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CORE DOCUMENT

Methodology for Terrestrial Forest Restoration

SUMMARY

This document details the methodology used for certifying Terrestrial Forest Restoration Projects. It covers the principles and methods by which each of ERS's three pillars is assessed, as well as the Monitoring and Reporting requirements.

Table of *Contents*

NORMATIVE REFERENCES

This document must be read in conjunction with the following documents:

- Quantification Methodology for Terrestrial Forest Restoration
- Reference Ecosystem Guidelines
- Community Consultation Guidelines
- Zonation Guidelines
- Field Assessment Guidelines

TEMPLATES

This document is linked with the following templates:

- Pre-submission Activities Report
- Ecological Recovery Assessment Tool
- Restoration Plan
- Additionality Sheet
- Project Design Document
- Risk Assessment Matrix
- Leakage Mitigation Template
- Livelihood Matrix
- Social Additionality Plan
- Annual Report
- Seedlings Monitoring

READING NOTES

- This document is divided into *Principles* and *Methods*:
    - Principles set out the requirements applying to each of the three pillars.
    - Methods elaborate on how Developers and ERS must apply these requirements.
- Principles are nuanced between:
    - **"must"**, represents mandatory requirements.
    - **"should"**, represents recommendations or best practices that Developers should aim to implement on their Projects.
    - "**may**", represents a course of action permissible by the standard.
    - When **"strive"** is added behind those verbs, Developers have an obligation of means but not of results.
- Colour code:
    - Every element underlined in gold refers to an ERS template, guidelines or supporting document.
    - Every element *underlined in black italic* refers to another section of the Standard.
    - Every element underlined in green refers to a weblink.
- Definitions can be found in the Terminology & References.
- 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 net GHG removal capacity is required.

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

1.3. The Project may be located on any type of degraded land that shall be restored as inland forest.

1.4. The Project must be restored to one of the following biomes according to the IUCN Global Ecosystem Typology: 'Tropical-subtropical forests' (T1), 'Temperate-boreal forests' (T2), 'Trophic savannas' (T4.1), 'Pyric tussock savannas' (T4.2), 'Hummock savannas' (T4.3) or 'Temperate woodlands' (T4.4).

💡 Future methodologies will cover other ecosystem categories.

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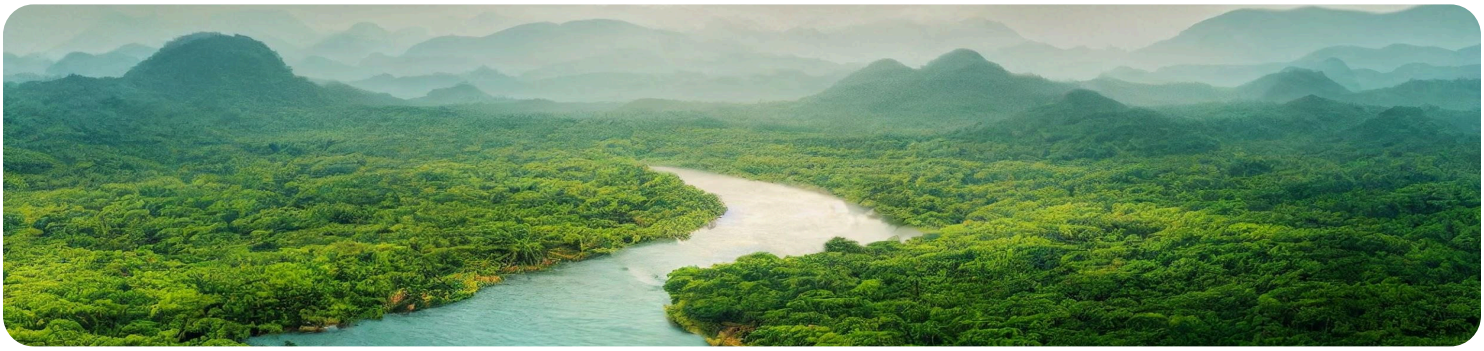
2. Project Design

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.



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 Site 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 Site, 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 throughout the crediting period.

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.

2.5. The Project must not 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, if applicable.

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(s).

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 (e.g., 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 (10) 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 contribute to species dispersal, migration and movement.

