

USER GUIDELINE –
Non-permanence Risk Assessment Tool (NPRAT)

1. Scope of the tool

This document outlines procedures for conducting a non-permanence risk assessment for ecosystem-based approaches projects, determining risk ratings for buffer credit deposits. It requires documentation of risk scores and validation by an Accredited Carbon Verification Agency (ACVA).

2. Applicability of the tool

The Non-Permanence Risk Assessment Tool (NPRAT) is applicable for all Ecosystem-Based Approaches under the Offset Mechanism (CCTS).

3. Tool Approval Date

The date of adoption of this document shall be effective from DD/MM/2026.

4. Procedure: Risk Analysis

4.1. Risk Analysis

- i. Potential transient and permanent carbon stock losses should be evaluated over a 100-year timeframe, using current conditions and available information at the time of the risk analysis. Projects that commenced earlier or are assessing risk during a later verification event must consider these losses for the forthcoming 100 years.
- ii. The risk analysis shall be conducted as follows:

Risk factors are divided into two main categories: Natural risks and Project risks (with further subdivisions such as project management, stakeholder engagement etc.). The project must be assessed against each risk factor in these categories and sub-categories as outlined in Sections 4.1.1 (Natural), 4.1.2 (Project risks). A risk score will be assigned to each category and sub-category, following the calculation formulas provided in each table to determine the respective risk rating.
- iii. Where applicable, and where the non-obligated entity demonstrates that related activities will be (at validation) or are being (at verification) applied, the risk rating for the sub-category will be modified, as determined in Sections 4.1.1 and 4.1.2.

- iv. As set out in Sections 4.1.1 and 4.1.2, all sub-categories set a minimum rating of 0.25 and a maximum of 20. The total risk rating for each category (natural and project) shall be determined by summing the ratings for each sub-category in the category.
- v. Projects that fail the assessment for any risk factor will not pass the entire risk assessment. If the overall risk rating, or the aggregate risk rating for each category, is too high as defined in Section 4.2, the project will fail the entire risk assessment. Projects that do not pass the risk assessment will be ineligible for crediting until they sufficiently mitigate the risk to avoid a Fail assessment.
- vi. An overall risk rating shall be determined based on the ratings from each risk category as set out in Section 4.2. The specific criteria against natural and project risks and the scoring criteria is described in the accompanying Non-Permanence Risk Assessment Tool (please see the excel sheet)
- vii. Where risks are relevant to only a portion of the project area in a grouped project, the project area shall be divided into sub-areas with similar risk profiles for the non-permanence risk assessment. Where a risk or mitigation factor does not apply to the project, the score shall be zero for that factor.

4.1.1. Natural Risk

- i. Natural risk is comprised of fire risk, pest and disease risk, extreme temperature risk, soil erosion risk, sea level rise risk and low ecosystem connectivity risk, based on impact and likeability of occurrence of event.
- ii. Historic natural risks shall be assessed using the tabs “Natural” and “Historical and Risk Mitigation” in the NPRA Tool Excel sheet, noting the following:

Historic natural risk is based on likelihood (i.e., the historical average number of times the event has occurred in the project area over the last 100 years) and significance (i.e., the average size of each event). The frequency and significance of events shall be estimated based on historical records, probabilities, remote sensing data, peer-reviewed scientific literature, survey data or documented local knowledge. Where data are available for at least 20 years but less than 100 years, projects shall conservatively extrapolate using the data. Where data are unavailable for the project area, likelihood and significance shall be determined based on conservative estimates (i.e., not underestimating the possible frequency or severity) of historical events in the project region.

- iii. The significance of natural risks shall be determined based on the damage that the project would sustain if the event occurred. It shall be estimated by calculating the percentage of average carbon stocks in the project area that would be lost in a single event.
- iv. The natural risk mitigation factors may be applied where evidence demonstrates that prevention measures are in place, or the project has a history of effectively containing natural risk.
 - a) Fire risk: Fuel removal, the establishment of fire breaks and fire towers, and ready access to adequate fire-fighting equipment.
 - b) Risk of pest or disease outbreaks: Planting of biodiverse species, selection of pest or disease resistant species and co-planting of vegetation that inhibits pest infestation during the early growing period.
 - c) Extreme weather risk: Planting frost-tolerant species in areas where winter frost is a risk, use of riparian zones or other buffers for flood or storm control and use of species tolerant of wet soil conditions where flooding risks exist.
 - d) Other natural risks: Use of plant species tolerant of salinity fluctuations in estuarine wetlands. The Summation of the same, gives the net Risks Score.

Natural Risk Rating

The rating is to be calculated as per the instructions set out in tab 'NATURAL RISK'

Total Risk Rating is the summation of individual scores of the seven sub-categories.

Total risk rating shall range from 1.75 to 140.

