CORE DOCUMENT

Methodology for Terrestrial Forest Restoration

SUMMARY

This document details the methodology used for certifying Terrestrial Forest Restoration Projects. It covers both the principles and the methods through which each of ERS's three pillars are assessed. In addition, it describes how the Project risks are assessed.

Table of *Contents*

NORMATIVE REFERENCES

The M001 Methodology includes the following documents:

- M001 - Quantification Methodology for Terrestrial Forests
- Community Consultation - Guidelines
- Free, Prior and Informed Consent (FPIC) - Guidelines
- Livelihood Matrix - Guidelines
- Annual Livelihood Interview - Guidelines
- Non-Timber Forest Products - Guidelines
- Reference Ecosystem - Guidelines
- Field Assessment - Guidelines
- Zonation - Guidelines
- Avoiding Double Claiming - Guidelines
- Social Additionnality - Template
- SDG Contribution - Template
- Livelihood Matrix - Template
- Additionality Sheet - Template
- Leakage Mitigation Declaration - Template
- Ecological Recovery Assessment Tool - Template
- Restoration Plan - Template
- Seedling Monitoring Yearly Report - Template
- Project Budget - Template
- Safeguards Declaration - Template
- Letter of Authorization for Article 6 - Template
- Letter of Authorization for CORSIA - Template
- Unit Declaration for Article 6 - Template
- Feasibility Study Report - Template
- Project Design Document - Template
- Risk Assessment Matrix - Template
- Project Annual Report - Template
- Future Improvements & Limitations

READING NOTES

- The guiding principles are nuanced between:

    - **"must"**, which represents mandatory requirements;

    - **"should"**, which are recommendations or best practices that Developers should aim to implement on their Projects.

    - When **"strive"** is added behind those verbs, the Developer has an obligation of means but not of results.

- Colour code:

    - Every element <u>underlined in gold</u> refers to an ERS template, guidelines or supporting document.

    - Every element <u>*underlined in black italic*</u> refers to another section of the Standard.

    - Every element <u>underlined in green</u> refers to a link external to ERS.

- Definitions can be found in the <u>Terminology & References</u>.

- Reading indications:

💡 These sections offer complementary insights into the Methodology, offering more in-depth information on future improvements or details on specific topics to facilitate comprehension.

📌 These sections provide examples to illustrate the technical requirements of the Methodology.

Eligibility *Criteria*

This section outlines the overall requirements for Projects.

1. Project Scope

1.1. The Methodology applies no restrictions regarding Project size; no minimum or maximum land area or GHG sequestration capacity is required.

1.2. The Project must be situated in inland forest landscapes between latitudes 51.6º N and 51.6º S. This is due to limitations with the models used for AGB quantification of woody biomass.

1.3. The Project must be located in 'Tropical-subtropical forests' (T1) or 'Temperate-boreal forests' (T2) biomes following the IUCN classification.

💡 Future methodologies will cover other ecosystem categories.

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2. Project Design

The Project must be designed to:

2.1. Restore previously degraded terrestrial forests and their ecosystem services according to the function, structure and composition of a Reference Ecosystem.

2.2. Increase available habitat capacity and maximise landscape connectivity to benefit biodiversity at both local and landscape levels.

2.3. Foster sustainable livelihoods by maximising the integration of benefits

to local communities, ensuring their active participation and engagement.

3.   Financing

3.1.   Developers are accountable for securing funding for their Projects.

3.2.   If the Developers secure part of their funding through sources other than the sale of carbon credits, they must be included in the Additionality Sheet and demonstrated as insufficient to cover the Project's expenses.

4.   Registration

4.1.   The Project must not be actively registered and/or issuing carbon credits under other Carbon Crediting Programs.

4.2.   The Project must not have previously issued carbon credits for the removal activity that seeks registration.

4.3.   The Project and all its documentation must be registered and made publicly available on the ERS Registry using the English language.

4.4.   If the Project Area is cross-national, the Developer must submit one Project per jurisdiction, respecting national and international boundaries.

4.5.   If the Project spans multiple ecosystems or biomes, notably as can be the case for landscape-scale Projects, they must be identified across all certification documentation.

5. Crediting Period

5.1. A Project's crediting period is forty years from its start date.

5.1.1. The Project start date is the date of publication of the PDD on the registry, following its validation by a VVB. Refer to the *Certification Procedure* section in the ERS Programme for more details.

5.2. The crediting period includes crediting, monitoring and compensation periods.

5.3. To allow for progressive ambition over time, the Project Design Document (PDD) is revised and adapted every four years. Refer to the *Certification Procedure* section in the ERS Programme for more details.

5.4. The crediting period cannot be extended or renewed.

6. Pre-Submission Activities

Projects that have undertaken activities to test the viability of restoration practices before applying for certification are eligible under specific conditions:

6.1. The set of interventions is referred to by ERS as "pre-submission activities". They include:

6.1.1. Soil preparation;

6.1.2. Direct or indirect planting.

6.2. The pre-submission activities must have started a maximum of 18 months before submitting the Project on the ERS website.