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 spans 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.

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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 Site 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 site 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, if IPLCs are among the Stakeholders.

2.5. Projects that have performed Pre-submission Activities must:

2.5.1. Indicate the Pre-submission Activities zones in the Project Zonation during the Project Feasibility Review phase.

2.5.2. Fill out the *Detailed Activities* and the *Planted Species* sections of the Pre-submission Activities Report.

2.5.3. Perform the Baseline Assessment for Ecological Recovery during the Project Design Review phase of the certification process on all restoration sites.

3. Restoration Plan

3.1. The Restoration Plan must:

3.1.1. Be informed by the Ecological Recovery Assessment Tool and the Pre-submission Activities Report, if applicable.

3.1.2. Include measurable ecosystem and biodiversity objectives, interventions and indicators to assess ecological additionality. When relevant, interventions must be linked to SDG indicators.

3.1.3. Include proposed practices for increasing landscape connectivity.

3.1.4. Detail the envisaged restoration practices.

3.1.5. 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 for more details.

Carbon

PRINCIPLES

1. Additionality

1.1. ERS has developed a project-based approach for Developers to demonstrate additionality:

1.1.1. **Regulatory Surplus.** Developers must demonstrate that there is no enforced legal obligation to restore the Restoration Sites.

1.1.2. **Environmental Surplus.** Developers must demonstrate that the preceding deforestation drivers and their related degradation did not occur to obtain carbon credits.

1.1.3. **Barrier Analysis.** Developers must identify existing barriers that would prevent the desired Project activities from taking place without the revenues from Restoration Units.

- **Financial barriers**. These refer to lack of funding, high upfront costs, or difficulty accessing finance can stall or prevent a Project

from starting. This includes existing policies and requirements other than legal obligations to lower GHG emissions (e.g. non-mandatory policy incentives and enablers).

- **Technical barriers**. These refer to challenges related to technology, methodology, expertise, site-specific conditions, and other technical aspects of the Project. It can involve anything from lack of necessary equipment to difficulties in measuring carbon sequestration.

- **Cultural and social barriers**. These refer to challenges in the collective movement of local communities towards implementing, maintaining and monitoring restoration projects due to, for example, lack of information, threats to the safety of community members, and existing social structures and norms.

- **Regulatory and institutional barriers**. These refer to limitations within the regulatory framework and its relevant institution, such as limited staff capacity, lack of necessary skills, local regulations, complex permitting processes, ineffective bureaucratic processes or challenges in meeting specific compliance standards.

2. Permanence

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

2.1.1. Developers must reduce the risk of unintended fires by:

- Removing fuel from the Project Area.

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

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

2.1.2. Developers must demonstrate that the Project can secure access to its irrigation needs and will not increase pressure on water resources by identifying:

- Infrastructure for water access in the Project Area.
- Any potential tensions regarding access to water resources around the Project Area.

2.1.3. Developers must assess whether dangerous activities are carried out in the Project's neighbouring areas and, if so, put safeguards in place to ensure the Project is not negatively affected.

- Dangerous activities include but are not limited to, chemical processing/treatment, non-organic industrial agriculture or animal farming, waste treatment facilities, and any other activity generating classified dangerous residues.

2.2. **Reversals.**

2.2.1. All reversal risks must be assessed, monitored and mitigated.

2.2.2. In case of reversals, full compensation must be provided from the Buffer Pool.

💡 Corporate buyers are encouraged to use an Emissions Liability Management[1] approach to carbon accounting. Corporate buyers are encouraged to replace any cancelled credits to ensure the validity of their claims.

3. Leakage

3.1. Projects must strive to limit activity-shifting leakage, including:

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

3.2. Developers must identify the activities inside the Project Area that will be displaced and define the Displaced Area.

3.3. Developers must define a leakage mitigation plan to:

3.3.1. Minimise the impact of the displaced activities.

3.3.2. Ensure, to the possible extent, equitable displacement, avoiding higher impact on the most vulnerable community members.

