



Carbon Forestry Methodology

Improved Forest Management

Public Consultation

Version 1.0

Carbon Capture Company AB

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About this consultation

Carbon Capture Company AB (CCC) is publishing this document for public consultation. It sets out, at the level of principle, the methodology that CCC intends to apply to Improved Forest Management (IFM) activities under the Carbon Forestry Standard.

This methodology has been developed to be compatible with the principles established under the EU Carbon Removals and Carbon Farming Regulation (CRCF) and is intended to align with the delegated act for Improved Forest Management that is currently being finalised at EU level. As the delegated act has not yet been adopted, this methodology may be revised once its final content is known.

What this document is, and is not

This document presents the principles, requirements and overall design logic of the methodology. It deliberately omits numerical parameters such as conversion factors, buffer percentages, discount rates and specific data formats. These technical parameters are addressed separately in supporting guidance documents, which will be developed and consulted on once the principle-level methodology has been finalised.

We welcome comments from forest owners, scientific experts, environmental organisations, certification bodies, market participants and other interested stakeholders on the structure, logic, completeness and clarity of the methodology described here.

How to respond

Comments on this consultation document can be submitted in writing to Carbon Capture Company AB. Please structure comments by chapter and section number where possible, and indicate whether a comment concerns:

- a principle that you believe should be changed, removed or added;
- a requirement that is unclear or could be interpreted in more than one way;
- a potential inconsistency with the CRCF Regulation or its delegated acts; or
- a practical concern regarding the implementation of a requirement.

Consultation period: 15 June 2026 – 13 July 2026.

Responses should be submitted to: info@carboncapturecompany.se



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1. Introduction

1.1 Purpose and scope

This methodology establishes requirements for the quantification, certification and long-term storage of carbon removals generated through Improved Forest Management (IFM). It has been developed for actively managed forests and is intended to support climate change mitigation through the accumulation and maintenance of forest carbon stocks, while preserving the capacity of forests to provide renewable forest products, biodiversity, climate adaptation and other ecosystem services.

The methodology forms part of the Carbon Forestry Standard and sets out requirements for activity eligibility, baseline determination, quantification, monitoring, certification and the management of long-term storage commitments. It is designed to be compatible with the principles established under the EU Carbon Removals and Carbon Farming Regulation (CRCF), while reflecting the biological, economic and operational realities of sustainable forest management.

The methodology applies to forest management units where forest growth, harvest, management objectives and carbon stock development can be assessed in a transparent and verifiable manner. It does not certify avoided emissions, substitution effects, or hypothetical climate benefits outside the activity boundary. Only verified increases in forest carbon stocks that meet the requirements of this methodology may generate certified carbon removals.

1.2 Forests as dynamic carbon sinks

Forests remove carbon dioxide from the atmosphere and store carbon in living biomass through natural biological processes driven by photosynthesis, growth and forest development. Unlike many engineered removal technologies, this capacity is dynamic rather than fixed: forest carbon stocks continuously change as forests grow, regenerate, experience natural mortality, and are managed through harvesting and silvicultural interventions.

Consequently, the climate contribution of a forest cannot be understood from a single point in time. It must be assessed through the development of carbon stocks over time. This methodology therefore focuses on measurable changes in carbon stocks and on the long-term maintenance of certified carbon removals.

1.3 Active forest management and climate mitigation

This methodology is based on the principle that climate mitigation, biodiversity conservation and sustainable production of renewable forest products can be pursued simultaneously within



actively managed forest landscapes. It does not assume that climate benefits are achieved primarily through the withdrawal of forests from management.

Instead, sustainable forest management is recognised as having the potential to increase forest carbon stocks, strengthen resilience, improve biodiversity outcomes and maintain the production of renewable raw materials that can contribute to the transition to a low-carbon economy. Long-term climate benefits depend not only on the carbon stored today, but also on the continued capacity of forests to grow and remove carbon from the atmosphere in the future.

1.4 Forest capital as the basis for long-term carbon removals

The methodology is founded on the concept of forest capital: the standing forest resource, including growing stock, productive capacity, future growth potential and associated carbon stocks. Increases in forest capital generally contribute to increases in forest carbon stocks and may also support higher future growth rates.

As growing stock increases, annual growth commonly increases as well, creating opportunities for both increased carbon removals and increased future sustainable harvests. This creates a reinforcing cycle in which increased forest capital can support higher carbon removals, increased future biomass production, improved resilience and strengthened delivery of ecosystem services. The methodology therefore places emphasis on outcomes affecting forest capital, rather than prescribing specific forest management practices.

1.5 Results-based approach

This methodology is results-based. Certified carbon removals are generated through verified increases in forest carbon stocks, not through the implementation of predefined management activities.

Operators remain free to select management approaches appropriate to local ecological, economic and social conditions, provided that all requirements of the methodology are fulfilled. The methodology does not seek to determine how forest owners should manage their forests; instead, it establishes requirements for measuring, verifying and certifying the climate outcomes that result from management decisions.

1.6 Additional carbon removals only

Only additional carbon removals are eligible for certification. Additionality is demonstrated through comparison with a baseline scenario representing the most likely development of the forest under economically rational forest management, in the absence of revenues from carbon credits.



The methodology does not certify avoided emissions or avoided reductions in carbon stocks. Carbon removals are only eligible for certification where forest carbon stocks exceed both the baseline trajectory and the carbon stock present at activity commencement. This ensures that certified removals represent new carbon removed from the atmosphere, not merely the avoidance of future losses.

1.7 Integrated forest management units

The methodology applies at the level of the Forest Management Unit (FMU). Activities are based on whole-property accounting and require the inclusion of all productive forest land within the FMU, unless management is prevented by law or other legally binding restrictions.

Including entire forest properties minimises internal leakage, strengthens environmental integrity, and supports integrated assessment of climate, biodiversity and production outcomes. The methodology further allows the aggregation of multiple forest properties into portfolio-based FMUs, where consistent activity implementation and monitoring can be demonstrated. Chapter 4 sets out this principle in more detail.

1.8 Biodiversity, climate adaptation and sustainable forest management

Carbon removals cannot be considered in isolation from other forest functions. Long-term climate benefits depend on healthy and resilient forest ecosystems capable of maintaining growth and carbon storage under changing environmental conditions.

Activities certified under this methodology shall therefore contribute to sustainable forest management and shall not cause significant harm to biodiversity, soil resources, water resources or long-term forest productivity. Biodiversity outcomes are assessed at the level of the FMU, reflecting the integrated nature of managed forest landscapes.

1.9 Long-term storage and responsibility

Forest carbon removals are generated within living ecosystems that are subject to natural disturbances and changing environmental conditions. Long-term storage cannot therefore be ensured by eliminating all risk.

Instead, long-term storage is supported through a combination of ex-post certification, guaranteed carbon stock commitments, monitoring obligations, risk management procedures, a buffer reserve and replacement obligations where necessary. The methodology distinguishes between natural disturbances beyond the operator's control and deliberate management decisions that result in non-compliance, supporting a transparent allocation of responsibility while maintaining environmental integrity.



1.10 Multiple sources of evidence

The methodology applies a weight-of-evidence approach to monitoring, verification and certification. Assessments may draw on multiple independent sources of information, including forest inventories, forest management plans, airborne laser scanning, National Forest Inventory data, remote sensing products, harvest records and field assessments.

Conclusions regarding carbon stocks, activity performance, disturbances and compliance are based on the combined assessment of available evidence rather than a single measurement source, improving robustness, transparency and confidence in certified carbon removals.

1.11 Relationship to the CRCF Regulation

The EU Carbon Removals and Carbon Farming Regulation (CRCF) establishes the overarching legal framework for the certification of carbon removals within the European Union, including the requirements that certification methodologies must satisfy and the governance arrangements for recognising certification schemes. This methodology is an operational methodology developed by Carbon Capture Company within that framework.

How this methodology relates to CRCF

CRCF sets the overarching legal framework and the requirements that any certification methodology for carbon removals must satisfy at EU level. This document is Carbon Capture Company's operational methodology for Improved Forest Management, developed to meet those requirements in a way that reflects the practical realities of Swedish and Nordic forestry. The delegated act for Improved Forest Management under CRCF has not yet been adopted. Once it is, Carbon Capture Company will review this methodology against its final content and update it as necessary, so that it remains fully aligned with the adopted EU requirements.

