) until the cycle is closed.

Captions and Abbreviations

- *CAPA — Corrective and Preventive Action .*
- *IAF — International Accreditation Forum .*
- *ISO/IEC 17029 — Conformity assessment: general principles and requirements.*
- *ISO 14065 — Requirements for GHG validation and verification bodies.*
- *MRV — Measurement , Reporting and Verification .*
- *PIN — Project Idea Note.*
- *PDD/PD — Project Design Document / Project Description .*

4. Accreditation Process

1. Application (form + dossier)

Applicants seeking accreditation as VVBs must submit their applications via the official Greenline channel. Carbonsat , the form from the Annexes Section — A accompanied by the minimum dossier:

- a) Articles of incorporation, corporate structure and functional organizational chart (with independence/compliance functions);
- b) Evidence from the QMS (procedures, internal audits, handling of nonconformities and continuous improvement);
- c) Current copies of accreditations (e.g., ISO 14065, ISO/IEC 17029) and the scope authorized by the AB (IAF member);
- d) Independence policy and conflict of interest management (COI), including model statements and pre -engagement screening controls;
- e) Evidence of data protection and information security (controls, access management, secure retention);
- f) Professional insurance (civil liability/errors and omissions) compatible with the scope of validation/verification;
- g) Portfolio of experience at MRV (PIN, PDD/PD, monitoring and verification plans/reports), with references/contacts;
- h) peer roles) reviewer);
- i) Declaration of awareness and adherence to standards **GL-M-001, GL-MC-004, GL-MS-002, GL-MS-003, GL-MS-007, GL-MS-012 and GL-GR-010** .

2. Due diligence (KYC/KYB; AML/ABC — GL-MS-007)

A Greenline Carbonsat will necessarily conduct:

- a) KYC/KYB of VVB and parent/affiliated companies, as per GL-MS-007;
- b) AML/ABC fact-checking (restricted lists, sanctions, PEPs, adverse media, regulatory history);
- c) Verification of independence and COI (history of consulting work, resource sharing, corporate ties);
- d) Conference on the validity/scope of accreditations and professional insurance;
- e) Validation of MRV references (sampling with contact from clients/registries, when applicable).

3. Assessment technical (test / interview) and witness audit

The technical phase includes:

- a) Technical exam (online/in-person) on: LULUCF/ ex-post inventory , interpretation of **GL-MC-004** (VVB package §§9–11), data QA/QC (**GL-MS-012**), governance (GL-MS-002) and compliance (**GL-MS-007**);
- b) Technical and integrity interview with the proposed team (lead verifier , reviewer , geospatial specialist, compliance specialist);
- c) Targeted document review (samples of issued reports, trails with URIs / hashes , reconciliations, and CAPA);
- d) Witness audit : witness audit in a real verification or guided simulation, with minimum criteria from Annex D;
- e) Issuance of a competency opinion by scope (approved/conditional/not approved), with any corrective actions.

4. Decision (full or provisional), scope and validity

The decision is formalized by Greenline. Carbonsat, after completing the previous steps, according to the parameters detailed in Annex G — Classification and Scope of VVB Accreditation :

- a) **Full accreditation** : approved without conditions, with a defined scope (domains/products/biomes) and a validity of 36 months.
- b) **Provisional accreditation** : approved with conditions, limited scope, and validity of up to 12 months, contingent upon completion of a witness statement. Additional audit and/or CAPA before full migration.
- c) **Not approved** : possibility of reapplication after addressing documented technical/organizational gaps.
- d) **Scope changes** : extension/reduction requests evaluated prospectively, which may require a new witness. audit .
- e) **Resolutive conditions** : loss of accreditation, insurance or independence implies automatic suspension until regularization (see Section 8).

