Proba World B.V.
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The Proba Standard

31/03/2026

Version 1.4

Status: Final

Change log

Changes from version 1.3 to version 1.4:

Change reason	Change type	Relevant section(s)
External feedback	Add a dedicated section for retroactive crediting to remove ambiguity and distinguish between different project types	3.5 Crediting Period

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Version of the Standard

This is the fourth revision of the Proba Standard. The 1.3 version has been improved to remove ambiguity around retroactive crediting.

More details on the (material) changes in this version can be found in the change log.

About Proba

Proba provides a platform and a standard in order to certify GHG Projects. We help you to convert your climate action into tradable Carbon Credits. This creates new revenue streams which help co-finance your GHG Projects. The Carbon Credits can be used to reduce Scope 3 emissions if they are claimed by supply chain participants (insetting) or to compensate for emissions if they are claimed in unrelated value chains (offsetting). Proba makes sure the GHG impact of the project is real, additional, independently verified, unique, not counted or claimed already, and doesn't have negative side effects to (local) environment and communities.

1. Introduction

1.1 Proba Standard

The Proba Standard aims at controlling and reducing the risks related to the GHG Projects, their climate impact (the Carbon Yield) and the corresponding issuance of Credits and subsequent claims. It does so by relying on and aligning with internationally recognized standards frameworks and initiatives such as:

- Core Carbon Principles by the ICVCM[1]
- ICROA Code of Best Practice[2]
- ISO 14064-2[3]

The Proba Standard sets out detailed procedures for design and validation of GHG Projects, and verification of emission reductions and removals.

The Standard acts as the basis for issuing and management of asset-backed tokens representing credible Carbon Credits. The Proba Standard will use the Proba Platform which demonstrates adequate control over the relevant assets with documentary evidence establishing ownership and provenance.

The Proba Platform is an online application, developed and maintained by Proba and accessible via https://app.proba.earth, which facilitates the process of validating a GHG Project, verifying its Yield and issuing Carbon Credits. The Proba Platform allows organizations to confidently conduct business with each other in the value chain during the entire lifecycle of a Carbon Credit. It ensures all GHG Projects and Credits are correctly updated in the Proba Registry.

The Proba Registry is publicly available at https://registry.proba.earth and contains a large selection of available data that can allow external parties to view and access GHG Project documentation.

1.2 Proba Standard Quality and Governance

Governance

[1] https://icvcm.org/the-core-carbon-principles/
[2] https://icroa.org/wp-content/uploads/2024/02/ICROA_Code_Best_Practice_v2.5.pdf
[3] https://www.iso.org/standard/66454.html

The Proba Standard is owned and maintained by Proba World B.V. (Proba). Effective governance is critical to the success of the Proba Carbon Crediting program. Our governance is designed to ensure transparent decision-making, effective and inclusive participation, and feedback to support continuous improvement. Proba has appointed a Proba Standard Advisory Board to manage, oversee, and govern the Proba Standard and related processes.

For an extensive description of our governance, including its independent bodies, please refer to our Proba Standard Quality & Governance document.

Standard Development and Review

The Proba Standard serves as the rulebook for the certification of GHG Projects. Proba has policies and procedures in place in order to continuously improve the quality of the Standard. Please refer to the Proba Standard Quality and Governance document for more details.

1.3 Integrity and Conflict of Interest

Proba requires all critical project stakeholders to comply with a Proba Code of Conduct[4] , which contains rules and guidance to foster an integer, healthy, and inclusive company culture. External parties acting on behalf of Proba - including VVBs - are also required to adhere to (a subset of) our Code of Conduct.

1.4 Complaints

Proba welcomes any feedback and comments from its stakeholders and users of the Standard. Proba provides a Complaints procedure[5] that applies to the GHG Projects assessed and certified by Proba. All expenses, internal and external, incurred by Proba in handling complaints and appeals shall be paid by the entity filing the complaint or appeal. Proba will inform the entity filing the complaint or appeal of the estimated handling cost before the initiation of the handling process. Where the outcome of a complaint or appeal is to overturn an earlier decision made by Proba, the entity filing the complaint or appeal will not be liable for covering such expenses.

[4] https://proba.earth/hubfs/Downloads/COC_Project_Stakeholders.pdf
[5] https://proba.earth/hubfs/Downloads/Proba_complaints_procedure.pdf

1.5 Legal

As described in the Proba General Terms and Conditions[6], should any legal disputes arise, parties agree to mediation. If mediation does not provide a solution, the dispute will be decided by the Court in Amsterdam, the Netherlands.

Users of the Proba Platform or Proba Standard are required to agree to our General Terms and Conditions.

[6] https://proba.earth/hubfs/Downloads/Proba_terms_and_conditions.pdf

2. Proba Project Lifecycle

The Proba Project Lifecycle involves several key phases from inception to completion, ensuring the GHG Project achieves its goal of reducing or removing GHG emissions and leads to the issuing of Carbon Credits.

2.1 Feasibility study (optional)

A GHG Project that goes through the onboarding process is not guaranteed to result in the actual issuance of Carbon Credits. In order to minimize the risk of spending significant time and resources on a project that turns out not to be eligible, a feasibility check can be performed before starting the GHG Project design phase.

The feasibility study is performed by taking the following steps:

1. The Project Developer submits the Project goals, scope, activities, and relevant data and emission factors to Proba
2. Proba assigns a Proba staff member to take the role as a Proba consultant.
3. The Proba consultant conducts, in collaboration with the Project Developer, a feasibility study where the following aspects are assessed:
    a. The project scope (material, product, service, process, geography, intervention definition)
    b. Project start date and Crediting period
    c. The Project Additionality (Financial, Regulatory, Prevalence)
    d. The Baseline scenario and associated emission factors
    e. Carbon Storage duration and non-permanence risks
    f. The main risk areas, including no social and environmental harm
    g. GHG Yield estimate
4. The feasibility study can have a positive or negative outcome. If positive, Proba and the Project Developer can choose to move to the design phase during which the project design will be established.

The result of a feasibility study does not allow the Project Developer to make any claims regarding GHG reductions or removals, nor does it have a formal qualification within the Proba Standard.

Before the project design starts, a commercial agreement with Proba needs to be in place. Part of the commercial agreement will be the completion of an Onboarding form[7] as part of Proba's KYC policy[8].

2.2 Project design

Project Overview Document

1. The Project Developer is required to create a "Project Overview Document", or POD, based on the POD template[9] provided by Proba. This document contains extensive information about the project's intervention(s), including governance, baseline and Yield calculations, risks (and mitigations), methodologies, additionality, MRV processes, etc.
2. Essential components in the POD are to demonstrate how the following critical risks are mitigated:
    a. Risk of Unrealistic Representation, compared to the baseline;
    b. Risk of lack of Additionality;
    c. Risk of False Climate Benefits Appropriation (volume, timing, durability);
    d. Permanence;
    e. Risk of Double Claiming or Double Counting;
    f. Risk of Reversal;
    g. Risk of Leakage;
    h. Risk of Collateral Social and Environmental Harm

Proba Eligibility Check

1. The Proba Technical Committee (PTC) reviews the POD and aligns with the responsible Proba consultant to reach a final internal version of the POD.
2. Together with the Proba consultant, the PTC develops a Eligibility Decision Memo [10] to be used for the Eligibility Check and submits it to the Proba Management Board (PMB). The Decision Memo contains a brief description of the project, the points of attention, and a substantiated recommendation.

[7] https://proba.earth/hubfs/Downloads/Proba_Onboarding_Form.docx
[8] https://proba.earth/hubfs/Downloads/Proba_KYC_Policy.pdf
[9] https://proba.earth/hubfs/Downloads/Proba_POD_Template.pdf
[10] https://proba.earth/hubfs/Downloads/Proba_Eligibility_Memo.pdf

3. The PMB validates the POD and confirms that the GHG Project is eligible for Certification against the Proba Standard. Reasons for rejection may include insufficient expertise, insufficient scientific proof, or questionable additionality.
4. The PMB signs the Proba Eligibility Statement.
5. A member of the PTC will upload the Proba Eligibility Statement to the Proba Platform where it will be available for all project stakeholders.

2.3 Public Consultation

1. The POD of the GHG Project will now be open for Public Consultation on the Proba website[11]. As such, any party wishing to provide feedback on the POD document is welcome to do so. The POD will always be written in the English language, but in case effective consultation with local stakeholders is needed, a relevant language may be used next to the English version. In the translated versions, a disclaimer is required that states that the contents of the English version are leading.
2. Proba recommends that Public Consultation happens as close as possible to the start date of the actual implementation of the GHG Project.
3. The Public Consultation should be effectively announced to all relevant stakeholders.
4. The Public Consultation period will last for 30 days.
5. The Project Developer evaluates all feedback received, and documents the justification to include or exclude the feedback received in the POD. Proba will be informed of any changes in the revised POD. Feedback documents will be uploaded in the Proba platform and will be published on the Proba Registry, once the project is Validated (see section 2.4). Based on the materiality of any changes to the POD and the responses to the feedback, Proba may perform a new Eligibility Check. When done or not needed, Project Validation can start.

