

MANUAL FOR VALIDATION AND  
VERIFICATION OF GHG  
MITIGATION INITIATIVES AND  
OTHER GREENHOUSE GAS  
PROJECTS

**PROCLIMA<sup>®</sup>**

Version 1.3 | April 5, 2021

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PROCLIMA. 2021. Manual for the Validation and Verification of GHG Mitigation Initiatives and Other Greenhouse Gas Projects. Version 1.3. April 5, 2021. Bogotá, Colombia. 37 p. <http://www.proclima.net.co>

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## **1 Introduction**

As part of the certification of GHG mitigation initiatives and other GHG projects (collectively referred to as GHG projects in this document), PROCLIMA prepared this Validation and Verification Manual (VVM) to provide the basis for Conformity Assessment Bodies (CAB) performance through a standardized management system and to ensure that both the requirements established by PROCLIMA and the rules defined in sectoral, national or international standards are met.

This Manual specifies the principles and requirements for independent entities carrying out validation and verification processes of GHG projects, establishing the rules, procedures, and management needed to carry out the conformity assessment, including the scope, object, and field of application, criteria, level of assurance, also determining the approach and process needed for validation and verification.

The VVM is part of the Certification Program of PROCLIMA. Consequently, the Program requirements shall be met, in addition to those outlined in this Manual.

## **2 Object and area of application**

To achieve consistency and maintain confidence in the GHG projects certified and, therefore, the Verified Carbon Credits, PROCLIMA Program needs to define the requirements in terms of competencies for the conformity assessment bodies (CAB).

In this regard, the Manual for the Validation and Verification of GHG and other Greenhouse Gas Projects (from now on the Manual) contains principles and requirements of the CAB's competence, consistency, and impartiality.

## **3 Version**

This document constitutes Version 1.3. April 5, 2021.

This version of the Manual may be adjusted periodically, and intended users should ensure that they are using the latest version of the document. Expected users shall have a three-month transition period for the use of the updated version since its publication.

## 4 Principles

The principles described here guide the application of the requirements detailed in this Manual<sup>1</sup>. Consequently, these principles should be applied as guidance for the development of validation and verification activities.

According to ISO 14064-3, the principles to be applied in the validation and verification processes are the following:

### ***Independence***

Remain independent of the activity being validated or verified and free from bias and conflict of interest. Maintain objectivity throughout the validation or verification to ensure that findings and conclusions are based on objective evidence generated during validation or verification.

### ***Integrity***

The integrity principle involves demonstrating proper behavior through trust, honesty, diligent and responsible work, observation of the law, maintenance of confidentiality, and the disclosure expected by the law and the profession throughout the validation or verification process.

### ***Unbiased presentation***

Truly and accurately reflect the activities, findings, conclusions, and reports of the validation or verification Report on significant obstacles encountered during the validation or verification process, as well as unresolved differences of opinion between the validators or verifiers, the responsible party, and the customer.

### ***Due professional care***

According to the risk attributed to the work performed and the trust placed in it by customers and intended users, take due professional caution and judgment. Have the necessary skills and competencies to carry out the validation or verification.

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<sup>1</sup> Likewise, CABs must comply with the principles contained in the Certification and Registration Program for GHG Mitigation Initiatives and Other Greenhouse Gas Projects ProClima Program.

### ***Professional judgment***

Have the ability to reach meaningful and accurate conclusions, give opinions and make interpretations based on observations, knowledge, experience, literature, and other information sources. Also, demonstrate professional skepticism.

### ***Evidence-based approach***

The evidence is verifiable. It's based on sampling information. The appropriate use of sampling is closely related to the confidence placed in validation and verification conclusions.

## **5 Normative references**

The following references are indispensable for the application of this Manual:

- (a) Certification and Registration Program for GHG Mitigation Initiatives and Other Greenhouse Gas Projects. PROCLIMA PROGRAM Responsibility & Quality. in the most recent version;
- (b) Methodological documents and other guides or guidelines provided by PROCLIMA;
- (c) Existing national legislation related to GHG projects, or legislation modifying or updating such legislation;
- (d) Clean Development Mechanism rules, procedures, methodologies, and methodological tools, where applicable;

Similarly, compliance with the provisions of the following ISO Standards is required<sup>2</sup>:

- (a) ISO 14064-2:2019(en). Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring, and reporting of greenhouse gas emission reductions or removal enhancements, or that which updates it;
- (b) ISO 14064-3:2019(en). Greenhouse gases — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements, or its amendment;

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<sup>2</sup> In some parts of this document, reference is made to ISO Standards without the year of publication. In all cases, the most recent version of those standards always applies. Where the year of publication is indicated, this is the most recent version to date, and the version that updates it should always be considered.

- (c) ISO 14065:2013(en). Greenhouse gases — Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition.

## 6 Terms and definitions

### **Client**

Organization or person that requests validation or verification.

### **Conformity assessment**

Demonstration that specified requirements relating to a product, process, system, person, or body are fulfilled.

### **Conformity Assessment Body (CAB)**

Body performing conformity assessment activities and eligible for accreditation.

### **Conformity assessment system**

Rules, procedures, and management of a conformity assessment. Conformity assessment systems may operate at the international, regional, national, or sub-national level.