Captions and Abbreviations

- *AB — Accreditation Body (accreditation body, member of the IAF).*
- *CAPA — Corrective and Preventive Action .*
- *COI — Conflict of Interest.*
- *IAF — International Accreditation Forum .*
- *ID/Series — Identifier and sequential number of the accreditation.*
- *MRV — Measurement , Reporting and Verification .*
- *QMS — Quality Management System.*
- *URI/ Hash — Resource identifier / integrity signature.*

5. Rules of Conduct

1. Declaration of independence per cycle

Before the start of each verification, the VVB must issue a formal declaration of independence (template in Appendix B) and file it in the VVB Package with URI/hash :

- a) Coverage includes VVB, parent company/affiliates, and key personnel (lead verifiers , reviewers , specialists).
- b) To attest to the absence of any financial, technical, contractual, or corporate conflict of interest (COI) with the applicant, developers (PIN, PDD/PD, monitoring), and other relevant parties.
- c) Describe the COI screening process applied (databases consulted, period analyzed, result).
- d) Report mitigation measures when applicable; if any material COI remains, the VVB should refuse engagement.
- e) Register the declaration in the corresponding cycle of the Greenline Registry. Carbonsat (Section 9).

The statement It must be published in the cycle 's VVB package , with a valid URI and hash , linked. project / series ID .

2. Rotation and cycle limits consecutive

To preserve integrity and independence, the following apply:

- a) Entity (VVB): maximum of 6 (six) consecutive cycles in the same project, as per **GL-MS-002** (issuance governance).
- b) Person (lead verifier): maximum of 3 (three) consecutive cycles in the same project (requirement of this **GL-MS-005** , aligned with international best practices).
- c) After the applicable limit, a minimum cooling period of 1 (one) cycle is required before re-engagement.

- d) Projects with multiple polygons/series count towards rotation if they belong to the same registered project.
- e) Greenline Technical Accreditation Committee. Carbonsat , with documented justification and notation in the public record (Section 9).

Notice: *Parameters Summary : VVB \leq 6 cycles consecutive / project ; lead \leq 3; cooling-off = 1 cycle . Exceptions just put CTC decision , with justification and notation in the public record .*

3. Consulting restrictions and conflicts

VVB is prohibited from:

- a) Provide consulting or development services related to the project/cycle being reviewed (e.g., preparation/revision of PIN, PDD/PD, monitoring plans/reports, modeling, additionality/permanence/ leakage dossiers).
- b) Act as VVB on a project in which there has been relevant prior consulting by VVB itself or its key personnel in the last 24 (twenty-four) months (cooling -off).
- c) Adopt contingent compensation (success fee , revenue sharing from credits, performance-related bonus).
- d) Sharing human, technological, or financial resources with the proponent or affiliated entities in a way that compromises independence.
- e) Accepting hospitality, gifts, or benefits that could compromise impartiality.

Operational notes

- f) Any potential COI identified during the verification must be reported to Greenline immediately. Carbonsat .
- g) Non-compliance will be dealt with in accordance with Section 8 (sanctions), without prejudice to CAPA (Section 7) and updating of the public record (Section 9).

Captions and Abbreviations

- *Lead verifier — principal auditor responsible for the technical conduct and issuance of the verification opinion at VVB.*

- *Reviewer / Peer reviewer* — auditor(s) responsible for the independent review of the lead verifier 's work .
- *COI (Conflict of Interest)* — any financial, technical, contractual, or corporate condition that could affect the independence/impartiality of VVB or its key personnel.
- *Cooling -off* — minimum cooling period (in this standard: 1 cycle) before the same VVB or the same lead verifier can be used again on the same project, after reaching the limit of consecutive cycles.
- *VVB Package* — a collection of documents, evidence, and metadata from the verification cycle (includes statements, reports, scripts/logs, checklists, URIs / hashes).
- *Greenline Technical Accreditation Committee (CTC) Carbonsat* — a body responsible for exceptional decisions (e.g., requests for rotation exceptions), technical validation, and sanctions.

6. Interface with Cycle Verification (Operation)

1. VVB package (artifacts , metadata , URIs, hashes — mirrors GL-MC-004 §§ 9–11)

The **VVB package** is required for each verified cycle and must be organized with URIs and hashes for all artifacts:

- a) Letter of engagement and scope of verification (project, cycle, series, polygons, applicable versions).
- b) Declaration of independence (Annex B) and IOC screening (databases consulted, period and result).
- c) Verification plan (method, evidence sampling, timeline, team: lead/verifiers / reviewers).
- d) Listing of sources and versions (**GL-GR-010**): datasets , sensors, periods, masks, with URIs / hashes .
- e) Inventory of the proponent's technical artifacts for the cycle:
 - Technical report of the cycle (proposed public summary),
 - Rasters / shapefiles / consolidation tables by polygon/series,
 - Metadata and serialization records (IDs , series, versions),
 - Evidence of leakage (10 km ring, indicators, declared class),
 - FTC Table (components, weights, score obtained)
 - QA/QC Checklist (**GL-MS-012**) with evidence.