2.4 Project Validation

1. The Project Developer submits the POD of the GHG Project for Validation to an independent VVB.
2. Proba recommends that Project Validation happens as close as possible to the start date of the actual implementation of the GHG Project. See section 3.5 (Crediting period) on the rules for including future or historic GHG Yield.

[11] https://proba.earth/public-consultation

3. The VVB validates the POD against the Proba Standard and selected methodology. The VVB can use the methodology-specific guidelines for project validation and verification to perform the Validation. These guidelines can be found as part of the methodology in the methodologies section[12] on the Proba website. This can be an iterative process where the VVB reaches out to the Project Developer.
4. The VVB can upload the Validation Report to the Proba Platform and approve the final version of the POD.
5. The Validation report is then published on the Proba Registry.
6. A post validation control check is performed by Proba to ensure all required information is present and all steps have been completed according to the Proba Standard.

2.5 GHG Yield Verification

The Project Developer mandates an independent VVB to perform the Verification of the GHG Yield, and where relevant, other potential non-GHG impact (co-benefits).

To facilitate the Verification process, the Project Developer must prepare a Monitoring Report summarizing all monitoring activities conducted during the relevant Yield Period, presenting the collected monitoring data, and demonstrating the application of the selected methodology. This Monitoring Report must be submitted through the Proba platform or registry, where it is made available to the VVB ahead of each Verification Event.

The GHG Yield is verified on a regular and pre-approved frequency basis by a Verifier, and is based on the following risks:

- Risk of Unrealistic Representation, compared to the baseline;
- Risk of False Climate Benefits Appropriation);
- Permanence;
- Double Counting/Double Claiming;
- Reversal

The VVB can use the Proba Verification Template for the Verification. The resulting Verification Report (or Statement) is subsequently published on the Proba Registry.

[12] https://proba.earth/methodologies

A post-verification check is performed by Proba to ensure all required information is present and all steps have been completed according to the Proba Standard. After this Operational Check has been performed, the Project Developer or Project Sponsor receives corresponding Entitlements.

Entitlements are used by the Project Developer or Project Sponsor to request the issuing of Carbon Credits. The Carbon Credit lifecycle can be found in section 5.5 of the Proba Standard.

3. Project Requirements

3.1 Project organization criteria

Compliance with the Proba KYC policy and approval of the Project Developer (for more information please refer to Proba's KYC policy[13]):

- As part of the KYC policy, the Project Developer is required to complete the Onboarding form for the Proba platform.
- A background check is performed on the organization and primary contact
- A financial check is performed on the organization.
- The Project Developer accepts the Proba Terms & Conditions as part of a commercial agreement for credit issuance.

After assessment of the risk associated with doing business with the applying organization, Proba may approve the entity and primary contact.

Proba reserves the right to reject organizations based on an internal evaluation.

3.2 Project legal compliance

Proba works exclusively with projects that comply with international conventions, the existing laws of the host country or region, especially regarding its land use, rural and environmental issues. The Project Developer will have to demonstrate that the project respects the rights of workers, works in a non-discriminatory way, respects children's rights, and complies with the standards set by the International Labour Organization (ILO). In the section "Environmental and Social Do Not Harm Principle" of the POD

[13] https://proba.earth/hubfs/Downloads/Proba_KYC_Policy.pdf

template, Proba requires the Project Developer to demonstrate this. During the implementation of the GHG Project, a VVB will verify this during a Verification event.

3.3 Methodology selection

Methodologies, in the context of a GHG Project, refer to the systematic set of procedures and criteria used to quantify, monitor, and verify greenhouse gas emissions reductions or removals. The methodology approval and development process and corresponding criteria are fully explained in the Methodology Approval and Development Process[14].

Approved methodologies provide the necessary framework and guidelines for GHG projects to maintain scientific integrity, transparency, and credibility. It ensures that projects are based on sound, standardized, and recognized approaches, facilitating effective measurement, reporting, and verification of GHG reductions. Methodologies can provide methodology-specific guidelines for project validation and verification, which can be found on the Proba methodologies website[15]. Applying an approved methodology supports the success and sustainability of GHG Projects by building stakeholder trust and ensuring compliance with regulatory and market standards.

An approved methodology by Proba is required to start the project design of a GHG Project. Approved Methodologies are published on the website.

A GHG Project may use more than one methodology to cover the full Project scope.

3.4 Project Design

Proba requires that the Project Developer sets up the GHG Project and all relevant documentation according to the criteria as determined by ISO 14064-2: 2019[16]: "*Greenhouse gasses — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements".*

[14] https://proba.earth/hubfs/Downloads/Methodology_approval_and_development.pdf
[15] https://proba.earth/methodologies
[16] https://www.iso.org/standard/66454.html

Proba encourages Project Developers to make use of the Proba Project Overview Document (POD) Template for the design of their Project. Templates can be found in the Proba document library[17], editable formats are shared upon request.

Following ISO 14064-2: 2019, Proba requires independent Validation of the POD, and independent Verification of the carbon Yield.

The Project Developer must declare that the GHG Project is not (and has never been in the past) registered under another initiative or registry that issues Carbon Credits. Also, the Project Developer declares that the intervention is not (and has never been in the past) included in or is not part of the scope of a national reduction plan, such as the UNFCC NDC plans. Contractual agreements need to be in place to prevent a GHG project and related interventions from contributing to Double Counting or Double Issuance of Carbon Credits.

3.5 Crediting Period

Setting the Crediting Period

All GHG Projects must define a Crediting Period in the POD. The duration of the Crediting Period can vary depending on the project and should be determined according to the selected methodology. The Crediting Period must always:

- Be shorter than or equal to the Project Period.
- Begin at the start of the CO_2 reduction or sequestration-yield period, but no later than 12 months after Project Validation.
- Be aligned with the GHG Project activity.

In general the Crediting Period should reflect the uncertainties and risks involved with the project. New technologies and fast evolving markets require a shorter Crediting Period, allowing for more frequent updates to align with the latest version of the methodology used, and revalidation of the project design, including evaluation of the baseline.

Retroactive Crediting

[17] https://proba.earth/document-library

Retroactive crediting means the crediting of emission reductions and removals that have occurred prior to the date that the project received eligibility approval. Under the Proba Standard, retroactive crediting is only permitted for specific project types under strict conditions, as set out below.

Offsetting projects: Proba may grant exceptions for specific project types where the nature of the activity justifies it (for instance, projects that certify carbon sequestration with long harvesting cycles). Any such exception will be explicitly defined in the applicable methodology,and retroactive crediting shall not exceed a maximum of two years prior to eligibility approval. Where a methodology permits retroactive crediting, the Project Developer should at minimum meet the following conditions:

- Full compliance with the applicable Proba methodology must be demonstrated throughout the retroactive period, supported by complete and verifiable documentation (e.g. monitoring data, land records, management logs).
- Documented evidence must be provided that carbon finance was part of the original investment rationale from the project start date.

Additional conditions may be specified in the applicable methodology.

Where a methodology permits retroactive crediting but the Project Developer cannot demonstrate full compliance with all applicable conditions, retroactive credits will not be issued. Credits will in that case only be issued from the date of Proba eligibility approval onward.

Insetting projects (eg. fertilizer emission reduction projects): Emission reductions and removals reported in the year following the intervention may be included in the crediting period, provided the intervention did not take place earlier than one year before Proba eligibility approval of the POD. No further retroactive crediting is permitted.

Renewal of Crediting Period

A GHG Project Developer can submit a Renewal Request to Proba to renew their Crediting Period at the end of the initial one. Based on the methodology, a maximum amount of renewals may be defined.

For Crediting Period renewal, Proba requires the Project Developer to undergo a full revalidation process. This includes:

- An updated POD, including any relevant update from the latest version of the Proba Standard, any new changes in scope and Project Boundaries
- A Baseline recalculation based on the new context (economic, regulatory, etc.)
- Adoption of the latest versions of the methodologies
- A new Validation of the updated POD by an independent VVB

3.6 Additionality Requirements

Proba recognizes multiple dimensions of Additionality, all of which must be demonstrated for a GHG Project to qualify under the Proba Standard.

A project is considered additional if the GHG reductions or removals would not have occurred without the enabling role of carbon finance. In other words, both the GHG Project and the expected GHG Yield must not represent business-as-usual outcomes.

To meet this standard, all projects must demonstrate compliance with the following three Additionality dimensions:

1. Regulatory Additionality
2. Financial Additionality
3. Prevalence

The assessment of each dimension must compare the expected outcomes of the intervention with the Business-as-Usual (BaU) scenario, or "Baseline" (see Section 3.7). The Project Developer is expected to define the Baseline before implementation of the intervention.

To ensure consistency, transparency, and completeness in how Additionality is assessed and documented, all Project Developers are required to use the Proba Additionality Assessment Template[18].