### **Force majeure or unforeseen circumstances**

Article 1 of Law 95 of 1890 and Article 64 of the Colombian Civil Code state that *"force majeure or fortuitous case is the unforeseen event that cannot be resisted, such as a shipwreck, an earthquake, the capture of enemies, and orders of authority exercised by a public official."*

For its part, the Supreme Court of Justice in Ruling SC16932-2015, referring to Law 95/80, determines the following: *"it is clear that these facts or acts, or others like them, as stated by the legislator, require them to be unpredictable or irresistible, meaning the first, an untimely, exceptional or surprising event; and the second, impossible, fatal, inevitable to overcome in its consequences."*<sup>3</sup>

### **GHG mitigation initiative**

These are programs, projects, actions, or activities developed at national, regional, local, and applicable to a sectorial level whose purpose is to reduce emissions, avoid emissions,

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<sup>3</sup> Consejo Superior de la Judicatura. December 2, 1987. p. 332.

remove and capture GHGs. Initiatives are GHG emission reduction initiatives or GHG removal initiatives. These initiatives may be sectoral or REDD+.

### **Intended User**

Individuals or organizations, identified by those reporting GHG-related information, who rely on reported information to make decisions.

### **Insurance level**

It is the level of detail that the Conformity Assessment Body (CAB) uses to determine whether there are errors, omissions, underestimate, overestimates, or misinterpretations in the validation or verification process.

Note 1. The assurance level is used to determine the level of detail that the validator or verifier designs in its validation or verification plan to determine if there are errors, omissions, or misinterpretations.

Note 2. There are two levels of assurance (reasonable or limited) that produce differently worded validation or verification statements.

### **Material Discrepancy**

Individual error or aggregation of errors, omissions, and misrepresentations in the GHG assertion. They could affect the intended users' decisions.

### **Materiality**

A concept that individual errors or a transaction of errors, omissions, and distortions could affect GHG declarations and influence the intended user's decisions.

### **Other GHG projects**

These projects can be certified and registered with PROCLIMA, and are related to energy generation activities based on non-conventional renewable energy sources, particularly wind and solar energy. However, despite certification and registration in the PROCLIMA Program, GHG emission reductions from these GHG projects are not eligible for carbon-neutral certification in Colombia.

### **Relative importance of errors**

A concept that individual or cumulative errors, omissions, and distortions could affect the GHG declaration and influence the intended users' decisions.

Note 1. The concept of "relative importance of errors" is used when designing validation or verification and sampling plans. This concept determines the type of key processes used to minimize the risk that a material discrepancy is not detected. The validator or verifier uses this concept as a risk detection tool.

Note 2. The concept of "materiality of errors" is used to identify information that, if omitted or misrepresented, would misrepresent a GHG claim to the intended users, thereby influencing their conclusions. The acceptable materiality of errors is determined by the validator, verifier, or GHG Program, based on the agreed level of assurance.

### **Responsible party**

Person or persons responsible for the provision of the GHG assertion and the supporting GHG information.

Note. The responsible party can be either individuals or representatives of an organization or project, and it can be the party who engages the validator or verifier. The validator or verifier may be engaged by the client or other parties, such as the GHG program administrator.

### **Sector**

A technical area that shares common attributes and similar GHG sources, sinks, and pools.

### **Specified requirement**

Established need or expectation. The specified requirements may be set out in normative documents, such as regulations, standards, and technical specifications.

### **Statement on greenhouse gases**

Statement or assertion of fact made by the responsible party.

Note 1. The GHG statement can be submitted at a specific time, or it can cover a period.

Note 2. The GHG statement, provided by the responsible party, should be clearly identifiable and capable of being consistently assessed or measured against appropriate criteria by a validator or verifier.

Note 3. The GHG statement may be provided as a GHG Report or a GHG project plan.

### **Uncertainty**

It is the parameter associated with the quantification that characterizes the dispersion of values reasonably attributed to the quantified quantity.

Note: Uncertainty information generally specifies quantitative estimates of the likely dispersion of values and a qualitative description of the likely causes of the dispersion.

### **Validation**

It is a systematic, independent, and documented process for evaluating a greenhouse gas assertion in a GHG project plan against agreed validation criteria.

Process for evaluating the reasonableness of the assumptions, limitations, and methods that support a statement about the outcome of future activities (ISO14064-2:2019(en)).

Note 1. In some cases, such as first-party validations, independence can be demonstrated by not responsible for developing GHG data and information.

### **Validation body**

A body that performs validations of GHG declarations under ISO 14064-3 and ISO 14065.

### **Validation criteria; verification criteria**

Policy, procedure, or requirement used as a reference against which evidence is compared.

Note: Validation or verification criteria can be set by governments, GHG programs, voluntary reporting initiatives, standards, or good practice guides.

### **Validation statement**

Formal written statement addressed to the intended user, following validation of a GHG project plan, which guarantees what is stated in the responsible party's GHG statement.

### **Validation team**

One or more validators conducting a validation, supported if needed by technical experts.

### **Validator**

Competent and independent person(s) responsible for doing the validation and reporting its results.

### **Verification**

It is the systematic, independent, and documented process for evaluating a GHG declaration against agreed verification criteria.

Process for evaluating a statement of historical data and information to determine if the statement is materially correct and conforms to criteria.

**Verification body**

Body performing verification of GHG declarations under ISO 14064-3 and ISO 14065.

**Verification statement**

A formal written declaration, addressed to the intended user, following verification, which guarantees what is stated in the responsible party's GHG declaration.

**Verification team**

One or more verifiers conducting a verification, supported if needed by technical experts.

**Verifier**

Competent and independent person(s) responsible for verification and reporting on the verification process.