- f) Verification scripts/notebooks (when applicable): commands executed, environment (library versions), logs, and outputs.
- g) VVB Verification Report: Findings, Non-conformities (NC), Observations (OBS), Required CAPA, Verification Opinion.
- h) Reconciliation and tracking: mapping the correspondence between what was audited and what is published in the Greenline Registry. Carbonsat (fields, values, versions).
- i) Integrity control: file-based hashes , integrity verification, and timestamping.
- j) Compliance attachments (**GL-MS-007**): Applicant's KYC/KYB/AML-ABC summary (status only; no sensitive data).

2. Minimum verification checks (technical consistency and governance)

VVB must execute, document, and provide evidence of, at a minimum:

- a) CO₂eT : consistency between consolidated values and **GL-MC-004** rules (order of operations, final rounding, stratification and masks), without using field inventory in the calculation.
- b) FTC: verification of components, weights and grade; confirmation of compliance with the applicable FTC_min for the cycle.
- c) Leakage : ring check, indicators and declared class; class record to feed the GL -MS-002 gate .
- d) QA/QC (**GL-MS-012**): checking the quality of data and processes; if there is material uncertainty or technical exclusions, require remediation before completion (CAPA).
- e) Sources/versions (**GL-GR-010**): confirmation that approved datasets and versions were used; inconsistencies must be corrected or formally justified.
- f) Traceability: verification of URIs / hashes of all artifacts; any discrepancy invalidates the artifact until corrected.
- g) No- double - counting : verification of series/ ID uniqueness and overlaps; checking for links with other relevant records, when applicable.
- h) Documentary compliance of the cycle: consistency of the proposed public summary with the verification findings (fields, numbers, versions, cut-off dates).

- i) Operating rules: rotation confirmation (Section 5.2), cooling -off and consulting seals (Section 5.3).
- j) Conclusion: issuing an opinion (compliant/conditional/non-compliant) and, if applicable, a CAPA plan with deadlines and responsible parties.

*VVB should The report must verify the metadata check /URIs/hashes as per the required documentation . **GL-GR-010** (licenses , reproducibility and validation) (cross-reference). Hash discrepancy invalidates the artifact. until correction .*

3. Reproducibility and traces (scripts, logs, versions)

The verification must be **reproducible** by an independent auditor, as per:

- a) Executable environment: specify operating system, library versions, seeds , parameters, and environment variables; when applicable, provide container/ lockfile .
- b) Scripts/notebooks: provide the code used for checks and reconciliations (or equivalent diffs), with minimal comments and data paths referenced by URI.
- c) Execution logs: attach logs containing commands, input/output hashes , and execution times; keep records of errors and corrections.
- d) Changelog : record relevant changes during verification (artifacts replaced, versions corrected, CAPA applied).
- e) Peer review: record of the VVB's internal review (peer review), including the opinion and acceptance of the lead verifier .
- f) Final delivery to the Registry: package the VVB Package with a standardized structure (maintain names/tree), publish metadata in the Greenline Registry. Carbonsat and archive the complete artifacts at the official URI with hash .

Captions and Abbreviations

- *CAPA — Corrective and Preventive Action .*
- *Changelog — a history of relevant changes, including date, author, and justification.*
- *FTC / FTC_min — Technical Confidence Factor / minimum threshold applicable to the cycle.*
- *GL-GR-010 — Data Reference Guide and approved versions.*
- *Leakage (class) — Green/Yellow/Red classification used to feed the GL-MS-002 gate .*
- *Logs — textual records of execution (commands, results, errors, hashes).*

- *VVB package* — a normative set of artifacts required for the verification of a cycle.
- *Peer review* — an independent technical review conducted within VVB.
- *URI / Hash* — unique identifier of the digital resource / cryptographic integrity signature.

