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ABSTRACT OF DELIVERABLE

The SMURF Carbon Standard is a voluntary certification framework for high-integrity forest-based carbon removal and carbon stock enhancement activities in the AFOLU sector (Agriculture, Forestry and Other Land Uses), with a primary focus on Afforestation, Reforestation and Revegetation (ARR) and Improved Forest Management (IFM). SMURF has been developed as a CRCF-aligned forest carbon standard and implementation framework for forest-based carbon removals and carbon farming activities in Europe.

SMURF operationalizes the core principles of the CRCF by establishing requirements for quantification, additionality, monitoring, verification, permanence, sustainability, and transparency. The Standard adopts a conservative and science-based approach to carbon accounting and incorporates safeguards to prevent double counting, double claiming and over-crediting, ensuring that certified units represent real, measurable and verifiable climate benefits.

Recognizing that many existing carbon standards can be complex, costly and difficult to access for smaller landowners, SMURF has been developed to provide a practical, proportionate and scalable framework tailored to the realities of fragmented forest ownership, which is characteristic of many European landscapes. The Standard seeks to reduce barriers to participation through simplified requirements where appropriate, support for grouped projects, and methodologies that balance scientific robustness with operational feasibility.

Beyond carbon outcomes, SMURF promotes biodiversity conservation, ecosystem resilience and the long-term provision of ecosystem services through the application of the Do No Significant Harm (DNSH) principle, environmental and social safeguards, and biodiversity

performance indicators. The Standard recognizes the contribution of sustainable forest management to climate mitigation, biodiversity enhancement, soil protection, water regulation, and landscape connectivity.

The Standard is aligned with the Paris Agreement, the European Union Carbon Removal and Carbon Farming Certification Framework (CRCF), the Integrity Council for the Voluntary Carbon Market (ICVCM) Core Carbon Principles and recognized international carbon accounting frameworks. By combining scientific integrity, accessibility and strong governance, SMURF aims to mobilize finance for sustainable forestry, increase participation in ecosystem service markets, and support the delivery of high-quality carbon removals and broader environmental benefits across European landscapes.

KEY WORDS

Forest ecosystems, forest owners, climate change, land and forest fragmentation, biodiversity conservation, carbon sequestration, carbon projects, afforestation and reforestation (ARR), improved forest management (IFM), sustainable forest management, Closer to Nature Sylviculture practices (CNS), Payment for Ecosystem Services (PES) system

REFERENCE

To be drafted.

STATEMENT OF ORIGINALITY

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation, or both.

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1. Introduction, scope and basic concepts

1.1. Introduction

The SMURF Carbon Standard has been developed within the framework of the SMURF project — Sustainable Management models and value chains for small Forests — a Horizon Europe project funded by the European Union under Grant Agreement No. 101135516. The SMURF project is coordinated by Cese for and implemented by a consortium of European partners, including research institutions, technical organisations, forest-sector stakeholders, and sustainability experts.

The Standard and Scheme forms part of SMURF's broader objective to support small forest owners and managers through sustainable management models, value-chain innovation, and mechanisms for recognising ecosystem services, including carbon removals and biodiversity benefits. It provides a certification framework for high-integrity land-based carbon removal activities, while promoting environmental integrity, biodiversity conservation, transparency, and alignment with relevant European regulatory frameworks.

Preferred by Nature has been the leader of the work package developing the Scheme, including this Standard, and the Digital Platform and Registry.

1.2. Scope

The SMURF Carbon Standard establishes the general requirements and governance framework for the certification of land-based carbon projects developed under methodologies approved by the SMURF Scheme. The Standard applies to projects that generate measurable, additional, long-term, and independently verified climate change mitigation outcomes through eligible forest and land-use activities.

The Standard is designed to align with Regulation (EU) 2024/3012 establishing the Union certification framework for permanent carbon removals, carbon farming and carbon storage in products, hereinafter referred to as the EU Carbon Removals and Carbon Farming Regulation (EU CRCF)¹, and is informed by relevant international standards and guidance, including the (ISO) 14064-2:2019², the Core Carbon Principles of the Integrity Council for the Voluntary Carbon Market (ICVCM)³, and applicable guidance from the

¹ Regulation (EU) 2024/3012 of the European Parliament and of the Council of 27 November 2024 establishing a Union certification framework for permanent carbon removals, carbon farming and carbon storage in products.

² International Organization for Standardization (ISO). (2019). ISO 14064-2:2019, Greenhouse gases — Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements. Geneva, Switzerland: ISO.

³ Integrity Council for the Voluntary Carbon Market (ICVCM). (2024). The Core Carbon Principles (CCPs). ICVCM.

Intergovernmental Panel on Climate Change (IPCC), particularly for Agriculture, Forestry and Other Land Use (AFOLU) greenhouse gas accounting.⁴

Certification under this Standard is limited to project activities implemented through methodologies formally approved by the SMURF Scheme. In this version of the Standard, the approved methodologies are:

- SMURF ARR Methodology v 1.0 — Afforestation, Reforestation and Revegetation.
- SMURF IFM Methodology v 1.0 — Improved Forest Management.

Additional methodologies may be approved and incorporated into the SMURF Scheme in future versions or through a formal methodology approval process established by the Scheme. Unless otherwise specified, the general requirements, definitions, governance provisions, validation and verification procedures, safeguards, monitoring rules, issuance rules, and claims requirements set out in this Standard apply to all methodologies approved under the SMURF Scheme.

Projects validated and verified under this Standard generate climate change mitigation outcomes expressed as carbon credits or tokens, representing verified greenhouse gas emission reductions or carbon removals. Following successful verification and approval for issuance, eligible carbon credits may be converted into SMURF Carbon Tokens in accordance with the tokenisation, registry, transfer, and retirement rules established by the SMURF Scheme.

In addition to carbon-related outcomes, projects may be assessed for biodiversity impacts and other environmental co-benefits. Where the applicable requirements are met, the Scheme may award environmental labels or other recognized attributes linked to verified project outcomes.

For land-based activities covered by this Standard, greenhouse gas accounting shall focus on the greenhouse gases relevant to AFOLU activities, namely carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O), as applicable to the project activity and the approved methodology. Other greenhouse gases shall only be included where explicitly required by the applicable methodology or justified as relevant to the project's sources, sinks, and reservoirs.

The Standard does not apply to corporate carbon footprint assessments, product carbon footprint assessments, organizational greenhouse gas inventories, or the validation of carbon neutrality claims outside the retirement and claims rules established by the SMURF Scheme.

1.3. Non-Quantifiable Labels

Sustainability Labels are qualitative distinctions awarded to projects that go beyond the mandatory requirements of the SMURF Standard. Compliance with the basic

⁴ Intergovernmental Panel on Climate Change (IPCC). 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4: Agriculture, Forestry and Other Land Use (AFOLU). Prepared by the National Greenhouse Gas Inventories Programme.

Environmental Safeguards and Biodiversity Conservation sections is a prerequisite for all projects but does not, on its own, grant an additional label.

Available Labels

- **Biodiversity+ Label:** Awarded exclusively to projects that implement the supplementary SMURF Biodiversity Methodology. This label certifies that the project has achieved specific, high-integrity ecological outcomes (such as improved biodiversity hosting potential) verified through this specialized framework.
- **Smallholder Friendly Label:** Specifically for projects where at least 80% of the participating Land Managers are classified as small-scale forest holders.

Verification and Token Integration

The Certification Body (CB) must audit the evidence and performance for each requested label during the Validation and Verification phases.

Once approved, the labels are displayed on the project's Registry page and permanently attached to the metadata of the issued SMURF Carbon Tokens, allowing for differentiated pricing and "Contribution Claims" in the market.

1.4. Certification Bodies

Validation and verification activities under the SMURF Scheme shall be conducted by an eligible and independent Certification Body (CB) approved or recognized by the Scheme.

Certification Bodies shall meet the applicable requirements for accreditation, competence, independence, impartiality, and operational capacity established under the EU CRCF and any applicable implementing rules, including requirements related to accreditation by a national accreditation body or recognition by the relevant authority of the Member State, as applicable.

Detailed eligibility, approval, accreditation, competence, independence, impartiality, operational, and performance requirements for Certification Bodies, as well as requirements applicable to validation and verification teams, are set out in the SMURF CB Guidelines. Certification Bodies conducting validation or verification activities under the SMURF Scheme shall comply with those Guidelines.

1.5. Carbon removal tokenization

The SMURF Carbon Standard utilizes a digital-native approach to asset issuance. Each metric tonne of verified CO₂ removal is represented as a SMURF Carbon Token, a digital certificate issued within the official Registry. This process transforms environmental outcomes into traceable, unique, and liquid assets.

Concept

- **Issuance Unit:** One (1) SMURF Token represents the removal of one (1) metric tonne of carbon dioxide equivalent (1tCO₂e) achieved through ARR or IFM activities.
- **Digital Custody:** Tokens are issued directly into the Project Operator's or Group of Operators' Registry account following a successful Final Verification Review (FVR).
- **Traceability Metadata:** Each issued credit or credit lot is linked to permanent metadata, associated with its issuance event, including the project ID, specific Land Parcel coordinates, vintage, methodology version, and co-benefit labels, anchored through the Registry's verification record.
- **Fungibility and Retirement:** While tokens are fungible within the same vintage and project type, they must be "Retired" (burned) to support any public climate claim, ensuring the removal is only used once.

1.6. Registry Governance

The SMURF Registry serves as the central, transparent database responsible for recording the lifecycle of all projects, the issuance and ownership of carbon tokens, and the formal retirement of units. The Registry ensures environmental integrity by preventing double counting and providing public traceability of all climate claims.

Registry Roles and Responsibilities

The SMURF Registry will operate under a defined governance structure that assigns clear responsibilities to each actor involved in project listing, registration, validation, verification, issuance, transfer, cancellation, retirement, disclosure, and record maintenance. The allocation of roles and responsibilities shall ensure transparency, traceability, data integrity, separation of duties, and prevention of double issuance, double use, and double claiming.

The following roles are defined within the SMURF Registry

- **Scheme Manager:** responsible for registering projects, verifying credits within the platform and approving claims.
- **Registry Administrator:** responsible for the day-to-day administration of the Registry, managing user accounts and access permissions, implementing Registry procedures, maintaining public and non-public records, recording the status of projects and units, and ensuring that all Registry actions are complete, traceable, time-stamped, and auditable.
- **Project Operator:** responsible for creating and maintaining the project account, submitting accurate and complete project information, Project Design Documents, monitoring reports, geospatial files, calculation files, supporting evidence, and other required documentation through the Registry. The Project Operator requests validation and audits and shall ensure that all submitted information is accurate, current, complete, and consistent with the registered project documentation and applicable to SMURF requirements.

- **Certification Body (CB):** responsible for submitting or confirming validation and verification records, including validation and verification reports, validation and verification opinions, findings, conclusions, and other audit-related documentation required by the SMURF Scheme. The CB shall use the Registry only within the scope of its validation and verification mandate and shall maintain independence and impartiality in accordance with the SMURF CB Guidelines and applicable EU CRCF requirements.
- **Account Holder:** any legal entity authorized to hold, buy, sell or cancel, or retire SMURF Carbon Tokens in the Registry. Account Holders shall comply with the Registry terms of use, know-your-customer or equivalent due diligence procedures where applicable, and all requirements related to transfer, cancellation, retirement, and claims.
- **Relevant authority:** the Commission or the national competent authorities will be granted access to all the information needed to fulfill their tasks where requested.
- **Public Users:** users with read-only access to publicly available Registry information, including project information, public documentation, consultation materials, issuance records, token ledger information, and retirement records, subject to the confidentiality and data protection rules established by the SMURF Scheme.

All material Registry actions and events will be recorded in a secure, traceable, time-stamped, and auditable manner. This includes changes in project status, document submissions and certification records, issuance decisions, and unit-level actions such as issuance, transfer, cancellation, and retirement.

Confidential, commercially sensitive, personal, or legally restricted information shall be managed in accordance with applicable law, the EU CRCF, the SMURF Scheme procedures, and the public disclosure requirements established in this Standard.

Registry Access and Permissions

The Registry applies role-based access controls to ensure that users may only access, submit, edit, approve, or publish information according to their assigned role and responsibilities.

The Registry distinguishes between:

- administrative access for the Registry Administrator;
- Scheme-level access for the Scheme Owner or Scheme Manager;
- project account access for Project Operators;
- audit access for Certification Bodies;
- read-only public access for Public Users.

Confidential, commercially sensitive, personal, or legally restricted information shall not be made public, unless disclosure is required by applicable law, the EU CRCF, or the SMURF Scheme. Public disclosure shall follow the transparency requirements set out in this Standard and the applicable Registry procedures.