Note 1. The verifiers' competence areas include the GHG Program, technical audit, data and information audit, and project-specific requirements.

## **7 General requirements of the Certification Program**

PROCLIMA does not issue Verified Carbon Credits (VCC) for GHG emission reductions or removals that have not been validated and verified by a Conformity Assessment Body (CAB). Therefore, the mitigation GHG initiatives / other GHG projects and CABs shall comply with the following:

- (a) GHG mitigation initiatives and GHG projects should be subject to validation and verification processes by an independent third party, or the first party. These processes ensure that they employ quantification methodologies for GHG emissions reductions or removals that are verifiable within the framework of ISO 14064-3.
- (b) The validation and verification processes shall be carried out by a GHG Conformity Assessment Body (CAB), or an internal auditor (first part), which complies with the requirements described in the legislation in force and others defined by the Certification and Registration of GHG Mitigation Initiative Program by PROCLIMA.
- (c) The CAB shall issue a validation and verification statement, indicating that the GHG emission reductions or removals were generated following the guidance defined in ISO 14064-2 and the results obtained from verification under ISO 14064-3 or those that adjust and update it.

In the framework of validations and verifications, CABs and the first party auditor<sup>4</sup> shall comply with the following:

- (a) examine the GHG data and information to develop evidence to evaluate the project's GHG statement. This review should be based on a sampling plan by selecting data and information that provide a reasonable assurance level and ensure compliance with materiality requirements.
- (b) when assessing the material discrepancy, consider the principles of the standards (ISO or those applicable) or the PROCLIMA Program.
- (c) to have standardized procedures to assess the accuracy, relevance, completeness, consistency, and transparency of information provided by GHG project holders and other GHG projects.
- (d) to confirm whether or not the initiative or GHG project meets the validation or verification criteria defined by PROCLIMA and those applicable to it.

## **8 Conformity Assessment bodies<sup>5</sup>**

The GHG conformity assessment bodies shall be accredited by the regulations in force and the PROCLIMA Program's provisions.

### **8.1 General requirements**

The CAB shall be a legal entity, or a defined part of a legal entity, which can be held legally responsible for all of its validation and verification activities.

The CAB should be responsible for validation and verification statements and retain authority over its decisions concerning validation and verification.

The CAB shall be responsible for the impartiality of its validation and verification activities and does not allow commercial, financial, or other pressures to compromise the guarantee of impartiality.

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<sup>4</sup> Hereafter, when reference is made to the CAB, if applicable and omitted, this also includes the first party auditor.

<sup>5</sup> Some of the requirements set out in this part of the document are met by the accreditation of the CAB by the accrediting bodies (UNFCCC, ANSI, ONAC, EMAS, etc.).

The CAB shall demonstrate that it has assessed the risks arising from its validation and verification activities and that it has appropriate arrangements in place to cover the responsibilities arising from its activities in each validation and verification activity.

Conformity Assessment Bodies, which carry out the validation and verification of GHG projects, should also demonstrate the following:

- (a) its accreditation under the requirements of ISO 14065 and all the provisions of the legislation in force,
- (b) the scope of their accreditation includes the GHG mitigation activities subject to the validation and verification process,
- (c) has a sufficient number of professionals, who demonstrate the necessary ethical conduct to perform all the functions required for validation and verification,
- (d) the auditors are experienced in the sector project type for which they are assigned and have the appropriate competence,
- (e) has documented internal procedures to perform its functions, in particular, procedures for the allocation of responsibilities within the organization,
- (f) ensures the necessary expertise and practice on environmental issues relevant to the verification of GHG projects and ensures quality in conformity assessment,
- (g) has knowledge of the technical aspects of GHG projects and methodologies for quantification and monitoring of GHG emission reductions and removals, including competence for the assessment of baselines and national reference levels, as well as maximum mitigation potentials,
- (h) has procedures for handling complaints, appeals, and disputes.

Furthermore, CABs shall work in an independent, reliable, non-discriminatory, and transparent manner, respecting the applicable legislation and complying, in particular, with the following requirements:

- (a) have a documented structure that protects its integrity, with provisions to ensure the impartiality of its operations,
- (b) have appropriate arrangements to protect the confidentiality of information obtained from GHG project operators,

- (c) demonstrate that they have no actual or potential conflict of interest with the GHG project operators for whose validation or verification they have been engaged,
- (d) make available to PROCLIMA, upon request, information obtained from GHG project holders. Information classified as confidential shall not be disclosed without the written consent of the provider unless required by national legislation,
- (e) As defined in this Program, information used to determine additionality to select baselines, reference levels, and maximum mitigation potentials and their application shall not be considered confidential.

CABs are responsible for conducting an objective assessment and issuing a validation or verification statement concerning the information submitted to them by the holder of the mitigation initiative and the other criteria defined by PROCLIMA.

The scope of validation or verification should include the following:

- (a) the boundaries of the mitigation initiative or GHG project and its baseline scenarios,
- (b) physical infrastructure, activities, technologies, and processes of the GHG organization or mitigation initiative / project,
- (c) GHG sources, sinks, and pools,
- (d) types of GHGs,
- (e) areas or instances of the mitigation initiative / project, if it is a grouped project;
- (f) periods,
- (g) evaluation of co-benefits (if applicable),
- (h) indicators related to SDG,
- (i) the monitoring plan and monitoring report.

## 8.2 Validation and verification team

### 8.2.1 Team competence

A validation and verification team should have the required competence to carry out validation or verification activities<sup>6</sup>.