7. Post- Accreditation and Supervision

1. Maintaining competence and communicating change .

After accreditation, VVB must maintain:

- a) Qualified technical team, with regular updates in Greenline methodologies. Carbonsat (GL-M-001, GL-MC-004, GL-MS-002, GL-MS-003, GL-MS-007, GL-MS-012...).
- b) Annual training in critical topics (data QA/QC, remote sensing, AML/ABC compliance, independence).
- c) Evidence of participation in workshops and refresher courses promoted by Greenline. Carbonsat .
- d) Immediate communication to Greenline Carbonsat of relevant organizational changes, including:
 - Change in corporate structure or governance.
 - Change of lead verifier or key personnel.
 - Suspension/cancellation of accreditations or insurance.
 - Changes in independence or information security policies.

2. Performance evaluation and oversight audits

A Greenline Carbonsat will carry out the following during the accreditation period:

- a) Documentary supervision of issued reports, including consistency analysis, reconciliation, and verifiability of VVB packages.
- b) Supervisory audits (on-site or remote) to assess integrity, reproducibility, and compliance with applicable standards.
- c) Witness Periodic audits to monitor ongoing verifications, according to the criteria in Annex D.
- d) Performance evaluation based on indicators defined in Annex E (quality, deadlines, frequency of nonconformities , consistency of CAPA).

- e) In the event of unsatisfactory performance, VVB may be subject to a corrective action plan or scope reduction.

3. Complaints , appeals and CAPA

A Greenline Carbonsat will maintain a formal mechanism for managing complaints and appeals.

- a) Complaints may be submitted by applicants, stakeholders or third parties; they must be registered, investigated and answered within 30 days.
- b) Appeals against VVB decisions (verification reports) may be submitted to the Technical Accreditation Committee; they must be resolved before final publication in the Registry.
- c) CAPA (Corrective) and Preventive (Action): Every relevant nonconformity identified during supervision, complaint, or appeal must generate an action plan with a defined deadline, evidence of implementation, and validation by Greenline. Carbonsat .
- d) Failure to comply with CAPA within the established deadline will result in the initiation of a sanctioning process (Section 8).

Captions and Abbreviations

- *CAPA — Corrective and Preventive Action .*
- *Technical Accreditation Committee (CTC) — Greenline collegiate body Carbonsat is responsible for deliberating on appeals, exceptions, and sanctions.*
- *NC — Nonconformity.*
- *Key personnel — VVB critical team (lead verifier , reviewers , technical/compliance specialists).*
- *Supervision — activity conducted by Greenline Carbonsat will be used to monitor VVB's performance after accreditation.*
- *Witness audit — witness audit conducted by Greenline Carbonsat in real-time or simulated data, for performance evaluation.*

8. Sanctions , Suspension and Re-accreditation

1. Classification of non conformities (NC) and scaling

A Greenline Carbonsat will classify the NCs according to the criteria in Annex E and apply the following scaling:

- a) Note: Minor deviation with no material impact; requires preventative correction.
- b) Minor NC — a defect that does not compromise the verification opinion; requires CAPA (defined deadline).
- c) NC-major — a flaw that compromises the verification opinion or the integrity of the process; requires immediate CAPA and may lead to precautionary suspension.
- d) Critical NC — fraud, forgery, undeclared material COI, use of contingent remuneration, data security breach with impact; warrants immediate suspension and revocation proceedings.

Notes:

e) The recurrence of minor NC in successive cycles may be reclassified as major NC (see Annex E).

f) Performance indicators below the Annex E thresholds for two consecutive periods trigger an extraordinary supervisory audit.

2. Measures sanctions

Depending on the severity and recurrence, the following may be applied, either individually or cumulatively:

- a) Formal warning — requiring a cover page and deadlines.
- b) Mandatory action plan — monitored by Greenline Carbonsat , with milestones and deliverables.
- c) Scope reduction — temporary limitation of authorized domains/biomes/activities.
- d) Precautionary suspension — temporary impediment to operating while the cause persists (e.g., loss of accreditation/insurance, critical non-conformity).
- e) Revocation — termination of accreditation due to serious non-compliance or repeated offense; requires a complete new process for reinstatement.

Notes:

- f) The sanctions applied and their grounds will be recorded in the public record (Section 9).
- g) During suspension or revocation, the VVB will not be able to issue verification opinions for registered projects.

