

# **Executive Summary**

This document details the Estimated Rating framework logic for the ARR project type.

ARR activities are diverse and can include: agroforestry, commercial plantations, farmer-assisted natural regeneration, and mangrove restoration. They are popular nature-based solutions (NBS) because project activities result in carbon sequestration, which means ARR credits qualify as removals. This white paper explains how we provide an estimation of the Rating range a project would receive based on select few, material data points provided by the project and benchmarked against Sylvera-provided data.

This contains a **description** of each component used in the assessment, **scoring logic** which breaks down the rules used to derive a quality score for each component, and **data inputs** where these are used in specific tests.

It is important to note that Estimated Ratings are not reviewed by a Ratings Committee, are not monitored after delivery and do not involve any proactive developer engagement. Full due diligence aided by our Ratings is encouraged prior to an investment decision.



# **Integrity Risk**





## (i) Description

The Estimated Rating is based on selected, key data points, surfaced in the assessment, which are the core drivers of the equivalent scoring in our Ratings. The range provided is an estimation of what Rating a project may achieved based on the key information, it is not an exhaustive analysis nor a guarantee. Full due diligence aided by our Ratings is encouraged prior to an investment decision.

# ( Scoring Logic

The Estimated Rating range is calculated by evaluating each pillar **Carbon Accounting**, **Additionality** and **Permanence** scores separately and mapping these against the Ratings matrices for that project type framework (see user guide). A **Safeguarding and Co-Benefits** is also calculated. This is leveraging our estimated scores as limiting factors on the Rating, and therefore the upper and lower bound set by those limiting factors are combined on the final Ratings matrix to triangulate the Estimated Rating range.

The Estimated Rating range provided is based on limited inputs about the project's design and reporting where applicable. The inputs were selected based on known materiality for project integrity but will not capture all project nuance. Thus, the range is a prediction of where the project Rating will fall but this is not a guarantee and should not be used to underpin any investment decisions.

### Notes:

At the component level - higher scores indicate lower risk (5 = very low risk; 1 = very high risk).



# **Carbon Accounting**

# (i) Description

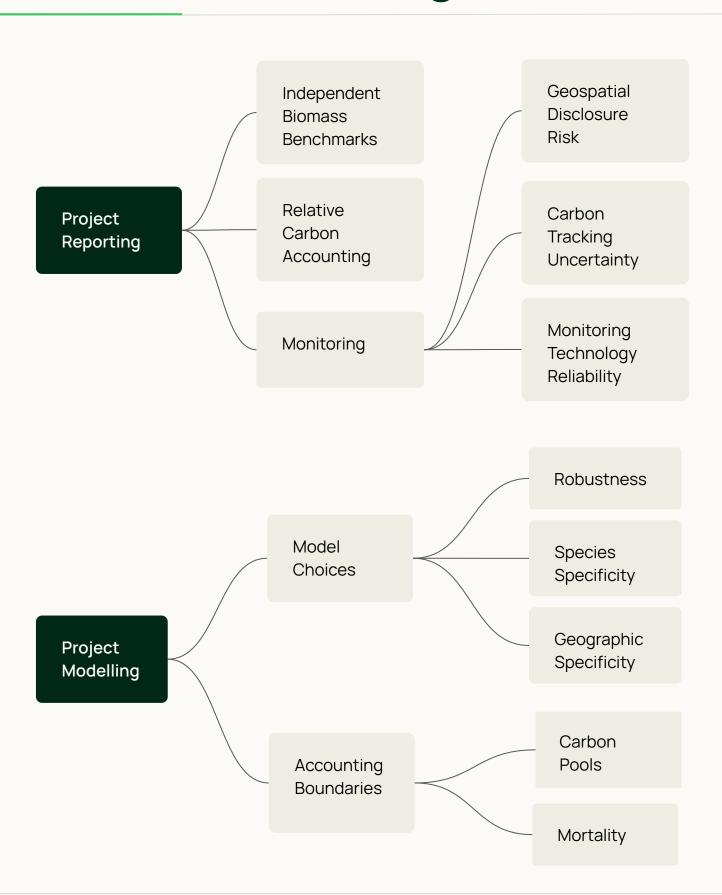
Carbon accounting refers to the methods, assumptions and reporting of the project related to carbon fluxes on the ground which are ultimately used to calculate the credit volumes. Accurate carbon accounting is essential to minimizing over crediting risk.