A validation or verification team shall have:

- (a) knowledge of the GHG Program, including eligibility requirements, applicable laws and validation, verification guidelines, and GHG emissions or removal's scope to be reported. Also, knowledge of mitigation initiative or project types including sectors and technological areas, applicable methodologies and emission reductions or removals,
- (b) technical knowledge of GHGs, global warming potentials, activity data, and emission factors, application of material error and discrepancy, as well as GHG sources and reservoirs in the relevant sector and techniques and procedures to ensure data quality,
- (c) knowledge of data and information auditing including data and information audit methodologies, risk assessment methodologies, data, and information sampling techniques and GHG data and information control systems.

### 8.2.2 Skills

A validation or verification team should have the necessary skills to carry out validation or verification activities, including but not limited to the ability to:

- (a) collect relevant information and apply the knowledge in a manner appropriate to the work,
- (b) understand the meaning of the information and carry out appropriate interpretation,
- (c) think critically and analyze multiple input elements,
- (d) distinguish between facts and inferences and exercise professional skepticism,

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<sup>6</sup> ISO 14065 establishes the competence required for the validation and verification team in section 6.3, and the process of the competence management in sections 6.1 and 6.2. In addition, ISO 14066:2011 specifies the competence requirements for team of validation and verification of GHG.

- (e) conduct independent investigations to test the assumptions and evidence presented by a responsible party or customer,
- (f) evaluate information, data, and assumptions and make professional judgments,
- (g) apply methods for validation and verification in expected and unexpected situations; and,
- (h) communicate accurately and comply with the particular requirements, the validation or verification process, and its results.

### 8.2.3 Sectoral competence

A validation or verification team shall have, as a whole, knowledge and skills in the applicable sector. For each sector, the collective technical competence of the validation or verification team shall include the capability (as applicable) to:

- (a) identify GHG sources, sinks, and reservoirs from data sources applicable to the sector and type of initiative or project,
- (b) identify sources of leakage,
- (c) identify the project baselines associated with a specific initiative or project type,
- (d) identify situations that may affect the materiality of errors in the quantification and reporting of GHGs,
- (e) demonstrate the equivalence between the type and level of activities, goods, or services in the baseline scenario and the GHG mitigation initiative.

The CAB shall submit information related to professional training and work experience relevant to the competence to demonstrate the validation or verification team's competence and knowledge.

## 9 General validation and verification requirements

As part of the validation and verification processes, the CAB shall:

- (a) apply to PROCLIMA for approval to carry out validations and verifications, submitting the documentation with relevant accreditations,
- (b) apply the PROCLIMA Program and everything in this Manual, always following the most recent versions,

- (c) select a competent team to carry out validation or verification processes,
- (d) apply consistent criteria for validation and verification, based on the requirements of methodologies and other regulatory documents,
- (e) base their findings and conclusions on objective evidence and conduct validation or verification under applicable rules and procedures,
- (f) do not omit evidence that may alter the validation or verification opinion,
- (g) present validation and verification reports' information in an objective, neutral and consistent manner and document all assumptions, providing references to the appropriate GHG mitigation initiative's documentation,
- (h) safeguard the confidentiality of all information obtained or created during the validation or verification process.

In terms of validation and verification processes, the following general requirements apply to GHG mitigation initiatives:

- (a) the start of the validation process for GHG mitigation initiatives should take place no later than 5 years after the start date of the initiative; in the case of projects in the regulated market,
- (b) verifications of GHG mitigation initiatives may be annual but should be carried out at least once every 5 years for projects in the AFOLU sector,
- (c) validation and first verification may be carried out in a single validation and verification process,
- (d) in the case where validation and verification are carried out at different times, the verification may be carried out by the CAB that carried out the validation, provided that the validation or verification team is different from the one that carried out the validation,
- (e) the CAB that did the first verification may do the second verification, provided that the verification team is different from the one that did the first verification, in both auditors and sector experts.
- (f) A different CAB shall carry out the third verification to the one that did the first two verifications; if the same CAB did them.

- (g) if new areas are to be included in sectoral mitigation projects in the AFOLU sector, the same verifier may carry out the third verification,
- (h) from the fourth verification onwards, the same CAB may carry out the verifications, up to a maximum of 5 years, always changing the verification team,

Provided that the same CAB performs consecutive validation and verification activities, where permitted, the CAB shall transparently state in the verification report that it performed the previous validation or verification, as the case may be. It shall detail the validation or verification team, including names and roles in the previous validation or verification activity.

## 9.1 Validation

Validation is the systematic, independent, and documented process for evaluating a GHG mitigation activities against defined criteria to verify that it conforms to the requirements specified in current standards and as stipulated by PROCLIMA.

When GHG project holders request validation of the initiative or GHG project, they shall submit a GHG declaration to the CAB and provide all the information required by the CAB to do the validation process.

The validation and verification body, contracted by the GHG mitigation initiative holder, shall evaluate the documentation and information related to the initiative's or GHG project design. Besides, the CAB shall determine whether the initiative or project holder complies with all the provisions of this Program and the others that apply to it, examining, among other aspects, the following:

- (a) GHG mitigation targets and results,
- (b) the adequate use of an appropriate methodology,
- (c) the assessment of uncertainty and conservative approach,
- (d) the baseline scenario and reference levels,
- (e) the maximum GHG mitigation potential for REDD+ projects subject to national accounting,
- (f) compliance with the additionality criteria of the GHG initiative or project,
- (g) ownership and carbon rights,

- (h) assessment of environmental and social aspects,
- (i) criteria and indicators related to co-benefits, if applicable,
- (j) contribution of the project to sustainable development objectives,
- (k) stakeholder's consultation,
- (l) compliance with national legislation,
- (m) conformity of the initiative or project with the requirements for grouped projects under the PROCLIMA Program,
- (n) Comprehensive monitoring plan's design for the quantification and follow-up of GHG emission reductions and removals, following the selected methodology.

