



SOCIALCARBON®

Guidance for AFOLU  
Non-Permanence Risk.

Version 1.0

socialcarbon.



## 1. Purpose of this Document

This document outlines the procedures for conducting a non-permanence risk analysis to determine the non-permanence risk rating, referred to as the "risk rating." The resulting risk rating is utilized to ascertain the quantity of buffer credits that an AFOLU project must deduct during SCU issuances.

The risk ratings are established through an evaluation of various risk factors, which are aggregated to derive the overall risk rating, as detailed in Section 2. Periodic reconciliation and revision of this document and the AFOLU pooled buffer account occur through a review of existing AFOLU verification reports and an assessment of project performance, following the guidelines in the SOCIALCARBON Program Guide.

In addition to the specifications outlined in this document, AFOLU projects must adhere to all applicable SOCIALCARBON Standard rules and requirements. Project proponents are required to thoroughly document and substantiate the risk analysis for each relevant risk factor. Throughout the analysis, the validation/verification body assesses the project proponent's risk assessment and evaluates all data, rationales, assumptions, justifications, and documentation provided in support of the non-permanence risk rating.

The scope of the non-permanence risk analysis is limited to GHG removals or avoided emissions through carbon sinks. Project activities generating emissions reductions of N<sub>2</sub>O, CH<sub>4</sub>, or fossil-derived CO<sub>2</sub> are exempt from buffer deductions, as these GHG benefits cannot be reversed.

The Non-Permanence Risk Analysis procedures have been adapted from market-adopted approaches to Non-Permanence Risk analysis. We would like to share our gratitude to market participants, particularly Verra, for their contribution to non-permanence risk assessments.

## 2. Risk Analysis and Buffer Determination

### 2.1 STEP 1: Risk Analysis

2.1.1 The evaluation of potential transient and permanent losses in carbon stocks spans a 100-year period and is based on prevailing conditions and available information at the time of the risk analysis, unless otherwise specified in Sections 2.2 to 2.4, to establish the appropriate risk rating. For instance, projects initiated in the past or those analyzing risk during subsequent verification events will assess potential losses over the next century based on conditions present and available information during the risk analysis.

2.1.2 The risk analysis process is as follows:

- 1) Risk factors are categorized into internal, external, and natural risks, with further sub-categories such as project management, financial viability, and community engagement. The project is assessed against each risk factor in each category and sub-category, as outlined in Sections 2.2 (internal risks), 2.3 (external risks), and 2.4 (natural risks). Each risk factor is assigned a risk score, and calculation formulas in each table are applied to determine the risk rating for the sub-category and category.
- 2) When applicable, and upon demonstration by the project proponent that mitigation activities are applied (at validation) or are ongoing (at verification), the risk rating for the sub-category is reduced, as specified in Sections 2.2 to 2.4.
- 3) As per Sections 2.2 to 2.4, some sub-category tables allow the sub-category risk rating to go below zero, particularly when mitigation activities in the subcategory have the potential to reduce risks in other sub-categories. In the absence of risk mitigation synergies, the tables set a minimum rating of zero, even if the calculation would otherwise yield a lower than zero rating.
- 4) The total risk rating for each category (internal, external, and natural) is determined by summing the ratings for each sub-category in the category. Although certain sub-categories may have negative values, the total rating for any category cannot be less than zero.
- 5) If a project is assessed as Fail for any risk factor, the entire risk analysis is considered a failure. If the overall risk rating or the summed risk rating for each



category is deemed unacceptably high, as outlined in Section 2.5.3, the entire risk analysis is considered a failure. In such cases, the project is ineligible for crediting until the risk is adequately addressed to a point where it would no longer be assessed as Fail.

- 6) An overall risk rating percentage is determined based on the ratings from each risk category, as specified in Section 2.5.

2.1.3 In situations where risks are relevant to only a portion of the project's geographic area, the geographic area may be divided. If a project is divided into multiple geographic areas for risk analysis, a single overall risk rating is determined for each area, and the project's monitoring and verification reports list the overall risk rating for each area along with the corresponding net change in the project's carbon stocks in that area.