# ( Scoring Logic

The **Carbon Accounting** score is calculated by averaging the **Project Modelling** and **Project Reporting** components.



# **Carbon Accounting**





# **Project Reporting**

**CARBON ACCOUNTING** 

# (i) Description

The thoroughness, transparency and methods of project documentation and disclosure. The outcome of the selected methods for reporting carbon removals benchmarked against other projects can indicate likelihood of over-crediting risk.

# Scoring Logic

The Project Reporting score is calculated by taking the lower of **Relative Carbon Accounting Benchmarks** and **Monitoring**, and then averaging that with **Independent Biomass Benchmarks**. This approach ensures that weaknesses in either conservative benchmarking or monitoring quality reduce the overall reporting score.



# Independent biomass benchmarks Pt.1

CARBON ACCOUNTING - PROJECT REPORTING

# (i) Description

Comparing the project's reported carbon removals against Sylvera's observed geospatial biomass data of similar projects. High reported values when compared to peers can suggest a lack of accuracy in the project's activity reporting and/or a lack of conservativeness in the carbon quantification assumptions, increasing the risk of over-crediting.

# 😯 Scoring Logic

Benchmarking is done by creating a peer group of projects with similar characteristics, based on a characterization of activities conducted.

Compare a project reported carbon value \*Annual average carbon removal rate tCO2e/ha/yr\* with a range (derived from Sylvera's observed geospatial biomass data) from a peer group of projects. The reported value is compared to the distribution of peer project values in the narrowest peer group Possible.

- Annual average carbon removal rate falls within the top 25% of peer group values – high risk.
- Annual average carbon removal rate within the middle 50% of peer
- group values moderate risk.
- Annual average carbon removal rate within the lower 25% of peer group values – low risk.



# Independent biomass benchmarks Pt.2

CARBON ACCOUNTING - PROJECT REPORTING

# **2** Data Inputs

| Input name   | Description  | Dropdown Options  |
|--|--|---|
| Sylvera Biomass Time Series - Estimated Annual Emission Removals (tCO2e/yr) - Peer Group Range | Sylvera Biomass Data<br>from a range of peer<br>projects - Average per<br>year estimated annual<br>amount of carbon<br>removed by project in<br>tCO2e over its lifetime.         | N/A   |
| Estimated Annual Emission<br>Removals (tCO2e/yr)   | Average per year estimated annual amount of carbon removed by project in tCO2e over its lifetime. Values are normalised and converted by Sylvera if reported in different units. | N/A   |
| ARR activity type (Proj Activity)  | The characterisation of the planting activities of the project (scale, commercial or non-commercial).  | Large-scale, industrial, commercial; Large-scale, non-commercial; Small-scale, commercial; Small-scale non-commercial; Subsistence, non-commercial; Natural regeneration; Mangroves; No information Mixed |
| Planting Area Size (ha)  | Size of the area planted in the project.   | N/A   |



# Relative carbon accounting benchmarks

Pt.1

CARBON ACCOUNTING - PROJECT REPORTING

# (i) Description

Standardised estimated annual carbon dioxide removals (tCO2/ha/yr) represent the average removals via sequestration claimed per year, adjusted for the size of the project. High values when compared to peers can suggest a lack of accuracy in the project's activity reporting and/or a lack of in the carbon quantification assumptions, increasing the risk of over-crediting.

# 😯 Scoring Logic

Benchmarking is done by creating a peer group of projects with similar characteristics, based on a characterization of activities conducted.

Compare an input reported carbon value \*Annual average carbon removal rate tCO2e/ha/yr\* with a range derived from project reported values from a peer group of projects. The reported value is compared to the distribution of peer project values in the narrowest peer group possible.

- Annual average carbon removal rate falls within the top 25% of peer group values – high risk.
- Annual average carbon removal rate within the middle 50% of peer
- group values moderate risk.
- Annual average carbon removal rate within the lower 25% of peer group values – low risk.