3. Due process, complaints and appeals

A Greenline Carbonsat ensures the right to a fair hearing and full defense:

- a) VVB will be notified of the findings, will have access to the information, and may present its arguments and evidence within a reasonable timeframe (minimum 10 business days).
- b) Appeals against sanctions may be submitted to the Technical Accreditation Committee (CTC), which will decide within 30 calendar days, except in complex cases (with justified extension).

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- c) Third-party claims will follow the procedure outlined in Section 7.3, with the decision published in the public record.

4. Criteria for suspension

The suspension will be applied, among other things:

- a) Loss of recognized accreditation (e.g., ISO 14065) or expiration without renewal.
- b) Loss/insufficiency of mandatory professional insurance.
- c) NC - major issue not resolved within the deadline or NC - critical issue identified.
- d) IOC (Identified or Undeclared Material)
- e) Serious breach of information security (e.g., leakage of artifacts containing sensitive data).
- f) Indicators below the Annex E thresholds for two periods and failure to comply with the action plan.

5. Criteria for revocation

Revocation will be applied when:

- a) If there is fraud, falsification of evidence, or collusion.
- b) There is a recurrence of critical non-conformities or repeated non-compliance with CAPA.
- c) Reasons for suspension persist for more than 90 days without an accepted solution.
- d) testify occurs. audit or obstruction of supervision.

Effects:

- e) The revoked VVB will be removed from the public list (Section 9) and prevented from operating; projects under its verification will be conditional until a new VVB is designated.

6. Scope recovery and reaccreditation

To reinstate a suspension or revocation:

- a) Suspension — requires elimination of the cause (e.g., reinstating accreditation/insurance), proof via evidence and, when applicable, witness testimony. Return audit .
- b) Revocation — requires a complete new accreditation process (Section 4), including due due diligence , technical evaluation and witness Audit , in addition to a history of implemented CAPA projects.
- c) Scope recovery — after scope reduction, an extension may be requested based on objective evidence of performance (Annex E) and a satisfactory supervisory audit.

Captions and Abbreviations — Section 8

- *Annex E — Performance indicators and sanctions escalation table.*
- *CAPA — Corrective and Preventive Action .*
- *Greenline Technical Accreditation Committee Carbonsat .*
- *NC / OBS — Non-conformity / Observation.*
- *Precautionary suspension — a temporary measure until the case is resolved.*
- *Revocation — termination of accreditation, requiring full reaccreditation for reinstatement.*
- *Public history — record of decisions and sanctions available on the Greenline portal. Carbonsat .*

9. Transparency and Publicity

1. Public list of accredited VVBs (Veterinary Volunteers).

A Greenline Carbonsat will maintain a public and up-to-date list of accredited VVBs on its official website , containing:

- a) Legal and commercial name of VVB.
- b) Authorized scopes (LULUCF, data QA/QC, legal compliance, co-benefits).
- c) Classification of accreditation (full or provisional), according to the parameters of Annex G.
- d) Validity of accreditation (start and end dates).
- e) ID/Series and version of the accreditation.
- f) History of scope changes and renewals.

2. Decision history

Greenline Registry Carbonsat will publish a public history of decisions, accessible to proponents, auditors, and stakeholders, including:

- a) Sanctions applied (warnings, scope reductions, suspensions, revocations), with dates and grounds.
- b) Exceptions granted by the Technical Accreditation Committee (CTC), including justifications.
- c) Appeals decisions (as per Section 8.3).

- d) Performance notes linked to indicators (Annex E), when they result in corrective measures.
- e) Rotation exceptions authorized by the CTC (project , VVB, justification , period), linked to the accreditation ID and to cycle

3. Use of brand and external communication

VVBs may use the title "VVB Accredited by Greenline" . Carbonsat ” in its materials, respecting the following conditions:

- a) Use is permitted only during the validity period of the accreditation.
- b) Altering, simplifying, or using the logo without prior authorization is prohibited.
- c) Any claim of automatic equivalence with other standards is prohibited.
- d) Misuse of the trademark constitutes a critical non-conformity and may lead to suspension or revocation (see Section 8.5).

4. Versions and traceability

To ensure traceability and integrity:

- a) Each accreditation will receive a unique and immutable ID/Series number.
- b) All changes (scope, sanctions, extensions, renewals) will be recorded with a URI/ hash and timestamp.
- c) A normative changelog will be published with each new version of this methodology (GL-MS-005), indicating relevant changes.
- d) The public history (Section 9.2) and the list of VVBs (Section 9.1) will be linked by metadata, ensuring reproducibility and preventing duplication.