6.3. Developers must submit proof that carbon credits have been considered as an alternative for the Project's financing before initiating pre-submission activities. Letters of authorisation, e-mail exchanges,

stakeholder consultations, consultancy reports and contracts, are considered acceptable proof.

7. Stakeholder Participation

The integrality of the Project, including the delimitation of the Project Area, baseline assessments, the definition of objectives, intervention planning and result monitoring, must engage the Project's Stakeholders.

7.1. Where the Project impacts directly or indirectly Indigenous Peoples and Local Communities (IPLCs), the Free, Prior, and Informed Consent (FPIC) process must be followed.

7.2. The results of every participatory process must be shared with IPLCs in a transparent and accessible manner (in the local language, using comprehensible vocabulary, widely accessible channels and, if necessary, using other types of support such as drawings, schemas, and videos).

7.3. The Developer should integrate and devolve management responsibility at the most local level feasible.

8. Partnerships

8.1. The Developer should establish partnerships with relevant Stakeholders, such as government institutions, civil society organisations, and academic institutions working in ecology, biodiversity conservation, and community empowerment.

8.2. Developers should foster partnerships at local, regional, and international scales to enable the adoption of best practices within local contexts.

9. Sustainable Development Goals (SDGs)

The Project must strive to meet sustainable development objectives relevant to the local context.

9.1. The Project must strive to contribute to at least one of the [United Nations Sustainable Development Goals](#) (SDGs) in addition to SDGs 13 (Climate action) and 15 (Life on land), which must be included in all ERS-certified Projects.

9.2. Developers must follow the specific SDG targets and indicators whenever possible.

9.2.1. When applicable, the Developer must refer to the [official indicators](#) of every SDG target to measure the impact of the Project's contributions.

9.2.2. When SDG contributions cannot be measured by the existing United Nations (UN) indicators, the Developer must define the indicators to track and, whenever possible, quantify them.

9.3. The Developer must declare the SDGs contributions and report progress annually.

9.4. SDGs contributions must be aligned with the host country's strategy for sustainable development and the Nationally Determined Contribution (NDC), when applicable.

10. Safeguards

10.1. The Project must be designed to meet the following environmental and social safeguards requirements.

10.1.1. Abide by the host country's national and local laws, regulations and policies. Where specific universal agreements or international conventions apply, these must also be followed.

10.1.2. Respect and protect universal human rights and freedoms as defined by the Universal Declaration of Human Rights, the International Covenant on Economic Social and Cultural Rights, the International Covenant on Civil and Political Rights, and any other instrument ratified by the Project's host country on Human Rights.

10.1.3. Abide by the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work and its Follow-up:

- Provide a safe and healthy workplace.

- Treat workers fairly, providing equal opportunities and avoiding discrimination of all types.

- Forbid the use of forced labour, child labour and trafficked persons.

10.1.4. Recognise, respect, and preserve indigenous lands, collective rights, cultural heritage, and ancestral practices following the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), particularly Article 3, and ILO's Convention 169 on Indigenous and Tribal Peoples.

10.1.5. Implement a robust and fair benefit-sharing mechanism with Stakeholders, particularly IPLCs, accessible to, shared with and agreed upon by all parties.

10.1.6. Secure environmental integrity by preventing - or when not possible to prevent, minimising - air, water, soil, noise and vibration pollution.

10.1.7. Prevent the displacement and involuntary resettlement of residents and/or their economic activities.

- If the Project generates a community's physical displacement, provided that this is based on community-based decisions, the International Finance Corporation (IFC) Performance Standard 5 on Land Acquisition and Involuntary Resettlement must be followed.

- If the Project generates economic displacement through activity-shifting, the impacts must be mitigated and disclosed in the Leakage Mitigation Declaration.

10.2. Developers are requested to identify if the Project poses a risk to the safeguards listed above using the Safeguards Declaration.

10.2.1. Information in the Safeguards Declaration must be disclosed in the Project Design Document.

10.2.2. Where an existential risk is identified, Developers are requested to submit a monitoring and mitigation plan containing:

- Indicator(s) and the methodology for monitoring.

- The monitoring periodicity, which cannot be inferior to once per year.

10.2.3. If a mitigation plan is submitted, it must be monitored annually and disclose the results in the Annual Report.

Ecological *Recovery*

PRINCIPLES

1.   Ecosystem Restoration

1.1.   The Project must strive to restore ecosystem composition, functionality, and adaptivity in line with a Reference Ecosystem.

1.2.   The Developer must identify a Reference Ecosystem to conduct the Ecological Recovery Assessment and inform the Restoration Plan.

1.2.1.   The Developer must use multiple sources of information to select the Reference Ecosystem, including consultation with local stakeholders, archives, sites with different recovery levels, literature, and any relevant source.

1.2.2.   The Reference Site must be physically accessible by the Developer.

2. Restoration Interventions

2.1. The Project must engage an ecologist, naturalist, or biologist, and someone holding Traditional or Local Ecological Knowledge of the ecosystem

2.2. The Developer should adopt practices that maximise ecological outcomes, across the continuum of intervention types.

2.3. The Developer must design a mitigation plan for existing threats to increase the success rate of restoration efforts.