3.3.3. Manage for the potential loss of the non-displaced activities.

[1]Marc Roston, Alicia Seiger, Thomas Heller, 2023. What's next after carbon accounting? Emissions liability management. [online] Oxford Open Climate Change, Volume 3, Issue 1. Available at: URL

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[2], legal requirements shall only be deemed "not enforced" based on legal and verifiable sources relevant to the mitigation activity.

1.1.3. Where a legal obligation to undertake restoration or conservation work applies to the Project Area but not to the Restoration Site(s), the Developer must indicate and prove exactly where it applies.

1.1.4. Where a legal obligation to restore applies to the Restoration Site(s) but cannot be fulfilled without the Project's funds or technology, the Developer must prove that said barriers exist to establish the Project's additionality.

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

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

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

1.2.2. Accepted deforestation activities are:

- Timber trading;
- Wood harvest for fuel or charcoal;
- Cattle farming;
- Mining;
- Cellulose production;
- Intensive crop farming;
- Civil construction.

1.2.3. If significant natural regeneration is observed on the Restoration Site(s), the Developer must justify that the planned interventions will achieve a higher than business-as-usual scenario.

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.

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

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2. Permanence

2.1. **Risk Assessment.** ERS uses the Risk Matrix to identify delivery and reversal risks and assess their likelihood and the severity of their consequences.

2.1.1. 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.

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

2.2. **Detection.** ERS continuously monitors loss events using remote sensing throughout the Project's crediting period and as long as the organisation exists.

2.2.1. Developers are also required to monitor loss events in the Project Area on an ongoing basis.

2.2.2. If the Developer or ERS identify a loss event inside the Project Area that is 1 hectare or bigger, they must notify one another within thirty (30) calendar days.

2.2.3. Developers are required to report on loss events in the dedicated table in the Annual Report and provide:

- The description and date of the loss event;
- A shapefile delimiting the loss event's total area and location;

- The nature of the loss event - avoidable or unavoidable[3], and documentation to back up such claim;
- The impacts on Project activities.

2.3. **Quantification & Accounting.** ERS quantifies the impact of loss events before each Verification. Refer to the Quantification Methodology for Terrestrial Forest Restoration for more details.

2.3.1. After quantification, ERS will deduct the impact of loss events from the Project's GHG removals in the Verification Cycle. If the loss event(s) led to net GHG loss, this will be qualified as reversal.

2.3.2. If reversals occur, VRUs will be compensated through a Buffer Pool mechanism. Refer to the *Compensation* section in the ERS Programme for more details.

3. Leakage

3.1. Activity Displacement Mapping

3.1.1. **Consultation.** Developers must identify land-use activities that will be displaced due to the Project's interventions during the Livelihoods Community Consultation.

3.1.2. **Zonation.** Developers must indicate the Displaced Areas in the Project Zonation in the ERS App. The displacement magnitude will be determined by:

- Informing the precise location and size of the Hosting Area (where the activities will be displaced) OR

[3] See the Terminology & References for the definition of avoidable and unavoidable reversal.

- Informing the percentage of the activity that will be displaced during the crediting period.

3.1.3. For Pre-submission Activities, both the Displaced and Hosting Areas must be indicated in the Project Zonation at Certification.

3.1.4. Developers must provide details regarding the activity's displacement, including the justification of the percentage of displacement in the Leakage Mitigation Template.

- Pre-submission Activities that resulted in leakage must be detailed in the *Pre-submission - Activity Shifting* tab.

💡 Each Leakage Activity will be given an ID/name in the ERS App, which will be used as a reference in the Leakage Mitigation Template.

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

3.2.1. The mitigation plan must include mitigation objectives and interventions.

3.2.2. The interventions of the mitigation plan will then be detailed in the Social Additionality Plan, and reported on annually.

3.3. **Calculation.** Refer to the *Emissions* section in the Quantification Methodology for Terrestrial Forest Restoration for more details.

3.4. **Leakage Correction.** Leakage calculated at Certification will be confirmed or, if necessary, corrected at year two (2) and/or four (4), before Verification.

3.4.1. Developers must update the information on the displaced activities by:

- Updating the Project's Zonation using the ERS App.
- Providing details regarding the reinstalment of the activity in the Annual Report.