The completed Additionality Assessment must be included as an appendix or addendum to the Project Outline Document (POD) on the Proba Registry. A public-facing version of the assessment must always be published for transparency. If the assessment contains sensitive or confidential information, a separate public-facing version must be prepared in accordance with Section 5.4 of the Proba Standard. In

[18] https://proba.earth/hubfs/Project_Design/Proba_Additionality_Assessment_Template.pdf

such cases, supporting evidence may be withheld, but the core reasoning and key claims must remain accessible.

Where applicable, project methodologies may contain additional requirements or tests for assessing additionality. These must be addressed within the Additionality Assessment using the designated section(s) of the template.

Regulatory Additionality

The Project Developer must demonstrate that the project is not mandated by existing or forthcoming legal, regulatory, or policy requirements. This includes:

- Confirmation that no law, statute, or regulation requires the intervention during the crediting period.
- If the project is required by regulation but goes beyond the minimum requirements, describe how the intervention exceeds the legal baseline.
- Assessment of sector-specific agreements or national targets that might indirectly require the intervention.
- Analysis of sectoral trends to demonstrate that emissions are not already decreasing significantly due to existing or emerging practices
- Consideration of voluntary, pre-competitive sector initiatives. The Project Developer must show how the intervention exceeds these initiatives' ambitions or timelines.

Financial Additionality

The Project Developer must demonstrate that the project would not be financially viable without revenue from carbon credits, or that the revenue enables meaningful scaling, acceleration, or risk reduction.

Two approaches are accepted:

- Use of the CDM Tool for the Demonstration and Assessment of Investment Additionality (v7.0.0), which provides a structured investment analysis.
- Completion of a cost-based analysis using the Proba Additionality Template, including:
    - Estimates of implementation and operational costs versus financial benefits.

- Justification of financing constraints (e.g., high capital expenditure, long ROI).
- Transparency about any subsidies, tax advantages, or public incentives.

Prevalence

The intervention or technology must not represent common practice in the relevant region or sector.

Proba follows the CDM guidelines on common practice, using a threshold of 25% adoption to define whether a practice is considered common.
The Project Developer must show that the adoption rate is below this threshold through one or more of the following:

- Adoption data from reliable sources.
- Performance benchmarking showing that the project significantly exceeds average practice.
- Expert assessments or literature demonstrating sectoral or geographic differentiation.

In addition, the Project Developer may include a barrier analysis to highlight technical, institutional, or cultural challenges that limit broader adoption. This analysis is optional but can strengthen the demonstration of non-prevalence.

Multi-Intervention Projects

If a project includes multiple interventions or methodologies, the Additionality Assessment must address each intervention individually or in a consolidated manner, while preserving traceability and compliance with all relevant methodological rules.

Methodology-Specific Additionality Tests

If the methodology includes specific additionality tests beyond the three standard dimensions, these must be documented clearly in the designated section of the template and supported with appropriate evidence.

3.7 Baseline determination

The Project Developer defines a baseline as prescribed by the methodology. Methodologies may prescribe the use of a dynamic baseline in case markets are evolving rapidly and have a severe impact on baseline calculations (e.g. phased regulatory changes). The GHG baseline follows the requirements from ISO 14064-2:2019 and must at least include the following steps:

- **Definition of the Project Boundaries**:
    - Determine the geographical and temporal boundaries of the project.
    - Determine if the methodology prescribes a static or dynamic baseline.
    - Within a product or service lifecycle, determine the scope of the activities.
    - Identify all relevant GHG sources, sinks, and reservoirs within these Boundaries.
    - In case the project includes non-GHG benefits, describe the scope of these (social, economic, biodiversity, etc.)
- **Selection of the Baseline Scenario**:
    - Identify potential alternative scenarios to the proposed project that reflect what would happen in its absence.
    - Choose the most plausible and conservative scenario as the baseline.
    - Consider expected changes on non-GHG benefits
- **Gather Data**:
    - Collect historical data on GHG emissions related to the project.
    - Quantify and document all uncertainties concerning assumptions, data measured, tooling involved for both static and dynamic baselines.
    - Use the following data source hierarchy: Tier 3>Tier 2>Tier 1[19]
    - Obtain data on similar projects or sectors to provide a comparative analysis.
    - Ensure to use conservative standard data and document the choice for the data used.
    - Should data come as a bandwidth or vary, choose the lower value.
- **Choose a Calculation Method**:
    - There are several methods to calculate Baselines, including, for example:
        - Historical emissions method: uses historical data to project future emissions.

[19] https://snapshotclimate.com.au/faq/what-does-tier-1-and-tier-2-data-mean/

        - Benchmark method: compares the project's emissions against a set benchmark
        - Modeling method: uses models to predict future emissions based on various scenarios.
        - LCA: see 3.2, an environmental impact analysis of the product or service throughout its entire lifecycle.
    - The choice of method depends on the project type and/or data availability and other factors.
    - The methodology may combine or offer several methods.
- **Calculate the Baseline Emissions**:
    - Use the chosen method to calculate the GHG emissions for the baseline scenario over the project's Crediting Period.
    - For GHG Projects with a dynamic baseline, baseline emissions are recalculated upon every Verification Event.
- **Estimate and adjust for Leakage risks**:
    - Leakage refers to the unintended increase or decrease in GHG emissions outside the Project Boundary as a result of the project.
    - Estimate and account for any leakage, direct or indirect, to ensure the baseline reflects the true net impact of the project.
- **Periodic Review and Update**:
    - GHG Baselines are not static and may need to be updated periodically.
    - Review and update the Baseline at regular intervals or when significant changes occur that affect the project's emissions, or ahead of the renewal of the Crediting Period.
    - Also review non-GHG aspects, such as social or environmental, when included in the GHG project.
- **Document and Verify**:
    - Thoroughly document all assumptions, decisions, data sources, and calculation methods used.
    - Verify the ongoing validity of the Baseline over time and if needed reestablish.

3.8 Permanence of the GHG Yield

GHG Yield can be achieved by reducing CO_2e emissions or by removing CO_2e and storing it. Reductions of CO_2e are permanent by definition; for Removals, there is a risk that the stored CO_2e is re-emitted again into the atmosphere. The level of certainty that the GHG emissions will not be re-released into the atmosphere is what we call Permanence.

Proba requires a minimum Storage Duration of 40 years for GHG Projects. While 40 years is the minimum required, Proba recommends a longer Storage Duration (e.g. 100 years) in order to maximize impact and Carbon Credit value. Proba requires that all GHG Removal projects have measures in place to ensure Monitoring activities for a period of at least 40 years, starting from the start of the initial Crediting Period, even if the Project Period is shorter than 40 years. See also *Post-Project monitoring* under section 4.2. The Storage Duration for each GHG Project and issued Carbon Credits are clearly communicated.

In the event of premature or unexpected reversal, the Project Developer is required to allocate available or future Carbon Credits for replacement of the reversed Credits or take reasonable effort to recover from the reversal. When the Project Developer is not able to Compensate for the carbon loss, Proba will use Carbon Credits from the Buffer Pool to replace the reversed Carbon Credits.

The hierarchy in these events is:

1. Cancel available credits
2. Issue less credits (respectively to the loss) after the next verification event within the same crediting period
3. Replacement with Carbon Credits from Proba's Buffer Pool

Note: For GHG Projects where a minimum Storage Duration of 40 years cannot be achieved, the GHG Projects may still be accepted as eligible for certification. This will require a separate decision by the PMB.

Temporary Removals

A temporary removal refers to the sequestration or capture of greenhouse gasses (GHGs) from the atmosphere for a limited and specified duration (Storage Duration), after which there is a risk or certainty of re-release into the atmosphere.

Characteristics:

1. **Storage Duration**: The period during which the GHGs are sequestered or captured is predefined and limited. This duration can vary based on the methodology or technology used but is not considered permanent.
2. **Re-release Risk**: After the specified Storage Duration, there is a potential risk that the sequestered or captured GHGs may be released back into the atmosphere. This risk can arise from natural events, degradation of storage methods, or other external factors.
3. **Storage type**: Temporary removals often involve interventions or technologies that don't guarantee permanent sequestration. Examples include certain types of afforestation or reforestation where trees might be harvested later for biomass, or carbon capture and storage (CCS) methods where stored CO_2 might leak over time.

For temporary removals, Proba explicitly defines the period of the Storage Duration for each GHG project. The Storage Duration is defined in years and for each Yield Period.

The GHG Project will make the Storage Duration of the GHG Yield transparent.

3.9 Quantify GHG Yield

The methodology prescribes how the Project Developer should quantify the emission reduction or removal compared to the Baseline. The GHG Project must adhere to the criteria described in ISO 14064-2:2019 on the quantification of emission reductions.

If required, this can be a recurring process on predefined intervals. This is also to ensure that the Additionality criteria are still relevant over time, as science can evolve, and the local context or regulations can change.