Public Disclosure and Transparency

In alignment with the transparency requirements of the EU CRCF and the SMURF Scheme, the following information shall be maintained in a publicly accessible format on the SMURF Registry, except for confidential, commercially sensitive, personal, or legally restricted information, which may be redacted or disclosed only to authorised parties in accordance with applicable Registry procedures:

- **Project General Information:** The Registry will publicly disclose, at a minimum, the project name, unique project identification number, Project Operator information, Certification Body information, host country, project location, project type, applicable SMURF methodology, project area, Project Start Date, activity and monitoring periods, project status, validation status, verification status, and the dates of relevant certification-cycle milestones.
- **Project Documentation:** The Registry will publicly disclose the current and superseded public versions of the Project Plan, Monitoring Reports, their non-confidential annexes, and all comments submitted through the Registry's public comment channel.
- **Project Boundary and Supporting Files:** The Registry will make available the geospatial boundary files of the project area, on GIS format. Non-confidential calculation files, spreadsheets, monitoring datasets, maps, and other supporting files used to substantiate GHG quantification, eligibility, safeguards, and issuance requests shall also be made publicly available where required by the Scheme. Where full disclosure is not possible due to confidentiality, privacy, commercial sensitivity, or legal restrictions, the Project Operator shall provide a redacted or summarized public version, while ensuring that the complete information remains available to the Certification Body, Registry Administrator, and other duly authorized bodies.
- **Validation and Verification Records:** The Registry will publicly disclose final validation and verification documentation, including validation reports, verification reports, validation and verification opinions, issuance approval records, and any other non-confidential audit conclusions required by the SMURF Scheme. The Registry shall clearly identify the Certification Body responsible for each validation or verification event, and the version of the documentation assessed.
- **Credit Records:** The Registry will publicly disclose, for each registered project, the total number of carbon credits and tokens issued, transferred, held in active accounts, cancelled, and retired, as applicable. Each issued credit shall be traceable to its project of origin, vintage, monitoring period and verification event.
- **Retirement Records:** The Registry will publicly disclose information on retired tokens, including the number of tokens retired, serial ranges, project of origin, vintage, retirement date, retiring entity, beneficiary or end user where applicable, retirement purpose, claim type, and any associated climate claim. Where applicable, the Registry will also disclose whether the retired tokens are classified as voluntary tokens or Article 6 authorized tokens, and whether any corresponding adjustment or equivalent authorization status applies.

- **Project Status:** The Registry will publicly display the current status of each project in accordance with Section 2.2. Current and superseded public versions of project documents shall remain accessible and shall be clearly identified by version and date, with superseded versions marked accordingly.

2. Certification cycle

The SMURF certification cycle defines the sequence of phases and statuses applicable to projects under the SMURF Scheme.

For clarity, this Standard distinguishes between:

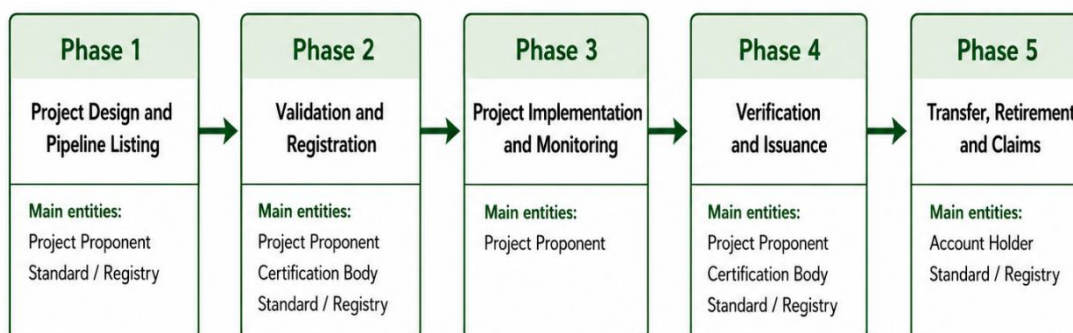
- **Certification Phases:** the substantive steps in the project cycle, including project design, validation, project implementation and monitoring, verification, issuance, and post-issuance use; and
- **Registry Status:** the administrative status recorded in the SMURF Registry to reflect the project's progress through the certification cycle.

The certification cycle shall ensure that project information is complete, independently audited, technically reviewed, publicly disclosed where required, and traceable through the SMURF Registry. It shall also ensure alignment with the EU CRCF requirements for activity plans, monitoring plans, certification audits, monitoring reports, re-certification audits, certificates of compliance, registry transparency, and access by competent authorities.

The Project Operator shall use the applicable SMURF validation-phase templates, forms, or annexes approved by the SMURF Scheme. Any deviation from a mandatory template shall be justified by the Project Operator and accepted by the SMURF Scheme before submission for validation.

2.1. Certification phases

All projects shall follow the SMURF certification cycle illustrated in the next figure.



Phase 1: Project design

Phase 1 covers the initial project design, including the Pipeline Listing of the project in the SMURF Registry.

During this phase the Project Operator starts with the Project design which is documented in the Project Summary Document. Pipeline Listing process leads to the first formal registry status in the SMURF certification cycle (Project Pipeline listed). It establishes the project record in the Registry, assigns an initial administrative status to the project, and opens the continuous public comment channel on the project page.

To remain eligible under the SMURF Standard and to demonstrate the timely intent to use carbon certification as part of the incentive effect, the Project Operator shall submit the project for Pipeline Listing within five (5) years of the Project Start Date.

For Pipeline Listing, the Project Operator shall submit the documentation required by the SMURF Scheme, including:

- a) a Project Summary Document;
- b) the preliminary digital project boundary file, in GIS format; and
- c) a signed Request for Listing Form.

Documentation shall be submitted through the SMURF Registry Portal or another submission channel formally approved by the SMURF Scheme.

The Registry Administrator shall conduct a preliminary completeness and scope check of the listing submission to confirm that:

- i. the required listing documents have been submitted and are complete for listing purposes;
- ii. the proposed activity falls within an eligible activity type covered by the SMURF Standard and identifies an approved SMURF methodology;
- iii. the project is located within the geographic scope of the SMURF Standard;
- iv. the listing request has been submitted within the applicable listing deadline, based on the Project Start Date declared by the Project Operator; and
- v. the preliminary project boundary file has been submitted in an accepted and readable format.

Upon successful completion of the preliminary listing check, the project will be assigned a unique project identification number, and its status will be updated to Pipeline Listed in the SMURF Registry.

From Pipeline Listing onwards, the Registry will maintain a publicly accessible comment channel on the project page to allow stakeholders to submit comments, concerns, or relevant information throughout the project cycle.

Pipeline Listing does not authorize the issuance of SMURF carbon credits and does not confirm that the project complies with all requirements of the SMURF Standard or the applicable methodology. This will be assessed by the Certification Body in future phases, during validation.

Phase 2: Validation and Registration

Phase 2 covers the independent validation of the project design and the formal registration of the project in the SMURF Registry.

The validation phase starts when the Project Operator submits the complete Project Plan and required supporting documentation for validation.

At the start of validation, the Project Operator shall submit, and the Registry shall make publicly available, at a minimum:

- a) the Project Plan (in English);
- b) the non-confidential annexes and supporting documentation required for public consultation;
- c) the project boundary file in GIS format; and
- d) any other non-confidential documentation required under the applicable SMURF procedures.

Once this information is submitted and the CB confirms the corresponding validation or verification agreement is signed, the project status is updated to Under Validation.

A project enters the formal public consultation stage (Global Stakeholder Consultation) upon commencement of the validation process, once all the above-mentioned project information has been submitted by the Project Operator.

The SMURF Registry will facilitate one mandatory four (4) week Global Stakeholder Consultation period for each project seeking registration under the SMURF Standard.

The Certification Body shall conduct an independent validation to determine whether the proposed project complies with the SMURF Carbon Standard, the applicable SMURF methodology, and relevant Scheme procedures, and whether its projected GHG outcomes are supported by sufficient and appropriate evidence and based on reasonable, plausible, and conservative assumptions and methods. The validation shall also assess the adequacy of the Project Operator's responses to material public comments. Detailed validation requirements are established in the SMURF CB Guidelines.

A project shall achieve a final positive Validation Opinion within five (5) years of the Project listing Date.

Following the Certification Body's positive Validation Opinion, the validation package will undergo the applicable Final Validation Review by the SMURF Scheme or Registry Administrator. This review is intended to confirm procedural completeness, consistency of the submitted documentation, closure of material findings, and readiness for registration. It shall not replace the independent validation performed by the Certification Body.

Where inconsistencies, omissions, or unresolved issues are identified during the final review, the SMURF Scheme or Registry Administrator may request clarification from the Project Operator and/or Certification Body in accordance with the applicable SMURF procedures.

A project may be registered only after:

- i. the Global Stakeholder Consultation requirements have been completed;
- ii. all material validation findings have been resolved or closed in accordance with SMURF procedures;

- iii. a positive Validation Opinion has been issued by an eligible Certification Body;
- iv. the Final Validation Review has been completed; and
- v. the required public documentation has been made available on the Registry, subject to applicable confidentiality rules.

Upon successful completion of these steps, the Registry Administrator will update the project status to Registered in the SMURF Registry.

Registration formalizes the project's acceptance into the SMURF Registry and authorizes the project to proceed with monitoring and future verification. Registration does not, by itself, authorize the issuance of SMURF Carbon Tokens. Issuance may only occur after successful verification and completion of the applicable issuance procedures.

Phase 3: Project Implementation and Monitoring

Phase 3 covers project implementation and monitoring following registration.

Once registered, the Project Operator shall implement and maintain the project in accordance with the registered Project Plan (Activity Plan and Monitoring Plan), the applicable SMURF methodology, and all relevant requirements of the SMURF Standard.

The Project Operator shall monitor the project activity throughout the Project Lifetime in accordance with the Monitoring Plan and Section 7 of this Standard.

The SMURF Standard applies a dual-cycle monitoring framework:

- **Annual Report:** Monitoring report submitted annually that provides the information required to demonstrate continued project existence, and the absence of deforestation, forest degradation or reversals.
- **Monitoring Report:** For each verification event (see next phase), the Project Operator shall prepare a comprehensive Monitoring Report using the applicable SMURF methodology-specific template. The Monitoring Report shall include the assessment of carbon stocks, baseline updates where applicable, and compliance with social and environmental safeguards.

Annual Reports support continuous oversight and shall not replace the comprehensive Monitoring Report required for verification. The Certification Body shall assess, at the time of verification, the consistency of the information presented in the Annual Reports with the Monitoring Report, underlying project records, field evidence, geospatial evidence where applicable, and any other relevant supporting documentation.

The Monitoring Report shall provide the basis for independent verification and shall include the information necessary to quantify the carbon removal emission reduction benefits for the relevant verification period, in accordance with the applicable methodology.

Phase 4: Verification and Issuance

Phase 4 covers independent verification of monitored project results and issuance of SMURF Carbon Tokens.

For the purposes of the SMURF Standard, the term “verification” refers to the independent assessment of monitored project results and continued compliance with the registered project documentation, applicable methodology, and SMURF requirements.

Where required for alignment with the EU CRCF, periodic verification under the SMURF Scheme shall also fulfil the function of a re-certification audit, meaning the periodic audit through which the Certification Body reconfirms the activity’s compliance with the Standard and verifies the carbon removals and emission reduction benefits generated during the relevant monitoring period.

The verification phase starts when the Project Operator submits the Monitoring Report and supporting documentation for independent verification. At this point, the status of the project in the Registry will be updated to Under Verification.

The Monitoring Report submitted for verification shall be prepared using the applicable SMURF Monitoring Report template and shall include all mandatory sections, annexes, calculation files, geospatial files, and supporting evidence required by the SMURF Scheme and the applicable methodology. The Certification Body shall verify the information presented in the Monitoring Report against the underlying records, monitoring data, field evidence, geospatial information, calculations, and other supporting documentation.

A full independent verification by an eligible Certification Body shall occur at least every five (5) years and at the time of first issuance. The maximum five-year interval shall be calculated from the Project Start Date for the first issuance or from the closing date of the previous verification period for subsequent verifications, unless the applicable methodology or Scheme procedures require a shorter interval.

For verification purposes, the Monitoring Report shall include the information necessary to:

- a) calculate the net carbon removal benefit or net emission reduction benefit in accordance with the applicable methodology;
- b) assess monitored carbon stocks, carbon pools, sources, project emissions, leakage, uncertainty, and deductions, where applicable;
- c) assess continued compliance with liability, permanence, and sustainability requirements;
- d) assess continued compliance with environmental and social safeguards;
- e) identify any case of reversal, suspected reversal, or material risk of reversal, and the actions taken to address it;
- f) reconcile, where applicable, the information submitted in Annual Reports with the verified monitoring data and underlying project records.

The Certification Body shall assess whether the Monitoring Report is accurate, complete, conservative, and consistent with the underlying evidence and applicable requirements. The Certification Body shall issue a verification report and verification opinion stating the quantity of verified carbon removals or emission reductions eligible for issuance, after all applicable deductions.

Following a positive verification opinion, the verification package shall undergo the applicable final verification review by the SMURF Scheme or Registry Administrator. This review is intended to confirm procedural completeness, consistency of the issuance request, application of required deductions, and readiness for issuance. It shall not replace the independent verification performed by the Certification Body.

Issuance may occur only after:

- i. no unresolved double issuance, double use, double claiming, reversal, legal, safeguard, or material non-conformity issue prevents issuance;
- ii. all material verification findings have been resolved or closed in accordance with SMURF procedures;
- iii. the verified net carbon removal emission reduction benefits have been calculated in accordance with the applicable methodology;
- iv. all applicable leakage, uncertainty, reversal, buffer, and other deductions have been applied;
- v. a positive Verification Opinion has been issued by an eligible Certification Body; and
- vi. the Monitoring Report, verification report, verification opinion, and relevant non-confidential documentation have been submitted to the Registry;
- vii. the Final Verification Review has been completed.

Upon approval, the Registry will issue the corresponding SMURF Carbon Tokens and update the applicable project or unit status to Issued.

Phase 5: Transfer, Retirement and Claims

Phase 5 covers the management and final use of issued SMURF Carbon Tokens.

After issuance, SMURF Carbon Tokens may be held, transferred, cancelled, or retired only in accordance with the Registry rules and the claims and communication requirements of this Standard. These are the possible status of an issued SMURF Carbon Token:

- **Held:** The carbon credit remains in the account of its current owner. It is active and available for future transfer, retirement, or cancellation.
- **Transferred:** The carbon credit has been moved from one account holder to another in accordance with the Registry rules. Ownership changes, but the credit remains active.
- **Cancelled:** The carbon credit has been removed from circulation without being used to claim an emissions reduction. It can no longer be transferred or retired.
- **Retired:** The carbon credit has been permanently used to offset greenhouse gas emissions or fulfill another approved purpose. It is removed from circulation and cannot be reused.