3.4.2. ERS uses satellite imagery to confirm if the Displaced and Hosting Areas - location(s) and size - matches the Developer's declaration. This includes comparing the historical deforestation rate of the Leakage Belt with the deforestation rate in the Y0-Y2 and Y2-Y4 periods.

3.4.3. A Certification Agent will cross-check the completion of the Leakage Mitigation Plan to ensure that activities have been displaced as stated at Y0.

3.4.4. Leakage is then recalculated using the updated information submitted by the Developer, following the Quantification Methodology for Terrestrial Forest Restoration.

💡 Leakage emissions are determined at Project start, and thus, are accounted for in the issuance of Projected Restoration Units. Reassessment of Leakage at year 2 and/or 4 that reveals 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.

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.

💡 The five-kilometre radius of the Leakage Belt 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.

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

3.5.3. ERS must monitor the Hosting Area(s) indicated by the Developer. If its surface grows by more than one (1) hectare, Developers

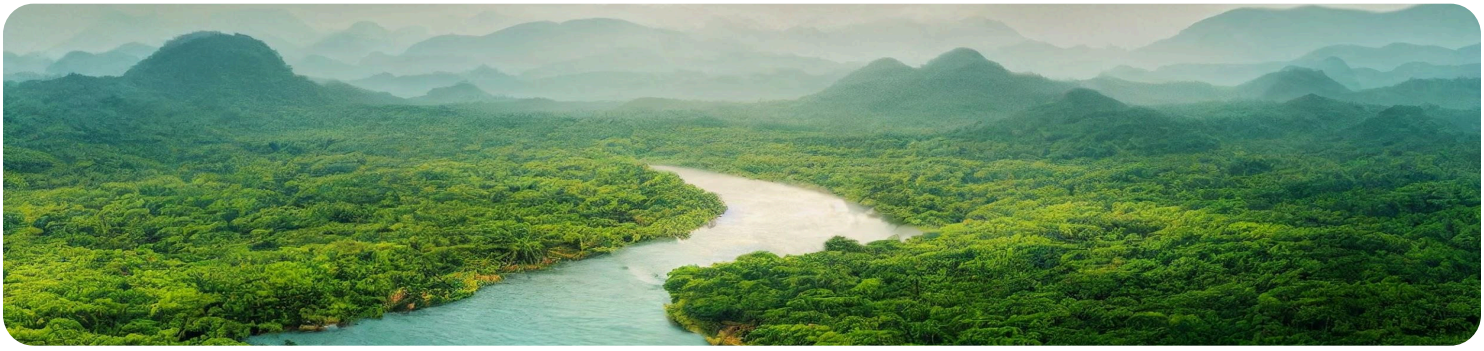
must then provide justification for ERS to determine whether the change is linked to the Project activities or not. If the justification is deemed as unsatisfactory, ERS will estimate the GHG emissions resulting from the Hosting Area's expansion and factor them into the net GHG removals of the Verification Cycle. Monitored Leakage emissions will be reported at each Verification

3.5.4. Developers will be notified of land cover changes in the Leakage Belt that exceed the average observed over the past five (5) years.

- Developers must then provide justification for ERS to determine whether the change is linked to the Project activities or not.
- If the justification is unsatisfactory, ERS reserves the right to require a Verification.

4. Measurement and Reporting

Refer to the *MRV Procedures* section for more details.



Livelihoods

PRINCIPLES

1. Social Additionality

1.1. The Project must strive to achieve Social Additionality[4].

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

[4] Observed social benefits related to outcomes that can be attributed to the Project activity and would not have occurred in absence of the Project activity.

2.2. **FPIC**. The Free, Prior and Informed Consent must be applied before initiating any Project that may impact directly or indirectly lands, territories and resources of Indigenous Peoples and Local Communities (IPLCs), and consistently during the Project's implementation. Refer to the ERS Programme for more details on the FPIC requirements.

2.3. **Stakeholder Mapping**

2.3.1. Developers must map and classify Communities and moral persons participating in or impacted by the Project according to their influence.

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

2.3.3. 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. Developers must ensure the health and safety of all of the Project's workers throughout the entire Project duration. Specifically, Developers must:

3.1.1. Ensure access to personal safety equipment.

3.1.2. Ensure adequate and equitable working conditions.

3.1.3. Ensure all of the Project's employees work of their own free will.

3.1.4. Comply with ILO's Convention on Forced Labour (No. 29) and ILO standards on occupational safety and health.

3.1.5. 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 will use the values indicated by the Global Living Wage Coalition as a reference.