Similarly, the CAB shall do the validation process by the guidelines established for this purpose by the GHG mitigation mechanisms and the ISO 14064-3 standard.

Once the information has been assessed and all necessary procedures have been carried out, the CAB shall inform the initiative holders of its decision to validate the GHG mitigation initiative or project. The notification to the initiative or GHG project operators shall include:

- (a) the confirmation of the validation and the date of submission of the validation report to the Certification Program, or
- (b) an explanation of the reasons for rejection. It determines that the mitigation initiative or project, judging from the documentation, does not qualify for validation.

If the CAB determines that the GHG mitigation initiative or project meets all the certification requirements, the CAB shall apply for registration. This application is contained in a validation report that shall include the project document and documentation related to the project design, with the quantification of GHG emissions reductions and removals and, if applicable, the conclusion on co-benefits and compliance with the indicators defined by the GHG project holder regarding Sustainable Development Goals (SDG).

## 9.2 Verification

Verification is the systematic, independent, and documented process for assessing the GHG Declaration against the verification criteria. Under the provisions of ISO 14064-3, the CAB shall consider the following:

- (a) conformity with applicable verification criteria, including the principles and requirements of relevant GHG standards or programs in the scope of verification,
- (b) information and documentation on initiative or GHG project planning, including procedures and criteria for the project, baseline, quality control and assurance, risk management, monitoring, and reporting,
- (c) any significant changes in procedures or criteria of the GHG initiative or GHG project since its last reporting period or validation,
- (d) emissions, removals, emission reductions, and removal enhancements reported in the baseline and project scenario GHG,
- (e) any significant changes in GHG emissions removals, emission reductions, and removals enhancements since the last reporting period or since the project's validation.

## 10 Validation and verification requirements

### 10.1 General requirements

Conformity assessment shall be done by the Validation and Verification Body in compliance with the principles described above, under ISO 14064-3, and complying with the following:

#### 10.1.1 Risk-based approach

CABs shall consider the associated risks, being competent, consistent, and impartial. Risks may include, but are not limited to, those associated with:

- (a) the objectives of validation and verification and the requirements of the standard,
- (b) competence, consistency, and actual and perceived impartiality,
- (c) legal, regulatory, and liability issues,

- (d) the organization responsible for the mitigation initiative or GHG project and its management system, i.e., operating environment, geographical location,
- (e) the susceptibility of any parameter included in the quantification of GHG emissions reductions or removals, which may generate material errors, even if a control system is in place,
- (f) the assurance level achieved, and evidence collected accordingly, used in the validation or verification process,
- (g) the CAB shall establish the relative importance required by the intended users considering the objectives, assurance level, criteria, and scope of validation or verification,
- (h) stakeholder perception,
- (i) misleading information or misuse of the marks by the client.

#### 10.1.2 Conservative approach

When the CAB evaluates comparable alternatives, it should give preference to the alternative that is moderately cautious.<sup>7</sup>

#### 10.1.3 Responsibility

The CAB shall demonstrate that it has assessed the risks derived from its validation or verification activities. Also, adequate arrangements to cover the responsibilities derived from its activities with each validation or verification program in the geographic areas it operates.

In this sense, the CAB shall submit proof of having civil liability insurance, as demanded by Decree 1595/15 Article 2.2.1.7.8.6 (Civil liability insurance for Conformity Assessment Bodies. Hence, the CAB shall have civil liability insurance covering responsibility for validation and verification processes under Article 2.2.1.7.8.5<sup>8</sup>. Such shall have the following features.

- (a) The holder and insured body shall be the Conformity Assessment Body.

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<sup>7</sup> Annex A of ISO 14066 provides guidance on the proper handling of evidence and the application of professional skepticism.

<sup>8</sup> Article 2.2.1.7.8.5. Liability of conformity assessment bodies. In accordance with the provisions of Article 73 of Law 1480 of 2011, and without prejudice to the other types of liability, the conformity assessment bodies shall be liable for the assessment services they provide or have recognized within the framework of the conformity assessment certificate or document they have issued or recognized.

- (b) Insurance beneficiaries are users or third parties whose the body causes damage associated with Conformity Assessment Bodies Activity, as described by article 2.2.1.7.8.5;
- (c) the Conformity Assessment Body shall cover the insurance cost, and this cost shall not be transferred to users under any circumstances.
- (d) Insurance covering shall include all damages caused by Conformity Assessment Body activity as described by article 2.2.1.7.8.5, covering shall not be divided according to services provided to different users.
- (e) Exclusions agreed upon the insurance service shall not prejudice its purpose, to protect the professional civil liability of the Conformity Assessment Body;

The insurance duration shall cover the accreditation period of the Conformity Assessment Body.

To demonstrate compliance with the previous requirements, the CAB shall submit to PROCLIMA a written communication. This document shall include a certification emitted by the insurance, with information about contracted civil liability insurance:

- (a) Insurance name, what Entity provides the civil liability insurance;
- (b) Insurance object and covering of geographical area and responsibilities or warranties;
- (c) Insurance amount.