Where this methodology is, in places, more specific or more conservative than the minimum requirements anticipated under CRCF, this reflects Carbon Capture Company's own design choices – such as the use of an economically rational, activity-specific baseline, whole-property accounting at FMU level, and the dynamic guaranteed carbon stock described in Chapter 9 – rather than a requirement imposed by the Regulation itself. These design choices are explained on their own merits throughout this document and are intended to remain valid regardless of the precise drafting ultimately adopted in the delegated act.



2. Description of the Activity

2.1 Objective of the activity

The objective of Improved Forest Management under the Carbon Forestry Standard is to generate additional and verifiable carbon removals through the accumulation of forest carbon stocks in actively managed forests.

The activity is designed to create incentives for forest owners to integrate carbon removals into forest management decisions, alongside traditional forest products and ecosystem services. By assigning an economic value to additional carbon removals, the activity enables forest owners to adopt management objectives that retain a larger share of forest growth as standing biomass than would otherwise occur under economically rational forest management without carbon revenues.

Increased carbon removals are achieved through the accumulation of forest capital and the enhancement of long-term forest productivity, rather than through the permanent withdrawal of forests from production or the cessation of forest management activities.

2.2 Conceptual basis

Improved Forest Management under this methodology rests on the premise that carbon finance can alter forest management objectives and thereby influence long-term forest development. In the absence of carbon revenues, forest management decisions are generally guided by the objective of maximising economic returns within the constraints imposed by legislation, environmental requirements and market conditions. The resulting management regime constitutes the baseline scenario.

More precisely, carbon finance changes the economic calculation underlying forest management decisions. Forest management theory has long recognised that there exists an economically optimal level of standing forest capital, and an associated optimal harvesting regime, given prevailing timber prices, costs and discount rates. By introducing a value for carbon removals in addition to the value of timber, carbon finance alters this calculation: it raises the economic return associated with retaining growth as standing biomass and therefore raises the economically optimal level of forest capital itself, not merely the choice of silvicultural practice used to reach it.

Carbon finance introduces an additional revenue stream linked to the accumulation of carbon stocks. This shifts the economically optimal level of forest capital upward, enabling forest owners to adopt management objectives that allocate a greater proportion of forest growth to standing biomass than would otherwise occur. The methodology therefore evaluates carbon



removals by comparing the activity scenario with an economically rational baseline scenario, rather than by evaluating individual management practices in isolation.

The central question is not whether a specific silvicultural practice is uncommon or innovative, but whether the activity results in higher carbon stocks and higher carbon removals than would be expected under economically rational management without carbon revenues. The same practices may occur in both the baseline and the activity scenario; what generates carbon removals is the shift in the underlying economic optimum, and the resulting difference in forest development trajectories.

2.3 Forest capital and long-term carbon removals

The methodology treats forest carbon stocks as part of the productive capital of the forest ecosystem. An increase in growing stock generally contributes to increased future growth, increased resilience and enhanced capacity for long-term carbon removals.

This is the practical consequence of the shift in economic optimum described in Section 2.2: by retaining part of the additional growth generated within the forest, forest owners accumulate forest capital that can contribute to a reinforcing cycle of carbon removals, timber production and climate resilience. Carbon finance should be regarded as an investment mechanism that supports the accumulation of forest capital, rather than as compensation for reduced harvesting.

2.4 Relationship to leakage

The methodology is designed to minimise leakage risk through its system design. All carbon accounting is performed at the level of the Forest Management Unit, comprising the entire forest property or an aggregated portfolio of properties. Requiring the entire FMU to be included in both the baseline and activity scenarios minimises the risk that harvesting activities are simply displaced within the same ownership.

The methodology does not require reductions in current harvesting levels relative to prevailing management. Instead, carbon removals are achieved by allocating a greater proportion of future forest growth to standing biomass than would occur under the baseline scenario. As growing stock and productivity increase, future sustainable harvesting levels may also increase. The methodology therefore seeks to strengthen both carbon removals and long-term wood supply.

Market-level leakage, arising from broader shifts in supply and demand for forest products, is discussed further in Chapter 11.

2.5 Eligible management approaches

This methodology does not prescribe specific forest management systems or predefined silvicultural practices. Any legal and sustainable forest management approach may be used, if it



contributes to the objectives defined in this methodology and results in additional carbon removals relative to the baseline scenario.

Examples of approaches that operators may consider include conversion from rotation forestry to continuous cover forestry, stand fertilisation, reduced harvest levels, extended rotations or cutting cycles, and the designation of voluntary set-asides. The inclusion of such examples in supporting guidance does not imply automatic eligibility: eligibility is determined by the quantified outcome of the activity relative to the baseline, not by the choice of practice itself.

2.6 Applicability of the methodology

This methodology is designed for forest management units of sufficient size and structure to support a relatively stable and continuous flow of timber over time. It is particularly suited to larger forest holdings where harvesting and growth can be balanced across stands, resulting in a relatively even development of timber stock at property level. This stability is important for robust quantification, since the methodology relies on the relationship between annual growth and harvesting over time.

Forest holdings with highly uneven age-class distributions or a small total area may exhibit significant year-to-year variability in harvesting and timber stock development. Such variability can make it difficult to reliably distinguish actual carbon stock changes from short-term fluctuations.

Scope limitation

This methodology is not primarily designed for small-scale forest ownerships with highly variable harvesting patterns. Carbon Capture Company intends to develop, or contribute to the development of, a complementary methodology tailored to such forest structures, recognising that this is a common challenge across large parts of family forestry in Europe.

3. Eligibility Requirements

3.1 Objective

The purpose of the eligibility requirements is to ensure that only forest management activities capable of generating credible, measurable and verifiable carbon removals are certified under this methodology. They define the minimum conditions that must be fulfilled before an activity may enter the certification process.

3.2 Eligible operators

The operator shall possess legal authority to implement and maintain the activity throughout the activity period and all applicable storage commitment periods. The operator may be an individual forest owner, a legal entity, a group of forest owners, or another organisation holding legal management rights over the Forest Management Unit.

The operator shall demonstrate control over management decisions affecting the FMU or shall demonstrate that participating owners have entered binding arrangements sufficient to ensure compliance with the requirements of this methodology.

3.3 Eligible Forest Management Units

Activities shall be implemented at the level of the Forest Management Unit. The FMU shall normally comprise the entire forest property under the control of the operator. The methodology does not permit the selective inclusion of individual stands, compartments or forest areas for the purpose of maximising certified carbon removals.

Multiple forest properties may be aggregated into a single FMU, including properties owned by different operators, provided that the participating operators are subject to a common activity framework and that all requirements of this methodology can be applied consistently across the aggregated area.

3.4 Data and information requirements

Operators shall provide forest data of sufficient quality and detail to enable credible and replicable modelling of forest growth and harvest scenarios. As a general principle, this includes stand-level forest inventory data, geospatial data describing the property, and documentation of legally binding constraints affecting forest management, such as protected areas or habitat considerations.

Submitted data shall undergo quality control and approval before being used as a basis for baseline modelling. The certification scheme may appoint, or support the appointment of, a qualified and independent third-party expert to carry out or support this review. Detailed data



formats and submission requirements are set out in supporting guidance documents rather than in this methodology.

4. Activity Boundary

4.1 Spatial boundary

The spatial extent of the activity boundary encompasses the productive forest land subject to the activity. To reduce the risk of internal leakage, both the activity boundary and the baseline boundary consist of entire forest properties, i.e. the Forest Management Unit as defined in Chapter 3.

This requirement reflects the understanding that carbon removals, biodiversity conservation, climate adaptation and sustainable production are interconnected components of the managed forest landscape and cannot be reliably assessed by looking at isolated parts of a property.