# Relative carbon accounting benchmarks

Pt.2

CARBON ACCOUNTING - PROJECT REPORTING

# **2** Data Inputs

| Input name  | Description   | Dropdown Options  |
|---|---|---|
| Estimated Annual Emission<br>Removals (tCO2e/yr)                                  | Average per year estimated annual amount of carbon removed by project in tCO2e over its lifetime.     | N/A   |
| Project Reported Peer Group -<br>Estimated Annual Emission<br>Removals (tCO2e/yr) | Peer group range of reported values - Estimated Annual Emission Removals (tCO2e/yr)                   | N/A   |
| ARR activity type (Proj Activity)   | The characterisation of the planting activities of the project (scale, commercial or non-commercial). | Large-scale, industrial, commercial; Large-scale, non-commercial; Small-scale, commercial; Small-scale non-commercial; Subsistence, non-commercial; Natural regeneration; Mangroves; No information Mixed |
| Planting Area Size (ha)   | Size of the area planted in the project.  | N/A   |



# **Monitoring**

CARBON ACCOUNTING - PROJECT REPORTING

# (i) Description

Certainty of the project's reported carbon values and the ability to independently verify them are critical to constraining the accuracy of credit quantification. Greater uncertainty increases the likelihood of over-crediting.

# ( Scoring Logic

The **Monitoring** score is calculated by averaging **Carbon Tracking Uncertainty**, **Geospatial Disclosure Risk**, and **Monitoring Technology Reliability**. If data for one factor is missing, the calculation uses the available factors only.



# **Carbon Tracking Uncertainty**

CARBON ACCOUNTING - PROJECT REPORTING - MONITORING

### Description

The dispersion and size of the areas over which the project activities take place. This impacts the ability to monitor and report that scale, influencing the accuracy of carbon projections.

## Scoring Logic

The Carbon Tracking - Uncertainty score evaluates how the choice of plot size and distribution affects the robustness of carbon stock monitoring.

- Individual, large plots only → low risk
- Distributed, small plots only → high risk
- Mixed size plots → neutral risk

# **្ហ** Data Inputs

| Input name                   | Description                              | Dropdown Options   |
|------------------------------|--|--|
| Project spatial distribution | How the project is spatially structured. | Individual, large plots only; Distributed, small plots only; Mixed size plots; No information; |



# **Geospatial Disclosure Risk**

CARBON ACCOUNTING - PROJECT REPORTING - MONITORING

### Description

The transparency and precision of location-specific data, which is critical for validating project activities and ensuring environmental integrity.

## Scoring Logic

The Geospatial Disclosure Risk score assesses the completeness, validity, and accessibility of geospatial files required for project evaluation. More complete and verifiable disclosure indicates lower risk.

- Yes geospatial files provided → very low risk
- No but high-quality maps are provided → neutral risk
- No and no high-quality maps are provided → very high risk

## **別** Data Inputs

| Input name            | Description   | Dropdown Options   |
|-----------------------|---|--|
| Boundary Availability | Whether a spatial file of the project boundaries has been provided, and if not whether there are clear maps instead (which could potentially be digitised). | Yes - Boundary file provided;<br>No - High quality maps provided;<br>No - No high quality maps<br>provided |



# Monitoring technology reliability

CARBON ACCOUNTING - PROJECT REPORTING - MONITORING

### Description

The dependability and precision of tools (e.g., remote sensing, field measurement devices) used to track carbon and environmental indicators. Reliable and scalable technology boosts data accuracy.

### Scoring Logic

The Monitoring technology reliability score is calculated by considering the maturity and validation status of the monitoring technologies and datasets; more robust, well-validated systems result in a higher score. Take the highest score from:

- Remote sensing → very low risk
- In-person sampling → neutral risk
- Digital sampling → neutral risk
- No information → neutral risk
- Self-reporting → very high risk

## ្ហែ Data Inputs

| Input name                  | Description  | Dropdown Options  |
|-----------------------------|--|---|
| Project monitoring approach | How the project is monitoring/plans to monitor progress in the project area. | Remote sensing;<br>In-person sampling;<br>Digital sampling;<br>Self-reporting;<br>No information; |



# **Project Modelling**

**CARBON ACCOUNTING** 



## Description

The carbon-related modelling choices made by a project include what model the project uses and what the model includes. This can influence the accuracy of the carbon accounting and ultimately overcrediting risk.