## 2.2 Internal Risks

2.2.1 The evaluation of Project Management (PM) shall be conducted using Table 1, with the following considerations:

- 1) Every project management risk factor specified in Table 1 must undergo assessment. If a particular risk factor is not applicable to the project, the score for that factor should be zero.
- 2) Management teams responsible for day-to-day project management and implementing project activities may consist of the project proponent, the implementing partner (refer to the SOCIALCARBON Standard document Program Definitions for the definition of implementing partner), and/or carbon project development partners with contractual commitments to support project activities.
- 3) Demonstration of the adaptation of planted species to the same or similar agro-ecological zone(s) as the project is located can be evidenced through publications in scientific journals, technical reports from government agencies, NGOs, or research groups, or successful historical use by other projects registered under the SOCIALCARBON Standard or an approved GHG program.
- 4) Ongoing enforcement pertains to the necessity of safeguarding carbon stocks

in the project area from encroachment by external entities.

- 5) Adaptive management plans identify, assess, and formulate mitigation plans for potential risks to the project, encompassing those outlined in this document and any other hindrances to project implementation. These plans include a process for monitoring progress, documenting lessons learned or necessary corrections, and integrating them into future project decision-making during subsequent monitoring periods. The responsibility lies with the project proponent to demonstrate the existence of such plans, their consideration of potential risks and obstacles to the project, and the establishment of a system for adapting to changing circumstances.

**Table 1: Project Management**

Project Management		
a)	Species planted (where applicable) associated with more than 25% of the stocks on which GHG credits have previously been issued are not native or proven to be adapted to the same or similar agro-ecological zone(s) in which the project is located.	2
b)	Ongoing enforcement to prevent encroachment by outside actors is required to protect more than 50% of stocks on which GHG credits have previously been issued.	2
c)	Management team does not include individuals with significant experience in all skills necessary to successfully undertake all project activities (ie, any area of required experience is not covered by at least one individual with at least 5 years experience in the area).	2
d)	Management team does not maintain a presence in the country or is located more than a day of travel from the project site, considering all parcels or polygons in the project area.	2
e)	<b>Mitigation:</b> Management team includes individuals with significant experience Management team includes individuals with significant experience in AFOLU project design and implementation, carbon accounting and reporting (eg, individuals who have successfully managed projects through validation, verification and issuance of GHG credits) under the SOCIALCARBON Program or other approved GHG programs.	-2
f)	<b>Mitigation:</b> Adaptive management plan in place	-2
<b>Total Project Management [a + b + c + d + e + f]</b>		<b>0</b>
Note: When a risk factor does not apply to the project, the score shall be zero for such factor		

2.2.2 The evaluation of Project Management (PM) shall be conducted using Table 2, with the following considerations:

**Table 2: Financial Viability**

<b>Financial Viability</b>		
Q	How many years does it take for the cumulative cashflow to break even?	
Q	What percentage of funding is needed to cover the total cash out before the project breaks even has been secured?	
a)	Project cash flow breakeven point is greater than 10 years from the current risk assessment	3
b)	Project cash flow breakeven point is between 7 and up to less than 10 years from the current risk assessment	2
c)	Project cash flow breakeven point between 4 and up to less than 7 years from the current risk assessment	1
d)	Project cash flow breakeven point is less than 4 years from the current risk assessment	0
e)	Project has secured less than 15% of funding needed to cover the total cash out before the project reaches breakeven	3
f)	Project has secured 15% to less than 40% of funding needed to cover the total cash out required before the project reaches breakeven	2
g)	Project has secured 40% to less than 80% of funding needed to cover the total cash out required before the project reaches breakeven	1
h)	Project has secured 80% or more of funding needed to cover the total cash out before the project reaches breakeven	0
i)	<b>Mitigation:</b> Project has available as callable financial resources at least 50% of total cash out before project reaches breakeven	-2
<b>Total Financial Viability [(a, b, c or d) + (e, f, g or h) + i]</b>		
Note: When a risk factor does not apply to the project, the score shall be zero for such factor		