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. Developers must have an open-door policy so Stakeholders can learn more, ask questions, air grievances, and convey relevant information.

4.2. Developers 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.

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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:

5.2.1. Improve health and well-being conditions, including but not limited to improving food security, securing access to clean water, and improving sanitation systems. Particular attention should be given to women's health.

5.2.2. Enhance access to quality education and capacity building.

5.2.3. Pay particular attention to increasing opportunities for women's empowerment (i.e. financial independence, training, capacity building, women's self-help groups, and organisational capacity, among others).

5.3. Where relevant, the Project should enable the development of alternative livelihoods and/or enhance existing ones, including Non-Timber Forest Products.

6. Cultural Heritage & Traditional Knowledge

6.1. Where relevant, the Project must:

6.1.1. Preserve cultural heritage and Traditional Knowledge.

6.1.2. Respect Traditional Knowledge, and not try to adapt it to scientific-based knowledge.

6.1.3. Acknowledge and compensate Traditional Knowledge transfers.

7. Non-Timber Forest Products (NTFPs)

7.1. **Planning.** Before initiating exploitation, Developers must:

7.1.1. Assess and ensure compliance with the applicable regulatory framework.

7.1.2. Consult Stakeholders during the Community Consultation to understand their traditional practices, the cultural and/or spiritual value attributed to NTFPs, and their subsistence reliance on them. Feedback must be integrated into the NTFPs' planning.

7.2. **Harvesting Protocols**. Developers must design a species-specific harvesting protocol that ensures the sustainable collection of NTFPs. The protocol must include:

7.2.1. The delimitation of collection sites in the Project area where harvesting can occur.

7.2.2. Safeguards to ensure that the regeneration rate of the NTFPs used surpasses its extraction rate. It must include the parts of the plant that can be harvested, the frequency, and quantity.

7.3. **Capacity Building and Training.**

7.3.1. Developers should organise regular training sessions for local communities on the sustainable harvesting protocols and the ecological role of NTFPs.

7.3.2. Developers should promote local ownership by involving communities in monitoring the use of NTFPs and participating in data collection processes.

7.3.3. Developers should encourage community members to report any unethical or illegal harvesting activities.

7.4. **Adaptive Management**

7.4.1. Developers must review the NTFPs protocol every four (4) years to account for changes in the ecosystem, the community's needs, and global best practices.

7.5. **Equity and Fair Benefit Sharing.** Developers must ensure that access to NTFPs and its derived benefits are fair and equitable. Particular attention should be paid to vulnerable communities and communities who depend on these resources for their livelihoods.

8. Benefit Sharing

8.1. All Projects with IPLCs among their Stakeholders must establish a Benefit-Sharing plan. Refer to the *General Project Requirements* section in the Programme for more details.

💡 Benefits can take multiple forms: direct payments, communal infrastructure or benefits-in-kind.

METHODS

1. Stakeholder Engagement

1.1. When IPLCs are part of the Stakeholders, Developers must report on FPIC compliance in the Feasibility Study, Ecological Recovery Tool, Benefit Sharing Plan, and PDD.

1.2. Developers must record the communities' attendance at meetings and document Stakeholder's suggestions for amending the Project's implementation plan. Such meetings should continue regularly throughout the Project's lifetime to ensure ongoing Stakeholder engagement.

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

1.4. Projects that undertook Pre-submission Activities must fill out the 'Livelihoods' section of the Pre-submission Activities Report during the Project Feasibility phase.

2. Baseline Assessment

2.1. The livelihood baseline must be performed using the Livelihood Matrix during the Community Consultation on Livelihoods at the Project Design phase.

2.2. Pre-submission 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. Developers must ensure that all involved parties are heard and can freely express their desires.

3.1.2. Developers 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 Developers and Stakeholders. When relevant, interventions must be linked with SDGs indicators.

3.2.2. Alternative income streams, when applicable.

3.2.3. NTFPs harvesting and monitoring protocols, 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 Benefit Sharing Plan.