Over-crediting prevention

Conservativeness principle

All Methodologies chosen by the Project Developer must follow the Conservativeness principle. This principle ensures that the expected GHG Yields are not over-estimated. To do so, the Project Developer prioritizes conservative estimates and Methodologies, carefully chooses the location or time frame for setting the Baseline, or leaves uncertain or not measurable carbon SSRs out of the Project Boundaries.

Uncertainty

The Project Developer also accounts for Uncertainty, in choosing Baseline data (Tier 1, 2 or 3), measurement tools, monitoring processes, and includes an Uncertainty factor in the calculations. The methodology should give clear instructions on this. The Project Developer must justify the choice of the Uncertainty factor used.

Buffer Pool

Proba is wary of the credibility and long-term impact of Proba Carbon Credits, and recognizes that a zero risk of premature reversal or loss of permanence doesn't exist. As such, Proba retains a portion of all Carbon Credits issued in each GHG Project to constitute a reserve, called the Buffer Pool.

For each GHG Project, the standard contribution to the Buffer Pool is set to 10%. Proba will assess the various risks (environmental, regulatory, project implementation) that may lead to premature reversal or lack of Permanence of each project. The outcome of the assessment can be used to increase or decrease this contribution. The methodology should give clear guidelines on this.

Leakage risk mitigation

Leakage risk identification and mitigation are crucial for the effectiveness, credibility, and sustainability of GHG Projects. Mitigation measures are needed to:

- Ensure project integrity
- Provide accurate carbon accounting
- Maintain project stakeholder confidence
- Maximize positive environmental impact
- Avoid negative consequences
- Enhance Co-Benefits; mitigation of leakage can boost project co-benefits like biodiversity

- Support long-term sustainability by ensuring lasting project benefits
- Uphold reputation and reduce risk for criticism and reputational damage

Mitigating leakage risk involves a combination of planning, monitoring, community engagement, and adaptive strategies. The Project Developer should include the following actions:

- Clearly define project boundaries to account for potential leakage areas, such as displacement of emitting activities, switch to alternative and more emitting energy sources, longer shipping distances, etc.
- For agricultural/farming related projects: establish buffer zones and monitoring around the project area to absorb potential leakage
- Where relevant, maintain contact with local stakeholders (communities, NGO, CSO, administrations) to address concerns and prevent activities causing leakage
- Adjust project strategies based on monitoring data to address emerging leakage sources

Proba accepts GHG Projects where the Project Developer can submit an ISO 14001 certificate stating the mitigation of possible leakage risks that are in the scope of the GHG Project. When this is not available, the Project Developer is expected to maintain a risk management plan in which the leakage risk mitigations are sufficiently addressed.

3.10 Co-benefits

Proba encourages projects that create a positive impact beyond climate benefits. A GHG Project can deliver more than just GHG Yield and contribute to many other areas, such as biodiversity, climate adaptation, water resources, social and health benefits, economic benefits, and more.

The Project Developer will describe any co-benefits that the Project will realize or contribute to, beyond SDG 13 “Climate Action”. The inventory and documentation can be done using the Sustainable Development Goals[20] to indicate what impact areas the project is contributing to.

3.11 Environmental and Social Do No Harm Safeguards

[20] https://sdgs.un.org/goals

The Project Developer needs to assess the social and environmental risks of the project and its related activities, and to take adequate measures in order to minimize negative impacts and promote positive outcomes for both the environment and local communities.

In order to avoid or minimize any unintended social or environmental impact, the Project Developer is required to:

1. Perform a Risk Assessment

- Conduct comprehensive environmental and social impact assessments to identify potential negative impacts of the Project. Include direct and indirect impact on soils, water bodies, air pollution, biodiversity (including endangered flora and fauna). Include for example work safety and gender issues as part of the social impact assessment.
- Develop and implement mitigation strategies to address identified risks and impacts.

2. Local Stakeholder Engagement

- The Project Developer must take appropriate measures to inform and involve local stakeholders, including local communities, indigenous peoples, and other affected parties, throughout the project lifecycle.
- Ensure that the engagement process is inclusive, transparent, and culturally appropriate.
- The feedback received must be documented, addressed, and will be made public on the Proba Registry.

3. Information Disclosure

- Provide accessible and clear information about the Project's potential impacts, mitigation measures, and benefits to all local and project stakeholders.
- Ensure that information is available in local languages and is understandable to all local and project stakeholders.

4. Free, Prior and Informed Consent (FPIC)[21]

[21] https://www.ohchr.org/en/indigenous-peoples/consultation-and-free-prior-and-informed-consent-fpic

- When operating in an area where indigenous communities are living, obtain FPIC from indigenous peoples and local communities that may be affected by the Project.
- Document the FPIC process and ensure that the consent obtained is genuine and free from coercion.

5. Grievance Mechanism

- Establish an effective and accessible grievance mechanism for local stakeholders to raise concerns or complaints related to the project.
- Ensure timely and fair resolution of grievances.

6. Capacity Building

- Build the capacity of local communities and local stakeholders to engage effectively in the project and to understand its potential impacts and benefits.
- Provide training and resources as necessary.

7. Adaptive Management

- Be prepared to adapt project plans and mitigation measures based on monitoring results and local stakeholder feedback.
- Ensure that adaptive management strategies are transparent and involve local stakeholder participation.

8. No Discrimination

- Ensure that the project does not discriminate against any individual or group based on race, gender, ethnicity, religion, or any other characteristic.
- Promote equal opportunities and benefits for all local stakeholders.

9. Environmental and Social Commitment

- Demonstrate a clear commitment to environmental and social safeguards at all levels of the project organization.
- Allocate sufficient resources to ensure compliance with safeguards and to address any adverse impacts

10. Land Acquisition and Involuntary Resettlement

- Avoid involuntary resettlement where possible
- Minimize the impact for affected people by fair compensation and improvements to their living conditions

Proba highly recommends Project Developers to be ISO 14001 certified in order to demonstrate Environmental and Social Do No Harm Safeguards.

3.12 LCA-Based Projects

All methodologies under the Proba Standard are project-based. Proba does not certify products but rather certifies emission reductions and removals achieved through projects. While Life Cycle Assessments (LCAs) are used as tools within project-based methodologies, they serve to quantify emission reductions in both the baseline scenario and the project scenario. For example, in projects where a farmer switches from a conventional fertilizer to a lower-carbon alternative, LCAs may be used to measure the emission reductions associated with that transition. LCAs must be applied within a project-based framework and cannot serve as standalone methodologies under the Proba Standard. Approved methodologies incorporating LCAs can be found on the Proba website: Proba website.

4. Monitoring, Validation and Verification

4.1 Segregation of duties

The Proba Validation and Verification process follows best practices as described by ISO 14064-3.

ISO 14064-3 doesn't specifically state that the same auditor from a VVB can't perform both Project Validation and Project Verification. However, to avoid conflicts of interest and to maintain impartiality, Proba requires that the Validation of the POD and Verification of the GHG Yield is performed by two different individuals. Proba requires the VVB to appoint different auditors for Validation and Verification. The independent reviewer can be the same person and review both the Validation and Verification event. To safeguard impartiality, there must be no hierarchical relationship between the independent reviewer and the assigned auditors (e.g., a reviewer may not be the line manager or direct supervisor of the auditor, nor vice versa).
Proba encourages Project Developers to make use of separate VVBs for Validation and Verification. The requirements for Validating and Verifying Bodies are listed under section 4.7 and 4.8.

4.2 Monitoring Procedures

The scope of the Monitoring must be aligned with the selected methodology, Project Boundaries, activities and identified risk areas. The Baseline and the Risk Assessment results must be used to develop the scope of the Monitoring activities and processes. The starting point is to establish the Baseline of all SSRs related to the project location/activities. Once the Baseline is known, the project must undergo regular monitoring.

The Project Developer shall create a monitoring plan in the POD (using the guidelines of the POD template[22]) as described below. Ahead of the Verification, the Project Developer shall use the data to create a Monitoring Report, that will be submitted to the Proba registry and made available to the VVB ahead of the Verification.