The transfer, retirement, cancellation, or holding of issued units shall not release the Project Operator from any monitoring, permanence, liability, reversal, safeguard, reporting, or record-retention obligations that remain applicable under the SMURF Standard, the applicable methodology, or the Registry rules.

2.2. Project Statuses and Transitions

The SMURF Registry shall assign and publicly display the updated status for each project. Project statuses reflect the project's position within the certification cycle, as described in the previous section, and are summarized in the following list:

- **Pipeline Listed:** The project has completed the preliminary listing check and has been entered into the SMURF Registry. Pipeline Listing does not constitute validation, registration, confirmation of eligibility, or approval for credit issuance.

- **Under Validation:** The Project Operator has submitted the Project Plan and the required supporting documentation, and the project is undergoing independent validation. The project shall remain Under Validation until it is registered, withdrawn, or rejected.
- **Registered:** The project has received a positive Validation Opinion, completed the applicable Final Validation Review, and has been formally accepted into the SMURF Registry. Registered shall be the normal status of the project between verification events.
- **Under Verification:** The Project Operator has submitted a Monitoring Report and the required supporting documentation, and the project is undergoing independent verification. Following completion of the verification process, the project shall normally return to Registered status. Where a material unresolved issue prevents continued certification, the project may be suspended.
- **Suspended:** The project has been temporarily restricted due to a material issue that may affect its continued compliance with the SMURF Standard. Grounds for suspension may include failure to meet monitoring or reporting obligations, unresolved material non-conformities, suspected or confirmed reversals, unresolved legal or carbon-right disputes, material inconsistencies in project information, or non-compliance with eligibility, safeguard, permanence, or other applicable requirements.

No new SMURF Carbon Credits shall be issued while a project is suspended. A suspended project may return to the appropriate active status once the grounds for suspension have been satisfactorily resolved. Where the grounds for suspension are not resolved, the project may be closed.

- **Withdrawn:** The Project Operator has voluntarily withdrawn the project before registration. The withdrawal and its effective date shall be recorded in the Registry. A project that has already been registered shall not be treated as Withdrawn and shall instead follow the applicable closure procedure.
- **Rejected:** The project has been formally refused registration under the SMURF Scheme. Rejection may result from a negative Validation Opinion, failure to resolve material validation findings, failure to demonstrate eligibility or applicable legal rights, material misrepresentation, or another unresolved issue that prevents registration. To pursue registration, the Project Operator must restart the validation process.
- **Closed:** A previously registered project has permanently ceased participation in the SMURF Scheme. Closure may occur following completion of the Project Lifetime and applicable final obligations, failure to resolve the grounds for suspension, or another decision or circumstance that permanently ends the project's participation.
Closure shall not release the Project Operator or other responsible entities from any monitoring, permanence, reversal, record-retention, or other obligations that continue to apply following closure.

All changes in project status shall be recorded in the Registry, including the effective date of the change. Historical project records and previous status information shall remain traceable after a project is withdrawn, rejected, or closed.

3. Non-Permanence Risk and buffer pool

3.1. Non-Permanence Risk

The SMURF Carbon Standard adopts a risk-based approach aligned with the **QU.A.L.I.TY** criteria (Quantification, Additionality, Long-term storage, and Sustainability) of the EU CRCF. This section establishes the high-level principles for managing the risk of non-permanence and reversals:

- **Liability:** The Project Operator remains legally and technically liable for the monitoring, maintenance, and integrity of carbon removals throughout the entire Project Lifetime.
- **Reversal Mechanism:** In the event of a verified carbon reversal, the Standard utilizes a tiered Pooled Buffer Account mechanism to safeguard the environmental integrity of issued tokens. The specific quantification, contribution rates, and recovery procedures for this buffer are detailed in this section.
- **Non-Permanence:** The risk that the carbon stored by the project may be released back into the atmosphere (reversed) before the end of the permanence period.
- **Reversal:** A verified decrease in the carbon stock of the project area below the level of previously issued credits.
- **Buffer Pool:** A segregated, non-tradable reserve account specific to the project (or Grouped Project), where a portion of the issued credits is deposited to guarantee the permanence of the sold credits.

3.2. Buffer pool management

To address non-permanence risk, the SMURF Standard applies a fix buffer pool of 20% combining:

PART A (Collective Buffer): a fixed contribution to the collective buffer pool. Upon each credit issuance, 5% of the issued credits is deposited into the SMURF Global Pool. These credits are permanently transferred to the Standard and are non-refundable; and

PART B (Project Reserve): a fixed project-specific contribution of 15%. These individual buffer credits are held in the Project's name and are refundable upon successful project conclusion.

Reversal Liability & Management

In the event of a verified carbon reversal, the compensation mechanism follows a strict order of priority based on the cause and the project status:

LEVEL 1: Avoidable Reversals (Operator Liability)

Cause: The Operator is strictly liable (e.g. negligence, harvesting, land conversion).

Action: The Operator must compensate for the reversal by purchasing and retiring an equivalent number of active SMURF carbon credits from the market. SMURF credits shall be used as the primary means of compensation. Where SMURF credits are demonstrably unavailable, credits issued under another recognized carbon standard may be used, subject to prior approval by the Registry. Neither buffer shall be used.

LEVEL 2: Unavoidable Reversals (Project Specific Buffer)

Cause: Natural or unavoidable events beyond the Operator's control, such as wildfires, extreme weather, or pest outbreaks.

Action: The Scheme first cancels credits from the Project Specific Buffer to cover the loss.

Deficit Management (Recovery Mode): If the reversal exceeds the balance of the Project Specific Buffer, the project will not be automatically terminated. Instead, a Recovery Agreement must be established between the Operator and the SMURF Scheme:

1. **Debt Repayment (Instalment Plan):** The Operator may negotiate a "repayment schedule" where a percentage of future carbon removals generated by the site's regrowth is used to pay back the deficit over a defined period, rather than 100% of future removals being seized at once. This ensures the project maintains some cash flow to fund ongoing restoration and management.
2. **External Offsetting (Flexibility):** The Operator may settle the carbon debt by purchasing and retiring SMURF Credits from other projects within the SMURF Registry. SMURF Credits shall be used in priority for this purpose. Only where such credits are demonstrably unavailable credits from another recognized carbon standard may be used, subject to prior approval by the Registry.

LEVEL 3: Global Pooled Buffer (Last Resort Safety Net).

To reserve this pool for special cases, specific causes and conditions are established that allow for its use.

Cause: Catastrophic Event + Project Failure

Condition: This buffer is triggered if and only if:

1. A massive unavoidable reversal has occurred;
2. The Project Specific Buffer is fully exhausted; AND
3. The Project Operator has become insolvent, ceased operations, or legally abandoned the project (proven inability to recover/replant).

Action: The Scheme draws from the Global Pooled Buffer to cover the remaining deficit, ensuring the environmental integrity of credits held by buyers.

Consequence: The project is permanently terminated. The Project Operator shall be blacklisted only in cases of project failure attributable to the Operator, and not solely as a result of a catastrophic event beyond the Operator's control. In that case, the project termination will be published, including the reasons for termination and the Project Operator will be banned from joining the SMURF scheme in the future.

4. Legal & Administrative Provisions

4.1 Informative Regulatory Classification (Article 6 Status)

The SMURF Standard operates within the framework of the EU Carbon Removals and Carbon Farming Regulation (EU CRCF) and the voluntary certification of eligible carbon

removal and carbon farming activities. Certified units issued under the SMURF Scheme shall be used in accordance with the applicable requirements of the EU CRCF, the Paris Agreement⁵, and any relevant rules adopted by the European Commission, competent authorities, or the SMURF Scheme.

Unless and until otherwise permitted under applicable EU rules, certified units generated under the SMURF Scheme shall be treated as contributing to the European Union's nationally determined contribution and climate objectives. Such units shall not be represented as contributing to third-party nationally determined contributions or international compliance schemes.

The SMURF Scheme does not require Article 6 authorization, host Party authorization, or corresponding adjustments as a condition for project registration, validation, verification, or issuance, unless such requirements become applicable under EU law, the EU CRCF, or other relevant legal or regulatory frameworks.

Any future use of SMURF certified units for purposes falling under Article 6 of the Paris Agreement, including use as internationally transferred mitigation outcomes or for other authorized international purposes, shall be subject to the legal and accounting requirements in force at the time of use. These may include, where relevant, host Party authorization, corresponding adjustments, reporting requirements, registry tracking, claim restrictions, and any additional requirements adopted under the EU CRCF.

The Registry shall record and publicly disclose, where applicable, the intended use, claim type, authorization status, retirement purpose, and any relevant restriction on the use of certified units, in order to avoid double issuance, double use, double claiming, and any misleading representation of the regulatory status of certified units.

4.2. Cooperation with Public Authorities and Supervisory Access

The Project Operator shall cooperate with the European Commission, the competent authorities of the relevant Member State(s), and any other authority or body duly empowered under the applicable CRCF legal framework to carry out supervision, inspection, or compliance-related functions.

Such cooperation shall include, where requested and lawfully applicable:

- granting access to the project site, relevant premises, and operational records;
- providing timely access to documents, data, contracts, maps, reports, and other information necessary to fulfil supervisory or compliance-related tasks under the applicable CRCF framework; and
- facilitating reasonable access to supporting evidence related to project implementation, monitoring, certification, and registry records.

⁵ UNFCCC (2015). Paris Agreement.

Failure or refusal to provide such cooperation may constitute a ground for suspension, rejection, or exclusion from participation under the SMURF Standard, in accordance with the applicable legal and scheme rules

5. Applicability conditions

Concept

Applicability conditions define the basic mandatory requirements a project must satisfy to successfully register under the SMURF Carbon Standard and qualify for the issuance of certified SMURF Carbon Tokens. These conditions ensure rigorous alignment with high-integrity carbon market principles and the European Carbon Removal Certification Framework (CRCF).

Requirements

To be eligible for registration under the SMURF Carbon Standard, a project must demonstrate full compliance with all the following criteria. These conditions ensure alignment with high-integrity carbon market principles and the European Carbon Removal Certification Framework (CRCF).

To maintain technical consistency and regulatory compliance of the Standard use, the following administrative rules apply:

5.1. Version Control:

6.1.1. Standard Consistency: The latest version of the SMURF Carbon Standard shall be applied during project registration and for the submission of monitoring reports, unless a specific prior version is explicitly authorized for a transition period. The latest version supersedes all previous requirements.

6.1.2. Methodological Consistency: The latest version of the SMURF Carbon Methodologies (ARR or IFM) must be applied at the time of project registration. Once the project has been registered, the same methodology version remains applicable for all monitoring reports until the next scheduled baseline reassessment. In the next baseline reassessment, if the methodology applied has been updated, the project must transition to the new version of the methodology.

5.2. Sectoral Scope: The activity shall classify as an eligible forest or land-use activity covered by a methodology approved under the SMURF Scheme. In this version of the Standard, eligible activities include Afforestation, Reforestation and Revegetation (ARR) and Improved Forest Management (IFM). Energy-related projects and activities outside the scope of approved SMURF methodologies are not eligible.

5.3 Approved Methodology: The Project Activity shall apply a methodology formally approved under the SMURF Scheme. The Project Operator shall demonstrate that the project meets all applicability conditions and eligibility requirements established by the applicable methodology.

5.4. Land Eligibility: The project area must be compliant with Regulation (EU) 2023/1115 (EUDR)⁶, ensuring no deforestation or forest degradation has occurred on the site after December 31, 2020. For the purposes of this standard, the terms 'deforestation' and 'forest degradation' must be interpreted and applied strictly according to the definitions provided in Article 2 of Regulation (EU) 2023/1115.

5.5. Geographic Scope: Only projects developed within the territory of European Union (EU) Member States are eligible for registration and issuance of SMURF Carbon Tokens under the SMURF Standard.

5.6. IFM Forest Status: For IFM activities, the Project Operator shall demonstrate that the project area meets the applicable national/FAO forest definition, at the Project Start Date.

5.7. ARR projects: For ARR projects, the activity shall not result in the removal of existing trees or other woody elements, save where they are included in the list of invasive alien species of Union concern pursuant to Commission Implementing Regulation (EU) 2016/1141⁷ or if their removal is shown to be necessary to limit the spread of pathogens.

5.8. Organic Soils, Peatlands, and Wetlands: For project activities that may involve significant soil disturbance, the Project Operator shall demonstrate that the activity is not implemented on peatlands, organic soils, or wetlands, whether drained or undrained, where such disturbance could result in material greenhouse gas emissions, negative impacts on soil carbon stocks, hydrological alteration, or degradation of ecosystem integrity. Activities in such areas may only be eligible where explicitly allowed by the applicable methodology and subject to specific safeguards to avoid negative impacts on soil carbon, hydrology, and ecosystem integrity.

5.9. Protected and Priority Biodiversity Areas: The Project Operator shall demonstrate that the project activity does not involve the conversion or degradation of ecosystems formally classified as protected, priority, or high-conservation-value habitats under applicable EU, national, or regional frameworks, including priority habitats designated under the Natura 2000 network, unless the activity is explicitly permitted by the competent authority and demonstrably contributes to the conservation, restoration, or enhancement objectives of the protected or priority habitat.

⁶ Regulation (EU) 2023/1115 of the European Parliament and of the Council of 31 May 2023 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010

⁷ Commission Implementing Regulation (EU) 2016/1141 of 13 July 2016 adopting a list of invasive alien species of Union concern pursuant to Regulation (EU) No 1143/2014 of the European Parliament and of the Council

6. Project governance

6.1. Project Ownership

Concept:

Project Operator or Operator: The natural or legal person, or public entity, that operates or controls the activity within the Activity Area, or to whom decisive executive power over the technical functioning of the activity has been delegated.

The Operator is responsible for submitting the project under the SMURF Standard and for the overall coordination, management, implementation, monitoring and compliance of the project throughout the certification cycle. The Project Operator is the primary interface with the Certification Body (CB), the Registry, and the Standard.