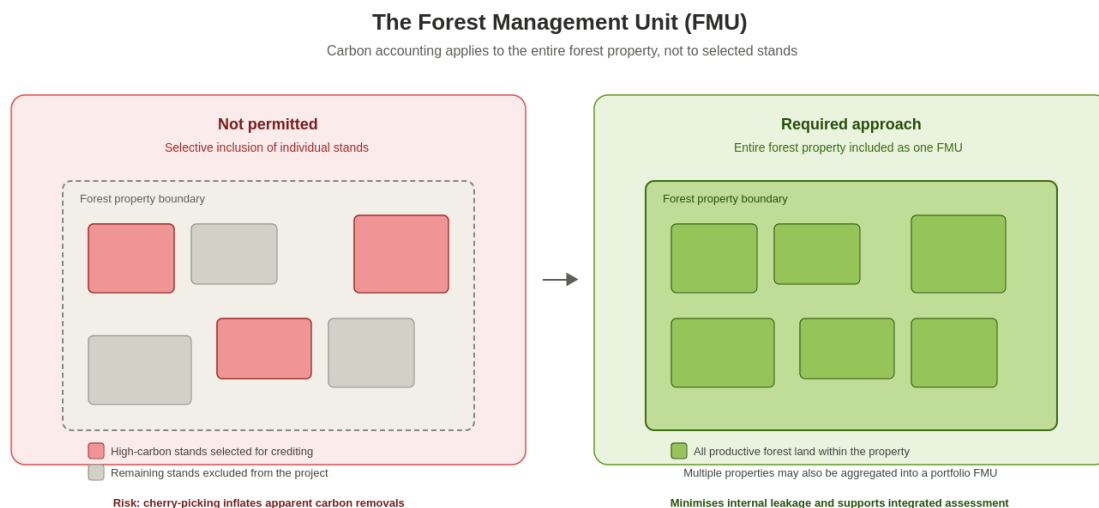


Figure 1. The Forest Management Unit concept: carbon accounting applies to the entire property, not to selectively chosen stands.

4.2 Greenhouse gas boundary

The methodology focuses on carbon stock changes in living tree biomass, which is the carbon pool expected to be subject to the most significant and most reliably measurable change because of the activity. Other carbon pools, such as deadwood, litter and soil organic carbon, are generally not included, reflecting both their lower sensitivity to the type of management changes addressed by this methodology and the practical difficulty of measuring them reliably at the scale of individual properties.

Where a specific pool, such as aboveground non-tree woody biomass, is expected to be subject to significant decrease because of activities under the activity (for example due to intensive site preparation), it shall be included in the activity scenario. Emissions associated with silvicultural



operations are also accounted for, to ensure that the net climate benefit of the activity is correctly represented.

The detailed list of included and excluded carbon pools, together with the justification for each, is set out in the Quantification Guidance Document referred to in Annex 1.



5. Additionality

5.1 Objective

The purpose of the additionality requirements is to ensure that certified carbon removals represent genuine improvements in forest management relative to what would otherwise have occurred. Additionality is the principle that distinguishes a credible carbon removal from a removal that would have happened regardless of carbon revenue.

5.2 General principle

An activity is additional where the implementation of the activity, supported by carbon revenues, results in higher carbon stocks and higher carbon removals than would be expected under the baseline scenario. Additionality is assessed by comparing the activity scenario against this baseline scenario, rather than against historical management or against a generic regional average.

5.3 Financial and management additionality

Operators shall demonstrate that carbon revenues have a material influence on the management objectives applied within the FMU. This may be demonstrated through a documented change in management objectives, through the adoption of management measures that would not be economically rational in the absence of carbon revenue, or through other evidence considered relevant by the certification scheme.

The methodology does not require that the specific silvicultural practices applied are unusual or innovative. The relevant test is whether the resulting forest development trajectory differs materially, and favourably, from the baseline.

5.4 Regulatory additionality

Carbon removals that result solely from compliance with existing legal requirements are not additional and are not eligible for certification. Where legislation already requires a given management outcome, that outcome forms part of the baseline scenario rather than the activity scenario.

5.5 Role of regional cost and revenue information

Information regarding timber prices, harvesting and silvicultural costs, and other cost and revenue parameters prevailing in the geography where the activity is implemented may provide useful supporting evidence during baseline assessment. Such information helps confirm that the baseline scenario described in Chapter 6 reflects economically rational forest management under the market conditions faced by comparable forest owners in the region, in the absence of carbon revenue.



This regional cost and revenue information informs the economic assumptions underlying the baseline scenario; it is not, by itself, an eligibility criterion. Eligibility continues to be determined by the comparison between the activity scenario and the resulting baseline scenario described in Section 5.2, not by the prevalence of any individual management practice in the region.

5.6 Demonstration of additionality

Activities shall not be considered additional, and no carbon credits shall be issued, where any of the following apply:

- the activity scenario is identical to the baseline scenario;
- carbon removals result solely from legal requirements;
- carbon revenues have no material influence on management objectives or decisions; or
- the operator cannot demonstrate a measurable difference between the activity scenario and the baseline scenario.

6. Baseline Determination

6.1 Objective

The purpose of baseline determination is to establish a credible and conservative reference scenario against which additional carbon removals can be quantified. The baseline represents the forest development trajectory that would most likely occur in the absence of revenues from carbon credits.

The baseline serves multiple functions: it provides the reference for demonstrating additionality, for quantifying carbon removals, and for assessing activity performance over time. A robust baseline is therefore fundamental to the environmental integrity of certified carbon removals. The baseline shall be established before certification and documented in the Activity Plan.

6.2 General principles

The baseline shall be forward-looking, activity-specific, based on the entire Forest Management Unit, consistent with applicable legislation, regionally adapted, economically rational and conservative.

The baseline shall represent the most likely management trajectory that would occur in the absence of carbon revenues. Historical management practices may provide relevant information regarding the characteristics of the FMU but shall not by themselves determine future management behaviour. Forest management decisions are influenced by future expectations regarding timber markets, costs, legislation and productivity, and baseline determination shall therefore focus on expected future behaviour rather than past behaviour.

6.3 Baseline scenario

The baseline scenario shall represent economically rational forest management conducted without revenues from carbon credits, describing the expected development of forest carbon stocks, growth and harvesting throughout the activity period. It shall include all management activities reasonably expected to occur under economically rational management and shall be developed at the level of the FMU, covering all forest stands within the activity boundary.

The baseline shall not be constructed to maximise carbon removals. It shall instead represent the management trajectory that a rational economic actor would be expected to follow in the absence of carbon revenues and shall be internally consistent with realistic operational constraints.



6.4 Economic rationality

This methodology assumes that forest owners generally seek to manage forests in a manner that generates economic value while complying with legal requirements and other ownership objectives. Economic rationality does not imply short-term profit maximisation; it refers to management decisions that seek to optimise the long-term economic value generated by the FMU under prevailing market conditions and applicable legal constraints.

The economic assumptions applied in baseline modelling shall be documented and justified. Detailed requirements regarding economic assumptions and modelling procedures are described in the Baseline Guidance Document referred to in Annex 1.

6.5 Data sources and the baseline development process

The baseline shall be based on forest inventory data representing the FMU at the start of the activity, originating from a forest management plan or equivalent inventory prepared by a qualified and independent provider using nationally recognised inventory methods.

The certification scheme, or its designated representatives, shall perform a plausibility assessment of the inventory data before baseline modelling, drawing where relevant on independent data sources such as airborne laser scanning, National Forest Inventory data, or other recognised forest information systems. The purpose of this assessment is not to replace the original forest inventory, but to identify material inconsistencies that could significantly affect baseline determination.

Baseline modelling shall be performed by a competent and independent party, using a modelling framework recognised under this methodology. Sweden's well-developed forest data ecosystem – including national forest inventories, regionally calibrated growth and yield models, and nationwide laser scanning coverage – provides a strong basis for this modelling. The baseline report shall document input data, modelling assumptions, applied constraints, projections, and the resulting carbon stock and harvest trajectories, and shall be subject to independent review during validation and certification.

6.6 Modelling requirements

Baseline modelling shall be conducted using recognised forest growth and forest management planning systems capable of projecting forest development, harvesting activities and carbon stock changes over time. The modelling framework shall be scientifically sound, transparently documented, and suitable for long-term forest management planning under the ecological and economic conditions applicable to the FMU.