- **Define scope of Monitoring**

[22] https://proba.earth/hubfs/Downloads/Proba_POD_Template.pdf

    - Identified SSRs
    - Project locations
    - Carbon mitigation activities
    - Risk mitigation measures (reversal, social, environmental), commensurate with the identified risks under section 4.8.
    - Potential non-GHG co-benefits (SDG-based), using the UN SDG Assessment Tool[23]
    - Potential changes in related subsidies or taxes. In case subsidies or taxes have commenced since the start of the Crediting Period, Project Developers should be transparent about this and this should be included in the Monitoring Report.
- **Establish Monitoring and Reporting Protocols**:
    - Set up systems to monitor and report on actual GHG emissions during the project's implementation.
    - In case the GHG Project uses a dynamic baseline, this also includes re-assessment of updated baseline emissions.
    - Define the data and metrics that needs be collected and measured, including standard values and uncertainty
        - Project developers are generally expected to keep records of key data and metrics for the duration of the crediting period plus an additional five years (representing the Carbon Credit Validity period).
    - Define responsibilities of stakeholders within the GHG Project
    - Ensure data collection methods and tooling are standardized
        - This includes having instructions in place to operate data platforms
    - Define frequency of monitoring per data point
- **Implement and Monitor the Project**:
    - Measure and document the implementation of (risk) mitigation measures
    - Document measurement tools used, units, calibration, etc.
    - Keep a record of all measurements and include measurement dates, staff name, location, etc.
- **Create a Monitoring Report to be used by a VVB during Verification**
    - The report must contain the above details and data

[23]https://sdgimpactassessmenttool.org

    - Describe and mention the monitoring activities, including dates and data points
    - Include all that is in the scope of the monitoring activities, including mitigation measures for:
        - risks associated with project success,
        - social and environmental risks
    - The Project Developer must submit the full Monitoring Report to the Proba Registry upon each Yield Verification and ensure it is made available to the VVB for verification purposes. For transparency, a public-facing version of the Monitoring Report must always be published on the Proba Registry. In cases where the report contains sensitive or confidential information, a separate public-facing version must be prepared, including a clear statement that certain content has been withheld due to its sensitive nature. Otherwise, the full version may serve as the public-facing version.

Temporary Removals

In the case of Temporary Removals, the Project Developer must have a system in place for continuous monitoring to ensure that the GHGs remain removed for the specified duration and to detect any early releases.

Post-project Monitoring

The Project Developer commits to continue all Monitoring activities:

- Until the end of the project period as described in the POD.
- After the project period/end of the last Crediting Period, and at least for the agreed Storage Duration period. This is to mitigate the reversal risk and ensures that the Carbon Yields associated with all Carbon Credits are maintained for the agreed Storage Duration as described in the POD.
- Define a process for post-project monitoring, including
    - who is responsible for monitoring
    - what budget is secured for the post-project monitoring
    - what is being monitored, how, how often and for how long,
    - who is maintaining the liaison with Proba to inform about the monitoring results

- The Project Developer should have contingency plans in place to compensate for the case of reversal, e.g. by delivering yield from other projects, by keeping a buffer or using an insurance

4.3 Project Boundary Change/Extension between Verification rounds

A Project Developer may under certain conditions extend the scope of the Project while the Project is already active and yielding Carbon Credits. In the event of a scope extension, the Project Developer should always inform Proba in a timely manner. Proba will assess the scope extension and evaluate if the GHG Project needs to be re-validated or requires an extension of the Monitoring plan and an extension of the scope of the next Verification Event (eg. additional site visit).

The extensions can concern a variety of scopes or activities within the Project Boundaries, such as, but not limited to:

- Land area
- Carbon Pool addition
- An industrial process or process step within a value chain
- A new processing plant, or sub-contractor
- A new non-GHG co-benefit, e.g. biodiversity

Conditions for inclusion in the Project scope

- The activity related to the scope change has started after the initial project Validation.
- The scope change concerns an activity or location that is comparable with the initial baseline.
- Monitoring KPIs are collected on the new scope extension/activity from the very start and using the same Monitoring and Verification protocols as described in the validated POD.
- The Project Developer informs the Verifier responsible for the Verification of the change in scope, for the next Verification round, and shares all related documentation.
- The Project Developer informs Proba about the scope change in a timely manner.

4.4 Validation Procedure

For the validation of GHG projects, Proba recognizes the procedures described in ISO 14064-3:2019[24] "Greenhouse gasses — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements".

As such, the Project Developer is required to contract a VVB approved by Proba (refer to section 4.9 for the Proba VVB approval procedure). Proba recommends VVBs to use the Proba Validation template[25] and requires any methodology-specific guidelines for project validation and verification to be followed as part of the Validation. VVBs may deviate and use their own templates as long as the elements from our standard and guidelines are covered.

The project is required to be validated to a reasonable level of assurance as defined in ISO 14064-3.

The Validation is performed on the Project Overview Document and is meant to ensure that the Project logic, Interventions, expected Yields, and Methodologies are sound and realistic.

This step includes a thorough desk review and may include interviews and/or a visit to the project site. This may happen in iterations where the VVB requests the Project Developer to clarify or further develop some aspects of the Project.

The purpose of Validation is to ensure the Project's feasibility and viability, as well as minimize the risks related to the accuracy and credibility of the GHG Project.

4.5 Verification Procedure

The phase when a project is being verified and a Verification report is being issued is referred to as a Verification Event. Proba recommends VVBs to use the Proba Verification template[26] and any methodology-specific guidelines for project validation and verification to perform the Verification. VVBs may deviate and use their own templates as long as the elements from our standard and guidelines are covered.

[24] https://www.iso.org/standard/66455.html
[25] https://proba.earth/hubfs/Downloads/Project_Validation_Report_template.pdf
[26] https://proba.earth/hubfs/Downloads/Project_Verification_Report_template.pdf

For the auditing and Verification of GHG projects, Proba recognizes the procedures described in ISO 14064-3:2019 “Greenhouse gasses — Part 3: Specification with guidance for the verification and validation of greenhouse gas statements”.

The Project Developer is required to contract a VVB approved by Proba. A successful Validation of the Project Overview Document resulting in a signed Validation Report is required before a Verification event can take place.

Ahead of Verification, the Project Developer shall share the Monitoring Report corresponding to the audited Yield Period, which should cover the monitoring activities performed since the last Verification (or since the Project Validation in the case of first Verification).

Frequency of Verification

The frequency of Verification can vary per project and per intervention type and guidelines should be provided by the methodology (based on activities, sector practices, project total duration, risks etc). The frequency of Verification should be aligned with the Yield Periods. For certain project types, the methodology can allow the Verification to be done upfront. For instance, for improved production processes the Project Developer may issue Carbon Credits directly after production when Verification of the improved process has been performed. Auditing of production volumes should be in scope of the next Verification event as part of monitoring.

VVB rotation period

After 3 years of Verification by the same VVB, the Project Developer is required to rotate the VVB or - at minimum - its lead auditors.

Scope of the Verification

The scope of the Verification is strongly correlated to the Monitoring Plan as described in the POD. The VVB uses the Monitoring Report provided by the Project Developer.

The project is required to be verified to a reasonable level of assurance as defined in ISO 14064-3.

The Verification must include all locations, activities, and interventions in scope as described in the POD: Carbon Yield vs. Baseline, carbon pools, Methodologies, data quality, monitoring process and activities, social and environmental risk mitigation

measures, calculation methods, etc. As well, the Verification must assess non-GHG benefits, such as co-benefits and/or contributions to the UN SDGs[27].

Site visits

Site visits are mandatory for initial audits or when a project undergoes a significant scope extension(e.g. additional locations). The VVB must conduct an on-site visit covering a representative sample of project locations. Beyond the two required scenarios, further site visits may be required as part of each Verification event. These are determined based on:

- Methodology-specific guidelines for Validation and Verification,
- The VVB's internal procedures, and
- A project-specific risk assessment.

The exact number and selection of sites to be visited should be determined based on statistical sampling methods, risk assessments, and methodology-specific guidelines.

4.6 Small-scale GHG Projects

Proba reserves the right to grant exceptions for certain types of projects, such as pilots, or small-scale GHG Projects. Project Developers can ask Proba for a simplified Validation and Verification process.

These can be projects where the expected carbon yield is lower than 10,000 tCO2e per year per Project Developer (so-called "small-scale projects").

If, as part of the Eligibility Check, an exception is granted, Proba proposes a simplified Validation and Verification process. This usually consists of Validation and Verification by a knowledgeable, independent expert without the necessary accreditations of a VVB. For the independent expert, the following conditions apply:

- The independent expert needs to comply with the same integrity and independence requirements as described in section 4.8.
- To demonstrate their expertise, the independent expert should provide professional qualifications related to the context of the small-scale project. This includes at minimum:

[27] https://sdgs.un.org/goals

    - **Relevant scientific degree**: A degree in a relevant scientific field (eg. environmental science, chemical engineering, agronomy);
    - **Relevant professional experience**: Documented practical experience in areas directly related to carbon accounting, project monitoring, Validation, and Verification. This can include memberships in relevant associations.
- The proof of expertise will replace the regular VVB approval procedure (section 4.9) and will be documented by Proba. The independent expert will not be listed on the Proba website as an approved VVB.
- The proof of expertise needs to be approved by the Proba Management Board before the independent expert can begin with the Validation and / or Verification procedure.
- The independent expert should follow the same Validation and Verification procedures and make use of the same templates as described in sections 4.4 and 4.5.
- The exception will be extensively documented, explained and published on the Proba Registry.

4.7 Audit requirements

The VVB performing the Validation or Verification (an audit) must be well-informed of the scope of the Project and related interventions. Measurements are verified using a combination of methods, assessments, interviews, ground-truthing, etc.