Group Manager (Group of Operators): The legal entity or identified body acting as the legal representative of the group of operators and responsible for the overall coordination of the activity, including ensuring the group members comply with the requirements of the Standard.

In Grouped Projects, the Group Manager has the same responsibilities and obligations that the Project Operator.

Other Entities Involved in the Activity: Any natural or legal person, or public or private entity, other than the Project Operator and the Group Manager, that is involved in the design, implementation, financing, monitoring, validation, verification, registration, or administration of the activity. The role of each such entity, and its relationship to the Operator or Group Manager, shall be clearly identified and described.

Requirements:

6.1.1. Identification of Responsible Entities

The Project Operator or Group Manager shall identify in the Project Plan all entities with a material role in the project, including, as applicable, the Project Operator or Group Manager, landowner, land Manager, implementation partners, technical service providers, financing entities, and any other entity involved in project design, implementation, monitoring, or administration.

The role, responsibility, and relationship of each entity to the project shall be clearly described.

6.1.2 Legal Right to Submit and Implement the Project

The Project Operator or Group Manager shall demonstrate that it has legal authority to submit the project under the SMURF Standard and to act as the primary responsible entity throughout the certification cycle.

Where the operator is not the landowner, the rights to implement the activity and the corresponding management control over the Activity Area shall be demonstrated and justified.

The Project Operator or Group Manager shall also demonstrate that the project activity can be legally implemented within the Project Area, including through ownership, land tenure, land-use rights, management rights, contractual arrangements, mandates, authorizations, or other legally valid instruments, as applicable.

6.1.3. Carbon Rights and Entitlement to Claims

The Project Operator shall demonstrate that it holds, controls, or has been duly authorized to claim, manage, transfer, or receive the carbon-related benefits generated by the project activity, including any SMURF Carbon Tokens issued under the Scheme.

Where carbon rights are held by landowners, land managers, or other rightsholders, the Project Operator shall provide evidence that such rights have been transferred, assigned, authorized, or otherwise made available for the purposes of project registration, issuance, transfer, retirement, and claims under the SMURF Standard.

6.1.4. Written Agreements and Supporting Evidence

The ownership, management, land-use, participation, and carbon-right arrangements relevant to the project shall be supported by written contracts, legal instruments, mandates, declarations, authorizations, land records, or equivalent documented evidence.

Such evidence shall be made available to the Certification Body during validation and verification. Commercially sensitive or personal information may be treated as confidential, provided that sufficient evidence is available to the Certification Body to assess compliance.

6.1.5. Allocation of Responsibilities

The Project Operator or Group Manager shall remain responsible at Scheme level for the accuracy of submitted information, project implementation, monitoring, reporting, safeguards, reversals reporting, stakeholder engagement, grievance management, benefit-sharing arrangements, and compliance with the SMURF Standard and applicable methodology.

Where responsibilities are delegated to land managers, technical service providers, or other entities, the Project Operator shall document the delegation and retain overall responsibility for ensuring compliance with SMURF requirements.

6.1.6. Changes in Ownership or Control

The Project Operator or Group Manager shall notify the SMURF Registry and the Certification Body, where applicable, of any material change in project ownership, land tenure, land-use rights, carbon rights, operational control, Group Manager, or other arrangement that may affect project implementation, monitoring, permanence, benefit sharing, issuance, transfer, retirement, or claims.

Material changes shall be documented and assessed in accordance with the applicable SMURF procedures before they are accepted for continued certification, verification, or issuance.

6.1.7. Disputes and Conflicting Claims

The Project Operator or Group Manager shall disclose any known material dispute, overlapping claim, or conflicting right affecting the Project Area, project implementation rights, carbon rights, or benefit-sharing arrangements.

Where a dispute or conflicting claim may materially affect the Project Operator's legal right to implement the project, carbon removal benefits claims, or comply with SMURF requirements, the issue shall be resolved or otherwise addressed to the satisfaction of the Certification Body before validation, verification, registration, or issuance, as applicable.

6.2. Project area

Concept:

For the purposes of the SMURF Standard, the geographic scope of a project shall be described through three spatial concepts: Project Area, Activity Area, and Land Parcel.

Project Area: The overall geographic boundary of the project submitted for registration under the SMURF Standard. It represents the area under the project's governance, documentation, and registry record.

The Project Area may include the full area managed under the project, including eligible activity areas, excluded areas, non-crediting areas, internal infrastructure, access areas, or other areas relevant to project management and documentation.

Activity Area: The area within the Project Area where the eligible ARR or IFM activity is implemented, monitored, and included in carbon quantification under the applicable SMURF methodology.

The Activity Area is the area used to attribute carbon removals or emission reductions to specific land management actions. Only areas that meet the eligibility requirements of the SMURF Standard and the applicable methodology may be included in the Activity Area for carbon quantification. Where the entire Project Area is eligible and subject to the certified activity, the Project Area and the Activity Area may be the same.

Land Parcel: A mapped portion of land within the Activity Area, under the legal tenure, land-use rights, or operational control of an identified landowner, land manager, Operator, or other recognized rightsholder.

Land Parcels are used as the basic spatial units for identification, eligibility assessment, monitoring, recordkeeping, attribution of removals, and prevention of double counting.

Requirements:

6.2.1. Spatial identification

The Project Operator shall identify and describe the Project Area, Activity Area, and Land Parcels in the Project Plan and supporting geospatial documentation.

The relationship between these spatial units shall be clear and traceable. Each Land Parcel shall be linked to the relevant Project Area, Activity Area, Project Operator, landowner, land manager, or other responsible entity, as applicable.

6.2.2. Digital delineation

The Project Operator shall provide digital geospatial files for the Project Area, Activity Area, and Land Parcels as applicable.

A Land Parcel shall be represented by one clearly delineated polygon. Where a property, holding, or management area includes non-contiguous areas participating in the project, each non-contiguous area shall be mapped and identified as a separate Land Parcel, unless otherwise allowed by the applicable SMURF methodology or approved Scheme procedure.

Geospatial files shall be provided in GIS format. The files shall represent the boundaries of the areas participating in the project with sufficient precision to support validation, monitoring, verification, registry disclosure, and overlap screening.

6.2.3. Minimum spatial information

For each Land Parcel included in the Activity Area, the Project Operator shall provide, at a minimum:

- a) a unique identifier;
- b) digital polygon boundary;
- c) area in hectares;
- d) activity type, including ARR or IFM, as applicable;
- e) identification of the responsible Landowner, Land Manager, Operator, or other relevant rightsholder;
- f) indication of whether the parcel is included in carbon quantification;
- g) indication of any excluded or non-crediting areas, where applicable.

6.2.4. Eligibility of the Activity Area

The Project Operator shall demonstrate that all Land Parcels included in the Activity Area meet the eligibility requirements of the SMURF Standard and the applicable methodology.

Areas that do not meet the eligibility requirements shall be excluded from the Activity Area and shall not be included in carbon quantification.

6.2.5. Minimum area threshold

Each Land Parcel included in the Activity Area shall meet the minimum area threshold established by the applicable SMURF methodology, as applicable.

6.2.6. Overlap and double counting prevention

The Project Operator shall demonstrate that the Project Area, Activity Area, and Land Parcels do not overlap with another registered carbon project, pending carbon project, or carbon-related claim in a way that could result in double issuance, double use, or double claiming.

Any actual or potential overlap with another carbon project, carbon programme, public incentive scheme, conservation programme, land-use restriction, or carbon-related claim shall be disclosed and assessed in accordance with the double counting, double funding, and public subsidy requirements of this Standard.

6.2.7. Boundary consistency and updates

The Project Operator shall maintain consistent and updated geospatial records throughout the Project Lifetime.

Where the Project Area includes excluded, non-eligible, non-crediting, or management-only areas, the Activity Area should be clearly distinguished from the broader Project Area.

Any material change to the Project Area, Activity Area, or Land Parcels shall be documented, justified, submitted to the Registry, and assessed in accordance with the applicable SMURF procedures.

For grouped or expandable projects, any new Land Parcel or Participation Unit added after registration shall be mapped, uniquely identified, and assessed against the eligibility criteria, inclusion criteria, and monitoring requirements established in the registered Project Plan and the applicable SMURF methodology before it is included in the Activity Area for quantification.

6.2.8. Inclusion of Participation Units in Grouped Projects

Each new Participation Unit added must include its own polygon or set of polygons, which will be integrated into the project's central database and updated during the annual monitoring analysis.

6.3. Single and Grouped projects

The SMURF Standard defines two main project modalities based on their capacity for geographical and participant expansion after the initial validation. This distinction ensures administrative efficiency for fixed projects and scalability for aggregated models.

At the time of Project Listing in the Registry, the Project Operator must choose between a Single Project or a Grouped Project structure.

Concept

Single Project (Single Operator)

A project managed and operated by a single entity (e.g., a single landowner, a forestry company, or a manager with full operational control over all included land parcels).

- **Fixed Scope (Closed):** All land parcels and project activities are identified and verified during the initial Validation. No additional parcels can be added after registration.
- **Open Scope (Expandable):** New land parcels can be added after the initial Validation, provided they are managed by the same Operator and meet the pre-defined Eligibility Criteria.

Grouped Project (Multiple Operators)

A project that aggregates participation units managed by different operators under the coordination of a Group Manager.

- **Fixed Scope (Closed):** The project starts with a defined group of multiple operators. No new operators, participation units or land parcels can be added after registration.
- **Open Scope (Expandable):** The project allows the inclusion of new operators and their respective participation units at any time, provided they align with the project's Eligibility Criteria and the Group Manager management system.

Participation Unit: A distinct implementation unit within a SMURF Grouped Project, consisting of a new Activity Area under a unique operator. This concept facilitates the inclusion of multiple operators and activity areas to create Grouped Projects.

Participation Units are administrative and monitoring units used for project implementation, data collection and eligibility assessment. They do not constitute separate certified activities and do not generate separate certification outcomes outside the scope of the Project.

Requirements

To ensure integrity, all land parcels of a Single (Open Scope) Project or all participation units within a Grouped Project must:

6.3.1. Be located in geographical proximity to one another and exhibit similar pedoclimatic characteristics, including comparable climate and soil conditions, as demonstrated and justified in the Project Plan.

6.3.2. Apply the same Methodology and carbon quantification approach, for which the activities have similar processes and procedures.

6.3.3. In Grouped Projects, the group of operators shall designate a Group Manager, who shall act as the legal representative of the group for the purposes of the Grouped Project.

6.3.4. The Group Manager shall remain the sole contractual interface with the Standard and shall be responsible for the overall performance of the grouped project, including reporting, management of existing and new participating units, management of reversals and other project-level obligations.

6.3.5. The Group Manager must hold enforceable internal agreements with each participating landowner or operator, including the transfer or authorization of the right to claim carbon credits or carbon removal units, as applicable.

6.3.6. The Group Manager shall maintain an internal control system or equivalent documented procedure to manage operator participation, eligibility, data collection, monitoring, record keeping, corrective actions, and exclusion or suspension of non-compliant participants, where applicable. This internal control may be conducted using an appropriate sampling approach.

6.3.7. The Group Manager shall also specify how advisory services are provided to the participating operators, if applicable.

6.3.8. For Open Scope modalities, new land parcels, participation units or operators may be added without a new full Validation Audit, provided that:

- The new land parcels, participation units or operators meet the pre-defined Eligibility Criteria established in the registered Activity Plan.
- The Project Operator or Group Manager carries out and documents an internal eligibility and compliance assessment for each new land parcel or participation unit prior to its inclusion. The Project Operator or Group Manager shall retain and, upon request, provide evidence of the internal assessments carried out for the inclusion of new instances or operators.

7. Project Plan: Activity Plan and Monitoring Plan

Concept

Project Plan: The Project Operator or Group Manager submits a Project Plan for validation by the CB. The Project Plan consolidates the Activity Plan and the Monitoring Plan into a single document.

Activity Plan: The overarching operational document that describes the project governance, project lifetime and the specific activity. The Activity Plan details the activity implementation, its expected net carbon removal or net emission reduction benefits, and its expected compliance with the SMURF Standard.

Monitoring Plan: The overarching operational document that defines how the project will track, quantify, and report on carbon removals, emissions reduction, reversals, safeguards compliance, and material non-permanence risks throughout its lifecycle.

Requirements

7.1. The Project Operator or Group Manager shall submit the the complete Project Plan and required supporting documentation for validation.

7.2. The Project Plan submitted for validation shall include the Activity Plan and the Monitoring Plan, completed in accordance with the applicable sections of the SMURF Project Plan template.

7.3. The Activity Plan shall provide the necessary information to assess the project's activity, its expected net carbon removal or net emission reduction benefits, and its expected compliance with the SMURF Standard.

7.4. The Monitoring Plan shall describe how the Project Operator will monitor, quantify, report, and maintain records of the project activity, including carbon removals, project emissions, leakage, reversals, safeguards, risk indicators, and other parameters required by the applicable methodology. The Monitoring Plan shall also describe how the Project Operator or Group Manager will monitor any material change in project risk conditions.

7.5. Monitoring Cycle & Reporting Frequency: Projects must adhere to a dual-cycle reporting framework including:

A. Annual Report (Internal):

7.5.1. The Project Operator shall prepare and submit an Annual Report (AMR) to the SMURF Registry no later than 31 March of the year following the reporting year.

7.5.2. The Annual Report shall contain the information required to demonstrate continued project existence, and the absence of deforestation, forest degradation or reversals.

B. Periodic Verification (External Audit):

7.5.3. A full independent verification by an accredited Certification Body (CB) must occur at least every five years and at the time of first issuance.

7.5.4. Each verification shall be based on a comprehensive Monitoring Report prepared by the Project Operator or Group Manager for the relevant verification period. The Monitoring Report shall be in a manner that allows the Certification Body to trace the monitored data, reproduce the quantification results on carbon stocks, baseline, assess reversals where applicable, and evaluate continued compliance with the registered Project Plan, safeguards, and applicable methodology.