The modelling framework shall be capable of representing stand-level forest development, simulating management activities, estimating future harvest and carbon stock development,



applying economic optimisation criteria, and incorporating legal and operational constraints. The party responsible for modelling shall document all assumptions applied, in a manner sufficiently transparent to allow independent review.

6.7 Legal and operational constraints

The baseline scenario shall reflect economically rational forest management that is feasible under applicable legislation and realistic operational conditions, including forest legislation, environmental legislation, protected areas, legally binding conservation requirements, and relevant restrictions associated with infrastructure, terrain or accessibility.

The baseline shall not assume management practices that are prohibited by law or clearly inconsistent with accepted professional forest management, nor practices that are technically unrealistic or economically unreasonable. The objective is not to identify a theoretical maximum harvest scenario, but to represent the most likely economically rational development trajectory in the absence of carbon revenues.

6.8 Sensitivity analysis

Because baseline projections depend on assumptions regarding biological development, management decisions and economic conditions, a sensitivity analysis shall be conducted as part of baseline determination to evaluate the robustness of baseline outcomes.

The sensitivity analysis shall assess the influence of key assumptions that may materially affect projected carbon stock development, harvest levels or optimisation outcomes – for example discount rates, timber prices, and harvesting or silvicultural costs. Its purpose is not to replace the baseline scenario, but to evaluate whether reasonable variation in key assumptions produces materially different outcomes. Results shall be documented in the baseline report and available for independent review. Specific default assumptions and recommended sensitivity ranges are addressed in the Baseline Guidance Document, not in this methodology.

6.9 Conservative application of baseline results

This methodology certifies additional carbon removals resulting from the accumulation of new forest carbon stocks. It does not certify avoided losses of existing carbon stocks.

Consequently, carbon removals are only eligible where forest carbon stocks exceed both the trajectory projected under the baseline scenario and the carbon stock present at the start of the activity. The quantity of creditable removals is limited to the lower of these two comparisons. Where the baseline projects declining carbon stocks below the activity starting level, no removals are credited unless the activity carbon stock exceeds the initial level. This principle, illustrated in Figure 2, prevents the issuance of credits for merely avoiding future reductions in carbon stock.

Quantifying additional carbon removals

Only carbon stock above both the baseline and the starting level is credited

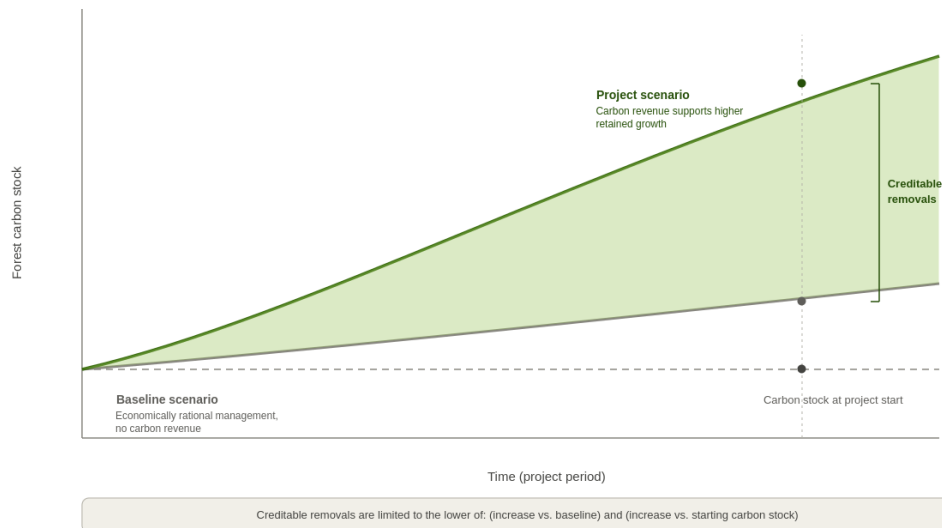


Figure 2. Carbon removals are only credited where the activity scenario exceeds both the baseline scenario and the carbon stock at activity start.

6.10 Baseline stability, review and updating

The baseline scenario shall be established prior to activity certification and shall remain fixed throughout the activity period. A stable baseline is necessary to ensure transparency, predictability and consistency in the quantification of carbon removals; allowing the baseline to change during the activity period would introduce uncertainty regarding additionality and could undermine environmental integrity.

Forest growth and harvest projections are typically developed using planning intervals extending over multiple years. The activity period shall therefore be of a duration sufficient to support robust baseline modelling and reliable assessment of activity performance, reflecting both the biological characteristics of forest ecosystems and the long-term nature of forest management decisions.

During the activity period, carbon removals are quantified relative to the baseline established at activity commencement. At the end of the activity period, a new activity period may be initiated, for which a new baseline is developed using updated inventory and economic information and the methodology requirements applicable at that time. The establishment of a new baseline does not affect carbon removals certified during previous activity periods. All baseline reviews and updates shall be documented and subject to independent validation and verification.



7. Quantification of Carbon Removals

7.1 Objective

The purpose of quantification is to determine the amount of additional carbon removals generated within the Forest Management Unit during the activity period. Quantification shall be based on transparent, scientifically sound and conservative methods capable of providing reliable estimates of carbon stock changes.

The methodology is designed for actively managed forests, where both forest growth and harvesting activities influence carbon stock development. Carbon removals are quantified relative to the baseline scenario established in accordance with Chapter 6, and only removals exceeding both the baseline scenario and the activity starting carbon stock are eligible for certification.

7.2 General quantification principles

Carbon removals are quantified at the level of the Forest Management Unit. The quantification approach shall:

- reflect actual forest development;
- account for verified harvesting activities;
- be based on recognised forest inventory and modelling systems;
- apply conservative assumptions where uncertainty exists; and
- allow independent verification.

The methodology prioritises direct estimation of carbon stock changes through forest growth and verified harvesting activities. Periodic forest carbon stock estimates are used as an independent verification mechanism, providing a cross-check on the growth-and-harvest based approach described below.

7.3 Primary quantification approach

The primary quantification approach is based on the balance between forest growth and harvesting activities. For each reporting period, the change in forest carbon stock is estimated from the modelled increment of the timber stock (gross growth less natural mortality), reduced by the verified actual harvest. This net change is then compared against both the corresponding development under the baseline scenario and the carbon stock at the start of the activity period, in accordance with the conservative principle set out in Section 6.9.

The net annual increase in standing timber volume eligible for crediting is limited to the lowest of these comparisons. This net increment is converted into carbon dioxide equivalents using



standardised, conservative conversion factors based on national forest inventory data. Emissions associated with forest management operations, such as silvicultural interventions, are also accounted for and deducted from the activity scenario, so that the net climate benefit of the activity is correctly represented.

These operational emissions are deducted from the activity scenario only and are not mirrored by an equivalent deduction from the baseline scenario, even though comparable management operations would also occur under the baseline. This asymmetry is a deliberate conservative simplification: in practice, the magnitude of these emissions is small relative to the carbon stock changes being quantified, and omitting a matching baseline deduction means that, if anything, certified removals are understated rather than overstated. The methodology accepts this minor conservative bias to avoid the added complexity of modelling operational emissions under both scenarios.

The specific conversion factors, modelling systems and calculation protocols used to implement this approach are set out in the Quantification Guidance Document referred to in Annex 1, rather than in this principle-level methodology.

7.4 Periodic stock verification

At appropriate intervals, and at minimum at the end of each activity period, the forest carbon stock shall be independently verified using field data, airborne laser scanning, national forest inventory data, or other relevant and recognised data sources. This periodic verification provides an independent check on the cumulative result of the annual growth-and-harvest accounting described in Section 7.3, supporting the weight-of-evidence approach introduced in Section 1.10.

This check compares the carbon stock obtained by carrying forward the starting carbon stock plus the accumulated annual net increment (growth less harvest) against an independent new estimate of the carbon stock at the end of the activity period. Because the carried-forward value builds on the same starting point rather than introducing a second fully independent estimate, it is materially less exposed to estimation error than a comparison between two independent stock estimates taken at different points in time would be. The independent stock estimate is correspondingly used as a plausibility check on the accumulated accounting, rather than as the primary source of quantification precision.