## Scoring Logic

Scoring the project on the basis of how it choices to approach carbon quantification. The Project Modelling score is calculated by averaging Model Choices and Accounting boundaries (inclusions/exclusions).



## **Model Choices**

CARBON ACCOUNTING - PROJECT MODELLING

### Description

There are many different approaches that involve different models for quantifying carbon, which have strengths and weaknesses based on the appropriateness for the project-specific activities. Therefore, the choice of model can impact the accuracy of the carbon accounting.

## ( Scoring Logic

Scoring the equations and assumptions applied by the project for carbon accounting on the basis of whether they are peer-reviewed, or direct measures, as well as regionand species-specific which is considered best practice for accurate carbon quantification. Each underlying factor is considered of equal importance.

The score is calculated as the average of three subcomponents:

- Robustness of modelling assumptions
- Geographic specificity of modelling assumptions
- Species specificity of modelling assumptions



# **Robustness of Modelling Assumptions**

Pt.1

CARBON ACCOUNTING - PROJECT MODELLING - MODEL CHOICES



### Description

The extent to which underlying assumptions in project models are evidence-based and validated through the evaluation and approval by others working in the same field. Strong assumptions reduce uncertainty and improve credibility.

### Scoring Logic

This score evaluates the credibility of the equations and assumptions used in project modelling, based on whether they are supported by peer-reviewed sources or direct measurement.

- The project directly measures biomass, avoiding reliance on assumptions. This is considered best practice → very low risk
- The equations and assumptions are based entirely on peer-reviewed sources. This is considered best practice when direct measurement is not used → low risk
- Some equations and assumptions are based on peer-reviewed sources, but not all. This indicates room for improvement → neutral risk
- It is unclear whether the equations and assumptions are supported by peer-reviewed sources. This creates uncertainty about robustness → high risk
- The equations and assumptions are definitely not based on peer-reviewed sources. This is considered worst practice → very high risk



CARBON ACCOUNTING - PROJECT MODELLING - MODEL CHOICES

# **2** Data Inputs

| Input name                 | Description   | Dropdown Options   |
|----------------------------|---|--|
| Peer review of assumptions | Whether the source(s) of the assumptions and equations used by the project are evidently peer-reviewed. | The source of the equations and assumptions are from peer-reviewed sources;                                |
|                            |   | Some of the equations and assumptions are from peer reviewed sources;                                      |
|                            |   | It is unclear whether the source<br>of the equations and<br>assumptions are from<br>peer-reviewed sources; |
|                            |   | The source of the equations and assumptions are definitely not from peer-reviewed sources;                 |
|                            |   | NA (the project does not use equations and assumptions, but directly measures biomass)                     |



# **Species Specificity of Modelling Assumptions**

Pt.1

CARBON ACCOUNTING - PROJECT MODELLING - MODEL CHOICES

### Description

Every species has unique approximate growth curves and mortality in different biomes, therefore the more species-specific modelling that is used, the higher likelihood that the carbon accounting is accurate to what actually takes place in the project.

### 📆 Scoring Logic

This score assesses whether the equations and assumptions used in project carbon accounting are tailored to the species present in the project area. Species-specific assumptions improve accuracy and reduce uncertainty, while generic or inappropriate assumptions increase risk of error.

- Equations and assumptions are fully species-specific, which is considered best practice → very low risk
- Some equations and assumptions are species-specific, but not all. This indicates some room for improvement → low risk
- It is unclear whether the equations and assumptions are species-specific. This creates uncertainty about the robustness of project quantification → high risk
- Equations and assumptions are definitely not species-specific, which is considered worst practice → very high risk



# **Species Specificity of Modelling Assumptions**

CARBON ACCOUNTING - PROJECT MODELLING - MODEL CHOICES

# **2** Data Inputs

| Input name              | Description  | Dropdown Options   |
|-------------------------|--|--|
| Species based modelling | Whether the source(s) of the assumptions and equations used are specific to the project species. | Equations and assumptions are specific to the species of the project;                      |
|                         |  | Some equations and assumptions are specific to the species of the project;                 |
|                         |  | It is unclear if the equations and assumptions are specific to the species of the project; |
|                         |  | Equations and assumptions are definitely not specific to the species of the project;       |



# Geographic Specificity of Modelling Assumptions

Pt.1

CARBON ACCOUNTING - PROJECT MODELLING - MODEL CHOICES

# (i) Description

The degree to which the project's model inputs reflect local terrain, climate, and ecological conditions based on location. High specificity ensures more accurate and context-relevant carbon projections.