Annual Reports are supplementary to this process and serve as supporting evidence of annual project progress between verification events. The periodic verification shall also include a true-up mechanism to reconcile any discrepancies between the annual reports and the verified findings.

7.5.5. The Project Operator or Group Manager shall use the applicable SMURF templates for Annual Reports, Monitoring Reports, and any mandatory monitoring annexes or calculation files required by the SMURF Scheme or the applicable methodology.

7.6. Quality Assurance & Uncertainty (The "Conservatism Rule"): Projects must quantify the statistical uncertainty, considering uncertainty propagation, of their emission reductions and carbon removals calculations.

7.7. If the uncertainty of the calculated removals exceeds a threshold, the project must apply a Confidence Deduction, reducing the number of issued credits to ensure conservative claiming.

Allowable Uncertainty & Deductions:

For small projects (≤ 50 ha for ARR and ≤ 200 ha for IFM)

- If the uncertainty of the GHG calculations is $\leq 20\%$ (at 80% confidence), no deduction is applied. The Operator is issued 100% of the calculated removals.
- If the uncertainty of the GHG calculation is between 20% and 30%, a Confidence Deduction is applied equal to the percentage exceeding the 20% threshold. (Example: 25% error results in 5% credit deduction).
- If the uncertainty of the GHG calculation is $> 30\%$, a Confidence Deduction is applied equal to the error percentage. (Example: 45% error result in 45% credit deduction).

For projects above those thresholds:

- If the uncertainty of the GHG calculations is $\leq 10\%$ (at 90% confidence), no deduction is applied. The Operator is issued 100% of the calculated removals.
- If the uncertainty of the GHG calculation is between 10% and 30%, a Confidence Deduction is applied equal to the percentage exceeding the 10% threshold. (Example: 25% error results in 15% credit deduction).
- If the uncertainty of the GHG calculation is $> 30\%$, a Confidence Deduction is applied equal to the error percentage. (Example: 45% error result in 45% credit deduction).

7.8. In all cases, if the uncertainty of the GHG calculations exceeds 80%, the monitoring data is rejected. The Operator is required to increase the sample size (measure more plots) or improve stratification until the error falls within the acceptable range.

7.9. Monitoring Obligation: The Project Operator or Group Manager shall continue to monitor the project and submit the required monitoring reports from the Project Start Date during, at least, the full duration of the activity period and shall continue for as long as necessary to ensure the integrity of the carbon stored.

7.10. The Project Operator or Group Manager shall retain all monitoring records, underlying data, geospatial files, supporting evidence, and material correspondence relevant to project implementation, carbon quantification, safeguards, reversals, and compliance for the entire Project Lifetime and for at least seven (7) years after the project's formal closure, or longer where required by applicable law, pending liabilities, dispute resolution, reversal procedures, or Registry rules.

Such records shall be maintained in a manner that ensures their traceability, integrity, and availability for review by the Certification Body (CB), the Registry, or other duly authorized bodies, upon request.

8. Project start date

Concept

The Start Date sets the official commencement of the project activity that results in carbon removals or emissions reduction. The SMURF Standard defines the Start Date based on the specific project category:

- **For Afforestation, Reforestation & Revegetation (ARR):** The Start Date is the date of the first planting or assisted natural regeneration (e.g., fencing, cattle exclusion, or other field measures to enable regeneration) event implemented under the project.
- **For Improved Forest Management (IFM):** The Start Date shall be the date on which the IFM activity that increases carbon stocks actually begins. For extended rotation or no-harvest scenarios, this shall be the first day on which harvesting is intentionally deferred under the project.

Requirements

8.1. Evidence of Implementation: The Operator must provide verifiable evidence of the Start Date, such as new management plan, dated invoices for seedlings/machinery, time-stamped geo-tagged photos, or satellite imagery analysis confirming the change in land cover/use.

8.2. Project Listing Date: To demonstrate the incentive effect of the certification, the Project Operator or Group Manager must submit the initial project summary and the request for Project Listing on the Registry within five (5) years of the Project Start Date.

8.3. Validation Completion: Once listed, the project has up to five (5) years to complete the full Validation process.

9. Project lifetime

Concept

Project lifetime: The period from the Project Start Date until the end of the Monitoring Period established by the applicable certification methodology.

The Project Lifetime includes the following periods:

- **Activity period:** a period during which the activity generates carbon removal emission reduction benefits, and which is determined in the applicable certification methodology.
- **Monitoring period:** a period during which the soil emission reduction or storage of carbon is monitored by an operator or a group of operators, which covers at least the activity period, and which is determined in the applicable certification methodology.

Requirements

9.1. The Activity Period shall be thirty (35) years for ARR activities and from thirty (30) to ninety (90) years for IFM activities.

9.2. The monitoring period shall cover at least the full activity period and shall extend beyond it where necessary to ensure the monitoring of carbon storage and the management of reversal risks.

9.3. For ARR and IFM activities, carbon units shall expire at the end of the monitoring period, and be cancelled in the SMURF registry, unless monitoring is renewed in accordance with the relevant methodology.

9.4. Where the monitoring period expires without renewal or continuation in accordance with the applicable certification methodology, the carbon stored shall be considered released and any associated certified units shall be treated in accordance with the scheme rules on reversals and liability.

10. Baseline scenario

Concept

Baseline Scenario: The scenario describing the activity and representing the changes in carbon stocks and GHG emissions that would have occurred within the project boundary had the project not been implemented. It serves as the reference against which the project's carbon removals and/or emission reductions are quantified.

Standardized Baseline: A reference level derived from aggregated regional data (e.g., National Forest Inventory, FREL) representing the typical carbon evolution for a specific land class.

Requirements

10.1. Legal and Regulatory floor: The baseline scenario must assume full compliance with all applicable laws and regulations. No credit can be claimed for avoiding illegal

activities (e.g., deforestation) or for carrying out activities mandated by law (e.g., mandatory replanting).

10.2. Baseline Establishment and Reassessment: The baseline shall be established and justified at the start of the project in accordance with the applicable methodology and the requirements of this Standard. To ensure continued conservativeness and alignment with evolving regulatory, environmental, and market conditions, the baseline shall be reassessed every ten (10) years, also in accordance with the relevant methodology.

10.3. Hierarchy of Data Sources: To determine the baseline projections/forecast (growth rates, regeneration rates, harvest intensity), projects must use data sources in the following order of priority:

- Priority A: Standardized Regional Data (Standard-Defined): If the SMURF Standard or European or National Authorities publish reference levels for the region/species, these values must be used.
- Priority B: Historical/Control Data (Project-Specific): In the absence of standardized data, an activity-specific baseline, derived from verifiable historical records (last 10 years) of the property or a local control area or on the operator's individual performance should be used. The activity-specific baselines should be updated by the operator at the beginning of each activity period, unless otherwise stated in the applicable certification methodologies.

10.4. Specific requirements for ARR (Afforestation/Reforestation/Revegetation):

The baseline is the most likely scenario to occur in the absence of the carbon project. In this case, the quantification must account for:

10.4.1. Pre-existing Vegetation: For carbon removals in living biomass resulting from newly planted trees or woody vegetation established by the project activity, the baseline shall be considered zero. Where trees or other woody vegetation were already present in the activity area prior to the project start date, the carbon stock and any stock changes due to future growth of such pre-existing vegetation shall not be included in the quantification of creditable removals.

10.4.2. Natural Regeneration Adjustment: where the baseline assessment shows that natural regeneration would reasonably occur in the absence of the project, the resulting biomass gains shall be treated as part of the baseline scenario and shall be excluded from crediting. Only the incremental removals attributable to the project activity, including acceleration, densification, or enhancement beyond the baseline scenario, may be credited.

10.5. Specific requirements for IFM (Improved Forest Management):

The baseline represents the "Business as Usual" forest management. To prevent inflation:

10.5.1. Prohibition of Aggressive Scenarios: Baselines based on theoretical "profit maximization" are prohibited without proof of imminent threat (e.g., official approved harvesting license).

10.5.2. Conservativeness: The baseline must reflect the continuation of historical harvesting practices or regional averages, and, in the case of more than one plausible scenario, the scenario that generates the fewest credits, must be always chosen.

11. Additionality

Concept

The principle ensuring that the project activity and carbon removals or emissions reduction generated by the project activity go beyond Union and national statutory requirements at the level of operator and would not have occurred in the absence of the carbon finance.

Requirements

11.1. Regulatory Additionality (Mandatory for All): In all cases, the project activity shall go beyond what is required by existing national, regional, or local laws, statutes, regulations, permits, or other legally binding obligations.

The Project Operator shall demonstrate that the project activities are not required by any applicable European, national or local law, unless such legislation refers to or formally integrates certification under Regulation (EU) 2024/3012 as an instrument for implementation. If a law enforces a minimum activity (e.g., mandatory reforestation after harvest), credit can only be claimed for actions that exceed this legal baseline.

Financial Additionality Demonstration: The Project Operator shall demonstrate additionality via one of the following pathways, based on project scale and type:

11.2. PATH A: Positive List (Fast Track)

11.2.1. A project, or a specific Participation Unit within a Grouped Project, shall be deemed additional where it meets the applicable area threshold below, does not receive public subsidies, grants, or state aid and falls fully within one of the pre-defined Positive List scenarios set out in this Standard, provided that Regulatory Surplus is also demonstrated.

Area thresholds for Positive List eligibility:

- Improved Forest Management (IFM): up to 200 hectares
- Afforestation, Reforestation and Revegetation (ARR): up to 50 hectares

The Positive List shall be limited to scenarios that are consistently unlikely to occur as business-as-usual without carbon finance, taking into account project scale, commercial orientation, land-use context, and implementation barriers.

- Scenario 1 - Native restoration on degraded land or pasture: planting or assisted natural regeneration of native or locally adapted species on degraded lands or pastures, with no short-rotation harvesting intent and no primary intent of commercial timber production.
- Scenario 2 - Conversion of commercial monocultures to mixed or native systems: conversion of existing monoculture plantations of fast-growing exotic species into

mixed-species forests or predominantly native ecosystems, where the activity results in foregone timber revenue or increased management cost.

- Scenario 3 - Agroforestry and silvopastoral systems: introduction of trees into agricultural or grazing systems through silvoarable, silvopastoral, or other agroforestry models, particularly where such systems are not common practice in the relevant reference area.
- Scenario 4 - Protection of regenerating forests from planned harvest: conservation of naturally regenerating or recovering forest areas that are legally eligible for harvest, where the Project Operator formally commits to forego timber extraction or other carbon-depleting uses.
- Scenario 5 - Ecologically demanding restoration conditions: restoration activities implemented in clearly adverse conditions, such as areas with low rainfall, poor soils, or comparable ecological constraints, where implementation barriers are inherently high.

Note 1: Projects eligible under the Positive List shall still demonstrate regulatory surplus and be subject to all applicable leakage requirements under the relevant methodology. In the case of agroforestry or silvopastoral systems, particular consideration shall be given to the risk of activity shifting or displacement of agricultural or grazing activities.

Note 2: For the purposes of this Standard, agroforestry and silvopastoral systems shall be treated as ARR project types where they involve the establishment of new tree biomass on non-forest land.

11.3. PATH B: Financial Additionality Analysis (Standard Track)

11.3.1. Projects that do not qualify under PATH A (Positive List), shall demonstrate financial additionality through the Financial Viability Analysis.

Removals subject to double funding shall not be eligible for crediting under the SMURF Standard. If public support alone is sufficient to render the project financially attractive without carbon finance, the project shall be deemed non-additional.

11.3.2. Any project or Participation Unit that receives public subsidies, grants, or state aid (e.g., EU Common Agricultural Policy payments) specifically for the implementation of the forest activity is automatically ineligible for the Positive List (Path A) and shall follow PATH B to demonstrate additionality.

11.3.3. Financial Viability Test: The Project Operator or Group Manager shall demonstrate that, in the absence of carbon revenue, the project activity would not be financially viable. This may be demonstrated through either:

- a Simple Cost Test, showing that the project generates net additional costs that are not covered by expected non-carbon revenues, including any public funding provided to the activity; or
- an Investment Comparison Test, showing that the project is financially less attractive than a credible alternative scenario without carbon revenue.

11.3.4. The tests shall include all relevant costs, including capital expenditure (CAPEX), operational expenditure (OPEX) and opportunity costs, and all revenues and cost savings, including any public funding received. The tests may also include the costs associated with any barriers faced by the proposed activity where they can be monetised and quantified as additional costs.

11.3.5. The tests shall not include expenditures incurred prior to the start of the activity, save where such expenditures are directly linked to the activity and were committed prior to the start date, but payment is to be made after the start date.

11.3.6. The Project Operator or Group Manager must formally disclose all public subsidies, grants, or state aid (e.g., EU Common Agricultural Policy - CAP payments) received by the Operators (landowners) for the specific land parcels within the project boundary.

11.3.7. All parameters and assumptions shall be internally consistent. The assumptions, data and conclusions shall be transparently documented and appropriately justified and substantiated by evidence.

11.3.8. The test shall be implemented in a conservative manner.

More details on the implementation of these tests may be provided in the relevant methodology.

12. Leakage

Concept

The unintended increase in GHG emissions outside the project boundary, that occurs as a direct result of the project activities.

- **Activity Shifting Leakage:** Increase of emissions outside the project boundary due to the displacement of the original land-use activity (e.g., grazing, agriculture, or timber production) to another location as a result of the project activity.
- **Market Leakage:** Increased emissions elsewhere due to market shifts caused by a reduction in the supply of products (e.g., timber).