At the level of an individual FMU, this plausibility check has limited statistical power: the confidence interval of a single independent stock estimate is typically wide relative to the magnitude of the annual carbon stock change being verified, so the check will generally confirm consistency without being able to independently confirm the precise quantity of removals. Its primary purpose at FMU level is therefore to detect material inconsistencies – for example, a



measurement, modelling or accounting error – rather than to independently validate the certified quantity. Section 7.5 discusses how this limitation can be addressed when results are considered across multiple activities.

7.5 Treatment of uncertainty

Operators shall demonstrate that the input data used for baseline modelling and carbon stock estimation are of sufficient quality to ensure reliable and reproducible results. The uncertainty associated with estimates of initial carbon stock, growth and harvesting shall be assessed and documented and shall be sufficiently low to allow detection of meaningful change in carbon stock over the activity period.

Uncertainty in forest carbon estimates is an inherent feature of any forest measurement system, particularly at the level of an individual property. The methodology shall apply a conservative approach to uncertainty, such that estimation uncertainty does not result in the over-crediting of carbon removals. Where uncertainty is considered too high to support robust quantification for a given activity, the activity shall not be eligible for crediting unless additional data or improved measurement methods are applied.

7.5.1 The role of shared versus independent estimation error

Both the baseline scenario and the activity scenario rely on growth estimates derived from the same underlying growth and yield models, typically calibrated using the same or closely related data. As a result, a meaningful part of the estimation error in these growth projections is shared between the baseline and the activity scenario rather than independent. Because certified removals are calculated as a difference between the two scenarios, error components that are common to both cancel out in that difference and do not, by themselves, justify a deduction from certified removals.

The estimation error that does affect the reliability of certified removals is the part that is independent between the baseline and activity scenarios, or independent between properties – for example, stand-specific variation, local measurement error, or year-to-year weather effects that are not captured by the shared growth model. This independent component does not cancel out and is the appropriate basis for any conservative deduction or confidence-based adjustment applied to certified removals.

7.5.2 Effect of aggregation across activities

The independent component of estimation error behaves differently from the shared component when results are considered across a portfolio of activities rather than for a single FMU in isolation. Where estimation errors are independent between properties, their relative contribution to the uncertainty of the aggregated portfolio result decreases as the number of properties increases, broadly in proportion to the square root of the number of properties. This



means that a plausibility check of the kind described in Section 7.4, which has limited statistical power for a single FMU, can become considerably more informative when applied to the combined result across many activities.

This improvement applies only to the independent component of estimation error. Any error that is systematically shared across activities – for example, a regional bias in a growth model that is applied uniformly across many properties of a similar forest type – does not diminish with aggregation, however many activities are included. The reliability of aggregated results therefore depends on the relative size of these two components, which is an empirical question that can only be answered with reference to actual data across regions, forest types and growth models, rather than assumed at the level of this methodology.

Principle under consultation

We welcome views on how to distinguish, in practice, between the shared and independent components of estimation error in forest growth and yield models used under this methodology, and on whether and how the resulting improvement in precision at portfolio level should be reflected in a portfolio-based, rather than property-based, treatment of uncertainty for the purpose of calculating creditable removals. The specific approach, and any associated parameters, will be set out in the Quantification Guidance Document and is not fixed at the level of this principle-level methodology.



8. Monitoring, Reporting and Verification

8.1 Objective

The purpose of this chapter is to ensure that the development of forest carbon stocks, and the activity's continued compliance with the requirements of this methodology, can be reliably monitored, reported and independently verified throughout the activity period and any applicable storage commitment periods.

8.2 Submission of the activity scenario

The operator, or a representative acting on their behalf, shall submit a structured description of the proposed activity scenario, including how the growing stock is expected to develop over time and which management measures will be implemented to achieve this outcome. The submission shall include the forest data and supporting documentation necessary to assess the activity, consistent with the data requirements set out in Chapter 3.

The submitted activity scenario shall be subject to a review and quality control process, assessing the completeness, consistency and plausibility of the data provided, including comparison against independent data sources such as national forest data or airborne laser scanning. Where necessary, this review may be supported or carried out by an independent third-party expert, operating under the predefined methodological framework and without influence from the operator.

8.3 Annual monitoring

Activity performance shall be monitored on an annual basis, comparing the modelled development of the timber stock, reduced by verified actual harvest, against the baseline scenario and the carbon stock at the start of the activity period, in accordance with the quantification approach described in Chapter 7.

Harvest information used for monitoring shall be supported by independently verifiable records whenever such records are available. Monitoring may draw on updated forest management plans, airborne laser scanning and national forest information systems, National Forest Inventory data, independent field inventories, remote sensing products, and other recognised sources of forest information, consistent with the weight-of-evidence approach described in Section 1.10.

8.4 Periodic verification

At the end of each activity period, and at other intervals determined by the certification scheme, the forest condition shall be reassessed to confirm that the actual standing timber volume on



the FMU is consistent with the carbon removals certified to date, and that the guaranteed carbon stock commitment described in Chapter 9 continues to be met.

Where additional information is required to assess compliance, the certification scheme may require supplementary inventories, field assessments, or other verification activities at the expense of the operator. All significant monitoring decisions shall be documented and made available for independent review.

8.5 Responsibility for monitoring

Responsibility for monitoring compliance with this methodology rests with the certification scheme. The operator shall provide information necessary to support monitoring activities, including information relating to harvesting activities, disturbances, and other events capable of affecting forest carbon stocks.

8.6 Closure of monitoring obligations

Monitoring obligations remain in force throughout all applicable storage commitment periods. At the end of the relevant commitment period, obligations relating to the corresponding certified removals cease, provided that all certification requirements have been fulfilled and any outstanding deficits or liabilities have been resolved. The closure of monitoring obligations shall be documented by the certification scheme and does not affect the validity of carbon removals previously certified.



9. Long-Term Storage, Risk Management and Reversals

9.1 Objective

The purpose of this chapter is to ensure that certified carbon removals are maintained over time, and that the methodology provides a credible and transparent approach to managing the risk that previously certified removals may be lost, whether through natural disturbance or through non-compliance by the operator.

9.2 Permanence as a time-bound concept

Nature-based carbon removals are inherently subject to the risk of reversal, for example through fire, pests, windthrow or harvesting. This methodology does not treat permanence as an absolute or indefinite guarantee. Instead, carbon removals are certified for storage over a defined commitment period, and the climate benefit is accounted for accordingly.

This time-bound approach allows market participants to compare credits transparently and to construct compensation strategies appropriate to their own circumstances, including where credits with shorter storage durations are used as part of a broader portfolio.

9.3 Commitment and monitoring periods

For forestry activities, the monitoring period corresponds to the commitment period during which the permanence of certified carbon removals is guaranteed. Monitoring is carried out by Carbon Capture Company or an approved certification body for as long as the commitment period remains in force.

The length of the commitment period is agreed between the operator and the certification scheme and may vary between activities depending on their nature and the preferences of the parties involved. At the start of an activity, the possibility to renew the commitment period for successive terms should be agreed where relevant.

The carbon stock forming the basis for credits issued in a given year does not only represent carbon captured that year: the carbon stock at the end of the activity period also carries a guaranteed permanence obligation throughout the monitoring period, so that the permanence of earlier years' removals is reinforced as the activity continues.

9.4 The guaranteed carbon stock

Each issuance of certified carbon removals establishes a guaranteed carbon stock: a minimum carbon stock level that must be maintained throughout the applicable commitment period. The timber stock that has formed the basis for the issuance of carbon credits constitutes this guarantee stock and shall not be undershot during the monitoring period.



Under no circumstances shall the actual carbon stock of the Forest Management Unit fall below the guaranteed carbon stock because of non-compliance by the operator. The guaranteed carbon stock is the primary mechanism used by this methodology to secure the long-term storage of certified carbon removals, and compliance with it is verified throughout the monitoring period.

9.5 Dynamic guaranteed carbon stock

The guaranteed carbon stock reflects the quantity of certified carbon removals for which storage commitments remain active. Each issuance of carbon removals creates a corresponding storage commitment for the duration specified at issuance, and the guaranteed carbon stock increases when additional removals are certified and may decrease as earlier commitments expire.