2.4. The Developer must strive to minimise the environmental impacts of restoration activities, including site preparation. More precisely, the Developer must not:

2.4.1. Use fire for soil preparation;

2.4.2. Invert the soil to a depth greater than twenty-five cm;

2.4.3. Use nitrogen fertilisers;

2.4.4. Harvest timber for commercial purposes.

3. Genetic Diversity

3.1. The Project must strive to retain and augment genetically diverse populations.

3.1.1. The Project must strive to select seeds and plant materials that are genetically diverse and generated within or in the vicinity of the Project Area to ensure the conservation of locally adapted traits.

3.1.2. The Project should source from a nursery which breeds rare, endemic, and endangered flora species.

3.1.3.   The Project should maintain sufficient seed resources for reproduction, animal consumption, and provisioning for NTFPs.

4.   Species Diversity

4.1.   The Project must include a mix of native species, favouring endemic and threatened ones when possible.

   4.1.1.   The Project must select species according to the state of degradation of the Restoration Site.

   4.1.2.   The Project must consider succession dynamics and population dynamics.

   4.1.3.   The Project must strive to favour mutualistic interactions between species.

4.2.   The Project must exclude exotic species as part of the Restoration Plan.

   4.2.1.   Exceptions can be made for non-invasive species that are historically exotic or non-native but considered part of the ecosystem, or perform ecosystem functions that support long-term restoration efforts.

   - When non-native species are used in restoration activities, the Developer must provide peer-reviewed scientific literature corroborating its use.

   4.2.2.   Exceptions can be made for non-invasive exotic species which provide structural elements that favour restoration activities in the early stages of a Project (i.e.: fast-growing species that regenerate the soil or provide shade for other species).

   - In this case, the exotic species must be removed within the first ten years.

4.3.   The Developer should have a plan to protect and/or reintroduce threatened, vulnerable, and endangered species of relevant functional groups, that are endemic or native to the area.

    4.3.1.   If the Project aims to actively re-introduce animal species, it should ensure the long-term viability of this approach, demonstrating the projected impact on the ecosystem's trophic system.

5.   Habitat Provision and Protection

5.1.   The Project must strive to increase and improve available habitat for native species (i.e., maintaining deadwood in the forest to benefit insects and fungi, providing habitat for birds, etc.).

5.2.   Whenever possible, Developers should strive to protect the Project Area by officially registering it as a protected site under a nationally and/or internationally recognised status to ensure legal, long-term conservation.

6.   Connectivity and Buffer Zones

6.1.   The Project should favour the creation of biological corridors within and beyond the Project Area to increase connectivity between ecosystems and to contribute to the dispersal, migration and movement of species.

6.2.   The Project must strive to identify and remove, or mitigate, the impact of human-made barriers to ecological connectivity.

    6.2.1.   If the barrier is considered "linear" (e.g. roads, fences), the Project must strive to remove it or create corridors to connect the patches.

    6.2.2.   If the barrier is "spanning large areas" (e.g. agricultural fields, urban areas), the Project should strive to create one or more corridors to connect the patches.

6.3. If the Project borders ecosystems undergoing disturbances, Developers should consider the creation of buffer zones in as many areas as logistically and socially possible around the Restoration Sites.

    6.3.1. The width of the buffer zone should be sized to enable the ecosystem and restoration goals.

    6.3.2. The Developer should make the buffer zone as continuous as possible to avoid fragmented buffer patches.

7. Ecosystem Services

7.1. The Project must strive to restore and/or maintain soil health, including soil fertility, soil biodiversity, nutrient cycling and preventing soil erosion.

7.2. Where applicable, the Project must strive to:

    7.2.1. Protect and restore freshwater sources within and around the Project Area.

    7.2.2. Maintain the natural purification and filtration functions of the ecosystem.

    7.2.3. Mitigate the impacts of future extreme weather events.

    7.2.4. Enhance and restore the capacity of the ecosystem to regulate water flow, reducing the risk of future flood events by restoring watersheds, floodplains, and water cycles.

7.3. Where applicable, the Project should:

    7.3.1. Restore other provisioning services, such as non-timber forest products (NTFPs) that IPLCs receive from the forests.

    7.3.2. Promote the reproductive viability of restored forest ecosystems, such as the availability of resources for natural pollination, seed dispersal and gene flow within and across taxonomic groups.

7.3.3.   Protect and restore the ecosystem's cultural and recreational values, and well-being benefits.

8.   Threats and Degradation Drivers

8.1.   The Developer must identify the threats to the ecosystem and determine what has caused degradation in the past.

8.2.   The Developer must strive to remove degradation drivers affecting the Project Area, such as browsing, overgrazing, illegal or unsustainable harvesting or hunting practices, nutrients and chemical runoffs, and invasive species.

8.3.   The Developer must strive to eliminate emergent and recurring barriers to regeneration and forest regrowth, such as but not limited to invasive species, grazing, fire, soil erosion, flooding, pests, disease and smothering.

8.3.1.   If invasive species and/or other aggressive woody and non-woody vegetation are present and interfere with natural forest recovery, they must be removed before the Project begins to lay the ground for restoration.

8.3.2.   The Developer must detail plans for the proper disposal of removed invasive floral species, focusing on minimising carbon emissions linked to their disposal.