Requirements

12.1. Activity Shifting Requirements (for ARR and IFM): Where a project activity results in the displacement of active agricultural, grazing, or forest production activities at commercial scale, the Project Operator or Group Manager shall demonstrate one of the following:

- **Intensification:** The same level of production is maintained on the remaining land area through improved management practices, without expansion into new land areas and without causing additional clearing or conversion elsewhere.
- **Cesation:** The landowner or operator has demonstrably ceased the displaced activity, as evidenced by appropriate records (e.g., sale of livestock, termination of production, harvest cessation records, or equivalent documentation).
- **Default Deduction:** If neither can be proven, a flat Leakage Deduction Factor of 15% is applied to the gross carbon removals.

12.2. Market Leakage Requirements (for IFM): If the project significantly reduces commercial timber extraction (>30% reduction vs baseline), or it cannot be proven otherwise, a Market Leakage Deduction is applied based on the applicable Methodology (default value 20%).

12.3. Exemption: Projects or Participation Units are deemed to have Zero significant Leakage and are exempt from leakage deductions if they meet all the following criteria:

- The project does not involve the displacement of people or structures.
- For ARR: The land was previously abandoned, degraded, or had negligible agricultural production (subsistence only) prior to the project start.

13. Environmental Safeguard principles

Concept

Do No Significant Harm (DNSH) & Enhancement:

The SMURF Carbon Standard requires that project activities avoid causing significant harm to environmental values and, where feasible, contribute positively to ecosystem condition and long-term site resilience. In line with the environmental logic of the EU CRCF, projects shall be designed and implemented in a manner that safeguards climate resilience, soil integrity, water resources, biodiversity, and ecosystem functions, while minimizing pollution, unnecessary resource use, and other environmental burdens. Environmental safeguards under this section constitute the mandatory environmental baseline for all projects registered under the Standard. They do not, by themselves, qualify a project for any additional environmental label.

Projects shall be designed and implemented in a manner that avoids significant harm to environmental values and supports the long-term resilience of the activity area. At a minimum, the Project Operator shall demonstrate that the project is consistent with the following principles:

a) Climate resilience and adaptation: the project shall be designed to remain viable under current and projected climate conditions, including through appropriate species selection, site matching, and risk mitigation.

b) Water protection: the project shall avoid material adverse impacts on water resources, hydrology, and riparian functions.

c) Soil health and land quality: the project shall minimize practices that degrade soil structure, fertility, or long-term ecological function.

d) Pollution prevention and input control: the project shall minimize the use of inputs or practices that may cause pollution to soil, water, or ecosystems.

e) Biodiversity and ecosystem integrity: the project shall protect and, where feasible, enhance native biodiversity, ecological connectivity, and ecosystem functioning.

f) Resource efficiency and circularity: the project shall favour efficient use of materials and management practices that reduce waste and unnecessary environmental burdens.

Requirements

13.1. Climate resilience / adaptation:

13.1.1. The activity shall be consistent with local, sectoral, regional or national adaptation strategies and plans, in accordance with national law.

13.1.2. The Project Operator shall demonstrate that the project design is suitable for current and reasonably foreseeable future climate conditions in the project area. Species selection, planting design, silvicultural approach, and management practices shall be justified in light of expected climate-related risks such as drought, fire, heat stress, storms, pests, and diseases. Species or management options identified as clearly unsuitable under the project risk assessment shall not be used unless justified by credible local evidence and accompanied by appropriate mitigation measures.

13.1.3. With the exception of peat present in composted biowaste or used as growing media for agroforestry seedlings or for tree nurseries, peat or peat-containing products shall not be used.

13.2. Water Resource Protection:

13.2.1 Environmental degradation risks related to preserving water quality and avoiding water stress shall be identified and addressed in accordance with Directive 2000/60/EC of the European Parliament and of the Council⁸ and with a river basin management plan, developed in accordance with that Directive.

13.2.2 The activity shall not hamper the achievement of good environmental status of marine waters nor deteriorate marine waters that are already in good environmental status as defined in Article 3, point 5, of Directive 2008/56/EC of the European Parliament and of the Council⁹.

13.2.3 Where the activity has obtained a development consent addressing the risk of environmental degradation following an environmental impact assessment in accordance with Directive 2011/92/EU of the European Parliament and of the Council¹⁰ no additional assessment of impact on water is required.

13.2.4 Where high water-demand species are used, or where the project is located in water-scarce or drought-prone areas, the Project Operator shall demonstrate that the activity will not cause material depletion of water resources or hydrological degradation.

⁸ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy

⁹ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)

¹⁰ Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment

13.3. Soil health and land quality

13.3.1 The Project Operator shall demonstrate that project implementation does not cause significant soil degradation. Site preparation, planting, maintenance, and other field operations shall minimize adverse effects on soil structure, fertility, erosion control, and long-term ecological function.

13.3.2 On slopes exceeding 25%, or a lower threshold where required by local law or justified by site sensitivity, heavy mechanical soil preparation such as deep continuous ploughing or intensive ripping shall not be permitted. Low-impact techniques such as hole planting, contour planting, strip preparation, or equivalent practices shall be used where appropriate.

13.3.3 Where the project is located on erosion-prone, degraded, or otherwise sensitive soils, the Project Plan shall describe the measures adopted to avoid disproportionate environmental impacts.

13.4. Pollution prevention and input control:

13.4.1 The use of agrochemicals and other potentially polluting inputs shall be minimized and justified in project documentation.

13.4.2 Pesticides, herbicides, and other plant protection products (PPP) shall only be used where necessary and justified for the control of significant pest, disease, or invasive species outbreaks, or for other duly justified cases consistent with applicable law and good practice. And in no case the amount of applied PPP shall increase on average during the activity period as compared to the continuation of PPP application recorded during the reference period that is used to calculate the baseline.

13.4.3 Non-chemical or lower-impact alternatives shall be preferred where feasible, in accordance with Directive 2009/128/EC¹¹, or further regulatory development.

13.4.4 Fertilizers, manure, or equivalent nutrient amendments shall not be used unless necessary to ensure plant establishment, correct documented nutrient deficiencies, or address comparable site-specific limitations. In that case, the activity may use bio-ashes derived from untreated biomass, and organic fertilisers, except for livestock slurry or liquid manures. The activity shall comply with Regulation (EU) 2019/1009¹², or further regulatory development, and national rules on fertilisers and with Union and national legislation on active ingredients.

¹¹ Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides

¹² Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products and amending Regulations (EC) No 1069/2009 and (EC) No 1107/2009 and repealing Regulation (EC) No 2003/2003

13.5. Biodiversity and ecosystem integrity:

13.5.1 The project area must not have been cleared of native forest, wetlands, peatlands, or other habitats specifically sensitive to biodiversity loss or of high conservation value within the ten (10) years prior to the Project Start Date. The project activity shall not result in the conversion or material deterioration of such habitats, nor of areas designated under applicable national or EU law for their restoration.

13.5.2 The activity shall not result in material deterioration of habitats of high conservation value, critical biodiversity features, or other ecologically sensitive areas, nor result in the deterioration of areas designated for the restoration of those habitats and species in accordance with national and Union law, nor result in the deterioration of deadwood.

13.5.3 If the project is located within, adjacent to, or capable of materially affecting areas designated by the national competent authority for conservation, Nature 2000 sites or High Conservation Values areas, the activity shall be aligned with the applicable management plan and conservation objectives

13.5.4 The project shall be designed and implemented in a manner that protects and, where feasible, enhances biodiversity, ecological connectivity, and ecosystem functioning.

13.5.5 The use, introduction, or release of invasive alien species is prohibited. At a minimum, this includes species regulated under Regulation (EU) No 1143/2014 of the European Parliament and of the Council¹³ and any applicable national blacklist or equivalent legal restriction.

13.5.6 Native species shall be preferred where ecologically appropriate. The use of non-native species shall require specific justification demonstrating ecological suitability, consistency with long-term resilience, and no material conflict with biodiversity objectives.

13.5.7 Mixed-species configurations shall be the default approach for all afforestation and reforestation activities.

A single-species design may only be permitted where the Project Operator demonstrates that:

- a) this reflects the natural local species composition and ecological, silvicultural, or conservation objectives cannot reasonably be achieved through a mixed-species configuration; and
- b) the selected species is appropriate to the local ecological conditions; and
- c) the monoculture does not create significant risks to biodiversity, ecosystem stability, climate resilience, soil health, or water resources;

¹³ Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species

13.6. Resource efficiency and circularity:

13.6.1 The Project Operator shall apply management practices that promote efficient use of materials and reduce unnecessary environmental burdens. Where feasible, the project shall prioritize durable, low-impact, reusable, recyclable, or locally appropriate materials and shall avoid unnecessary waste generation. Biomass residues and other organic materials generated by the activity shall be managed in a manner consistent with soil protection, fire prevention, and good environmental practice.

13.7. Demonstration and documentation:

13.7.1 The Project Operator shall describe in the Project Plan how the project complies with the environmental safeguard principles set out in this section, including species selection rationale, protected areas considerations, site-specific risks, legal constraints, mitigation measures, and management controls. Compliance with these requirements shall be assessed during validation and, where relevant, monitored during verification.

14. Stakeholder Engagement

Concept

Transparent and Accessible Stakeholder Engagement:

The Project Operator or Group Manager shall implement the project in a manner that ensures relevant stakeholders are identified, appropriately informed, and provided with accessible channels to request information, submit comments, or raise concerns.

Stakeholder engagement shall follow a structured approach combining:

- i. proactive transparency through public disclosure on the Registry and direct notification of relevant stakeholders; and
- ii. reactive protection through a formal Grievance Redress Mechanism (GRM), in line with the principles of transparency, participation, and access to information reflected in the EU CRCF and the Aarhus Convention¹⁴.

Requirements

14.1. Stakeholder Identification and Preliminary Assessment:

14.1.1 The Project Operator or Group Manager shall identify relevant stakeholders who may be affected by the project, may have a legitimate interest in its design or implementation, or may hold rights or responsibilities relevant to the project area. This process shall include, as applicable, landowners, land users, neighbouring communities

¹⁴ Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention)

or operators, relevant local authorities, rightsholders, protected area managers, and other persons or entities with a material interest in the activity.

14.1.2 The Project Operator or Group Manager shall also carry out a preliminary assessment of the project's likely impacts, risks, and sensitivities in relation to such stakeholders.

14. 2. Stakeholder Engagement Plan and Communication Approach:

14.2.1 The Project Operator or Group Manager shall define the objectives, priorities, methods, and timing of stakeholder engagement in a manner proportionate to the project's scale, complexity, and risk profile.

14.2.2 The engagement approach shall specify how relevant stakeholders will be informed, how feedback may be submitted, and how communications will be documented. Appropriate methods may include direct written notification, email, meetings, calls, or other accessible forms of communication suited to the local context.

14.3. Notification of Relevant Stakeholders:

14.3.1 The Project Operator or Group Manager shall take reasonable steps to ensure that relevant stakeholders are informed of:

- The existence and nature of the project;
- The availability of the project information on the SMURF Registry; and
- The opening of the formal Global Stakeholder Consultation period when the Project Plan and relevant non-confidential supporting documentation become publicly available

14.3.2 Direct notification to identified relevant stakeholders shall be made during the Project Plan drafting, ensuring their contribution is considered during project design.

14.4. Stakeholder Consultation and Feedback Handling:

14.4.1 The Project Operator or Group Manager shall maintain a record of stakeholder communications, comments, concerns, and other inputs received from the date of Pipeline Listing onwards.

14.4.2 Relevant stakeholder inputs shall be considered in project design and implementation, and where such inputs are not incorporated, the Project Operator shall be able to justify the reasons for not doing so.

14.5. Consent, Approval, and Rights-Based Requirements:

14.5.1 Where required by applicable law, by rights attached to the land or activity area, or by the nature of the stakeholder relationship, the Project Operator or Group Manager shall obtain and document the necessary consent, approval, authorization, or other form of acceptance from the relevant stakeholder or competent authority before proceeding with the relevant activity.

14.5.2. When applicable operators shall respect the rights of Indigenous Peoples and local communities, including the principle of free, prior and informed consent (FPIC).

14.5.3. The Project Operator or Group Manager shall describe in the Project Plan any such consent- or approval-related requirements and how they have been addressed.

14.6. The Project Operator or Group Manager shall demonstrate that the relevant local authority or authorities have been informed of the project activity, where such notification is relevant under the local legal or administrative context. This requirement may be satisfied through existing legal licensing, permit, or notification procedures where applicable.

14.7. Documentation and Evaluation: The Project Operator or Group Manager shall describe in the Project Plan:

- how stakeholders were identified;
- the engagement objectives and methods applied;
- how and when stakeholders were informed;
- any material comments or concerns raised;
- whether any consent, approval, or authorization was required; and
- the actions taken in response.

14.8. Stakeholder Notification in Connection with Audit Site Visits:

14.8.1 For each validation or verification event involving a site visit, the Project Operator or Group Manager shall take reasonable steps to inform relevant stakeholders of the planned audit activity, including, where applicable, the expected dates of the auditors' field visit, at least fifteen (15) days in advance.

14.8.2 The Project Operator or Group Manager shall ensure that relevant stakeholders are able to submit information, comments, or concerns that may be relevant to the audit process. Where appropriate, the Certification Body (CB) may consider such stakeholder inputs as part of its validation or verification activities.

14.8.3 Records of such notifications and of any stakeholder inputs received in connection with the audit shall be retained and made available to the CB upon request.

15. Grievance Redress Mechanism

Concept

The Standard mandates that all Projects must have a functioning Grievance Redress Mechanism (GRM) in place during the full project lifetime. While the Standard does not prescribe a rigid operational workflow, the Operator's chosen mechanism must meet specific performance criteria to ensure fairness, transparency, and accessibility to project information for all stakeholders during the entire Project Lifetime.

Role of the Scheme (Compliance Only):

The SMURF Scheme serves as a compliance backstop. Stakeholders may contact the Scheme directly only if:

- a) The Operator has failed to provide/follow their own GRM; or
- b) The grievance relates to a systemic violation of the Standard's core rules (Non-Conformity).
- c) where the grievance raises credible concerns that may materially affect the integrity of the project, the validity of claimed removals, or compliance with applicable safeguard requirements under the Standard.