## 10.2 Steps of the validation and verification process

The CAB shall complete the validation and verification activities through the steps described below.

### 10.2.1 Preliminary evaluation

As part of this preliminary evaluation, the CAB shall request to the project holder for sufficient information to determine the purpose and scope of the validation or verification, considering the following:

- (a) if the mitigation initiative or GHG project corresponds to a type of project eligible for the Certification Program,
- (b) if the mitigation initiative or GHG project applies a methodology eligible under the requirements of the Certification program,

- (c) if the monitoring plan or report complies with the methodology applied by the mitigation initiative or GHG project,
- (d) if the determination of the baseline considers the considerations provided by the PROCLIMA Program and by existing sectoral and national regulations.

#### 10.2.2 Contractual agreement

Once the previous information has been evaluated, the mitigation initiative or project holder and the CAB shall sign a commercial agreement specifying the scope and everything related to the validation or verification audit process.

#### 10.2.3 Validation or verification plan

The CAB shall develop a validation or verification plan, including a documented sampling plan addressing the aspects detailed in ISO 14065:2013 and considering the requirements specified by the PROCLIMA Program, specifically:

- (a) assign competent personnel to carry out the activities,
- (b) determine the validation or verification activities, based on the mitigation initiative or GHG project's characteristics and the client needs,
- (c) assess the risk of material error concerning the information evaluated,
- (d) confirm the times and logistics required to carry out the validation or verification activities,
- (e) define the evidence collection activities necessary to complete the validation or verification under the specified requirements and by the results of (b) and (c),
- (f) prepare an evidence collection plan, considering (c) and any measures the client has implemented to control the sources of possible errors, omissions, and misrepresentations; and
- (g) prepare a validation or verification plan, including objectives and scope, validation or verification team (roles and responsibilities), duration of validation or verification activities, specific requirements, and the level of assurance and materiality.

#### 10.2.4 Sampling plan

The CAB shall develop a sampling plan that considers the following:

- (a) the level of assurance,

- (b) the scope of validation or verification
- (c) the validation and verification criteria
- (d) the quantity and type of evidence (qualitative and quantitative) required to achieve the agreed level of assurance,
- (e) the methodologies for determining representative samples,
- (f) the risks of potential errors, omissions, or misinterpretations.

The sampling plan shall be modified based on any risks or concerns related to materiality that could lead to errors, omissions, or misinterpretations identified during the validation or verification process.

The CAB shall use the sampling plan as an input element to develop the validation or verification plan.

#### 10.2.5 Conducting the validation or verification audit

The CAB shall carry out the validation or verification activities per the validation/verification plan agreed with the client. If necessary, the plan shall be reviewed and adjusted during the execution of the validation or verification activities. The CAB shall carry out the following activities:

- (a) collection of sufficient and objective evidence on the data and information provided by the mitigation initiative or GHG project operator, their traceability through the data and information management process, and any additional analysis and calculations,
- (b) conformity assessment to specified requirements,
- (c) prepare a conclusion on the conduct of validation or verification activities,
- (d) a draft validation or verification report; and,
- (e) the validation or verification statement.

The validation or verification statement can be a separate document or contained in the validation or verification report.

#### 10.2.6 Reviewing

The CAB shall review the validation or verification activities and the documents generated by the validation or verification team. This review shall be carried out by professionals who were not involved in the validation or verification process.

This review shall confirm the following:

- (a) the validation or verification activities were performed following the agreement between the parties and the specific requirements that apply,
- (b) sufficient and appropriate evidence to support the decision of the validation or verification team,
- (c) all findings resulting from the validation or verification process have been identified, documented, and solved,
- (d) the competence of the members of the validation or verification team,
- (e) whether the validation or verification planning has been appropriately designed, including its scope, strategic risk assessment, validation or verification plan and evidence collection; and,
- (f) whether the opinion of the validation or verification team is properly presented.

#### 10.2.7 Validation or verification statement

The CAB shall issue a validation or verification statement upon achievement of the validation or verification, which complies with the following:

- (a) address the intended users of the GHG declaration,
- (b) describe the level of assurance of the validation or verification statement,
- (c) describe the objectives, scope, and criteria for validation or verification,
- (d) describe whether the data and information supporting the GHG declaration are hypothetical, projected, or historical,
- (e) be accompanied by the GHG declaration made by the responsible party,
- (f) be accompanied by the statement on (f) include the CAB's conclusion on the GHG statement, including any qualifications or limitations made by the responsible party,

- (g) include a conclusion on criteria and indicators related to co-benefits (if applicable); and,
- (h) include a conclusion on the mitigation initiative or project's contribution to sustainable development objectives.

### 10.3 Means of validation and verification

#### 10.3.1 Means of validation

The CAB shall evaluate the information provided by the mitigation initiative or GHG project holder. For the assessment, the CAB shall apply the means of validation specified in this VVM and, where appropriate, apply standard auditing techniques, including but not limited to:

##### (a) Documentary review

- i. full review of the GHG project data and information,
- ii. cross-checking the information contained in the GHG project documents and other documentary sources used.