# ( Scoring Logic

This score evaluates whether the equations and assumptions used in project modelling are tailored to the project region. Greater regional specificity increases robustness, while generic or irrelevant assumptions increase risk of over-crediting.

- Equations and assumptions are specific to the project region, which is considered best practice → very low risk.
- Some equations and assumptions are specific to the project region, which indicates some room for improvement → low risk.
- It is unclear whether the equations and assumptions are specific to the project region, which creates uncertainty about the robustness of the project choices
   → high risk.
- Equations and assumptions are definitely not specific to the project region, which is considered worst practice → very high risk.



# Geographic Specificity of Modelling Assumptions

Pt.2

CARBON ACCOUNTING - PROJECT MODELLING - MODEL CHOICES

# 2 Data Inputs

| Input name                | Description   | Dropdown Options   |
|---------------------------|---|--|
| Region specific modelling | Whether the source(s) of the assumptions and equations used are specific to the project region. | Equations and assumptions are specific to the project region;  Some equations and assumptions are specific to the project region;  It is unclear whether the source of the equations and assumptions are specific to the project region;  Equations and assumptions are definitely not specific to the project region; |



# Accounting Boundaries (Inclusions / Exclusions)

CARBON ACCOUNTING - PROJECT MODELLING

# (i) Description

The carbon pools, and assumptions applied to what takes place in those carbon pools such as mortality or decay rates, included in the modelling of a project. These elements can influence the accuracy of the carbon accounting and ultimately overcrediting risk.

# Scoring Logic

The **Accounting Boundaries (inclusions/exclusions)** score is calculated by averaging the **Carbon Pools Uncertainty** and **Carbon Accounting Mortality Reporting** components.



CARBON ACCOUNTING - PROJECT MODELLING - ACCOUNTING BOUNDARIES

## Description

The extent of carbon pools, including emission sources and storage, accounted for by the project. Different carbon pools can introduce different over-crediting risks based on uncertainties derived from measurement limitations.

## ( Scoring Logic

The Carbon Pools Uncertainty score reflects which carbon pools are included in project accounting and how reliably they can be measured. Pools are grouped as follows:

- High-certainty pools: Above ground biomass, Below ground biomass, Harvested wood products
- Moderate-certainty pools: Deadwood, Litter
- Low-certainty pool: Soil organic carbon
- No information: Carbon pools not disclosed

Scores are assigned according to the mix of pools included:

- Only high-certainty pools are included → very low risk.
- High-certainty pools plus at least one moderate-certainty pool  $\rightarrow$  low risk.
- No information is disclosed, or High-certainty pools plus soil organic carbon → neutral risk.
- High-certainty pools plus soil organic carbon and at least one moderate-certainty pool → high risk.
- High-certainty pools plus soil organic carbon and multiple moderate-certainty pools → very high risk.



CARBON ACCOUNTING - PROJECT MODELLING - ACCOUNTING BOUNDARIES

# 2 Data Inputs

| Input name           | Description   | Dropdown Options  |
|----------------------|---|---|
| Project carbon pools | The pools of carbon that the project has included in their carbon calculations. | Above ground biomass; Below ground biomass; Deadwood; Litter; Soil organic carbon; Harvested wood products; |



25

# **Mortality Reporting Risk**

CARBON ACCOUNTING - PROJECT MODELLING - ACCOUNTING BOUNDARIES

### (i) Description

Mortality is the death of trees which can take place at any point in a tree's life cycle, but as often more likely to take place in earlier stages. Therefore, some mortality is typical for ARR projects and needs to be accounted for, else there is a risk of over crediting.

## ( Scoring Logic

This score assesses whether the project accounts for tree mortality in its carbon accounting. Since mortality is inevitable in projects involving planting, failing to account for it is considered a non-conservative assumption that risks overestimating biomass growth.