The SMURF Scheme intervenes only in relation to alleged non-conformity with the Standard and does not act as a court, arbitrator, or decision-maker in private legal, land tenure, or commercial disputes.

Note: The Standard does not adjudicate land tenure, contractual, or commercial disputes as such. Its authority is limited to compliance assessment and to actions available under the Standard, including suspension, withholding, or rejection of validation, verification, registration, or issuance where significant non-conformity is found.

Requirements

15.1. The Project Operator or Group Manager must maintain an accessible and adequate contact point (e-mail, phone, physical address, or equivalent) through which stakeholders may submit grievances.

15.2. The Project Operator or Group Manager must document and disclose a procedure for receiving, addressing, and resolving grievances.

15.3. The procedure shall be communicated to stakeholders through the stakeholder engagement process and in a language or format they can reasonably understand.

15.4. All grievances received must be entered into a Grievance Register recording, at a minimum, the date, nature of the complaint, actions taken, and status of resolution.

15.5. Regardless of the specific workflow chosen, the GRM shall guarantee:

15.5.1 Acknowledgment and Initial Response: A commitment to acknowledge receipt of complaints and address them within a defined timeframe, to be specified by the Project Operator, but not exceeding thirty (30) days for acknowledgment.

15.5.2 Escalation Pathway: A clear and documented escalation process for grievances that are not resolved at the initial stage, including defined timeframes, to be specified by the Project Operator, but not exceeding ninety (90) days for resolution. In exceptional cases duly justified, this resolution period could be extended.

15.5.3 Neutral Review Option: Where appropriate, the process shall include the possibility of referral to a neutral third party, such as mediation, facilitation, arbitration, or another independent dispute resolution mechanism, where provided for under the Operator's GRM or applicable law.

15.5.4 External Recourse: The GRM shall indicate what further recourse options remain available where a grievance is not resolved through the Project Operator's own process, including, where relevant, competent administrative, judicial, or other legally available channels.

15.5.5 No Retaliation: Explicit protection for complainants against reprisal.

16. Global Stakeholder Consultation

Concept

The SMURF Carbon Standard is committed to the principles of transparency and public participation established by the EU CRCF and the Aarhus Convention. This section defines

the compulsory Global Stakeholder Consultation period facilitated by the Registry to all the projects, previous to projects validation and registry.

Requirements

16.1 All projects seeking registration must undergo a mandatory 4-weeks Global Stakeholder Consultation. During this period, the Project Plan and relevant non-confidential supporting documentation shall be made publicly accessible through the SMURF Registry in English. Public comments must be addressed by the Project Operator and reviewed by the designated CB as part of the validation process.

16.2 Stakeholders may submit comments on any matter relevant to the project's validation under the SMURF Carbon Standard, including but not limited to, the project's technical design, land tenure, factual accuracy, eligibility, additionality, baseline assumptions, environmental and social safeguards, biodiversity impacts, stakeholder engagement, and compliance with applicable requirements.

16.3 The Project Operator or Group Manager shall review and formally respond to all material comments received during the Global Stakeholder Consultation period. The designated Certification Body (CB) shall assess the adequacy of the Project Operator's responses as part of the validation process.

16.4 Comments, complaints, concerns, or other stakeholder submissions received outside the formal Global Stakeholder Consultation period shall be received, recorded, stored, and addressed by the Project Operator in accordance with the grievance mechanism established under Section 15.

17. Benefit Sharing Mechanism

Concept

In the SMURF context, Benefit Sharing refers to the transparent, equitable, and documented allocation of the financial and non-financial benefits generated by the project among the relevant parties. Depending on the project structure, this may range from a bilateral arrangement between the Project Operator and a landowner or land manager to more complex arrangements involving multiple participating landowners, communities, or other rightsholders.

Requirements

17.1. The Project Plan shall describe the benefit sharing approach applicable to the project, including:

- the categories of parties entitled to receive benefits;
- the general basis on which benefits are allocated;
- whether benefits are financial, non-financial, or both; and
- the general conditions under which benefits are distributed.

Where the project is implemented through a simple bilateral arrangement, the Project Plan may describe this accordingly.

The Project Plan shall contain a sufficiently clear description of the project's benefit sharing approach to allow transparent understanding of how benefits are intended to be allocated. However, commercially sensitive terms, individualized payment details, personal data, and other confidential contractual information may be kept in non-public

supporting documents, provided that such documents are made available to the Certification Body (CB) and, where necessary, to the Registry for compliance assessment.

17.2. Contractual or Legal Basis: The Project Operator or Group Manager shall demonstrate that the benefit sharing arrangement is supported by valid contractual, legal, or equivalent documented arrangements between the relevant parties.

Where applicable, such arrangements shall clarify the rights and obligations of the parties, including the basis for benefit allocation and any relevant conditions for payment or other benefit distribution.

17.3. Where implementation costs advanced by the Project Operator or Group Manager are to be recovered before net benefits are distributed, the relevant agreement or supporting documentation shall clearly define the applicable cost recovery arrangements. This shall include, as applicable, the categories of recoverable costs, the basis on which deductions are made, and the conditions under which participating parties become eligible to receive net benefits.

17.4. Rights of Use and Legal Entitlement: The Project Operator or Group Manager shall demonstrate the legal right to implement the project and to claim or manage the carbon-related benefits generated by the activity.

Where benefit sharing depends on land ownership, land use rights, project participation rights, or other legal entitlements, the relevant supporting documents shall demonstrate how such rights are held, transferred, authorized, or shared among the parties.

17.5. For communal, collective, or customary tenure systems, the Project Operator or Group Manager shall also demonstrate compliance with applicable laws and governance arrangements relevant to benefit sharing and revenues use.

17.6. Payment Terms and Supporting Evidence: The timing and conditions for the distribution of financial benefits shall be defined in the applicable agreement or supporting documentation. The Project Operator shall maintain records sufficient to demonstrate that the benefit sharing arrangement is being implemented as described in the Project Plan and the relevant agreements. Such records shall be made available to the Certification Body (CB) during audit.

18. Other Social & Human Rights Safeguards

Concept

The SMURF Standard requires that certified activities avoid causing significant harm to people and communities, respect internationally recognised human rights, and identify, mitigate and address adverse social impacts throughout the project lifecycle.

Requirements:

18.1 Project Operators or Group Managers shall identify and assess potential adverse social impacts associated with the activity prior to validation and throughout the Activity Period.

The assessment shall consider, as applicable:

- a) impacts on livelihoods and income sources;
- b) impacts on access to land, forests, water and natural resources;
- c) impacts on vulnerable or marginalised groups;
- d) occupational health and safety risks;
- e) risks of displacement, exclusion or restriction of customary uses;
- f) risks related to labour conditions and working practices.

18.2 The activity shall not result in significant adverse social impacts on individuals, local communities or affected stakeholders.

Where adverse impacts are identified, the Project Operator shall implement measures to prevent, minimise or mitigate such impacts and shall monitor their effectiveness. Where significant adverse social impacts are identified during implementation, the Project Operator shall develop and implement corrective actions within a reasonable timeframe.

18.3 The Project Operator shall respect internationally recognised human rights and shall implement activities in a manner that:

- a) avoids discrimination on the basis of gender, age, ethnicity, nationality, religion, disability or other protected characteristics;
- b) respects human dignity, equality and fair treatment;
- c) avoids forced labour, child labour and other forms of exploitation;
- d) provides safe and healthy working conditions applicable to the scale and nature of the activity.

18.4 The Project Operator or Group Manager shall demonstrate that the activity does not infringe legitimate land tenure, resource use or access rights. Activities shall not result in the involuntary loss of legitimate access to land, forests, water resources or ecosystem services without appropriate legal authority and documented resolution.

18.5 The Project Operator or Group Manager shall maintain records of identified social risks, mitigation measures and corrective actions.

18.6. Any significant social incidents, rights-related disputes or verified cases of non-compliance relevant to this section shall be disclosed to the Certification Body during verification.

Failure to prevent or address significant adverse social impacts, or evidence of serious breaches of human rights, shall constitute a major or critical non-conformity, as applicable.

Activities associated with forced labour, child labour, fraudulent land acquisition or intentional infringement of legitimate tenure rights shall be considered critical non-conformities.

19. Scope of deviations

Concept

Project Plan Deviation: Any change in Project Plan.

Methodology Deviation: Any modification to the selected approved methodology.

The "Conservativeness" Principle (for both): A core rule stating that any alternative method used must not lead to an overestimation of carbon removals and/or emission reduction compared to the standard method, unless it improves the accuracy or reliability of quantification

Deviation Classification: The categorization of changes based on their potential risk to the project's integrity.

Deviations are categorized into "Minor Adjustments" or "Substantial Modifications" whether it affects (Substantial) or not (Minor) to the following:

- project eligibility;
- project boundaries;
- the baseline determination;
- project activities;
- carbon pools included in the quantification;
- monitoring procedures or data sources used for GHG quantification;
- the quantification methodology;
- the accuracy, completeness, consistency or transparency of GHG quantification;
- the estimated quantity of GHG benefits eligible for carbon credit issuance.

Requirements

19.1. Request for Deviation: Must be submitted to and validated by CBs during the formal audit cycles (Validation or Verification). The request must describe the change, justify its necessity, and assess its impact on carbon calculations and environmental safeguards.

19.2. Timing of Submission:

- At Validation: Any deviation from the standard Methodology proposed for the project design must be described in the Project Plan and assessed by the CB during the initial Validation.
- At Verification: Any deviation that occurs after the project validation (whether operational or methodological) must be described in the Monitoring Report and assessed by the CB during the next scheduled Verification.

19.3. For every deviation listed, the Project Operator or Group Manager must explicitly classify it as either Minor or Substantial and justify its classification.

19.3.1. In case of Minor Adjustments, these must be documented in the Project Plan/Monitoring Report. No separate approval is needed. CB will perform a reality check (factual verification) to confirm the deviation is correctly described and classified and occurred as described. No technical re-assessment of the project design is needed.

19.3.2. In case of Substantial Modifications, the Project Operator or Group Manager must submit a complete description on Project Plan/Monitoring Report, containing:

- a) Rationale for the change and evidence,
- b) Proof of conservativeness, and
- c) Recalculated GHG projections.

CB will perform a Design Review. In case of agreement with the changes, the auditor must issue a formal "Design Change Approval" statement within the Validation or Verification Report.

20. Quantification & Permanence (Outcomes)

Concept

Quantification Methodology: The specific set of equations, parameters, and monitoring procedures approved by the SMURF Standard to calculate the Net carbon removals and emission reductions of a project.

Requirements

This section establishes the requirements for the quantification of climate benefits generated by project activities under this Standard.

20.1. Quantification Principles: Quantification shall be based on the principles of:

- relevance;
- completeness;
- consistency;
- accuracy;
- transparency; and
- conservativeness.

20.2. The Project Operator or Group Manager shall apply methods, assumptions and data that provide the most accurate estimates reasonably achievable considering project circumstances, data availability, technical feasibility and cost. Where uncertainties or data limitations remain, conservative assumptions shall be applied.

20.3. Climate benefits shall be quantified in accordance with the applicable SMURF methodology. To ensure technical consistency, projects must strictly apply one of the SMURF approved methodologies at the time of registration.

Note: The use of external methodologies (e.g., CDM, VCS) is not permitted, and projects must formally adapt to the SMURF Standard requirements.

20.4. Quantification shall include all relevant carbon pools, GHG emission sources and GHG sinks that are expected to be materially affected by project activities.

Relevant carbon pools may include, where applicable:

- above-ground biomass;
- below-ground biomass;
- dead wood;
- litter;
- soil organic carbon; and
- harvested wood products.

Relevant GHG emission sources may include, where applicable:

- fossil fuel consumption;
- biomass burning;

- fertilizer application;
- machinery and equipment use; and
- any other project-related emission sources identified by the applicable methodology.

20.5. Carbon pools or emission sources may be excluded from quantification where the Project Operator demonstrates that:

- they are not expected to result in material emissions or removals; or
- their exclusion leads to a conservative estimate of net climate benefits.

A carbon pool or emission source shall be considered insignificant (non-material) where its expected contribution is less than 5 % of total net climate benefits over the monitoring period, individually and when aggregated with other excluded pools or sources. Where the contribution cannot be quantified with reasonable confidence, the Project Operator or Group Manager shall demonstrate that exclusion is conservative.

The justification for any exclusion shall be documented and made available for validation and verification.

20.6. Methods shall be selected to achieve the highest level of accuracy reasonably achievable, taking into account project scale, complexity, available resources and expected climate benefits.

20.7. Projects shall use the highest feasible methodological tier and data quality level supported by available information and project circumstances.

Default values, emission factors and other standardized parameters may be used where permitted by the applicable methodology and where they provide estimates that are representative, transparent and scientifically justified.

Preference shall be given to project-specific data where such data significantly improves the accuracy and reliability of quantification.

20.8. Leakage and uncertainty shall be assessed, addressed and quantified as set out in the corresponding sections of this document or in the corresponding methodology.

21. Use of Carbon Removal Tokens: No double counting and Claims

Concept

Double Counting: The scenario where a single carbon removal unit is counted more than once towards a climate target or mitigation obligation. It encompasses:

- 1. Double Issuance:** More than one unit issued for the same removal.
- 2. Double Use:** The same unit being retired/claimed by two different entities.
- 3. Double Claiming:** The same removal being claimed by two different entities. (E.g. by the buyer (offset) and the host country (NDC), without adjustment).

The SMURF Registry will assign a unique serial number range (or batch identifier) to all carbon credit upon issuance. This serial range, combined with the project ID, vintage,

and verification event, ensures full traceability of each credit throughout its lifecycle and strictly prevents double issuance, double counting, or double spending, in accordance with the Registry's technical specifications. Upon retirement, the Registry assigns the specific serial numbers within the lot's range to the retirement certificate.