Captions and Abbreviations

- *Annex G — Classification and Scope of VVB Accreditation .*
- *Changelog — historical record of regulatory or accreditation changes.*
- *Greenline Technical Accreditation Committee Carbonsat .*
- *Public history — an open repository of decisions, available on the Greenline portal. Carbonsat .*
- *ID/Series — unique identifier and sequential accreditation number.*
- *URI/ Hash — unique identifier of the digital resource / cryptographic integrity signature.*

Appendix A — Application Form and Eligibility Checklist (VVB)

1. Institutional data

1. Company name / Trade name
2. Country(ies) of incorporation / registration
3. Legal identifier (CNPJ/EIN/ Company No., according to jurisdiction)
4. Address(es) and website
5. Contacts (technical and administrative manager)
6. Corporate structure (controlling/affiliated companies) — URI/ hash
7. Professional insurance (policy, validity, coverage) — URI/ hash

2. Scopes intended

1. LULUCF (preserved forests / ex-post stock)
2. QA/QC of data and reproducibility (GL-MS-012)
3. Legal and Documentary Compliance (KYC/KYB; AML/ABC – GL-MS-007)
4. Co-benefits (opt-in , GL-MS-003)
5. Others (specify)

3. Accreditations and recognitions

1. ISO 14065 (AB/IAF; authorized scope; validity) — URI/ hash
2. ISO/IEC 17029 (when applicable) — URI/ hash
3. Other equivalent accreditations (describe) — URI/ hash

4. QMS and policies mandatory

1. Quality Management System Manual/Procedures — URI/ Hash
2. Independence policy and IOC — URI/ hash
3. Information security and privacy policy — URI/ hash
4. CAPA Procedure — URI/ hash
5. Complaints and appeals procedure — URI/ hash

5. Team by scope

Required table containing: Role, Name, Education/Certifications, Experience, Scope, CV (URI/ hash).

Paper	Name	Training Certifications	Experience (years)	Scope	CV (URI/ hash)
Lead verifier					
Reviewer					
Geospatial specialist					
Compliance specialist					

6. Experience in MRV (samples)

Up to 5 relevant cases (PIN, PDD/PD, monitoring, verifications, registries), each with a URI/ hash of evidence.

7. Statements

1. Science and adherence to standards GL-M-001, GL-MC-004, GL-MS-002, GL-MS-003, GL-MS-007, GL-MS-012, GL-GR-010....
2. Accuracy of information and due diligence authorization diligence .

3. Signature of the technical manager / date.

8. A.8 Eligibility Checklist (completed by Greenline Carbonsat)

Table: Item, Evidence, Status (OK/NC/NOTES), Observations.

Item	Evidence	Status (OK/NC/OBS)	Observations
Valid ISO 14065 accreditation			
Adequate professional insurance			
A documented and auditable QMS (Quality Management System)			
Independence policy			
Information security			
Team by scope (lead/review)			
Proven MRV experience			
CAPA processes and resources			

Captions and Abbreviations

- *AB/IAF — Accreditation Body / International Accreditation Forum (internationally recognized accreditation body).*

- *CAPA — Corrective and Preventive Action (corrective and preventive action).*
- *COI — Conflict of Interest (conflict of interest).*
- *QMS — Quality Management System.*
- *URI/ Hash — Uniform Resource Identifier / Hash (digital identifier and integrity signature).*

Annex B — Declaration of Independence and Conflicts (Model)

1. Identification

1. Project (name / ID Carbonsat)
2. Cycle (vintage / period)
3. VVB (company name) — ID/Accreditation Series
4. Team (lead verifier , reviewers , experts)

2. Subject of the declaration

1. Declaration of financial, technical, contractual and corporate independence.
2. Declaration of absence of material COI.

3. COI screening

1. Databases consulted, period analyzed, results.
2. Links identified and mitigation measures.
3. Refusal to engage in the event of a non-mitigable material OCI (Offensive Intervention Certificate).

4. Commitments

1. No adoption of contingent remuneration.
2. Rotation compliance and cooling -off (Section 5.2).
3. Confidentiality and information security.