💡 In this version of the Methodology, ERS will not factor the removals resulting from eliminating invasive species in carbon calculations.

9. Adaptation & Resilience

9.1.   Developers should strive to select species considering the long-term context of a changing climate and its future effects on landscapes and ecosystems.

💡 ERS acknowledges that this practice is not trivial and recommends the Developer to look for science-based recommendations to support the selection of plant species and varieties.

METHODS

1. Reference Ecosystem

1.1.   The choice of the Reference Ecosystem must be determined following the Reference Ecosystem Guidelines and inputs from the Feasibility Interviews.

1.2.   In the case of landscape scale Projects encompassing multiple biomes and/or ecosystems, one Reference Ecosystem must be selected per biome and/or ecosystem type.

2. Baseline Assessment

The baseline assessment must include:

2.1.   The Project Zonation, following the Zonation Guidelines.

2.2.   Field Assessments using the ERS App, following the Field Assessment Guidelines.

2.3.   Summary of Key Findings, Objectives and Interventions in the Ecological Recovery Assessment Tool.

2.4.   Inputs from Community Consultations informed in the Ecological Recovery Assessment Tool following the Community Consultation Guidelines.

2.5.   Projects that have performed pre-submission activities, must:

2.5.1.   Indicate Project zones subject to pre-submission activities in the Project Zonation during the Feasibility phase.

2.5.2.   Perform the Baseline Assessment for Ecological Recovery during the Assessment phase of the certification process. Previous recovery will not be included in the baseline quantification.

3.   Restoration Plan

3.1.   The Restoration Plan must:

3.1.1.   Be informed by the Ecological Recovery Assessment Tool and include measurable ecosystem and biodiversity objectives, interventions and indicators to assess ecological additionality.

3.1.2.   Include proposed practices for increasing landscape connectivity.

3.1.3.   Detail the envisaged restoration practices.

3.1.4.   Detail the level of human intervention required for the proposed restoration activities.

3.2.   The Project's appointed ecologist, or related professional, must sign the final version of the Restoration Plan.

4.   Measurement and Reporting

Refer to the *MRV Procedures* section in the ERS Programme for more details.

5.   Validation and Verification Audits

Refer to the Validation & Verification Procedures for more details.

Carbon

PRINCIPLES

1. **Additionality**

   1.1. **Regulatory Surplus:** the Developer must demonstrate that there is no enforced legal obligation to restore the Project Area.

   1.2. **Environmental Surplus:** the Developer must demonstrate that ecosystem restoration, and consequent carbon sequestration and ecological recovery, would not have occurred at the same level without the Project.

   1.3. **Barrier Analysis:** the Developer must identify existing barriers that would prevent the desired Project activities from taking place.

   1.4. **Common Practice Analysis:** the Developer must demonstrate the proposed Project is not common practice within its specific region.

2. **Permanence**

   2.1. The Developer must ensure the permanence of carbon sequestration by developing ecosystem-specific safeguards to avoid reversals and include them in the Restoration Plan.

2.2.   The Developer must reduce the risk of unintended fires by:

2.2.1.   Removing fuel from the Project Area.

2.2.2.   Installing fire breaks and fire towers in the Project Area.

2.2.3.   Providing access to fire-fighting equipment to the Project's on-the-ground team.

2.3.   Reversal risks must be assessed and monitored following the Risk Assessment Matrix and quantified according to the Quantification Methodology for Terrestrial Forest Restoration.

💡 Corporate buyers are encouraged to use dynamic accounting for their carbon purchases and are responsible for replacing cancelled credit to ensure the validity of their claims.

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3.   Accuracy and Conservativeness

3.1.   **Improved Incentives.**

3.1.1.   To mitigate conflicts of interest, ERS's fees are neither linked to the volume of issuances nor the price of Restoration Units. Instead, ERS charges a flat per-hectare fee. Refer to the *Fee Schedule* section in the ERS Programme for more details.

3.1.2.   Developers have a vested interest in the volume of credits generated and are therefore not responsible for the carbon quantification.

3.2.   **Conservative Estimation Methodology.** ERS deliberately and systematically applies a conservative approach to its GHG emission removal quantification. For more information on how this principle is

applied across calculations, refer to the _Uncertainty & Conservativeness_ section of the [Quantification Methodology for Terrestrial Forest Restoration](#).

3.3. **Dynamic Baselining.** ERS uses dynamic baselines to adjust the Project's initial baseline on a biennial basis. Refer to the _Dynamic Baseline_ section of the [Quantification Methodology for Terrestrial Forest Restoration](#).

4. Leakage

4.1. The Developer must strive to limit activity-shifting leakage, including:

- Wood collection (for firewood, charcoal, etc.);
- Timber harvesting;
- Agricultural activities (grazing or cultivation);
- Human settlement.

💡 This methodology does not explicitly account for market leakage, and downstream and upstream emissions leakage.

4.2. The Developer must identify the activities in the Project Area that will be displaced.

4.3. The Developer must define a leakage mitigation plan to minimise the impact of the displaced activities.

5. Double-Counting

5.1. ERS does not permit any form of double counting namely, double issuance, double use, and double claiming.

METHODS

1. Additionality

The Developer must demonstrate the Project's additionality in the Additionality Sheet.