- Mortality is clearly and transparently accounted for, which is considered best practice → very low risk.
- Mortality is not accounted for, which is considered worst practice. This risks overstating carbon benefits by ignoring inevitable tree losses → very high risk.

## **跆** Data Inputs

| Input name            | Description   | Dropdown Options   |
|-----------------------|---|--|
| Mortality assumptions | Whether the project accounts for mortality in its carbon assumptions. | Mortality is evidently accounted for; Mortality is definitely not accounted for; Mortality information is not surfaced |



# **Additionality**

# i Description

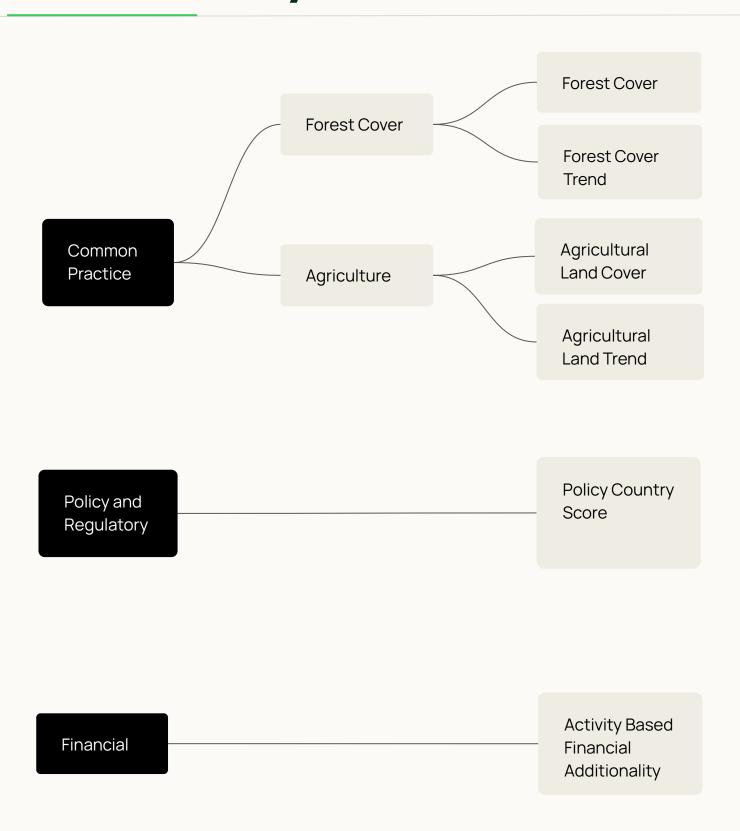
The project's additionality reflects the likelihood that the emission removals/reductions are a direct consequence of the project activities and would not occur in the absence of the project. Assessing additionality involves examining the credibility of the difference between the project and baseline scenario by considering the financial viability of the project activities, policy and regulatory incentives/restrictions, as well as common practice in the project's region.

# ( Scoring Logic

Take the average of the additionality components: **Financial**, **Common Practice** and **Policy & Regulatory**. If data for one factor is missing, the calculation uses the available factors only.



# Additionality





## **Common Practice**

**ADDITIONALITY** 

# (i) Description

Examining whether the project or baseline activities are common practice in the project's region helps with identifying significant barriers or support for their implementation. This could highlight the necessity (or lack thereof) of the carbon project and undermine/support the project's additionality.

# ( Scoring Logic

The **Common Practice** score is taken through the average of the **Forest Cover Common Practice** and **Agriculture Common Practice** scores.



# **Forest Cover Common Practice**

ADDITIONALITY - COMMON PRACTICE

# (i) Description

The prevalence and trend of forest cover in the project's country could indicate if reforestation activities and land conversion for other uses are (un)common. This helps determine whether the project activities are a common practice without support from the carbon market, which could undermine/support the project's additionality claim.

# Scoring Logic

The overall score sums the **Forest Cove**r with the **Forest Cover Trend** scores.



### **Forest Cover**

ADDITIONALITY - COMMON PRACTICE - FOREST COVER COMMON PRACTICE

### Description

The percentage of forested land in the country could indicate whether the project activities are common in the country, which could undermine the project's additionality. A high percentage of forest cover in the country could signal that the conversion of forested land is uncommon.