At any point in time, the guaranteed carbon stock equals the sum of all certified carbon removals subject to active storage commitments. Because credits issued in successive years create separate, overlapping obligations with their own expiry dates, the guaranteed carbon stock is a dynamic value reflecting these overlapping annual vintages. The certification scheme shall maintain records documenting the relationship between certified removals, storage commitments and the resulting guaranteed carbon stock.

9.6 Allocation to properties within a portfolio FMU

Where an FMU consists of multiple properties, the certification scheme shall maintain records sufficient to allocate active guaranteed carbon stock commitments to the properties contributing to those commitments, so that storage obligations remain traceable if properties are sold, transferred, or otherwise affected by ownership changes.

Where a property is transferred and the new owner assumes the storage commitment, the corresponding share of the guaranteed carbon stock continues to apply to that property. Where the new owner does not assume the commitment, the associated obligation shall be resolved through replacement, cancellation, or another measure approved by the certification scheme.

9.7 Risk assessment

Prior to certification, a risk assessment shall be conducted for each FMU, considering relevant natural and operational risks capable of causing significant carbon stock losses, including wildfire, storm damage, insect outbreaks, drought, snow damage and disease, as well as factors affecting forest resilience such as species composition, age-class distribution, management intensity and site conditions. The results shall be documented in the Activity Plan and considered when determining appropriate management and monitoring measures.



The same risk factors, data sources and assessment principles shall be applied consistently to both the activity scenario and the baseline scenario. Risks that would also affect the FMU under the baseline scenario shall not be treated as if they were specific to the activity and shall not be used to justify a more cautious treatment of the activity scenario than of the baseline scenario. This consistency is necessary to ensure that the risk assessment informs management and monitoring decisions without distorting the comparison between the two scenarios on which additionality and quantification depend.

9.8 Buffer reserve

A proportion of all certified carbon removals shall be allocated to a common buffer reserve, intended to protect the environmental integrity of previously certified removals against involuntary reversal resulting from natural disturbances beyond the operator's control. The buffer reserve shall not be sold, transferred or claimed as carbon removals.

The buffer reserve operates across time and across activities: credits issued earlier are protected not only by their own contribution, but also by the contributions of credits issued later, so that the pool of risk coverage grows as more activities and vintages are added. The buffer reserve applies exclusively to certified additional carbon removals; it does not compensate for losses affecting carbon stocks that were never certified, nor for deliberate management decisions or failures to comply with activity obligations, which are addressed in Section 9.10.

Principle under consultation

The size of the buffer contribution, and the methodology by which it is determined, will be specified in supporting guidance rather than fixed in this principle-level methodology. The buffer is intended to be sized to credibly cover both reversal risk and measurement uncertainty, informed by empirical data and scenario testing, and reviewed periodically as experience and data quality evolve.

9.9 Natural reversal events

A natural reversal event occurs when a disturbance beyond the reasonable control of the operator results in a reduction of certified additional carbon removals. Examples include wildfire, storm damage, insect outbreaks, drought-related mortality and disease.

Where a natural reversal event occurs, the reversal shall be quantified as the loss of previously certified additional carbon removals, not as a function of total forest carbon stock, growing stock or total biomass loss. The assessment shall determine the proportion of certified additional removals that has been lost because of the disturbance, using the best available evidence, drawing where relevant on National Forest Inventory data, national forest monitoring



systems, airborne laser scanning, remote sensing, field assessments and forest management plans. Where eligible, the resulting reversal liability may be compensated through the buffer reserve, in accordance with the rules established by the certification scheme.

9.10 Non-compliance with the guaranteed carbon stock commitment

Non-compliance occurs when the operator intentionally or negligently causes the actual carbon stock of the FMU to fall below the guaranteed carbon stock – for example through harvesting beyond permitted levels, management decisions resulting in avoidable carbon stock reductions, or failure to implement required corrective measures. Non-compliance is not treated as a natural reversal event, and the buffer reserve shall not be used to compensate for deficits resulting from it.

Where non-compliance occurs, the operator shall be required to restore the deficit through management actions capable of rebuilding the carbon stock above the guaranteed level. Where restoration is not achieved within the period specified by the certification scheme, the operator shall compensate for the deficit by surrendering or replacing an equivalent quantity of certified carbon removals from other certified activities of equivalent quality and permanence. This obligation remains in force until the deficit has been fully resolved.

9.11 Corrective measures

Where carbon stock losses occur, appropriate corrective measures shall be implemented to restore compliance with activity requirements, which may include modified harvesting plans, enhanced regeneration activities, forest restoration measures, silvicultural interventions or climate adaptation measures. Selected measures shall be documented and subject to verification. The implementation of corrective measures does not automatically restore previously certified carbon removals unless the relevant carbon stocks are subsequently re-established and verified.



10. Sustainability Requirements and Co-Benefits

10.1 Objective

The purpose of this chapter is to ensure that certified carbon removals are generated in a manner consistent with sustainable forest management, and that activities under this methodology contribute positively to the long-term ecological functioning of the forest landscape.

Carbon removals certified under this methodology shall be achieved without causing significant harm to biodiversity, soil resources, water resources or the long-term productive capacity of the forest ecosystem. The methodology further seeks to encourage management approaches that strengthen forest resilience and adaptive capacity under changing climatic conditions.

10.2 General sustainability principles

All activities shall comply with applicable legislation and regulatory requirements. Activity implementation shall maintain or enhance the long-term capacity of the forest ecosystem to provide carbon removals, renewable forest products, biodiversity values, climate adaptation, water-related ecosystem services and other relevant ecosystem services.

Carbon removal activities have strong potential to deliver win-win outcomes for sustainability, although trade-offs cannot be excluded in every case. The methodology therefore applies minimum sustainability requirements intended to ensure that carbon removal activities have a neutral impact on, or generate co-benefits for, climate change mitigation and adaptation, the protection and restoration of biodiversity and ecosystems, the sustainable use and protection of water resources, and the transition to a circular economy.

10.3 Biodiversity co-benefits

Biodiversity co-benefits shall be considered and documented at the level of the Forest Management Unit, considering the contribution of the FMU, including production forests, voluntary set-asides, retention areas, and forests managed primarily for conservation purposes.

Biodiversity outcomes are evaluated at the landscape level, rather than solely at the level of individual stands or interventions, reflecting the understanding that biodiversity is influenced by the composition, structure and management of the forest landscape. As part of this methodology, activities are expected to maintain a meaningful share of productive forest land within the FMU as voluntary set-aside for nature conservation purposes; the specific minimum share, and how it is measured, is addressed in Section 10.4 and in supporting guidance.



10.4 Demonstrating compliance with biodiversity requirements

Sweden already has established sustainability certification schemes for forestry, including FSC and PEFC. Where an operator is certified under such a scheme, the relevant minimum biodiversity requirements are generally considered to be met without the need for separate monitoring, since equivalent oversight is already being conducted by the certification scheme in question.

For operators who are not certified under an existing forestry sustainability scheme, compliance shall instead be demonstrated through a structured reporting system based on mapped set-asides and biodiversity planning. As a matter of principle, this includes:

- identification and mapping of set-aside areas, including any high-biodiversity zones, riparian buffers and retention stands;
- a description of the existing ecological values within these areas, including relevant species, habitat types and conservation functions; and
- an outline of planned management actions intended to maintain or enhance biodiversity within the FMU.

Self-reported information of this kind shall be subject to independent verification, which may include third-party audits, remote sensing tools and field inspections, to maintain credibility while keeping the administrative burden on operators proportionate. The detailed format of this reporting, and the specific verification procedures applied, are addressed in supporting guidance rather than in this methodology.

10.5 Soil and water resources

The activity shall not cause significant harm to soil resources or water resources. Operators shall comply with applicable requirements relating to soil protection, water protection, harvesting operations, regeneration activities and forest infrastructure. The certification scheme may require additional information where significant risks to soil or water resources are identified.

10.6 Climate adaptation and forest resilience

The activity shall support the long-term capacity of forests to maintain carbon removals under changing climatic conditions. Increased forest carbon stocks alone do not guarantee long-term climate benefits; forest resilience and adaptive capacity are therefore important components of sustainable forest management under this methodology.