1.1. **Regulatory Surplus.** ERS verifies legal additionality by reviewing applicable legislation and agreements in force at the Project's jurisdiction. Results are made public in the Project Design Document.

1.1.1. For high-income countries, all legal requirements shall be deemed to be enforced.

1.1.2. For countries other than high-income countries[1], legal requirements shall only be deemed "unenforced" based on legal and verifiable sources relevant to the mitigation activity.

1.2. **Environmental Surplus.** ERS verifies environmental surplus using satellite imagery to assess land cover degradation over the past ten years preceding the Project's origination.

1.2.1. If the Project Area has undergone significant anthropogenic deforestation in the last ten years, the Developer must prove the deforestation was not done with the intention to benefit from revenues from the voluntary carbon market. Refer to the Additionality Sheet for the detailed list of accepted documentation.

1.3. **Barrier Analysis.** ERS verifies existing barriers by reviewing documents provided by the Developer. Refer to the Additionality Sheet for the detailed list of accepted documentation.

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[1] Refer to the Terminology & References document for a full list of high-income countries.

💡 ERS only certifies Ecosystem Restoration Projects that do not encompass extractive activities; their financial attractiveness is expected to be close to zero.

1.4. **Common Practice.** ERS verifies if the Project is a common practice by calculating the cumulative "adoption rate" of natural regeneration and restoration in the Project's region.

  1.4.1. If the calculated cumulative adoption rate is equal to or below 50%, it indicates that the Project type is not common practice in the area.

  1.4.2. If the adoption rate exceeds 50%, the Project activity is common practice and is not additional.

  1.4.3. Refer to the Additionality Sheet for detailed calculation and rationale.

2. Permanence

2.1. ERS monitors loss events using remote sensing indefinitely and for at least forty years.

2.2. A Risk Assessment identifies delivery and reversal risks and assesses their likelihood and the severity of their consequences.

  2.2.1. Every identified risk must be actively monitored by the Developer. If an increase in likelihood or severity is detected, the Developer must immediately implement a contingency plan and inform ERS.

  2.2.2. According to their risk score, a mitigation plan or corrective action is required prior to certification.

2.3.   In case of a reversal event, the methodology detailed in the Quantification Methodology for Terrestrial Forest Restoration must be applied to quantify the loss.

2.4.   If reversals occur, Verified Restoration Units will be compensated through a Buffer Pool mechanism. Refer to the *Reversal Procedure* section in the ERS Programme for more details.

3.   Leakage

3.1.   Activity and Stakeholder Mapping

3.1.1.   During a Community Consultation, the Developer must consult local Stakeholders and decide to either maintain or shift the activities causing leakage.

3.1.2.   The Developer must identify land-use activities that will be displaced due to the Project's interventions in the Leakage Mitigation Template.

3.2.   Mitigation Plan

3.2.1.   The Developer must establish a mitigation plan to minimise the scale and impact of activity-shifting using the Leakage Mitigation Template.

- The mitigation plan must include mitigation objectives and interventions.

- The interventions of the mitigation plan will then be detailed in the Social Additionality Plan.

3.3.   Leakage Zonation

3.3.1.   The Developer must indicate in the Project shapefile the total area of the displaced activity, the zones that will be displaced, and the location of the Leakage Area. Refer to the Zonation Guidelines for more details.

💡 If the Developer cannot identify leakage during the certification process, leakage will be assessed and discounted at the first Verification. Refer to the Quantification Methodology for Terrestrial Forest Restoration for more details.

3.4.   **Calculation**

3.4.1.   Refer to the _Emissions_ section in the Quantification Methodology for Terrestrial Forest Restoration for more details.

3.5.   **Monitoring**

3.5.1.   Land cover is monitored annually within a five-kilometre-wide transitional or boundary zone along the Project's perimeter, called the Leakage Belt.

3.5.2.   ERS employs the Global Forest Watch (GFW) Integrated Deforestation Alerts to trigger alerts about forest cover changes.

💡 The five-kilometre radius has been determined based on:

- The likelihood that most of the displacements from the Project Area will not go beyond this five-kilometre radius.

- Its actionable nature for Developers in case leakage is identified.

3.5.3.   Land cover changes in the Leakage Belt equal or superior to one hectare will be notified to the Developer. The Developer must then provide justification for ERS to determine whether the change is linked to the Project activities or not.

3.5.4.   If the change in land cover is confirmed to be linked to the Project activities:

- The Developer must establish a mitigation plan using the Leakage Mitigation Template.

- Leakage emissions are calculated following the Quantification Methodology for Terrestrial Forest Restoration before Verification.

3.6.   **Leakage Correction**

3.6.1.   If the Developer modifies the location or extent of the Leakage Areas, changes must be declared in the Project Annual Report.

3.6.2.   Leakage calculated at Certification will be confirmed or, if necessary, corrected at year four, before Verification.

- ERS uses satellite imagery to confirm if the Leakage Area(s) - location(s) and extent - matches the Developer's declaration.

3.6.3.   If discrepancies arise, Leakage is recalculated following the same equations but using the data observed by ERS through satellite imagery.