2.2.3 The assessment of Opportunity Cost (OC) will be carried out using Table 3, with the following considerations:

- 1) Opportunity cost analysis is to be conducted based on the alternative land uses identified in the project's additionality assessment. The project proponent bears the responsibility of demonstrating and substantiating credible alternative land use scenarios within the area. This should minimally encompass activities outlined in the baseline scenario. The opportunity cost analysis must involve a

net present value (NPV) analysis, covering the project crediting period, comparing such alternatives with the project. This analysis should account for a conservative estimate of revenue from GHG credit sales, other project revenue streams, and potential price fluctuations of commodities affected by the project. Financial discount rates should align with published sources, reflecting the relevant risk for the specified land use scenario. Estimates of prices for GHG credit sales must be grounded in published sources, such as market intelligence reports. The analysis should be transparent, providing all relevant assumptions, parameters, and data sources, enabling readers to reproduce the analysis and arrive at the same results.

- 2) In cases where the majority of baseline activities throughout the project crediting period are subsistence-driven, an NPV analysis is not mandatory. However, an evaluation of the net impacts of the project on the social and economic well-being of communities relying on the project area should be undertaken. Based on this evaluation, the project will be assigned an opportunity cost score as outlined in Table 3.
- 3) A non-profit organization is one that does not distribute surplus funds to owners or shareholders but instead utilizes them to pursue its goals, such as poverty alleviation, community development, or biodiversity conservation. Governments and government agencies, even if meeting this definition, are not considered non-profit organizations for the purpose of this tool.

**Table 3: Opportunity Cost**

Opportunity Cost		
Q	What is the NPV from the most profitable alternative land use activity compared to NPV of project activity?	
a)	NPV from the most profitable alternative land use activity is expected to be at least 100% more than that associated with project activities; or where baseline activities are subsistence-driven, net positive community impacts are not demonstrated	8
b)	NPV from the most profitable alternative land use activity is expected to be between 50% and up to 100% more than from project activities	6
c)	NPV from the most profitable alternative land use activity is expected to be between 20% and up to 50% more than from project activities	4

d)	NPV from the most profitable alternative land use activity is expected to be between 20% more than and up to 20% less than from project activities; or where baseline activities are subsistence-driven, net positive community impacts are demonstrated	0
e)	NPV from project activities is expected to be between 20% and up to 50% more profitable than the most profitable alternative land use activity	-2
f)	NPV from project activities is expected to be at least 50% more profitable than the most profitable alternative land use activity	-4
g)	<b>Mitigation:</b> Project proponent is a non-profit organization	-2
h)	<b>Mitigation:</b> Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over the length of the project crediting period (see project longevity)	-2
i)	<b>Mitigation:</b> Project is protected by legally binding commitment to continue management practices that protect the credited carbon stocks over at least 100 years (see project longevity)	<b>-8</b>
<b>Total Opportunity Cost [(a, b, c, d, e or f) + (g + h or i)]</b>		
Note: When a risk factor does not apply to the project, the score shall be zero for such factor		
Total may be less than zero		

2.2.4 The assessment of Project Longevity (PL) will be carried out using Table 4, with the following considerations:

- 1) Project longevity is defined as the duration, starting from the project initiation, during which project activities will be sustained. This period may extend beyond the project crediting period, provided projects can demonstrate the continuation of activities that maintain carbon stocks, for which GHG credits have been previously issued. The project longevity score is determined using the formulas outlined in Table 4.
- 2) Documentation must be provided to affirm that project ownership, as per the specifications in the SOCIALCARBON Standard, can be maintained for the entire project longevity. For instance, if control is secured through a concession with a duration shorter than the project longevity, the concession should be renewable for the full claimed longevity period.
- 3) For all AFOLU project types, management and financial plans submitted to local government or financial institutions, or otherwise made public, must cover the





entire project longevity. These plans should articulate the intention to persist with management practices, and external evidence, such as municipal land-use plans, institutional structures, or tools like ecological-economic zoning, may be included.