Requirements

21.1. To make any public claim the token owner must formally retire the unit within the SMURF Registry.

21.2. Project Operators and buyers are prohibited from re-selling a token once it has been retired. Any public communication must include a direct link to the Registry Retirement Certificate for traceability.

21.3. The Project Operator shall demonstrate that the project area, activity, and associated removals do not materially overlap with any other registered carbon project in a manner that could result in double issuance, double claiming, or conflicting entitlement to the same carbon benefits. This demonstration shall include disclosure of any existing, previous, or pending registrations, applications, or claims affecting the same project area or activity.

The Certification Body (CB) shall assess the adequacy of this demonstration during validation and, where relevant, during verification. The Registry may also perform its own spatial or administrative cross-checks, including polygon overlap checks, and may request clarification or corrective action where a potential overlap or inconsistency is identified.

Any material unresolved overlap with another registered project boundary or carbon claim shall prevent registration or issuance under the SMURF Standard.

21.4. Where applicable, the Registry will disclose whether the retired tokens are classified as voluntary tokens or Article 6 authorized tokens, and whether any corresponding adjustment or equivalent authorization status applies. Other considerations regarding Article 6 Status are included in section 4 of this Standard, Legal and Administrative Provisions.

21.5. Any claim associated with the use of credits issued under this Standard shall be accurate, specific, transparent, evidence-based, and verifiable. Such claims shall clearly distinguish between emissions reductions achieved within the claimant's own value chain and contributions to climate mitigation achieved through the purchase and retirement of carbon credits.

21.6. Users shall comply with all applicable European Union legislation governing environmental and climate-related claims, including Directive (EU) 2024/825 and any subsequent implementing, delegated, or related legislation. Where there is any conflict between this Standard and applicable law, the applicable legal requirements shall prevail.

Examples of potentially permissible claims include factual statements regarding the purchase, retirement, financing, or support of certified climate mitigation activities, provided such statements do not imply that a product, service, activity, or organization has achieved carbon neutrality, climate neutrality, net-zero status, or an equivalent outcome solely as a result of the retirement of carbon credits.

21.7. Only projects that have been awarded specific labels based on a SMURF methodology (e.g., Biodiversity+, smallholder friendly) can communicate these additional benefits.

22. Project Migration and Rejection Policy

Concept

Project Migration: The process of transferring a registered project from another GHG Program (e.g., Verra, Gold Standard) to the SMURF Standard.

Rejected Project: A project that has sought registration under another GHG program and received a formal negative validation opinion or rejection decision.

Requirements

22.1. Mandatory de-listing: The Project Operator must provide official documentation proving that the project has been de-listed, withdrawn, or cancelled from the previous GHG Program/Registry. This document must clearly state the date of withdrawal to ensure no double-counting periods occur.

22.2. New Project Plan: Migration is not automatic. The Operator must draft and submit a new Project Plan using the specific SMURF templates. While data from previous audits can be reused, the document must address SMURF-specific criteria (e.g., EUDR compliance, local stakeholder consultations) that may not have been present in the original design.

22.3. Credits issued by another Program: Previously issued units shall not be eligible for certification under SMURF Scheme. The baseline established under the SMURF methodology shall exclude any carbon removals already verified and issued as credits under the originating Program/Registry, regardless of whether such credits have been retired from the market.

22.4. The Project Operator shall demonstrate that all carbon benefits certified under SMURF relate exclusively to monitoring periods not previously credited under another certification scheme.

22.5. Full Validation: The project must undergo a full Validation Audit by a SMURF-approved CB. The auditor will treat the project as a new submission, verifying all eligibility criteria from scratch.

22.6. Treatment of Rejected Projects:

- Integrity Ban: Projects previously rejected by other standards due to fraud, intentional misinterpretation, land tenure disputes, or significant environmental or social harm are ineligible.
- Scope Eligibility: Projects rejected solely due to scope (e.g., size threshold, methodology unavailability) are eligible to apply, provided they disclose the rejection history in the Project Plan.

APPENDIX

Glossary of Terms

- **Activity Area:** The area within the Project Area where the eligible ARR or IFM activity is implemented, monitored, and included in carbon quantification under the applicable SMURF methodology.

The Activity Area is the area used to attribute carbon removals or emission reductions to specific land management actions. Only areas that meet the eligibility requirements of the SMURF Standard and the applicable methodology may be included in the Activity Area for carbon quantification. Where the entire Project Area is eligible and subject to the certified activity, the Project Area and the Activity Area may be the same.

- **Activity period:** period during which the activity generates a net carbon removal benefit or a net soil emission reduction benefit, and which is determined in the corresponding methodology.
- **Activity Plan:** The document that describes the project activity, its expected net carbon removal or net emission reduction benefits, and its expected compliance with applicable quantification, additionality, liability, permanence, and sustainability requirements.
- **Additionality:** The principle ensuring that the project activity and carbon removals or emissions reduction generated by the project activity go beyond Union and national statutory requirements at the level of operator and would not have occurred in the absence of the carbon finance.
- **Annual Report:** Monitoring report submitted annually by the Project Operator or Group Manager, that provides the information required to demonstrate continued project existence, and the absence of deforestation, forest degradation or reversals.
- **Avoidable reversal:** a verified carbon reversal for which the Operator is strictly liable (e.g. negligence, harvesting, land conversion).
- **Baseline Scenario:** The scenario describing the activity and representing the changes in carbon stocks and GHG emissions that would have occurred within the project boundary had the project not been implemented. It serves as the reference against which the project's carbon removals and/or emission reductions are quantified.
- **Benefit Sharing Mechanism:** Transparent, equitable, and documented allocation of the financial and non-financial benefits generated by the project among the relevant parties. Depending on the project structure, this may range from a bilateral arrangement between the Project Operator and a landowner or land manager to more complex arrangements involving multiple participating landowners, communities, or other rightsholders.
- **Buffer Pool:** A segregated, non-tradable reserve account specific to the project (or Grouped Project), where a portion of the issued credits is deposited to guarantee the permanence of the sold credits.

- **Carbon Credit:** one metric tonne of verified CO₂ equivalent of certified net carbon removal or net soil emission reduction benefit, generated by a carbon farming activity.
- **Carbon Token:** A digital, unique, and traceable certificate representing one carbon credit.
- **Certification phases:** the substantive steps in the project cycle, including project design, validation, project implementation and monitoring, verification, issuance, and post-issuance use.
- **Crediting Period:** The timeframe (minimum 35 years for SMURF) during which the project is eligible to generate verified carbon tokens.
- **Certification Body (CB):** An accredited or recognised independent conformity assessment body, responsible for auditing the project's design and monitored removals.
- **Global Stakeholder Consultation:** A 4-weeks public consultation period facilitated by the SMURF Registry to all the projects, previous to projects validation and registry.
- **Grievance Redress Mechanism (GRM):** A compulsory mechanism that projects must put in place to ensure fairness, transparency, and accessibility to project information for all stakeholders during the entire Project Lifetime.
- **Group Manager (Group of Operators):** The legal entity or identified body acting as the legal representative of the group of operators and responsible for the overall coordination of the activity, including ensuring the group members comply with the requirements of the Standard.

In Group Projects, the Group Manager has the same responsibilities and obligations that the Project Operator.

- **Grouped Project (Multiple Operators):** A project that aggregates participation units managed by different operators under the coordination of a Group Manager.
 - **Fixed Scope (Closed):** The project starts with a defined group of multiple operators. No new operators, participation units or land parcels can be added after registration.
 - **Open Scope (Expandable):** The project allows the inclusion of new operators and their respective participation units at any time, provided they align with the project's Eligibility Criteria and the Group Manager management system.
- **Land Manager:** The person or entity responsible for the day-to-day management of a Land Parcel or Activity Area. The land manager may be the same as the landowner, the Operator, or another designated person or entity, depending on the project structure.
- **Landowner:** The natural or legal person holding legal ownership rights over the land within the project boundary. A landowner may, but need not, also be the Operator or land manager.

- **Land Parcel:** A mapped portion of land within the Activity Area, under the legal tenure, land-use rights, or operational control of an identified landowner, land manager, Operator, or other recognized rightsholder.

Land Parcels are used as the basic spatial units for identification, eligibility assessment, monitoring, recordkeeping, attribution of removals, and prevention of double counting.

- **Leakage:** The unintended increase in GHG emissions outside the project boundary caused by the project's implementation.
- **Monitoring period:** a period during which the soil emission reduction or storage of carbon is monitored by an operator or a group of operators, which covers at least the activity period, and which is determined in the corresponding methodology.
- **Monitoring Plan:** The overarching operational document that defines how the project will track, quantify, and report on carbon removals, emissions reduction, reversals, safeguards compliance, and material non-permanence risks throughout its lifecycle. The Monitoring Plan shall also describe how the Project Operator will monitor relevant risk indicators and report any material change in project risk conditions.
- **Monitoring Report:** Report prepared by the Project Operator or Group Manager before each verification that includes the assessment of carbon stocks, baseline updates where applicable, and compliance with social and environmental safeguards.
- **Non-Permanence:** The risk that the carbon stored by the project may be released back into the atmosphere (reversed) before the end of the permanence period.
- **Operator/Project Operator:** The natural or legal person, or public entity, that operates or controls the activity within the Activity Area, or to whom decisive economic power over the technical functioning of the activity has been delegated.

The Operator is responsible for submitting the project under the SMURF Standard and for the overall coordination, management, implementation, monitoring and compliance of the project throughout the certification cycle. The Project Operator is the primary interface with the Certification Body (CB), the Registry, and the Standard.

- **Participation unit:** A distinct implementation unit within a SMURF project, consisting of a new Activity Area under a unique operator. This concept facilitates the inclusion of multiple operators and activity areas to create Grouped Projects.

Participation Units are administrative and monitoring units used for project implementation, data collection and eligibility assessment. They do not constitute separate certified activities and do not generate separate certification outcomes outside the scope of the Project.

- **Project Area:** The Project Area is the overall geographic boundary of the project submitted for registration under the SMURF Standard. It represents the area under the project's governance, documentation, and registry record.

The Project Area may include the full area managed under the project, including eligible activity areas, excluded areas, non-crediting areas, internal infrastructure, access areas, or other areas relevant to project management and documentation.

- **Project lifetime:** The period from the Project Start Date until the end of the Monitoring Period established by the applicable certification methodology.

The Project Lifetime includes the activity period and the monitoring period.

- **Project Start Date:** The earliest date of either (a) physical site preparation (e.g., fencing, soil prep) or (b) the first planting event for ARR projects.
- **Project Participant:** Any natural or legal person directly involved in the implementation of the project activity or holding rights, responsibilities, or obligations relevant to the project area. Depending on the project structure, a Project Participant may include an Operator, Landowner, Land Manager, or other participating rightsholder.
- **Project Plan:** The Project Plan consolidates the Activity Plan and the Monitoring Plan into a single document.
- **Registry:** The SMURF Registry serves as the central, transparent database responsible for recording the lifecycle of all projects, the issuance and ownership of carbon tokens, and the formal retirement of units. The Registry ensures environmental integrity by preventing double counting and providing public traceability of all climate claims.
- **Registry Status:** the administrative status recorded in the SMURF Registry to reflect the project's progress through the certification cycle.
- **Reversal:** A verified decrease in the carbon stock of the project area below the level of previously issued credits.
- **Reversal Mechanism:** In the event of a verified carbon reversal, the Scheme utilizes a tiered Pooled Buffer Account mechanism to safeguard the environmental integrity of issued tokens. The specific quantification, contribution rates, and recovery procedures for this buffer are detailed in this section.
- **Single Project (Single Operator):** A project managed and operated by a single entity (e.g., a single landowner, a forestry company, or a manager with full operational control over all included land parcels).
 - **Fixed Scope (Closed):** All land parcels and project activities are identified and verified during the initial Validation. No additional parcels can be added after registration.
 - **Open Scope (Expandable):** New land parcels can be added after the initial Validation, provided they are managed by the same Operator and meet the pre-defined Eligibility Criteria.
- **Small Forest Holder (owner, manager or operator):** For the purposes of this Standard, a participant shall be considered a Small-Scale Forest Holder where the eligible activity area under its control does not exceed 50 hectares for ARR activities or 200

hectares for IFM activities. In grouped projects, this classification shall apply individually to each participating holder.

- **SMURF project:** Sustainable Management models and value chains for small Forests (SMURF) project. a Horizon Europe project funded by the European Union under Grant Agreement No. 101135516.
- **Start date:** The date that sets the official commencement of the project activity that results in carbon removals or emissions reduction. The SMURF Standard defines the Start Date based on the specific project category:
 - **For Afforestation, Reforestation & Revegetation (ARR):** The Start Date is the date of the first planting or assisted natural regeneration (e.g., fencing, cattle exclusion, or other field measures to enable regeneration) event implemented under the project.
 - **For Improved Forest Management (IFM):** The Start Date shall be the date on which the IFM activity that increases carbon stocks actually begins. For extended rotation or no-harvest scenarios, this shall be the first day on which harvesting is intentionally deferred under the project.
- **Unavoidable reversal:** a verified carbon reversal caused by natural or unavoidable events beyond the Operator's control, such as wildfires, extreme weather, or pest outbreaks.
- **Validation:** an audit carried out by an independent CB to determine whether the proposed project complies with the SMURF Carbon Standard, the applicable SMURF methodology, and relevant Scheme procedures, and whether its projected GHG outcomes are supported by sufficient and appropriate evidence and based on reasonable, plausible, and conservative assumptions and methods.
- **Verification or re-certification:** an audit carried out by an independent CB to assess the monitored project results and continued compliance with the registered project documentation, applicable methodology, and SMURF requirements.