4. Non-Timber Forest Products (NTFPs)

4.1. Developers must document the NTFPs inputs resulting from the Community Consultations in the 'Key Findings' field of the 'Interventions' tab in the Livelihood Matrix.

4.2. Developers must disclose any applicable legal framework, the Sustainable Harvesting Protocol, and detailed NTFPs activities in the Social Additionality Plan.

5. Measurement and Reporting

Refer to the *MRV Procedures* section for more details.

MRV *Procedures*

💡 This section applies the Programme's MRV (Monitoring, Reporting, and Verification) requirements to M001.

INDICATORS & PARAMETERS

1. GHG quantification

1.1. ERS must establish the following carbon parameters:

- The Reference Site(s) area;
- The Restoration Site(s) area and land cover;
- The Above Ground Biomass (AGB) density;
- The root-to-shoot ratios of woody and non-woody biomass;
- The carbon fraction of dry biomass;
- The forest cover used for permanence and leakage monitoring
- The control plots;
- The Leakage parameters: Hosting Area and % of displacement;
- The Standard Error from the AGB provider for each pixel;
- The correlation factor between the pixels.

2. Project interventions

2.1. Developers must establish indicators on:

2.1.1. Ecological Recovery interventions defined in the Restoration Plan. During the first four (4) years of each plantation cycle, the Developer must include the seedlings' survival rates as an indicator in the Restoration Plan.

2.1.2. Social Additionality interventions defined in the Social Additionality Plan. If the Project encompasses NTFP activities, Developers must include the performance of harvesting protocol(s) as an indicator in the Social Additionality Plan.

2.1.3. Reversal and delivery risks identified in the Risk Assessment Matrix.

2.1.4. Mitigation actions implemented in the Safeguards Declaration.

MONITORING

1. GHG quantification

1.1. Beginning the second year after the Project's certification date, ERS quantifies the Project's net GHG removals using the carbon parameters. Refer to the Quantification Methodology for Terrestrial Forest Restoration for more details.

1.2. ERS monitors loss events as described in the Programme and leakage as described in the *Leakage* section.

2. Project interventions

2.1. Developers must continuously monitor the indicators defined in the Monitoring Plan.

2.2. In addition, Developers must monitor:

2.2.1. Any Project deviations;

2.2.2. The realised expenses from the Project Budget, including the Benefit Sharing;

2.2.3. The overall progress of the Restoration Plan and the Social Additionality Plan.

REPORTING

1. GHG Quantification

1.1. Using the parameters of the *Indicators & Parameters* section, ERS must compile a GHG Quantification Report that consolidates the results of the net GHG removals achieved over the past Verification period. Refer to the *MRV* section of the Programme for more details.

2. Project interventions

2.1. Developers must complete the Annual Report, reporting on indicators for each pillar and consolidating the activities undertaken over the last twelve (12) months.

3. Adaptive Management

3.1. Developers must update the Project Design Document every four (4) years following Certification, based on the updated assessments of the Project compiled in the Annual Reports. More specifically, Developers must:

3.1.1. Perform a thorough field assessment to re-assess the Recovery Wheel, and update the Restoration Plan based on the findings.

3.1.2. Conduct a Community Consultation to re-assess Stakeholders' needs and aspirations, and update the Social Additionality Plan and the Leakage Mitigation Declaration based on the findings. If discrepancies from the initial objectives arise, an agreement must be established between the Developer and the Community.

3.1.3. Update the Project Budget for the next four (4) years.

3.2. Upon receiving the updated documentation, ERS must publish the updated Project documentation on the ERS Registry. Refer to Registry Procedures for more details.

Appendix 1

Documentation History

Version	Date	Comment
1.1	05/07/2024	Public release of version 1.1 of the *M001 - Methodology for Terrestrial Forest Restoration*
1.1	26/07/2024	Update for minor typographical revisions
1.1	28/11/2024	Updates to address accreditation Clarification Request. Main updates include: Section *'CARBON - Leakage'* (page 26) • clarified requirements for leakage monitoring and reporting. Section *'CARBON - Additionality'* (page 20) • clarified principles for every barrier of the barrier analysis.

Ecosystem Restoration Standard

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