💡 Leakage emissions are determined at Project start, and thus, impact the issuance of Restoration Units. Subsequent refinements that reveal underestimations or overestimations of leakage emissions will not impact the quantity of Projected Restoration Units (PRUs). Instead, these adjustments will exclusively affect the discount factor applied during each issuance, thereby impacting the Verified Restoration Units (VRUs). More details can be found in the *Units & Issuance* section of the ERS Programme.

4. Double-Counting

4.1. **ERS Registry.** To prevent double counting, particularly double use, the ERS Registry includes the following features:

    4.1.1. Transparent management of the issuance, transfer, retirement and cancellation of Restoration Units (RUs);

    4.1.2. Serialisation and labelling of issuances so that each RU is associated with a specific Project, country, issuance block and vintage.

    4.1.3. Public disclosure of all of the Project's documentation.

    4.1.4. Details about the beneficiary and the calendar year for which the offsetting requirement is fulfilled through the cancellation.

    4.1.5. Projects that seek eligibility for Article 6 must additionally disclose:

        ● A Letter of Authorisation from the Host Country.

        ● Evidence showing the Host Country has applied a corresponding adjustment.

    4.1.6. Refer to the *Labelling & Serialisation* section in the Registry Procedures for more details.

4.2. **Double Issuance**. To effectively mitigate the risk of double issuance, the following measures are implemented:

    4.2.1. **No double attribution**. Activities registered under another carbon crediting program are not eligible for ERS certification. Restoration Units must only be credited to Project activities that are not registered and that have not received carbon credits in the past for the same activities.

4.2.2. **Proof of rejection**. Projects previously rejected by another carbon crediting scheme are eligible for ERS certification only upon providing conclusive evidence of the official grounds for their rejection.

4.2.3. **Proof of cancellation**. Projects that have applied to other carbon crediting programs but have not undergone validation by a VVB, can only apply for ERS certification if they submit proof that the former application has been cancelled and no credits were or will be issued.

4.2.4. **Distinction between Project Zones.** Projects that are or have been registered under other carbon crediting programs can only apply for ERS certification for the activities taking place in areas that have not been included in current or former Projects.

4.3. **Double Claiming**. To effectively mitigate the risk of double claims in the context of international mitigation purposes other than NDCs, or other purposes, Developers must follow the procedure described in Avoiding Double Claiming.

5. Dynamic Baseline Assessment

5.1. ERS estimates the Project's baseline and carbon additionality every two years, according to the _Dynamic Baseline Evaluation_ detailed in the Quantification Methodology for Terrestrial Forest Restoration.

5.2. For Projects that have undertaken pre-submission activities, the initial baseline assessment is performed by ERS at the indicated date in which the activities have begun.

6. Measurement and Reporting

Refer to the _MRV Procedures_ section in the ERS Programme for more details.

7. Validation and Verification Audits

Refer to the Validation and Verification Procedure for more details.

Livelihoods

PRINCIPLES

1. Social Additionality

1.1. The Project must strive to achieve Social Additionnality.

1.2. The Livelihood Matrix, the Social Additionality Plan and its corresponding activities must reflect the Project Stakeholder's definitions, needs, and values.

2. Stakeholder Engagement

2.1. The Project must integrate local communities in the planning, execution, monitoring, reporting and benefit sharing.

2.2. The Project should consider IPLCs as partners, not just beneficiaries.

2.3. The Project must be designed based on the Stakeholders' needs and aspirations across social, economic, cultural, and spiritual domains, as expressed during the Community Consultation.

2.4. **Stakeholder Mapping**

2.4.1.   The Developer must map and classify Communities and moral persons participating in or impacted by the Project according to their influence.

2.4.2.   The Developer must strive to identify past and existing social conflicts or unresolved grievances during the mapping phase. If conflicts or grievances are identified, the Developer should have a local mediator assisting in the resolution process.

2.4.3.   Marginalised, vulnerable, and/or disadvantaged communities and individuals (hereinafter referred to as Vulnerable Communities) must be identified and reported in the Livelihood Matrix.

3.   Employment & Fair Wages

3.1.   The Developer must ensure the health and safety of all of the Project's workers throughout the entire Project duration.

3.1.1.   The Developer must ensure access to personal safety equipment.

3.1.2.   The Developer must ensure adequate and equitable working conditions.

3.1.3.   The Developer must ensure all of the Project's employees work of their own free will.

3.1.4.   The Developer must comply with ILO's Convention on Forced Labour (No. 29) and ILO standards on occupational safety and health.

3.1.5.   The Developer must ensure discrimination, of any kind, is not tolerated in the workplace. The Developer must have sanctions to respond to and protect employees from aggressions and violence, whether physical, verbal or mental. Special attention must be paid to Vulnerable Communities.

3.2.   Planting and monitoring teams should be trained and hired from IPLCs within or surrounding the Project Area.

3.3.   When possible, the Project should foster long-term employment with fixed contracts.

    3.3.1.   When employing temporary workers, the Project should foster official affiliations through contracts or any applicable formal agreement.

3.4.   All Project workers must be paid fair wages and, when available, follow the country's living wage.

    3.4.1.   If the country does not have an official living wage, ERS must use as a reference the values indicated by the Global Living Wage Coalition.