- 4) In ARR projects involving harvesting, project longevity encompasses the duration of activities that maintain carbon stocks, either through the continuation of the project activity or by replanting or allowing re-growth of trees post the last harvest in the project crediting period. Commitment to continuing the management practice or facilitating replanting or re-growth should be substantiated with evidence, such as certification of sustainable forest management under recognized schemes like the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification (PEFC), or contractual agreements for timber supply beyond the last harvest in the crediting period. Re-growth is considered viable only if project areas, after harvesting, will be managed for regeneration, maintaining the current species mix and allowing trees to re-grow to an age equivalent to at least the age at which they were harvested, as indicated in management plans.
- 5) Legal agreements or requirements mandating the continuation of the management practice must be legally enforceable, such as conservation easements or protected area laws, covering the entire project longevity. In ARR projects with harvesting, compliance with legal requirements allowing re-growth may be demonstrated by referencing the relevant legal statute and common practice. Projects with a legally binding agreement covering at least a 100-year period from the project start date are assigned a score of zero for project longevity.
- 6) If the AFOLU project longevity is less than 30 years, the project does not pass the risk assessment and is ineligible for crediting.

**Table 4: Project Longevity**

Project Longevity	
Q	Does the project have a legally binding agreement that covers at least a 100 year period from the project start date?
Q	What is the project Longevity in years?
Q	Legal Agreement or requirement to continue management practice?

a)	Without legal agreement or requirement to continue the management practice	
b)	With legal agreement or requirement to continue the management practice	
<b>Total Project Longevity</b>		
<p><b>Note:</b> Total may not be less than zero.          Any project with a legally binding agreement that covers at least a 100 year period from the project start date will be assigned a score of zero.          Any project with a project longevity of less than 30 years fails the risk assessment</p>		

2.2.5 The total risk assessment for internal risk is established through the utilization of Table 5. It is important to acknowledge that the overall internal risk rating can consider adverse ratings from internal risk sub-categories, particularly those specifying that the rating might fall below zero, as observed in project management and opportunity cost. Nevertheless, it is essential to emphasize that the overall internal risk rating cannot be below zero.

**Table 5: Total Internal Risk**

<b>Total Internal Risk (PM + FV + OC + PL)</b>
Note: Total may not be less than zero

## 2.3 External Risks

2.3.1 The evaluation of land and resource tenure (LT) shall be conducted using Table 6, with the following considerations:

- 1) The project proponent is responsible for selecting the appropriate risk score pertaining to the land/resource access/use rights and ownership situation relevant to the project.
- 2) Any additional withholding necessitated by disputes over land/resource ownership or access/use rights must be incorporated into the risk score.
- 3) The mitigation discount may be deducted if it can be proven that such mitigation measures are in effect.
- 4) Land and resource tenure encompass the systems of rights to lands, territories, and resources, including obligations, rules, institutions, and processes governing



ownership, access, and utilization of land and associated resources. Tenure and resource rights, akin to property rights, may involve complete ownership or lesser usufructuary rights, such as rights to fell timber or collect fallen branches, within the project area.

- 5) Land may be government, community, or privately owned, and ownership implies a title or right providing complete control over the land perpetually, including the right to transfer or sell land or resource access/use rights.
- 6) A conservation easement is a permanent legally binding restriction voluntarily placed on a land area to safeguard its associated resources, with project ownership and management defined and transferring with any changes in ownership.
- 7) A protected area is a clearly defined region acknowledged, dedicated, and managed through legal or other means to achieve the long-term conservation of nature, including national parks, nature reserves, wilderness areas, wildlife management areas, and landscape protected areas, managed by government, communities, or other entities.
- 8) Project ownership must be demonstrated as outlined in the SOCIALCARBON Standard. In cases of overlapping rights, such as customary rights overlapping with legal ownership, evidence must be presented that due process has been followed to identify disputes over ownership and land/resource access/usage rights. This includes determining whether there are overlapping boundaries or competing claims on the land or resources that could jeopardize carbon stocks in pools included in the project boundary. The burden lies with the project proponent to prove the undertaking of such a process; failure to do so will result in the project failing the risk assessment and becoming ineligible. Evidence may include survey responses, correspondence with relevant land title agencies/departments, or evidence that the project has secured title insurance.
- 9) In cases where disputes exist over potential ownership or land/resource access/usage rights, or where overlapping access/usage rights occur within the project area, the project proponent must apply the risk scores detailed in Table 6. It must be demonstrated, in addition to the SOCIALCARBON Standard requirements for project ownership, that the project has endorsement from all entities with credible ownership claims or land/resource access/use rights, including formal and/or traditional authorities.