## Scoring Logic

This score uses national forest cover as a proxy for whether project activities are likely to represent common practice.

- Forest land ≥ 68% of total area. Conversion to forestry is more likely to be common practice, undermining additionality  $\rightarrow$  very high risk.
- Forest land between 44% and 68% → high risk.
- Forest land between 20% and 44% → neutral risk.
- Forest land between 8% and 20% → low risk.
- Forest land < 8% of total area. Forest conversion is uncommon, so project activities are more likely to go beyond common practice → very low risk.

## ዜታ Data Inputs

| Input name   | Description  | Dropdown Options |
|--------------|--|------------------|
| Forest cover | The percentage of forested land in the country could indicate whether the project activities are common in the country, which could undermine the project's additionality.  Source:  https://data.worldbank.org/indicator/AG.LND.FRST.ZS | N/A              |



## **Forest Cover Trend**

ADDITIONALITY - COMMON PRACTICE - FOREST COVER COMMON PRACTICE

### (i) Description

The forest cover trend shows if the percentage of forest cover has been increasing or decreasing in the country in the last few decades. Assessing the trend helps with understand if the reforestation activities are common (forest cover is increasing) or the land conversion is becoming widespread (forest cover is decreasing).

# ( Scoring Logic

This score adjusts the assessment of additionality risk based on whether national forest cover is increasing or decreasing, provided the trend is statistically significant  $(R^2 \ge 0.5)$ .

- If forest cover is increasing and the trend is significant  $\rightarrow$  -1 adjustment (deforestation pressure is less plausible, which weakens project claims of additionality).
- If forest cover is increasing but the trend is not significant  $\rightarrow 0$  adjustment (no change).
- If forest cover is decreasing and the trend is significant  $\rightarrow$  +1 adjustment (deforestation pressure is more plausible, which strengthens project claims of additionality).
- If forest cover is decreasing but the trend is not significant  $\rightarrow 0$  adjustment.

## **跆** Data Inputs

| Input name            | Description   | Dropdown Options |
|-----------------------|---|------------------|
| Forest cover<br>trend | The trend in forest cover – this trend has to be statistically significant (RSQ ≥ 0.5) in order to be considered.  Source: https://data.worldbank.org/indicator/AG.LND.FRS T.ZS | N/A              |



# **Agriculture Common Practice**

ADDITIONALITY - COMMON PRACTICE

# (i) Description

The prevalence and trend of agricultural land in the project's country could indicate if land conversion for agricultural use is (un)common. This helps determine whether the baseline activities are a common practice, which could undermine/support the project's additionality claim.

# Scoring Logic

The overall score sums the **Agricultural Land Cover** with the **Agricultural Land Trend** scores.



# **Agricultural Land Cover**

ADDITIONALITY - COMMON PRACTICE - AGRICULTURE COMMON PRACTICE

# (i) Description

The percentage of agricultural land in the country could indicate whether the baseline activities are common in the country, which could undermine the project's additionality. A low percentage of agricultural cover in the country could signal that the conversion of forested land is uncommon.

# Scoring Logic

This score uses national agricultural land cover as a proxy for how common land conversion pressures are.

- Agricultural land cover < 14% of total area → very high risk.</li>
- Agricultural land cover between 14% and 30% → high risk.
- · Agricultural land cover between 30% and 44%  $\rightarrow$  neutral risk.
- · Agricultural land cover between 44% and 58% → low risk.
- · Agricultural land cover  $\geq$  58% of total area  $\rightarrow$  very low risk.

## ឿ្ង Data Inputs

| Input name              | Description   | Dropdown Options |
|-------------------------|---|------------------|
| Agricultural land cover | The percentage of agricultural land and trend may indicate if agriculture is becoming more or less common practice Source: https://databank.worldbank.org/metadataglossary/world-development-indicators/series/AG.LND.AGRI.ZS | N/A              |



# **Agricultural Land Cover Trend**

ADDITIONALITY - COMMON PRACTICE - AGRICULTURE COMMON PRACTICE

### (i) Description

The agricultural land trend shows if the proportion of agricultural land has been increasing or decreasing in the country in the last few decades. Assessing the trend helps with understanding if the forests are under pressure from conversion (agricultural land is increasing) or if conversion from forested land is uncommon (agricultural land is decreasing).