    3.4.2.   Workers occupying the same position and with the same level of experience must receive equal wages. Special attention must be paid to the context of gender equity. Any wage difference for workers occupying the same position must be justified.

3.5.   The Project must guarantee equal opportunities for professional development regardless of gender, social and racial backgrounds.

3.6.   Where IPLCs are identified as Stakeholders, respect must be paid to local customs and traditional practices, which may assign specific roles based on gender.

4.   Communication

4.1.   The Developer must have an open-door policy so Stakeholders can learn more, ask questions, and air grievances.

4.2.   The Developer must ensure that all Stakeholders are aware of, know how to use, and have access to the ERS Grievance Mechanism.

💡 When no IPLCs are present in the Project Area, requirements for points 5, 6 and 7 are not applicable.

5. Empowerment, Well-Being and Equity

5.1. The Project should reduce the Communities' vulnerability and promote socio-economic resilience to future extreme weather conditions, natural hazards, social conflicts, and economic fluctuations.

5.2. Where relevant, the Project must improve health and well-being conditions, including but not limited to improving food security, securing access to clean water, and improving sanitation systems.

5.2.1. Particular attention should be given to women's health.

5.3. Where relevant, the Project must enhance access to quality education and capacity building.

5.4. Where relevant, the Project should enable the development of alternative livelihoods and/or enhance existing ones.

5.4.1. Non-Timber Forest Products (NTFPs) can be used as a tool to provide alternative livelihoods or enhance existing practices.

5.5. Where relevant, particular attention must be paid to increasing opportunities for women's empowerment (i.e. financial independence, training, capacity building, women's self-help groups, and organisational capacity, among others).

6. Cultural Heritage & Traditional Knowledge

6.1. Where relevant, the Project must preserve cultural heritage and Traditional Knowledge.

6.2.   Where relevant, Developers must respect Traditional Knowledge, and must not try to adapt it to scientific-based knowledge.

6.3.   Where relevant, Developers must acknowledge and compensate Traditional Knowledge transfers.

7.   Benefit Sharing

7.1.   Benefits arising from the sale of Restoration Units must be shared among IPLCs.

7.2.   Benefit sharing must be agreed upon and arranged between the Developer, the IPLCs and all relevant Stakeholders.

7.3.   Restoration benefits can take multiple forms (direct payments, communal infrastructure, and benefits-in-kind).

7.4.   The Developer must ensure that those withholding land rights receive fair compensation for land use.

METHODS

1.   Stakeholder Engagement

1.1.   The Developer must record communities' attendance at meetings and document Stakeholder's suggestions to amend the Project's implementation plan. Such meetings should continue regularly throughout the Project's lifetime to ensure ongoing Stakeholder engagement.

1.2.   The PDD and Annual Reports should publicly disclose how Stakeholders' inputs are included in the Project.

2. Baseline Assessment

2.1. The livelihood baseline assessment must be performed using the Livelihood Matrix during the Community Consultation on Livelihoods at the Assessment phase of the certification.

2.2. Projects that have undertaken pre-submission activities must perform the Livelihoods baseline during the Assessment phase of the certification process. Previous livelihood activities will not be included in the baseline quantification.

3. Social Additionality Plan

3.1. The Social Additionality Plan must result from the Community Consultation on Livelihoods and the Livelihood Matrix baseline assessment.

3.1.1. The Developer must ensure that all involved parties are heard and can freely express their desires.

3.1.2. The Developer must ensure the co-creation of the plan is done in a form, manner, and language understandable to IPLCs, following FPIC processes.

3.2. The Social Additionality Plan must include:

3.2.1. Objectives and interventions selected by the Developer and the Stakeholders.

3.2.2. Alternative income streams, when applicable.

3.2.3. Details of NTFPs use, following the Non-Timber Forest Products (NTFPs) guidelines, when applicable.

3.2.4. The detailed benefit-sharing arrangements, including format, amount, and disbursement schedule. If access to benefits is dependent on any condition, such as achieving Project

objectives, the objectives and targets must be made explicit in the plan.

4. Budget & Benefit-Sharing

4.1. Transparency

4.1.1. At the start of a four-year period, Developers must inform the period's estimated budget in the Project Budget template. Cost categories are:

- Personnel

- Supplies

- Machinery

- Infrastructure

- Utilities

- Travel and expenses

- Community benefits

- Legal fees

- Tax and banking fees

- Certification fees

4.1.2. During a four-year period, if significant variances in budget allocation emerge, Developers must address them in the Annual Report.

4.1.3. At the conclusion of a four-year period, Developers must report the realised expenses using the Project Budget template.

4.1.4. The Project Budget is made publicly accessible on the Registry.

4.2. **Enforcement**

4.2.1.   As an appendix to the Annual Report, Developers must submit annual expenditure reports, following the categories defined in the Project Budget. ERS confronts expenditure with Project activities. Additionally, ERS may select expenditures to which Developers must present invoices or sign expenditure declarations as proof of budget allocation.

4.2.2.   The number of invoices requested is solely at ERS' discretion, but should not surpass fifty per cent of the total expenditure volume.