Operators shall consider relevant climate-related risks, including drought, storm damage, wildfire, insect outbreaks and disease. Management approaches that strengthen long-term



resilience and adaptive capacity are encouraged, such as diversification of species composition, adaptation of regeneration strategies, and other risk management measures. The methodology does not prescribe specific adaptation measures; responsibility for selecting appropriate approaches remains with the operator.

10.7 Maintenance of productive capacity

The activity shall maintain or enhance the long-term productive capacity of the forest resource. Carbon removals shall not be achieved through management approaches that significantly impair future forest growth or the long-term ability of the forest to provide renewable biomass and ecosystem services.

Operators shall demonstrate, through forward-looking modelling and comparison between the activity scenario and the baseline scenario as described in Chapter 6, that the activity does not result in a systematic decline in productive capacity. The activity scenario may involve temporal adjustments in harvesting levels, provided that such changes do not lead to a persistent reduction in growth or in the long-term availability of forest resources. This assessment shall be based on the same data, modelling framework and assumptions used for baseline determination, and shall be subject to independent review. Activities that result in materially reduced long-term growth or that materially constrain future wood supply are not eligible under this methodology.

10.8 Demonstration of co-benefits

The Activity Plan shall include a description of expected biodiversity and climate adaptation co-benefits associated with the activity. Monitoring activities shall document significant developments relevant to sustainability requirements throughout the activity period, and the certification scheme shall evaluate whether activity implementation remains consistent with the sustainability requirements established under this methodology.



11. Leakage

Leakage is defined as the unintended increase in greenhouse gas emissions, or reduction in carbon stocks, outside the activity boundary because of the activity. This methodology distinguishes between internal leakage and market leakage.

Internal leakage – for example, shifting harvesting activities within the same forest holding to a part of the property outside the activity boundary – is addressed by the requirement, set out in Chapter 4, that the entire Forest Management Unit is included within the activity boundary. This ensures that changes in harvesting cannot simply be displaced within the same ownership.

11.1 The methodology's design response to market leakage

Before considering how unattributed market effects are treated, it is important to recognise that this methodology is specifically designed to increase forest capital and future biomass production, rather than to reduce productive capacity or permanently withdraw wood supply from the market. This design choice is the methodology's primary safeguard against market leakage, and precedes any discussion of residual, unattributable effects.

As set out in Chapter 2, carbon removals under this methodology are achieved by raising the economically optimal level of forest capital, not by reducing current harvesting levels relative to prevailing management. As growing stock increases, annual growth typically increases as well, which over time supports both higher carbon stocks and higher sustainable harvest levels than would otherwise be available. The methodology therefore seeks to increase, rather than diminish, the long-term wood supply potential of certified forests – directly counteracting the mechanism through which market leakage would otherwise arise.

Market leakage may nonetheless occur through broader changes in supply and demand for forest products: reduced harvesting in one location may, in principle, lead to increased harvesting elsewhere. Such effects are driven by complex and global market dynamics, including price responses, substitution between materials, and policy developments, which cannot be reliably quantified or attributed to individual forest activities. Attempting to do so would require highly uncertain assumptions about global market behaviour that are not verifiable at the activity level.

This residual, system-level form of market leakage is therefore not attributable to any individual activity under this methodology. The design described above – increasing forest capital and future biomass production rather than reducing it – substantially reduces the scale of this risk relative to activities that achieve carbon removals primarily by reducing harvest.

11.2 Conservative market leakage deduction

Notwithstanding the design response described in Section 11.1, this methodology applies a conservative market leakage deduction to certified carbon removals. A proportion of the carbon removals that would otherwise be certified is deducted to reflect the residual possibility that part of any change in harvesting behaviour within the FMU is offset by increased harvesting elsewhere.

This deduction reflects a considered judgement that the risk of market leakage under this methodology is small, but not zero. Because the methodology does not require a reduction in current harvesting levels and is designed to increase long-term wood supply, the residual leakage risk is expected to be substantially lower than for activities that rely primarily on reduced harvest to generate removals – a category for which other voluntary carbon market programmes have applied market leakage discounts of up to several tens of per cent. A standard deduction of ten per cent of certified carbon removals is proposed at the level of this principle-level methodology, applied uniformly rather than estimated on a project-by-project basis, in order to keep the approach simple, transparent and conservative pending further empirical evidence.

Principle under consultation

We welcome views on whether a flat ten per cent market leakage deduction is appropriately conservative given the design of this methodology, whether it should instead vary with the characteristics of the activity (for example, the extent to which harvesting is reduced relative to the baseline), and how it should be treated as further data and experience become available. This principle will also be reviewed once the treatment of market leakage under the CRCF delegated act for Improved Forest Management is known.

The market leakage deduction described in this section is separate from, and additional to, the buffer reserve described in Section 9.8, which addresses the risk of natural reversal rather than market leakage. The detailed mechanics of how the deduction is applied – for example, whether at issuance or at a later verification stage – are addressed in the Quantification Guidance Document referred to in Annex 1.



12. Certification and Issuance

12.1 Objective

The purpose of certification is to ensure that carbon removals are quantified, verified and recorded in accordance with the requirements of this methodology and the Carbon Forestry Standard, providing assurance that issued carbon removals represent verified and additional carbon removals generated within the Forest Management Unit. Certification shall be conducted in a transparent, consistent and independently reviewable manner.

12.2 Application for certification

The operator shall submit an application for certification together with an Activity Plan and the information required to assess compliance with this methodology, including information sufficient to allow assessment of activity eligibility, FMU boundaries, baseline determination, carbon accounting, sustainability requirements, monitoring arrangements and long-term storage commitments. The certification scheme may request additional information where necessary.

12.3 Validation

Prior to certification, the activity shall undergo validation, intended to confirm that the activity satisfies eligibility requirements, that the Activity Plan is complete, that the baseline has been established in accordance with the methodology, that proposed monitoring arrangements are adequate, and that sustainability requirements are fulfilled. Validation shall be completed before carbon removals become eligible for certification, and its outcome shall be documented.

12.4 Verification

Carbon removals shall be verified prior to issuance. Verification shall assess whether reported carbon removals have been quantified correctly, monitoring requirements have been fulfilled, harvest information is consistent with available evidence, long-term storage commitments remain fulfilled, and sustainability requirements continue to be met. Verification shall be based on information considered relevant by the certification scheme, including monitoring reports and independent data sources, and supplementary assessments may be required where necessary.

12.5 Certification decision

The certification scheme shall determine whether the activity complies with the requirements of this methodology and the Carbon Forestry Standard. Where compliance is demonstrated, the certification scheme may approve the issuance of certified carbon removals. Where deficiencies are identified, corrective actions may be required prior to certification, and the certification



scheme may suspend, reject or withdraw certification where significant non-compliance is identified. All certification decisions shall be documented.

12.6 Issuance of certified carbon removals

Certified carbon removals may only be issued for verified carbon removals quantified in accordance with this methodology, on the basis of removals that exceed the baseline scenario, exceed the activity starting carbon stock, have been verified, and comply with all relevant activity requirements.

No carbon removals shall be issued for avoided losses of existing carbon stocks, projected future removals, unverified carbon stock increases, or climate benefits outside the scope of this methodology. Certified carbon removals shall be issued ex post.

12.7 Registration

All certified carbon removals shall be recorded in a registry maintained or recognised by the certification scheme, containing information sufficient to ensure transparency, traceability and the avoidance of double counting. Registry records shall include, where applicable, activity identification, issuance date, quantity of certified removals, applicable storage commitment period, credit status, and retirement or cancellation information, maintained throughout the relevant commitment and monitoring periods.

The CRCF Regulation envisages the establishment of a Union registry for certified carbon removals. Pending the operational availability of that Union registry, Carbon Capture Company maintains its own registry, meeting the requirements set out above. Once the Union registry becomes available, Carbon Capture Company intends to transfer registration of certified carbon removals to it, in accordance with the transitional arrangements adopted under CRCF, so that records of certified removals remain fully consistent with the EU-level registry once it is in place.