##### (b) Follow-up actions

- i. interviews with relevant stakeholders, such as people with knowledge about the design of the mitigation initiative or GHG project and its implementation,
- ii. interviews with mitigation initiative or GHG project participants and those in charge of designing, implementing, and monitoring GHG activities,
- iii. cross-checking the information, ratified with the participants in the interviews, to ensure that relevant information was not omitted,
- iv. review of other sources of information related to the type of mitigation initiative or GHG project or sector in which it is located;
- v. evaluation of the application of the methodology selected by the mitigation initiative or GHG project, including the identification of the baseline,
- vi. consideration of the appropriate and accurate use of models and parameters for the estimation of GHG reductions or removals and,
- vii. sampling applies a method following the mitigation initiative or GHG project's characteristics, the level of assurance, and materiality required.

### 10.3.2 Means of verification

The CAB shall evaluate the information submitted by the mitigation initiative or GHG project holder. To do this, the CAB shall apply the means of verification specified in this VVM and, if it considers it appropriate, audit techniques that ensure the quality of the information, including the following.

(a) Documentary review including the following:

- i. review of data and information for completeness,
- ii. review of the monitoring plan, the methodology applied, the quantification of GHG reductions or removals and other regulatory issues, paying particular attention to measurement frequency, measurement quality, equipment and calibration requirements, as well as quality assurance and process control,
- iii. evaluation of data management, quality assurance, and the management system in the context of generating and reporting GHG emissions reductions or removals,

(b) follow-up actions:

- i. evaluation of the implementation and operation of the mitigation initiative or GHG project, according to the validated project document,
- ii. review of the information flows to generate, consolidate and report the monitored parameters,
- iii. interviews with GHG project participants and those in charge of designing, implementing, and monitoring GHG activities,
- iv. interviews with relevant personnel to determine whether operational and information gathering procedures are implemented following the monitoring plan,
- v. cross-checking between the information in the monitoring report and data from other relevant sources,
- vi. inspection of the monitoring equipment, including performance and monitoring practices, based on the requirements described in the monitoring plan, the applied methodology, and other related documents,
- vii. review and evaluation of data, parameters, and models, as well as assumptions considered for the calculation of GHG emission reductions or removals,

- viii. the evaluation of procedures that guarantee quality control and assurance, to identify and correct omissions or errors in the reported monitoring parameters,
- ix. the sampling method that is adequate with GHG project's characteristics, the requirements specified in the applied methodology, the level of assurance, and materiality requirements.

### 10.3.3 On-site visit

During the validation and verification process of GHG mitigation initiatives, an on-site inspection visit is essential<sup>9</sup>.

Notwithstanding the above, under proven conditions of unforeseen circumstances or force majeure, it is optional for the CAB to conduct an on-site inspection during the mitigation initiative or GHG project's validation or verification process.

If the CAB considers that it cannot carry out the on-site visit as a means of validation or verification and cannot be postponed, the CAB shall submit to PROCLIMA a request. This request shall adequately justify the difficulty of carrying out such activity and describing the alternative means of validation proposed, proving that these would allow the purpose of validation or verification to be fully met.

On the other hand, as an alternative option, also in case of force majeure or fortuitous event, the CAB can decide to carry out the validation and verification processes virtually. Likewise, by requesting approval from PROCLIMA and under the same conditions as mentioned above. Annex A provides general guidelines for carrying out this type of audit, specifically for projects in the AFOLU sector.

In all cases, the CAB must consider the mitigation initiative or project's characteristics, the specifications of the methodology, the sectoral and national scope, and the complexity of the information and data and parameters to be evaluated to reach a conclusion of validation or verification of the GHG project.

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<sup>9</sup> For the other GHG projects, the rules established by the Executive Board of the Clean Development Mechanism apply.

## **11 Specific requirements for validation and verification of GHG mitigation initiatives or other GHG projects**

### **11.1 Sectoral GHG mitigation projects**

In all cases, the CAB shall also consider the following criteria to validate and verify sectoral GHG mitigation projects.

- (a) the level of assurance of the validation and verification of the GHG mitigation Sectoral Project shall not be less than 95%,
- (b) the material discrepancy in the data supporting the GHG mitigation Sectoral Project baseline and the estimate of GHG emission reductions or removals may be up to  $\pm 5\%$ ,
- (c) the consistency of the sectoral GHG mitigation project baseline under existing national regulations and the methodology applied, as appropriate,
- (d) the mitigation results quantification against the validated baseline, by the national regulations in force and the applied methodology, as appropriate,
- (e) evaluation of co-benefits and indicators related to sustainable development objectives, as applicable.

### **11.2 REDD+ projects**

For REDD+ projects, the CAB shall consider the following validation and verification criteria:

- (a) the assurance level of validation and verification of the REDD+ project shall not be less than 95%,
- (b) the material discrepancy of the data supporting the project baseline and the estimate of GHG emission reductions or removals may be up to  $\pm 5\%$ ,
- (c) the consistency of the REDD+ project baseline with the NREF. It applies under existing regulations or with the methodological construction appropriate to the project;
- (d) the quantification of the mitigation results against the validated baseline, following the national regulations in force and the applied methodology, as appropriate;

(e) evaluation of co-benefits and indicators related to sustainable development objectives, as applicable.

## **Annex A. Audits based on remote techniques**

Tools based on remote techniques transcend temporal and spatial references, providing an acceptable solution for on-site inspection processes, such as those required as a means of validation and verification of GHG mitigation initiatives.

While they may be an acceptable option, these solutions shall ensure compliance with the principles and requirements set out in ISO 14064-2 and those defined by the PROCLIMA Program.

In this sense, in carrying out this type of validation or verification, the CAB shall guarantee the level of assurance, the relative importance of the sampling plans, and compliance with materiality.