Proba recommends planning a pre-audit meeting, where the scope of the audit is discussed, the list of required documentation is established, the risk areas are identified, and where the auditor can estimate the time and resources needed for the audit.

GHG Yield data can either be entered into the Proba Platform by the Project Developer or imported from a trusted datasource like a third-party data platform or a data platform of the Project Developer.

For each audit, a minimum of two qualified employees from the VVB are involved to ensure high quality by peer-reviewing the outcomes (one performing the audit, the other issuing the Verification report).

4.8 VVB requirements

Integrity and independence

Proba requires that every project be verified by an independent third-party organization. To guarantee independence, the chosen VVB should have no vested interest in the outcome of the audit, ensuring objectivity. This means no financial or other conflicts of interest with the entity being audited, for both the VVB organization and its individual employees involved in the audit.

Each VVB is required to adhere to our Code of Conduct for VVBs[28] and VVBs are expected to take notice of our Terms and Conditions[29] that apply to our Project Developers participating in the Proba Certification program.

The VVB must commit to making all documentation transparent from the letter of engagement to the final audit report.

Qualifications

Verifiers and/or VVB companies who wish to audit interventions against the Proba Standard must prove accreditation according to one of the following standards:

- ISO 14065:2020 - General principles and requirements for bodies validating and verifying environmental information
    - Performed against ISO 14064-3:2019

Accreditation can be acquired from a National Accreditation Body[30].

Each VVB wishing to perform an audit is required to apply for approval. Next to providing proof of accreditation, the VVB should apply for a specific set of scopes, based on the list of sectoral scopes from CDM[31], supported with evidence on earlier projects or team expertise. The VVB may only perform expert reviews, Validations or Verifications for the sectoral scopes for which it has been approved.

4.9 VVB approval procedure

[28] https://proba.earth/hubfs/Downloads/Proba_code_of_conduct_VVBs.pdf
[29] https://proba.earth/hubfs/Downloads/Proba_terms_and_conditions.pdf
[30] See https://iaf.nu/en/accreditation-bodies/ for an overview
[31] https://cdm.unfccc.int/DOE/scopelst.pdf

Validation and Verification Bodies (VVBs) wishing to perform validation or verification of GHG Projects against the Proba Standard, shall be formally approved by Proba prior to completing any audits.

The approval process for VVBs is as follows:

1. The VVB submits the application form for Validation & Verification Bodies[32]
2. The application is reviewed by the Proba Management Board
3. The application is approved or rejected
4. When approved, the VVB is listed on the Proba website

In case VVBs are confident they have resolved the reasons behind a rejected application, they can re-apply again. Proba will evaluate these VVBs on a case-by-case basis.

4.10 Oversight of VVBs

VVB oversight ensures that VVBs approved by Proba maintain high standards of quality and consistency in their Validation and Verification processes. Proba takes responsibility for reviewing VVBs and monitoring their performance and qualifications across GHG Projects and Methodologies. The VVB oversight section in the Proba Standard Quality and Governance[33] describes the procedures that Proba has in place to maintain oversight over VVBs.

4.11 VVB Capacity Building & Training

Proba provides training and onboarding support to all newly approved Validation and Verification Bodies (VVBs). This includes an introductory walkthrough session covering Proba's Standard, methodologies, validation and verification requirements, and reporting expectations. Ongoing guidance and updated resources will be made available as needed to ensure consistency and quality across all audits. More details on VVB capacity building support can be found in the Proba Standard Quality and Governance[34] document.

[32] https://proba.earth/hubfs/Downloads/Proba_VVB_Application_Form.pdf
[33] https://proba.earth/hubfs/Downloads/Proba_Standard_Quality_Governance.pdf
[34] https://proba.earth/hubfs/Downloads/Proba_Standard_Quality_Governance.pdf

5. Carbon Credits, Proba Platform and Registry

5.1 Registry Provider

The Carbon Credit Registry is hosted by and property of Proba.

Proba commits to regularly updating the Registry with the latest statuses, Projects, and Credit issuance. The registry gets updated automatically upon issuing or changes in Credits.

Proba's Carbon Credits are issued as NFTs (Non-Fungible Tokens) on the blockchain and follow the ERC-1155 [35]standard in order to promote Credit and data exchange with third-party platforms.

5.2 Carbon Credits ownership and rights (to transfer)

When a GHG project has a Project Sponsor (the organization financing the Project), the Sponsor becomes the legitimate owner of the Carbon Credits issued. If there is no Project Sponsor, it is the Project Developer who becomes the initial owner. Proba never becomes the owner of the Credits and as such cannot take part in trading or transferring Credits to others.

Proba allows for contractual agreements between Project Stakeholders involved in a joint intervention to determine shared ownership or a clear allocation of the Credits between them. However, only one party becomes the initial owner and is responsible for allocating Carbon Credits to the other beneficiaries.

Each issued Carbon Credit possesses a unique ID on the blockchain and contains the Credit's characteristics, such as intervention type, location, level of Storage Duration, and other project-specific attributes. The Proba platform guarantees the ownership of the Credit to the relevant owner by assigning them to a secure wallet. As such, no one else has access to them until the owner has performed a transfer. Transfers can only be initiated via the Proba platform.

5.3 Access to the Registry

[35] https://eips.ethereum.org/EIPS/eip-1155

The Registry is publicly available at this URL: https://registry.proba.earth.

The Registry contains a large selection of available data that can allow external parties to access the project documentation, location, intervention type, and origin of the Credits. Some data points may be concealed from public view due to various reasons, such as but not limited to confidentiality, contractual agreements, or intellectual property rights.

5.4 Transparency

Proba welcomes public scrutiny, and we consider transparency as a core value. As such, Proba publishes all documentation that is relevant to the GHG project lifecycle, such as the Project Overview Document, Methodologies and (baseline) calculations used, feedback on the Public Consultation, Monitoring Reports or Validation and Verification reports of the related assessments performed by 3rd -party independent VVBs. These are made available on the Proba Registry. Where supporting project documentation includes sensitive or confidential information, the Project Developer may decide to only make it available for relevant parties. A public-facing version must also be published on the Proba Registry. This version should explain what types of information have been withheld and why, while ensuring that full versions are shared with Proba and the VVB for verification and oversight purposes. This applies, for example, to Monitoring Reports, Additionality assessments, and other documents critical to the project lifecycle.

5.5 Carbon Credit lifecycle

The Registry is composed of 3 data ledgers:

- GHG Project and Asset Data: describes the GHG project, its assets and GHG Yields and contains proof of Validation and Verification
- Entitlements: contains the Entitlements that have been generated after Verification of Yield
- Carbon Credits: the actual Credits that are issued, including Pre-Credits

After the Verifier has issued the Verification Report, the confirmed amount of tCO_2e reduced or removed is entered in the Proba Platform, and becomes an Entitlement. This Entitlement is used to issue a unique Carbon Credit on the blockchain. The Carbon

Credits can be sold/transferred to another (claiming) company. Carbon Credits can, based on the buying party or supply chain agreement, be sold either within the supply chain (usually for claiming in Scope 3) or outside of the supply chain (usually for offsetting emissions). When issuing Carbon Credits, Proba retains a part of the Carbon Credits (normally 10%), that are transferred to the Buffer Pool and as such are not available to the Project Developer for further use.

If Credits are used in an offsetting scenario, they can only be claimed once. For insetting scenarios, Scope 3 reductions may be claimed more than once within the supply chain, as long as they are not claimed by companies operating on the same tier within the supply chain. This is done using the concept of Allocation. The Credit owner can Allocate (a number of) Carbon Credits to one or more supply chain partners, allowing those partners to make a claim. Claim history and Allocation of the claims will be registered on the Proba registry. The public Registry shows the claim history of each Credit and informs all companies that have claimed upon the registration of any new claims made, including the allocation, providing maximum transparency within the value chain.

After being claimed, the Carbon Credits are retired. For offset Credits this happens automatically, as each Carbon Credit can only be claimed once. For inset Credits the Credit owner should manually retire the Carbon Credit when all relevant supply chain partners have made their respective claims.

During Retirement the following information is captured:

- Date/time
- Organization initiating Retirement
- Reason (e.g. due to claiming, expiration, etc)

5.6 Types of Carbon Credits

The following type of Carbon Credits can be issued by Proba:

- Removal Credits
- Reduction Credits

For both types, Carbon Credits are issued after Verification of the impact on carbon emissions of the intervention, and equal to a Yield (removal or reduction) of 1 tCO_2e compared to the Baseline Scenario of the intervention.

Proba only issues ex-post Credits. The pre-purchasing of future Carbon Credits is possible in the form of Pre-Credits, but Pre-Credits do not qualify as Carbon Credits and cannot be used for claiming GHG benefits. See section 5.8 for more details.

For temporary removals, such as some nature-based solutions, Proba commits to transparency on the timeline and Storage Duration of the removal (known as Permanence).

5.7 Uniqueness

Avoiding Double Counting

The GHG Project is not registered under any other registry, as described in section 3.4.