- 10) WRC projects are susceptible to upstream and sea impacts that may compromise issued credits, whether driven by natural processes or resulting from policy decisions. Unless it is demonstrated that such impacts on issued credits are inconsequential or expected to be insignificant within the next 10 years, or that there is an effective plan in place to mitigate such impacts, WRC projects must apply the risk score detailed in Table 6. WRC projects must also prove that hydrologically connected areas adjacent to the project boundary will not significantly negatively impact the project area, following the full requirements in the SOCIALCARBON Standard.

**Table 6: Land Tenures & Resources**

Land Tenure & Resources		
Q	Are the ownership and resource access/use rights held by the same or different entities?	
a)	Ownership and resource access/use rights are held by same entity(s)	0
b)	Ownership and resource access/use rights are held by different entity(s) (eg, land is government owned and the project proponent holds a lease or concession)	2
c)	In more than 5% of the project area, there exist disputes over land tenure or ownership	10
d)	There exist disputes over access/use rights (or overlapping rights)	5
e)	WRC projects unable to demonstrate that potential upstream and sea impacts that could undermine issued credits in the next 10 years are irrelevant or expected to be insignificant, or that there is a plan in place for effectively mitigating such impacts	5
f)	<b>Mitigation:</b> Project area is protected by legally binding commitment (eg, a conservation easement or protected area) to continue management practices that protect carbon stocks over the length of the project crediting period	-2
g)	<b>Mitigation:</b> Where disputes over land tenure, ownership or access/use rights exist, documented evidence is provided that projects have implemented activities to resolve the disputes or clarify overlapping claims	-2
<b>Total Land Tenure [(a or b) + c + d + e + f +g]</b>		
Note: When a risk factor does not apply to the project, the score shall be zero for such factor		
Total may not be less than zero		

2.3.2 The evaluation of community engagement (CE) shall be conducted using Table 7, with the following considerations:

- 1) The evaluation of community engagement is applicable to projects where local populations, including those residing within or around the project area (within a 20 km radius of the project boundary), depend on the project area for essential needs such as food, fuel, fodder, medicines, or building materials. If local populations are not reliant on the project area, the risk is deemed irrelevant, resulting in a community engagement (CE) risk rating of zero. Supporting evidence may include social assessments like household surveys and participatory rural appraisals.
- 2) Households are considered consulted and involved in participatory planning if direct meetings and planning sessions have taken place with associations or community groups that are legally recognized to represent these households.
- 3) To qualify for mitigation credit, it must be shown that a recent participatory assessment of the positive and negative impacts of the project activities on local communities, who derive their livelihoods from the project area, has been conducted. This assessment should demonstrate net positive benefits on the social and economic well-being of these communities. A participatory assessment is deemed current if completed within at least five years before the risk analysis.

**Table 7: Community Engagement**

<b>Community Engagement</b>		
a)	Less than 50 percent of households living within the project area who are reliant on the project area, have been consulted	10
b)	Less than 20 percent of households living within 20 km of the project boundary outside the project area, and who are reliant on the project area, have been consulted	5
c)	<b>Mitigation:</b> The project generates net positive impacts on the social and economic wellbeing of the local communities who derive livelihoods from the project area	-5
<b>Total Community Engagement [a + b + c]</b>		
Note: When a risk factor does not apply to the project, the score shall be zero for such factor		