5. Signatures

Lead Verifier: _____ Date: ____

Reviewer(s): _____ Date: ____

VVB Legal Representative : _____ Date: ____

Legend and Abbreviations

- *Cooling - off Period (minimum period of absence before re-engagement) .*
- *ID/Series — Identifier / Serial Number (identifier and sequential accreditation number).*
- *PIN/PDD — Project Idea Note / Project Design Document (project concept and design documents).*

Annex C — Declaration of Independence and Conflicts (Model)

1. Structure

THE skills assessment it will be carried out put Scope , evidence , and acceptance criteria .

2. Scopes evaluated

Table C.2 — Competencies put scope

Scope	Minimum skills	Required evidence	Acceptance criteria
LULUCF (ex-post stock)	Interpretation of GL-M-001/GL-MC-004; reading of consolidations; leakage.	Verified reports; opinions; training	Meets the requirements / Conditions / Does not meet the requirements
Remote sensing (verification)	Evaluate sources/versions (GL-GR-010); masks; time windows; tracks	Verification samples; scripts/ diffs ; logs	Meets the requirements / Conditions / Does not meet the requirements
Data QA/QC (GL-MS-012)	Quality check; uncertainty; technical exclusions; CAPA	Checklists signed; Cover page completed.	Meets the requirements / Conditions / Does not meet the requirements

Scope	Minimum skills	Required evidence	Acceptance criteria
Document compliance (GL-MS-007)	KYC/KYB; AML/ABC; proof of ownership	Compliance reports; opinions	Meets the requirements / Conditions / Does not meet the requirements
Co-benefits (GL-MS-003)	Verification of criteria (opt-in)	Evaluation samples; reports	Meets the requirements / Conditions / Does not meet the requirements
Management Verification (MRV)	Planning, execution, peer review; deadlines	Plans; minutes; schedules; reports	Meets the requirements / Conditions / Does not meet the requirements

Legend and Abbreviations

- CAPA — Corrective and Preventive Action (corrective and preventive action).
- CCB — Climate, Community & Biodiversity Standards (standard for socio-environmental co-benefits).
- GL-GR-010 — Greenline Reference Guide (reference guide to approved data).
- MRV — Measurement, Reporting and Verification.
- URI/ Hash — Uniform Resource Identifier / Hash (digital identifier and integrity signature).

Annex D — Declaration of Independence and Conflicts (Model)

1. Preparation

1. Definition of the case (real/simulated) and scope evaluated.
2. Team confirmation and schedule.
3. List of artifacts with URI/ hash (proponent's package + VVB tools).

2. Execution

1. Verification and sampling plan.
2. Independence check (declaration — Annex B).
3. CO₂eT , FTC, leakage and QA/QC verification (GL-MC-004; GL-MS-012).
4. Reproducibility (scripts/notebooks, environment, logs).
5. Tracking URIs / hashes ; reconciliation vs. public summary.
6. NC/OBS record and CAPA.

3. Rating (scale 0–100)

Table D.3 — Grading criteria

Criterion	Weight
Planning and execution	20
Technical and compliance	40
Reproducibility and tracks	20
Independence and governance	20
Minimum passing grade	70

4. Exit

1. Witness report Audit with findings, NC/OBS, cover page and final grade.
2. Decision: approved / conditional / not approved.

Legend and Abbreviations

- *CAPA — Corrective and Preventive Action (corrective and preventive action).*
- *FTC — Technical Confidence Factor (technical confidence factor).*
- *NC/OBS — Non- Conformity / Observation .*
- *URI/ Hash — Uniform Resource Identifier / Hash (digital identifier and integrity signature).*
- *Witness audit — Witness Audit (witness audit conducted by Greenline) Carbonsat).*

Annex E — Performance Indicators and Sanctions

1. Indicators (evaluated) put period)

Table E.1 — Indicators and thresholds

Indicator	Definition	Threshold	Source
Technical quality	Percentage of checks without major/critical nonconformities.	$\geq 95\%$	VVB reports / supervision
Term	Percentage of deliveries made on schedule.	$\geq 90\%$	Plan vs. actual dates
Reproducibility	Percentage of packages with intact scripts/logs/ URIs / hashes	$\geq 95\%$	Audits / samples
COVER	Percentage of CAPAs completed on time.	$\geq 95\%$	CAPA System
Complaints	Index of valid complaints	$\leq 5\%$	Mechanism Section 7.3