4.1.2 Project Risk

Land and resource tenure (LT)

- i. The non-obligated entity shall select the risk score for the land rights, resource access rights, use rights and the ownership situation applicable to the project.
- ii. Land and resource tenure is the system of rights to lands, territories, and resources, including obligations, rules, institutions, and processes regulating ownership of, access to, and use of land and associated resources. Land and resource rights may be synonymous with property rights and encompass full ownership and lesser usufructuary rights to use or have access to the project area and the resources within it, such as rights to fell timber, collect fallen branches or graze livestock.

- iii. Land may be government-, community- or privately owned. Ownership refers to a title or right encompassing full control of the land in perpetuity and may include the right to transfer or sell land or resource access and use rights.
- iv. A conservation easement or servitude is a permanent, legally binding restriction voluntarily placed on an area of land to protect its associated conservation resources or values. It transfers with the land when the ownership changes.
- v. A protected area is a clearly defined area recognized, dedicated, and managed through legal or other means to achieve the long-term conservation of nature and its associated ecosystem services and cultural values. Protected areas include national parks, nature reserves, wilderness areas, wildlife management areas and landscape-protected areas, which the government, communities, or other entities may manage.
- vi. There may be overlapping rights, such as where customary rights overlap with legal ownership. Evidence shall be provided that due process has been undertaken to discover any disputes over ownership and land, resource access, or use rights, including determining whether there are overlapping boundaries or competing claims on the land or resources that may put the project carbon stocks at risk of reversal. The onus is upon the project proponent to demonstrate such a process has been undertaken, failing which the project shall not pass the risk assessment and shall not be eligible for crediting. Evidence may include survey responses, correspondence with relevant land title agencies or departments, or proof that the project has secured title insurance.
- vii. Stakeholder encroachment in the project area impacting project carbon stocks (e.g., tree harvesting, land conversion) after the project start date and within 5 years of the current risk report is considered a dispute. The project shall demonstrate endorsement (through a legal agreement) from all entities with verified ownership claims or land, resource access, or use rights (such as customary rights holders).

Stakeholder Engagement -

- i. Stakeholder engagement shall be assessed for projects where local populations, including those living in the project area or within 20 km of the boundary of the project area, are reliant on the project area, such as for essential food, fuel, fodder, medicines or building materials. Evidence of stakeholder engagement may include social assessments such as household surveys and participatory rural appraisals.

- ii. Stakeholders are considered consulted and involved in participatory planning where there have been direct meetings and planning with associations or community groups that are legally recognized to represent the households.

Project management -

- i. Management teams consist of individuals tasked with overseeing the daily management and execution of project activities. These teams might include the non-obligated entity, the implementing partner, or carbon project development partners who are contractually committed to supporting the project activities.
- ii. Proof that the species planted are suited to the same or similar agro-ecological zones, soil types, and cropping or grassland systems as the project's location can be shown through scientific journal publications; technical reports from government agencies, NGOs, or research organizations; or through successful long-term use by other projects registered within the Indian Carbon Market or another recognized GHG program.
- iii. Projects must develop an adaptive management plan. These plans identify, evaluate, and formulate mitigation strategies for potential risks to the project, including those mentioned in this document and any other implementation challenges. They should also outline a process for monitoring progress, documenting lessons learned or necessary corrections and incorporating these insights into project decisions for future monitoring periods. The responsibility lies with the non-obligated entity to show that such plans exist and account for potential risks and obstacles. Additionally, there should be a system in place for adapting to changing circumstances.

Project Risk Rating

The rating is to be calculated as per the instructions set out in tab 'Project Risk' of the NPRA tool excel sheet.

Total Risk Rating= LT+SE+ PM

Total risk rating should be in the range 0.75 to 60.

4.2. Overall Risk Rating

- i. For natural risk , if the risk rating exceeds XX, the project's risk is considered unacceptably high, resulting in a failed risk analysis. Such projects will not qualify for crediting until they adequately address the risks or implement sufficient mitigation measures to reduce the overall risk rating to XX or below. Similarly for project threshold the acceptance threshold is set at YY.
- ii. If the total risk ratings for any category surpass the specified thresholds, the project will fail the risk analysis and remain ineligible for crediting until the risks are mitigated to fall below these thresholds.
 - Natural risk threshold: XX
 - Project Risk: YY
- iii. To calculate the number of buffer credits for deposits in the pooled buffer account, the overall risk rating must be converted to a percentage. This percentage is then multiplied by the net change in the project's carbon stocks, as specified in the monitoring and verification report. If the project is segmented into multiple geographic areas or clusters for risk analysis, the overall risk rating percentage for each area should be applied to the net change in carbon stocks within that specific area, as reported in the verification document. Buffer credits should be deposited in the pooled buffer account, which also details the rules and requirements for releasing and canceling buffer credits from the account.