If Carbon Credits represent emission reductions or removals that are also reported under a governmental emission mitigation program or project that is not legally enforced (e.g. NDCs), this must be clearly stated. Emission reductions or removals that are reported under any regulatory or mandatory program are not eligible for Carbon Credits.

Avoiding Double Claiming

Claim history and Allocation of the claims will be registered on the Proba registry. The public registry shows the claim history of each Credit and informs all companies that have claimed upon the registration of any new claims made, including the allocation, providing maximum transparency within the value chain.

In case of an insetting scenario with multiple allocations possible, the retirement of the Credit is performed manually.

Uniqueness of the Carbon Credit

The Credits are issued post-Verification and have a unique ID number. They are issued on a blockchain-and are as such immutable and cannot be reproduced.

Transfer of the Carbon Credit

The Credit can only be transferred by the owner (who holds the Credit in its wallet) and a transfer is registered in a blockchain transaction.

5.8 Realness of Emission Reductions and Carbon Removals

Methodologies used by Project Developers are evaluated by Proba for their relevance to the GHG Project and for their level of quality.

Ex-ante and ex-post Credits

Proba does not issue ex-ante Certificates and only issues ex-post Credits, where the GHG Yield of the GHG Project has been achieved and independently verified. As such, the Carbon Credit always refers to a real climate impact.

Pre-financing and pre-allocation of Credits

Proba is open to project pre-financing for getting the GHG Project off the ground. When there is financing or a pre-payment by a Project Sponsor on a yet-to-be-realized GHG Yield, the future Carbon Credits can be reserved in the Proba Platform. This reserved and future Credit is called a Pre-Credit. The Pre-Credits can be issued to the Project Sponsor directly after validation of the GHG Project. This Credit type does not allow to claim the GHG benefits until the Yield is actually realized and verified, at which point the Pre-Credit becomes a Carbon Credit. To prevent issuing more pre-credits than actually realized, Proba shall never issue the totality of the expected, to-be-realized Carbon Credits as Pre-Credits. The actual quantity will be issued as Carbon Credits after realization and Verification. This is called the over-estimation safeguard. By default the threshold is set to 80%, but this can be defined and agreed upon on the level of Methodology or GHG Project.

The Pre-Credit can be transferred immediately after it has been issued.

5.9 Carbon Credit Validity Period

The Carbon Credits will have a lifetime of 5 years, starting from the creation date of the Entitlement in the Proba platform. This means that after this 5-year period, it will no

longer be possible to transfer or claim this Credit or convert an Entitlement into a Credit. In such an expiration event, retirement happens automatically.

After 5 years, issued Credits in the possession of claiming parties remain visible in the Registry, but can no longer be transferred to another party.

Entitlements that will reach the age of 5 years without being claimed or transferred will expire, and will be automatically retired.

5.10 Credit cancellation

Should the VVB or Project Developer identify a Reversal event during Monitoring activities (or via another channel) or a significant deviation of Yield compared to estimations, the VVB or Project Developer must immediately inform Proba. If the Reversal is confirmed, Proba will put the issuance of new Credits on hold. Only after the Project Developer has resolved the impact of the reversal via full Compensation of the lost Credits, will Proba resume the issuance of new Credits for this GHG Project.

In the event that within a GHG Project a given Yield loses its validity, Proba may, after extensive investigations and exploring the options for compensation, cancel the issued Entitlements or Credits, preventing them from being used or claimed. The extreme event of cancellation is a last resort option and always requires the approval of the Proba Management Board. When the Project Developer is not able to recover or compensate for the reversal, Proba will use Carbon Credits from the Buffer Pool to compensate for the loss. The situations below provide some examples (non-exhaustive):

- Reversal of the Project impact, where previously achieved GHG improvements (reductions, removals) are re-emitted unexpectedly, and/or sooner than the planned Storage Duration of the GHG Project
- An intervention or used Methodology appears in hindsight not to deliver the expected CO_2(e) Yield (e.g. erroneous methodology, new scientific insights). If the methodology is revoked or deprecated, it will become ineligible for any future Project. For running Projects using a revoked methodology, corrective actions will be taken.

- Alleged fraudulent or corrupt practices by Project Stakeholders involved (e.g. conscious data manipulation or inflation, irregular measurements, conscious omission of risks/leakage)

In case the Buffer Pool does not have sufficient inventory to compensate for reversals, the party who has claimed the reversed Carbon Credits is expected to take compensation measures.

5.11 Duration of the accessibility to the data

The Proba platform is built on the public Polygon blockchain, IPFS and off-chain technology (Google Cloud Platform).

Information related to claimed Carbon Credits on the blockchain will remain available indefinitely or as long as the Polygon blockchain exists. However, only the most important Credit attributes and lifecycle history are stored on the blockchain and/or IPFS. For other information, like documents and reports, data to guarantee integrity (e.g. checksum) is stored on the blockchain. When the information is removed from the Proba Platform, it will no longer be accessible. All information on the Proba Platform is stored for the duration of the GHG Project, plus 7 years.

5.12 Proba support

Proba will support owners of Entitlements or Carbon Credits throughout the lifecycle described in points 5.5 and 5.9, and for a maximum of 7 years from the creation of the Entitlements.

Definitions & Abbreviations

Definitions

Additionality	Refers to the concept that any carbon removal or reduction Project should result in greenhouse gas emissions improvements that would not have occurred without the Project. In other words, the Project's positive impact on reducing or removing emissions should be "additional" to what would have happened under the business-as-usual scenario.
Asset Data	Within the context of a GHG Project, an asset refers to a physical (eg. industrial facility), natural (eg. agricultural areas) or operational entity (eg. waste management systems) that directly contributes to GHG Yield.
Audit	Validation or Verification of a GHG Project, executed by a Verification and Validation Body (VVB).
Baseline Scenario	Hypothetical reference case that best represents the conditions most likely to occur in the absence of a proposed GHG Project.
Buffer Pool	A Buffer Pool is a shared reserve of Carbon Credits established to cover potential losses in GHG Projects, ensuring the integrity of emission reductions or removals over time. Each GHG Project contributes to Proba's Buffer Pool when Carbon Credits are being issued. These Carbon Credits can only be used by Proba to compensate for reversals.
Carbon Credit	A Carbon Credit represents at least 1 tonne of CO_2 (tCO_2), or 1 tonne of CO_2e (tCO_2e) reduced or removed for a certain period of time. One tonne (metric ton) (t) equals 1000 kg. For carbon equivalency, Proba uses the AR-6 assessment from UNFCCC[36].

[36] https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf

Carbon Pool	A Carbon Pool refers to a specific Source, Sink, Reservoir or activity within a GHG Project, where CO_2e is being stored.
Carbon Removal	Also known as Carbon Dioxide Removal (CDR).
Carbon SSRs	See SSRs.
Carbon Yield	See GHG Yield.
CO_2e	CO_2 equivalent. Unit for comparing the radiative forcing of a GHG to that of carbon dioxide.
Co-benefits	Co-benefits refer to the non-carbon (or non-GHG) related impact of the GHG Project. For example, the project might improve local biodiversity, reduce gender inequalities, or improve the local livelihoods. A common way to describe it is the positive contribution of the project to the UN Sustainable Development Goals (SDGs)[37].
Compensate / Compensation	In the context of the Proba Standard, this refers to the mitigated GHGs and related issued Credits. By Compensation, it is understood that lost, reversed, or not realized GHG yield is made up for in another way, to maintain the credibility of the Credit. For example, for a given quantity of GHG tonnes re-emitted due to a Reversal event, a Project Developer should provide an equal amount of Credits for Compensation. In case the Project Developer is not able to provide for Compensation, Proba can use Carbon Credits from the Buffer Pool to compensate for the release of GHGs re-emissions.
Conservativeness	Use of conservative assumptions, values, Methodologies, and procedures to ensure that GHG emission reduction or removal enhancements are not over-estimated.
Credit	See Carbon Credit.

[37] https://sdgs.un.org/goals

Credit Cancellation	Invalidating of issued Entitlements or Carbon Credits by Proba, preventing them from being transferred or claimed. This usually happens in the event that within a GHG Project a given GHG Yield loses its validity, e.g. due to a Reversal event.
Crediting Period	The "Crediting Period" refers to the specific duration of time during which a GHG Project is eligible to generate and issue Carbon Credits for the GHG emissions it reduces or removes. This period is predefined and ensures that the project's emissions impact is monitored, verified, and credited only within that set timeframe. A Crediting Period can be renewed once or multiple times.
Double Claiming	Double claiming refers to the situation where both the seller and the buyer of a Carbon Credit claim the same GHG reduction or removal as part of their respective carbon footprints or emission reduction targets.
Double Counting	This can occur in multiple ways, where one Carbon Credit is wrongfully used multiple times or claimed by multiple actors. Also see Double Issuance.
Double Issuance	This occurs when two or more Carbon Credits coexist at the same time representing the same GHG emission impact, under the same or different Carbon Crediting or other programs. Double issuance can also occur where two or more mitigation activities have overlapping GHG accounting boundaries. Carbon Crediting programs need to have provisions avoiding the issuance of more than one Credit in relation to the same GHG emission reduction or removal in such cases.
Entitlement	The right to issue a Carbon Credit on the Proba Platform. A Project Developer or Project Sponsor receives one or more Entitlements after successful verification of Yield, the result of an amount of CO_2e reduced or removed.