### **Validation and verification techniques**

Validations and verifications serve the purpose of obtaining evidence and evaluating it objectively to determine the degree to which the validation and verification criteria and the specific requirements of the Program or standard are met.

The evidence is based primarily on interviews, document review, observation of activities and conditions, and measurement and test results.

### **Means and tools for the process**

#### *Technological means*

- (a) software to support video conferences, chats, and documentation delivery,
- (b) mobile software or applications for mapping capture and display,
- (c) cloud supported software,
- (d) web access with adequate bandwidth capacity to support the online software; and,
- (e) cellphone networks.

#### *Technological tools*

- (a) computers,
- (b) smartphones,
- (c) tablets,

(d) photographic and video cameras.

*Remote sensors*

- (a) satellite images (LANDSAT, SPOT, RAPIDEYE, Planet Explorer, among others)
- (b) radar images (Lidar),
- (c) geo-positioned aerial photographs,
- (d) geo-positioned images and videos, taken from uncrewed aircraft (Drones).

*Measuring equipment*

- (a) GPS,
- (b) measuring tape,
- (c) diameter tape,
- (d) caliper,
- (e) hypsometer,
- (f) clinometer,
- (g) compass and,
- (h) other tools used to record information.

*Human team for information gathering*

The local team in charge of taking the information shall demonstrate skills in the forestry sector and the experience developing similar activities.

**Validation and verification processes**

*Opening meeting*

The CAB shall present the objective, scope, audit criteria, level of assurance, materiality, and the sampling plan by video conference.

The areas to be visited should be selected according to the project boundaries, considering the project strata, the baseline scenarios, the applicability criteria of the methodology, the eligible areas, the species, and the environmental restrictions.

In the case of verification, depending on the inventory's sampling error, the number of strata, and the relative importance, the sample and selection of plots to be visited in the field are determined.

*Socialization of the validation or verification plan*

The protocols established to carry out the audit should be presented through a virtual meeting, giving scope to the technological tools to be used, including the human team's presentation, the measurement techniques, and what is related to the quality assurance of the information.

*Documentary Review*

Before evaluating the information with the GHG mitigation initiative holder (remotely), the validation or verification team shall make the documents' review, given they were received in digital format.

The meeting shall then inspect the records and procedures that support the document management system, evaluating the implementation of the management system, particularly concerning the following aspects:

- (a) land tenure: review tenure arrangements and contracts for carbon rights,
- (b) environmental legal compliance,
- (c) applicability of the methodology,
- (d) additionality and permanence of the GHG initiative or project,
- (e) criteria and indicators relating to co-benefits,
- (f) the project's contribution to sustainable development objectives,
- (g) stakeholder's consultation
- (h) monitoring plan, management of inventory information and quantification of GHG emission reductions and removals,
- (i) implementation of project activities and monitoring report (in case of verification).

*Review of project boundaries and baseline reference levels*

- (a) quality assurance of equipment,

- (b) quality support of tools like satellite and radar images, metadata, date, corrections applied, cloudiness level,
- (c) support of image and video data acquisition with Drones, Software used, and quality control of georeferenced images and videos. Calibration record and technical characteristics of the Drones, i. e., altitude, flight hours, errors,
- (d) review of satellite and radar images, the timing of image acquisition shall not be more than 6 months before the audit; and
- (e) Overhaul by uncrewed aircraft.

A tour of the project areas shall be performed to record information according to the sampling plan, including a photo or video recording with the Drone, revealing active time and date, without editing them.

*Review of boundaries by land routes*

- In the validation and verification processes,
  - (a) take the tracks with GPS to validate the project's limits.
  - (b) Take control points of the stands, exclusions, and eligible areas of the project.
- In the verification process,
  - (a) overflight of the parcels constituting the sample for verification
  - (b) take video recordings with a Drone of the plot and stand area, including active time and date.
  - (c) field revision of the sampling plot installation protocol
  - (d) video record - camera or Smartphone - (no editing), with active time and date of the following information,
    - i. measurement and calibration equipment.
    - ii. Plot coordinate in the system of units applicable to the project.
    - iii. Center point of the plot and demarcation.
    - iv. Measurement of plot's radii according to the plot's size. Measurement of each radius should be recorded employing a Hypsometer (Vertex), tape measure, or decameter.

- (e) review of the dasometric variables on the selected plots, by video recording (no editing), with active date and time of the following information,
- i. diameters
    - » diameter measuring instruments,
    - » recording the number of trees to be measured,
    - » The purpose is to measure diameters (at the height of 1.3 m), special characteristics of the individuals selected for measurement (e.g., death, damage, disease), and the number of trees in the plot. Present aloud the data to the camera.
  - ii. heights
    - » height measuring instruments,
    - » register of the number of trees to be measured,
    - » locate the sensor in each tree and determine factors such as distance, slope, and correction, and
    - » perform the measurement and present aloud the data to the camera.

*Closing meeting (partial)*

Hold a virtual meeting with audiovisual media, in which the results of the validation or verification, the findings, and other important aspects found during the validation or verification process related to the on-site inspection, are presented.

*Document history*

**Type of document.** Normative

Validation and verification Manual of GHG mitigation initiatives and other GHG projects.

<b>Version</b>	<b>Date</b>	<b>Nature of the revision</b>
1.0	April 17, 2020	Initial version
1.1	October 19, 2020	Updated version Starting date Validation and verification statement
1.2	January 19, 2021	Updated version Section 8.3 Civil liability insurance
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 definitios about other greenhouse gas projects