Total may be less than zero

2.3.3 Political risk (PC) assessment utilizes Table 8, with the following considerations:

- 1) A governance score, ranging from -2.5 to 2.5, is derived from the mean of Governance Scores across the six indicators of the World Bank Institute's Worldwide Governance Indicators (WGI). This calculation is averaged over the most recent five years of available data. Governance scores are then translated into risk scores according to the specifications in Table 9.
- 2) The mitigation discount may be applicable under the following conditions:
  - a) The country is receiving REDD+ Readiness funding from entities such as the World Bank Forest Carbon Partnership Facility, UN-REDD, or other bilateral or multilateral donors, and is implementing a REDD+ policy framework that includes key components such as GHG credit ownership, clear government authority over REDD+ projects, and/or national measurement, reporting, and verification systems.
  - b) The country is engaged in the CARE REDD+ Social and Environmental Standards initiative.
  - c) The jurisdiction in which the project is situated is actively involved in the Governors' Climate and Forest Taskforce (GCF).
  - d) The country has an established national FSC or PEFC standards body.
  - e) The country has an established Designated National Authority under the CDM and has at least one registered CDM Afforestation/Reforestation project.

**Table 8: Political Risk**

Political Risk	
Q	What is the country's calculated Governance score?
a)	Governance score of less than -0.79 <span style="float: right;">6</span>
b)	Governance score of -0.79 to less than -0.32 <span style="float: right;">4</span>
c)	Governance score of -0.32 to less than 0.19 <span style="float: right;">2</span>
d)	Governance score of 0.19 to less than 0.82 <span style="float: right;">1</span>
e)	Governance score of 0.82 or higher <span style="float: right;">0</span>

f)	<b>Mitigation:</b> Country implementing REDD+ Readiness or other activities such as: a) The country is receiving REDD+ Readiness funding from the FCPF, UN-REDD or other bilateral or multilateral donors b) The country is participating in the CARE REDD+ Social and Environmental Standards Initiative c) The jurisdiction in which the project is located is participating in the Governors' Climate and Forest Taskforce d) The country has an established national FSC or PEFC standards body e) The country has an established DNA under the CDM and has at least one registered CDM A/R project	-2
<b>Total Political Risk [(a, b, c, d or e) + f]</b>		
Note: When a risk factor does not apply to the project, the score shall be zero for such factor		
Total may not be less than zero		

2.3.4 The total risk rating for external risk shall be calculated as outlined in Table 9. It's important to recognize that the overall external risk rating may consider adverse ratings from external risk sub-categories, specifically those sub-categories acknowledging that the rating might fall below zero, such as Community Engagement. Nevertheless, it's crucial to emphasize that the total external risk rating cannot be less than zero.

**Table 9: Total External Risk**

<b>Total External Risk (LT + CE +PC)</b>
Note: Total may not be less than zero

## 2.4 Natural Risks

2.4.1 The evaluation of Natural Risks (NR) shall be conducted using Table 10, with the following considerations:

- 1) Natural risk is evaluated based on both likelihood (historical average occurrences of the event in the project area over the last 100 years) and significance (average impact of each event). Any significant natural risk, defined as a risk affecting more than 5% of the project area, that has



transpired in the project area over the past century is considered applicable to the project. The estimation of event frequency and significance relies on historical records, probabilities, remote sensing data, peer-reviewed scientific literature, documented local knowledge, and survey data in project areas, including potential climate change impacts. In instances where data cover at least 20 years but less than 100 years, projects should conservatively extrapolate based on available data. When such data are unavailable for the project area, likelihood and significance are determined using conservative estimates derived from historical events in the region where the project is situated.

- 2) The significance of natural risks is gauged by the damage the project would sustain in the event, expressed as an estimated percentage of average carbon stocks in the project area lost in a single occurrence.
- 3) Mitigation of natural risk factors can be applied when evidence is provided of preventive measures in place or the project has a proven track record of effectively managing natural risks. Examples of mitigation/prevention measures include, among others:
  - a) Fire risk: Removal of fuel, creation of fire breaks and fire towers, and access to adequate fire-fighting equipment.
  - b) Risk of pest/disease outbreaks: Planting diverse species, selecting pest/disease-resistant species, and co-planting vegetation that deters pest infestation during early growth.
  - c) Extreme weather risk: Planting frost-tolerant species in frost-prone areas, utilizing riparian zones or other buffers for flood or storm control, and using species tolerant of wet soil conditions in flood-prone areas.
  - d) Other natural risks: Employing plant species tolerant of salinity fluctuations in estuarine wetlands.
- 4) Natural risk assessment proceeds as follows:
  - a) All applicable natural risk factors are assessed using Table 10. AFOLU projects must assess, at a minimum, fire, pest and disease outbreaks, extreme weather events such as hurricanes, and geological risks such as earthquakes and volcanoes. WRC projects must also assess additional natural risks, such as changes in the seasonal timing and