4.2.3.   ERS reserves the right to open an investigation and request evidence of the allocation of funds at any time.

5.   Measurement and Reporting

Refer to the *MRV Procedures* section in the ERS Programme for more details.

6.   Validation and Verification Audits

Refer to the Validation and Verification Procedure for more details.

Risk *Management*

ERS' risk management procedure follows ISO 31000 guidelines to ensure risks are identified, analysed, evaluated and treated.

PRINCIPLES

1. Risk Management Scope

The Risk Management Process encompasses all risks posing a threat to achieving Projects' goals. Risks derive from the following categories:

1.1. **Risk of failure to deliver - Delivery Risk.** All risks that threaten the Developer's capacity to deliver the Project.

1.2. **Risk of avoidable and unavoidable reversal - Reversal Risk.** All risks that pose a reversal threat once restoration is already done.

1.3. **Risk of non-compliance with an ERS Requirement - ERS Requirements Risk.** All risks that threaten the Project's compliance with an ERS Requirement.

2. Risk Criteria

Criteria are based on:

2.1. **Market requirements.** Specifically from ICROA, ICVCM and CORSIA accreditations/endorsements.

2.2. **ERS requirements.** Reflecting the difference between mandatory requirements (must) and incentivised requirements (should/should strive).

2.3. **Stakeholders view.** Evaluating risks based on findings from community consultations.

3. Risk Assessment

ERS observes the ISO 31000 assessment structure:

3.1.   **Risk Identification.** A Hundred and twenty-four pre-identified risks are outlined in the Risk Assessment Matrix, which also allows additional risks to be included by the Developer on a per-project basis. When identifying new risks, Developers should consider:

    3.1.1.   Tangible and intangible sources of risk;

    3.1.2.   Vulnerabilities and capabilities;

    3.1.3.   Changes in the external and internal context;

    3.1.4.   Limitations of knowledge and reliability of information;

    3.1.5.   Time-related factors;

    3.1.6.   Biases, assumptions and beliefs of those involved.

3.2.   **Risk analysis.** All risks are analysed based on their likelihood of happening and the severity of their consequences.

    3.2.1.   Risks are analysed based on the integrality of the Project documentation provided by the Developer, desktop data, and on-the-ground findings from Validation and Verification audits.

    3.2.2.   The detailed sources of information can be found in the "Analysis and Methodology" column of the Risk Assessment Matrix.

3.3.   **Risk evaluation.** All risks are evaluated on a scale from 0 to 5, following the table below.

    3.3.1.   The final risk evaluation is the multiplication of both scores and can range from 0 to 25.

    3.3.2.   The Project's risk-category score (Delivery Risk Score, Reversal Risk Score, ERS Requirement Risk Score) is the simple average of

all risks in that category.

Likelihood of happening	Severity of consequences
0 - Not Applicable	0 - Not Applicable
1 - It is very unlikely to happen	1 - If it happens, consequences do not require correction
2 - It is unlikely to happen	2 - If it happens, consequences will require minor Project correction
3 - It has a 50% chance of happening	3 - If it happens, it will partially damage the Project but not lead to failure as consequences can still be reversed
4 - It is very likely to happen	4 - If it happens, it will considerably damage the Project, financially, environmentally, and/or socially, leading to partial Project failure
5 - It is already happening or is inevitable	5 - If it happens, the Project will fail

4. Risk Treatment

4.1. Risks are subject to different treatments depending on their likelihood and severity evaluations. Refer to the Risk Assessment Matrix for more details.

METHODS

1.   Risk Assessment

1.1.   Risk Assessment and evaluation are performed using the <u>Risk Assessment Matrix</u> only after the Developer has submitted all other certification documentation.

1.2.   Based on the documentation, an initial evaluation is performed by ERS. If risks are identified, ERS notifies the Developer who must provide mitigation and surveillance plans, where required.

2.   Mitigation and Surveillance Plans

2.1.   The Developer is responsible for indicating directly in the <u>Risk Assessment Matrix</u>:

2.1.1.   The surveillance and mitigation plans;

2.1.2.   Indicators and methodologies for monitoring.

2.2.   ERS will review the plan and approve it, or request corrective actions (CARs) or clarifications (CRs).

2.3.   In cases where mitigation is necessary, a new risk evaluation is issued based on its effectiveness.

3.   Risk Monitoring

3.1.   All risks with Likelihood and Severity evaluations 1 or higher must be monitored.

3.2.   ERS will define the monitoring schedule of each mitigation and surveillance plan at its discretion.

3.3.   The monitoring schedule is disclosed in the <u>PDD</u>.

4.   Risk Reporting

4.1.   Risks must be reported yearly as part of the Annual Report.

5.   Update Schedule

5.1.   The Risk Assessment Matrix must be updated every four years, following the PDD update schedule.

5.2.   In case significant changes occur, a new Risk Assessment must be produced by ERS.

5.2.1.   Significant changes include, but are not restricted to, reversal events, changes in the Project's local climate legislation, civil unrest, war, changes in land tenure, changes in the Developer's governance, and grievances from the Project's Stakeholders, among others.

5.2.2.   This procedure will only be applied during the crediting period.

Ecosystem Restoration Standard

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