Greenhouse Gas (GHG)	Gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, the atmosphere and clouds.
GHG Project	Activity or activities that alter the conditions of a GHG Baseline and which cause GHG emission reductions or GHG removal enhancements. The intent of a GHG Project is to convert the GHG impact into Carbon Credits.
GHG Protocol	GHG Protocol establishes comprehensive global standardized frameworks to measure and manage greenhouse gas (GHG) emissions from private and public sector operations, value chains and mitigation actions.
GHG Yield	The GHG Yield represents the amount of CO_2e reduced/removed resulting from the GHG Project in a specific period, compared to the Baseline. The yield is measured in tonnes of CO_2e and is determined during the GHG Project and verified by the VVB. The GHG Yield will eventually be converted into Carbon Credits in the Proba platform. GHG Yield can be calculated and expressed in relation to the Product Volume (for instance, the volume of crops harvested, for a GHG Project that takes place in an agricultural context).
Global Warming Potential (GWP)	Refers to the capacity of a GHG to contribute to global warming. The Global Warming Potential (GWP) was developed to allow comparisons of the global warming impacts of different gasses. Specifically, it is a measure of how much energy the emissions of 1 tonne of a gas will absorb over a given period, relative to the emissions of 1 tonne of carbon dioxide (CO_2). The larger the GWP, the more that a given gas warms the Earth compared to CO_2 over that period. The period usually used for GWPs is 100 years. GWPs provide a common unit of measure, which allows analysts to add up emissions estimates of different gasses (e.g., to compile a

	national GHG inventory), and allows policymakers to compare emissions reduction opportunities across sectors and gasses. Proba requires Project Developers to use the latest values endorsed by the UNFCCC[38] from the AR-6 assessment from 2024.
Intervention	An Intervention is an activity within a GHG project. The actual process or action that will produce a Carbon Yield. For example, agroforestry, tree planting, or switching material in an industrial process is an Intervention.
Leakage	In the context of a GHG Project, leakage refers to the unintended increase in greenhouse gas emissions outside the Projects Boundaries as a direct result of the Project's activities.
Methodology	In the context of a GHG Project, Methodology refers to the systematic set of procedures and criteria used to quantify, monitor, and verify greenhouse gas emissions reductions or removals.
Monitoring	Continuous or periodic assessment of GHG emissions, GHG reductions and removals, or other GHG-related data.
Permanence	Permanence refers to the assurance that the carbon reductions or removals achieved by a GHG Project will remain effective and won't be reversed over time.
Pre-Credit	When there is financing or a pre-payment by a Project Sponsor on a yet-to-be-realized GHG Yield, the future Carbon Credits can be issued and reserved in the Proba Platform. This reserved and future Credit - called a Pre-Credit - does not allow to claim the GHG benefits until the Yield is actually realized and verified.
Proba	Proba World B.V., a company located in Amstelveen, certifies GHG Projects using the Proba Standard.
Proba Platform	The online application, developed and maintained by Proba and accessible via app.proba.earth, which facilitates the process of onboarding and validating a GHG Project, verifying its Yield, and

[38] https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf

	issuing Carbon Credits. It supports the lifecycle of each Carbon Credit and ensures all Projects and Credits are correctly updated in the Registry.
Product Volume	The amount of product that is produced (or harvested) in relation to the GHG Yield within a specific Yield Period. The Product Volume is expressed in the unit commonly used for this product. Product Volume and GHG Yield can be used to quantify the GHG emission reductions per produced product within the relevant Yield Period.
Project	See GHG Project.
Project Boundary	The Project Boundaries of a GHG project delineate the spatial, temporal, and operational limits within which the GHG emissions, reductions, and removals are quantified and monitored, encompassing specific activities, sources, sinks, and reservoirs related to the Project.
Project Developer	Individual or organization that has overall control and responsibility for a GHG Project.
Project Period	The Project Period is defined as the interval between the start and end dates of the GHG Project. The Project Developer commits to the project during the Project Period (including the agreed post-project monitoring, see section 5.2). When reaching the end date, a GHG Project can apply for an extension of a renewal of the Project Period.
Project Sponsor	The organization that is financing the intervention(s) of the GHG Project and will be entitled to (some of) the Carbon Credits. Not every GHG Project has a Project Sponsor. Project Developers can also be Project Sponsors at the same time.
Registry	The online overview of all GHG Projects certified by Proba and the issued Carbon Credits. The Registry is developed and maintained by Proba and publicly accessible via registry.proba.earth.

Public Comments	Public Comments refer to an open consultation period, during which anyone can submit comments on a specific GHG Project design, before the Validation of the GHG Project by a VVB. All GHG Projects on the Proba Registry are subject to a Public Comment consultation period of 30 days.
Reporting Company	A company that is claiming the Carbon Credits for usage in its sustainability reporting (for instance under the CSRD).
Retirement	Once a Carbon Credit is fully claimed or expired, the Credit becomes “retired” and can no longer be used.
Reversal Event	A reversal event refers to any occurrence or series of occurrences that result in the (unexpected) release of previously sequestered or reduced GHG emissions back into the atmosphere, thus negating some or all of the climate benefits that the GHG Project had achieved.
SSR’s	GHG Sources, Sinks, and Reservoirs.
Stakeholder	Proba defines the “stakeholder” in 2 ways: • The “project stakeholder” is a person or entity that is involved directly in the project. They can be partners, service providers, supply chain actors. • The “local stakeholder”, on the other hand, is impacted by the project or acts as an enabler, directly or indirectly. They can be local communities, indigenous people, local institutions or CSOs (NGOs or sector organizations).
Storage Duration	The period after which there is a risk or certainty of re-release of GHGs into the atmosphere after they have been removed. This is important concerning (non-)Permanence.
Uncertainty	In the context of a GHG project, uncertainty refers to the degree of doubt associated with the estimation of GHG emissions, removals or reductions. It encompasses the potential variability in measurements, calculations, and assumptions used in the project,

	impacting the accuracy and reliability of the reported GHG benefits.
Validation	Process for evaluating the plausibility of the assumptions, limitations, and methodologies that support a statement about the outcome of future outcomes of a GHG Project.
Verification	Process for evaluating a statement of historical data and information to determine if the statement on the GHG Yield is materially correct and conforms to criteria.
Wallet	A wallet is an electronic service that allows users to store, manage, and trade their digital assets (e.g. Carbon Credits).
Yield Period	The specific period (e.g. 2023) for which the Yield is measured and verified. A GHG Project can have multiple Yield Periods, depending on the frequency of the Verification. Each GHG Project can define its own period (e.g. years, months, quarters of a year, etc).

Abbreviations

tCO_2e	A tonne of CO_2 equivalent. Some GHGs have a different Global warming Potential (GWP). To make things comparable various gas warming potencies are converted to their CO_2 equivalent, as CO_2 is the largest GHG by volume and the most used in the carbon market. Proba uses the IPCC AR-6 values for methane (CH_4) from 2024[39] methane's Global Warming Potential (GWP) is 28, over 100 years. This means that 1 tCH_4 represents $28tCO_2e$, as in 28 tonnes of CO_2 equivalent.
GHG	Greenhouse Gas.
ICROA	Provides a Standards Endorsement procedure to assess the rigor of Standards for inclusion in the ICROA Code of Practice.
ICVCM	Integrity Council for the Voluntary Carbon Market. Independent governance body for the voluntary carbon market.
ISO	International Standard Organization.
PMB	Proba Management Board.
POD	Project Overview Document.
PTC	Proba Technical Committee.
SDGs	Sustainable Development Goals, defined by the United Nations.

[39] https://ghgprotocol.org/sites/default/files/2024-08/Global-Warming-Potential-Values%20%28August%202024%29.pdf

UNFCCC	The UNFCCC[40] Secretariat (UN Climate Change) is the United Nations entity tasked with supporting the global response to the threat of climate change. UNFCCC stands for United Nations Framework Convention on Climate Change. The Convention has near universal membership (198 Parties) and is the parent treaty of the 2015 Paris Agreement[41]. The main aim of the Paris Agreement is to keep the global average temperature rise this century as close as possible to 1.5 degrees Celsius above pre-industrial levels. The UNFCCC is also the parent treaty of the 1997 Kyoto Protocol[42].
VVB	Verification and Validation Body. A company that is responsible for the Validation of the project overview document (POD) and Verification of the Carbon Yield.

[40] https://unfccc.int/
[41] https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement
[42] https://unfccc.int/kyoto_protocol