12.8 Transfer, retirement and cancellation

Certified carbon removals may be transferred, retired or cancelled in accordance with the rules established by the certification scheme. Retired carbon removals shall not be transferred or claimed again, and cancelled carbon removals shall be permanently removed from circulation. The registry shall maintain transparent records of all transfers, retirements and cancellations.

12.9 Complaints and appeals

The certification scheme shall maintain procedures for the submission and resolution of complaints and appeals, accessible to operators and other relevant stakeholders, and shall document the handling and resolution of such complaints and appeals.



12.10 Record retention

Documentation relating to validation, verification, certification, issuance, monitoring and registry activities shall be retained for the duration specified by the certification scheme, in a manner that enables independent review and audit, and shall remain available throughout the applicable activity period, commitment period and monitoring period.

13. Definitions

This glossary summarises the key terms used throughout this methodology. A complete set of definitions, consistent with the Carbon Forestry Standard, will accompany the final consultation version.

Activity	The Improved Forest Management activity implemented within a Forest Management Unit under this methodology. The term Activity is used consistently with the terminology of the CRCF Regulation and is equivalent to the term Project as commonly used in other voluntary carbon market standards (for example Verra and Gold Standard).
Activity Period	The period during which carbon removals are quantified and may be certified under a defined baseline scenario.
Activity Plan	The activity-specific document describing the Forest Management Unit, baseline scenario, activity scenario, monitoring arrangements, sustainability considerations and long-term storage commitments.
Activity Scenario	The forest development trajectory resulting from implementation of the activity.
Additional Carbon Removal	A verified increase in forest carbon stocks that exceeds both the baseline carbon stock trajectory and the carbon stock present at activity commencement.
Baseline / Baseline Scenario	The most likely forest development trajectory, and its quantified projection, under economically rational forest management in the absence of revenues from carbon credits.
Carbon Credit	A registry unit representing one tonne of verified and certified carbon dioxide equivalent removed from the atmosphere in accordance with this methodology.
Carbon Stock	The quantity of carbon stored in living forest biomass within the Forest Management Unit.
Certification Scheme	The organisation responsible for administering the standard, methodology, registry, monitoring requirements and certification procedures.
Certified Carbon Removal	A carbon removal that has been validated, verified and issued under the certification scheme.
Commitment Period	The period during which certified carbon removals are subject to a long-term storage obligation.
Dynamic Guaranteed Carbon Stock	The quantity of carbon stock required to support all active storage commitments associated with certified carbon removals at a given point in time.



Economically Rational Forest Management	Forest management that seeks to optimise long-term economic value under prevailing market conditions while complying with applicable legislation and operational constraints.
Forest Capital	The standing forest resource represented by growing stock, productive capacity, future growth potential and associated carbon stocks within a Forest Management Unit.
Forest Growth	The annual increase in living forest biomass after deduction of natural mortality and other natural losses, but before deduction of harvesting activities.
Forest Management Unit (FMU)	The accounting unit used for certification under this methodology, consisting of the entire forest property under an operator's control, or an approved aggregation of multiple forest properties managed under a common activity framework.
Guaranteed Carbon Stock	The minimum carbon stock that must be maintained in order to support active storage commitments associated with certified carbon removals.
Harvest	The removal of living forest biomass from the Forest Management Unit through harvesting operations.
Long-Term Storage	The maintenance of certified carbon removals through compliance with guaranteed carbon stock commitments throughout the applicable commitment period.
Monitoring Period	The period during which compliance with storage commitments continues to be monitored following certification.
Natural Reversal Event	An involuntary reduction in certified carbon removals resulting from natural disturbances beyond the reasonable control of the operator.
Non-Compliance	A failure to fulfil requirements established under this methodology or the Carbon Forestry Standard.
Operator	The person, organisation or group of organisations responsible for activity implementation and compliance with activity obligations.
Portfolio FMU	An FMU consisting of multiple forest properties, potentially under different ownership, managed within a common activity framework.
Registry	The system used to record issuance, transfer, retirement, cancellation and status of certified carbon removals.
Reversal	A verified loss of previously certified carbon removals.
Storage Commitment	The obligation to maintain carbon stocks associated with a certified carbon removal throughout the applicable commitment period.
Sustainability Requirements	The environmental requirements relating to biodiversity, soil, water, climate adaptation and long-term forest productivity established under this methodology.



Validation	The process of assessing whether an activity design complies with the requirements of this methodology prior to certification.
Verification	The process of assessing whether reported carbon removals and activity performance comply with the requirements of this methodology.
Weight-of-Evidence Approach	An assessment approach based on the combined evaluation of multiple independent sources of information, rather than reliance on a single measurement or information source.



Annex 1. Guidance Documents to be Developed

This methodology deliberately separates principle-level requirements from detailed technical guidance. The following supporting guidance documents are intended to be developed, and separately consulted upon, once the principle-level methodology has been finalised following this consultation:

- Activity Plan Template, including required activity information and operator declarations.
- Baseline Guidance Document, including modelling procedures, economic assumptions, default discount rate, sensitivity analysis ranges, and treatment of legal constraints.
- Quantification Guidance Document, including growth estimation methods, harvest verification, carbon conversion factors, regional biomass expansion factors, included and excluded carbon pools, the treatment of measurement uncertainty, and the mechanics of applying the market leakage deduction.
- Monitoring Guidance Document, including the weight-of-evidence approach and the specific use of airborne laser scanning, remote sensing, field inventories, National Forest Inventory data and harvest records.
- Guaranteed Carbon Stock and Buffer Guidance, including the buffer contribution rate, dynamic annual vintage accounting, expiry of storage commitments, property-level allocation, and treatment of ownership changes.
- Sustainability and Co-Benefit Guidance, including the minimum set-aside share and reporting format for biodiversity co-benefits, and the documentation of climate adaptation measures and productive capacity at FMU level.

A detailed mapping between this methodology and the Carbon Forestry Standard will be provided alongside the final methodology, together with a data-protection notice describing how Carbon Capture Company processes personal data submitted in connection with certification.



Annex 2. Questions for Consultation

To help structure feedback, we have identified several questions on which we particularly welcome views. Stakeholders are welcome to comment on any aspect of the methodology, whether it is reflected in the questions below.

On scope and applicability

1. Is the proposed scope of Improved Forest Management – focused on larger, relatively stable forest holdings – appropriately defined? Are there alternative criteria that should be used to determine applicability (Section 2.6)?
2. Should this methodology eventually be extended to smaller or more variable forest holdings, or is a separate, complementary methodology preferable, as currently proposed?

On the Forest Management Unit and leakage

3. Does the whole-property FMU principle (Chapter 4) strike the right balance between minimising internal leakage and remaining practical for forest owners to implement?
4. Is a flat ten per cent market leakage deduction (Section 11.2) an appropriately conservative starting point given the methodology's design, or should the deduction vary with activity-specific characteristics such as the extent of any reduction in harvesting relative to the baseline?

On baselines and additionality

5. Are the principles for baseline determination (Chapter 6) sufficiently clear and conservative? Are there additional safeguards that should be specified at the principle level?
6. Is the proposed approach to demonstrating additionality (Chapter 5) appropriately aligned with the expected requirements of the CRCF delegated act for Improved Forest Management?

On permanence and risk

7. Does the time-bound approach to permanence, supported by the guaranteed carbon stock and a shared buffer reserve (Chapter 9), provide an appropriate and understandable framework for managing reversal risk?
8. Are the respective responsibilities of the operator, the certification scheme and the buffer reserve, in the event of a carbon stock shortfall, clearly and fairly allocated (Sections 9.8–9.10)?



On sustainability and uncertainty

9. Is reliance on existing forestry certification schemes (such as FSC and PEFC) an appropriate way to demonstrate compliance with minimum biodiversity requirements for certified operators (Section 10.4)?
10. Section 7.5 distinguishes between estimation error that is shared between the baseline and activity scenarios (which cancels out when removals are calculated as a difference) and estimation error that is independent between properties (which diminishes with aggregation across activities, but not with aggregation over time for a single property). Do you agree with this distinction, and how should it be reflected in a practical, conservative treatment of uncertainty – for example, should the methodology move towards a portfolio-based uncertainty deduction rather than a deduction applied separately to each activity?

We thank you in advance for your engagement with this consultation and look forward to your feedback.