2. Escalation of sanctions (summary)

Table E.2 — Scaling

Conduct / Result	First occurrence	Recurrence
NOTE	Warning with guidance	Maintained as OBS or converted to NC-minor
NC-minor	Cover required	It can raise the NC-higher
NC-major	Precautionary suspension until CAPA	Scope reduction / suspension
NC-criticism	Immediate suspension + revocation process	Revocation

Legend and Abbreviations

- CAPA — Corrective and Preventive Action.
- NC — Non- Conformity .
- OBS — Observation .
- URI/ Hash — Uniform Resource Identifier / Hash (digital identifier and integrity signature).

Appendix F — VVB Package: Fields and Formats Minimums

1. Minimum fields per component

1. Contract/Scope: project/ID, cycle, series/polygons, applicable versions.
2. Independence: declaration (Annex B) and screening (bases, period, result).
3. Verification plan: method, samples, schedule, team (lead/review).
4. Sources/versions (GL-GR-010): datasets , masks, URIs / hashes .
5. Proponent artifacts: reports, rasters , tables, metadata/serialization, leakage (class), FTC (spreadsheet).
6. Scripts/Logs: executed code, environment (library versions), logs, and outputs.
7. QA/QC (GL-MS-012): checklist, NC/OBS and CAPA.
8. VVB Report: findings, opinion (compliant/conditional/non-compliant).
9. Reconciliation: published vs. audited fields, numbers, and versions.
10. Compliance (GL-MS-007): aggregated status (no sensitive data).
11. Independence: signed declaration (Section 5.1) with URI/hash.

2. Formats and integrity

1. Documents: PDF/A; Spreadsheets: CSV/XLSX; Spatial data: GeoTIFF /COG, Shapefile / GeoPackage .
2. Persistent and hashed URIs (SHA-256).
3. Timestamp and changelog .
4. Stable directory structure.

Legend and Abbreviations

- *COG — Cloud Optimized GeoTIFF (cloud-optimized geospatial raster format).*
- *FTC — Technical Confidence Factor (technical confidence factor).*
- *GL-GR-010 — Greenline Reference Guide (reference guide to approved data).*
- *QA/QC — Quality Assurance / Quality Control (quality assurance and control).*
- *SHA-256 — Secure Hash 256-bit algorithm (cryptographic signature algorithm).*
- *URI/ Hash — Uniform Resource Identifier / Hash (digital identifier and integrity signature).*

Annex G — Classification and Scope of VVB Accreditation

1. Parameters and scopes by classification

Table G.1 — Classification

Classification	Minimum parameters	Authorized scope	Validity
Full	- Valid ISO 14065 accreditation - Adequate insurance - Absence of COI (Certificate of Intent) - Technical proof $\geq 80\%$ - Witness audit approved	LULUCF/AGB, Data QA/QC, Legal Compliance (GL-MS-007), Co-benefits (GL-MS-003)	36 months

Classification	Minimum parameters	Authorized scope	Validity
Provisional	- Valid ISO 14065 accreditation - Adequate insurance - Absence of COI (Certificate of Intent) - Technical proof $\geq 60\%$ - Witness pending or conditional audit	Limited scope (e.g., only data QA/QC, or only document compliance)	Up to 12 months
Not approved	- Failure in accreditation, insurance, IOC or technical proof $< 60\%$	None	—

2. Scope changes and conversion

1. Scope extensions/reductions through addendum and, when necessary, a new witness. audit .
2. Conversion from provisional to full status is contingent upon the fulfillment of certain conditions and approval in an additional technical evaluation.

Legend and Abbreviations

- *AGB — Above-Ground Biomass .*
- *GL-MS-007 — Greenline Carbonsat — Document compliance (KYC/KYB; AML/ABC).*
- *GL-MS-012 — Greenline Carbonsat — Data Quality Criteria (QA/QC).*
- *LULUCF — Land Use, Land-Use Change and Forestry (land use, land-use change and forests).*
- *URI/ Hash — Uniform Resource Identifier / Hash (digital identifier and integrity signature).*