- depth of the water table and, where applicable, wrack deposition in tidal wetlands from storm surges.
- b) Likelihood and significance (LS) and mitigation (M) (if any) are assessed for each identified risk factor, following the Likelihood and Significance and Mitigation tables below. These values are multiplied to determine the risk score for each natural risk applicable to the project (i.e.,  $LS \times M$ ).
  - c) The total natural risk is determined by adding the scores for each risk factor (i.e., fire (F), pest and disease outbreaks (PD), extreme weather (W) events, geological risk (G), and any other (ON) natural risks identified (use ON1, ON2, ONX where multiple other risks are identified)).

**Table 10: Natural Risks**

		Natural Risk Score (LS)				
		Likelihood				
		Less than every 10 years	Every 10 to less than 25 years	Every 25 to less than 50 years	Every 50 to less than 100 years	Once every 100 years or more, or risk is not applicable to project
Significance	Catastrophic (70% or more loss of carbon stocks)	FAIL	30	20	5	0
	Devastating (50% to less than 70% loss of carbon stocks)	30	20	5	2	0
	Major (25% to less than 50% loss of carbon stocks)	20	5	2	1	0
	Minor (5% to less than 25% loss of carbon stocks)	5	2	1	1	0
	Insignificant (less than 5% loss of carbon stocks) or transient (full recovery of lost carbon stocks)	2	1	1	0	0
	No Loss	0	0	0	0	0

Natural Risk Mitigation (M)	
Prevention measures applicable to the risk factor are implemented	0.50
Project proponent has proven history of effectively containing natural risk	0.50
Both of the above	0.25
None of the above	1.00

Risk Category Factors	
a)	Fire (F)
b)	Pest and Disease Outbreaks (PD)

c)	Extreme Weather (W)
d)	Geological Risk (G)
e)	Other natural risk (ON1)
f)	Other natural risk (ON2)
g)	Other natural risk (ON3)
<b>Total Natural Risk [F + PD + W + G + ON]</b>	

## 2.5 Step 2: Overall Non-Permanence Risk Rating and Buffer Determination

2.5.1 The total non-permanence risk rating is established by referencing Table 11, with emphasis on rounding the overall risk rating to the nearest whole percentage.

2.5.2 The minimum allowable risk rating is set at 10, irrespective of the risk rating calculated using Table 11.

2.5.3 If the overall risk rating exceeds 60, the project is deemed to have an unacceptably high level of risk, resulting in the failure of the entire risk analysis. In such cases, the project is ineligible for crediting until risks are adequately addressed or sufficient mitigation measures are implemented to the extent that the project would no longer be classified as a failure. Furthermore, if the total sum of risk ratings for any risk category surpasses the following thresholds, the project fails the complete risk analysis and becomes ineligible for crediting until it is no longer assessed as a failure:

- Internal risk: 35
- External risk: 20
- Natural risk: 35

2.5.4 To calculate the number of buffer credits to be deducted, the overall risk rating is converted to a percentage (e.g., a 20 overall risk rating translates to 20%). This percentage is then multiplied by the net change in the project's carbon stocks, as indicated in the verification report, as detailed in the SOCIALCARBON Standard document Registration and Issuance Process. In instances where a project is segmented into multiple geographic areas for risk analysis, the overall risk rating

percentage for each area is multiplied by the net change in the project's carbon stocks within that specific geographic area.

## Appendix 1: Document History

Version	Date	Description
1.0	20 November 2023	Initial release under SOCIALCARBON Standard v6.