### Scoring Logic

This adjustment reflects whether national agricultural land cover is expanding or contracting, as this influences the plausibility of business-as-usual (BAU) pressures on land use.

- If agricultural land is increasing and the trend is significant  $\rightarrow$  +1 adjustment (greater pressure to convert land, supporting BAU claims).
- If agricultural land is increasing but the trend is not significant  $\rightarrow 0$  adjustment (no change).
- If agricultural land is decreasing and the trend is significant  $\rightarrow$  -1 adjustment (reduced pressure to convert land, weakening BAU claims).
- If agricultural land is decreasing but the trend is not significant  $\rightarrow 0$  adjustment.
- If agricultural land is stable (no change), regardless of significance  $\rightarrow 0$ adjustment.



ADDITIONALITY - COMMON PRACTICE - AGRICULTURE COMMON PRACTICE

# පී Data Inputs

| Input name              | Description   | Dropdown Options |
|-------------------------|---|------------------|
| Agricultural land cover | The percentage of agricultural land and trend may indicate if agriculture is becoming more or less common practice. The adjustment is only applied when the trend is statistically significant $(R^2 \geq 0.5)$ . | N/A              |
|                         | Source:<br>https://databank.worldbank.org/metadataglossary<br>/world-development-indicators/series/AG.LND.AG<br>RI.ZS   |                  |



#### **Financial Additionality**

**ADDITIONALITY** 

#### Description

Examining the project's financial additionality involves assessing whether the carbon credit revenue is crucial for implementing the project activities. If there is a material financial incentive to implement the project activities regardless of the carbon market support, this could undermine the project's additionality claim.

#### Scoring Logic

The Financial score is based on the Activity-Based Financial Additionality component.



## **Activity Based Financial Additionality**

ADDITIONALITY - FINANCIAL ADDITIONALITY

#### (i) Description

The scale of the project activities and their commercialization potential could indicate the availability and extent of alternative revenue streams outside the carbon market, which could incentivize the project's implementation even without VCM support and undermine the project's additionality claims.

#### Scoring Logic

The type and scale of project activities are used as a proxy for financial additionality. If a project implements a range of activities, the average of all returned activities is taken.

- Large-scale, industrial, commercial projects → very high risk.
- Large-scale non-commercial projects; small-scale non-commercial projects; subsistence non-commercial projects → low risk.
- Small-scale commercial projects; mixed projects → neutral risk.
- Natural regeneration projects; mangrove projects → very low risk.

#### ្វេក Data Inputs

| Input name                           | Description   | Dropdown Options  |
|--------------------------------------|---|---|
| ARR activity type<br>(Proj Activity) | The characterisation of the planting activities of the project (scale, commercial or non-commercial). | Large-scale, industrial, commercial; Large-scale, non-commercial; Small-scale, commercial; Small-scale non-commercial; Subsistence, non-commercial; Natural regeneration; Mangroves; No information Mixed |



## **Policy and Regulatory**

**ADDITIONALITY** 

#### Description

Examining the policy and regulatory environment includes identifying the policies that could impact/incentivize the baseline and/or project scenarios. The evidence of policies restricting the baseline scenario activities and/or incentivizing the project activities could undermine the project's additionality claim.

#### Scoring Logic

Using our Rated project data for Policy & Regulatory within the same country, for the same activities if possible. The Policy & Regulatory score is based on the Policy Country Score.



## Policy Country Score

ADDITIONALITY - POLICY AND REGULATORY

#### (i) Description

All relevant policies that could apply to the project or baseline activities in the project's country are taken into account, as their extensiveness and effectiveness (or lack thereof) can undermine/support the project's additionality.

#### Scoring Logic

This components filters a database of policies that we have assessed while rating ARR projects. The test filters policies on applicability, based on whether they are in the same jurisdiction and are relevant to the project activities, taking the maximum (highest risk) applicable policy.

#### ဦး Data Inputs

| Input name | Description   | Dropdown Options |
|------------|---|------------------|
| Policies   | List of all policies extracted,<br>marked as incentive or<br>regulation (same database as<br>Estimated Ratings) | N/A              |



## Permanence

#### (i) Description

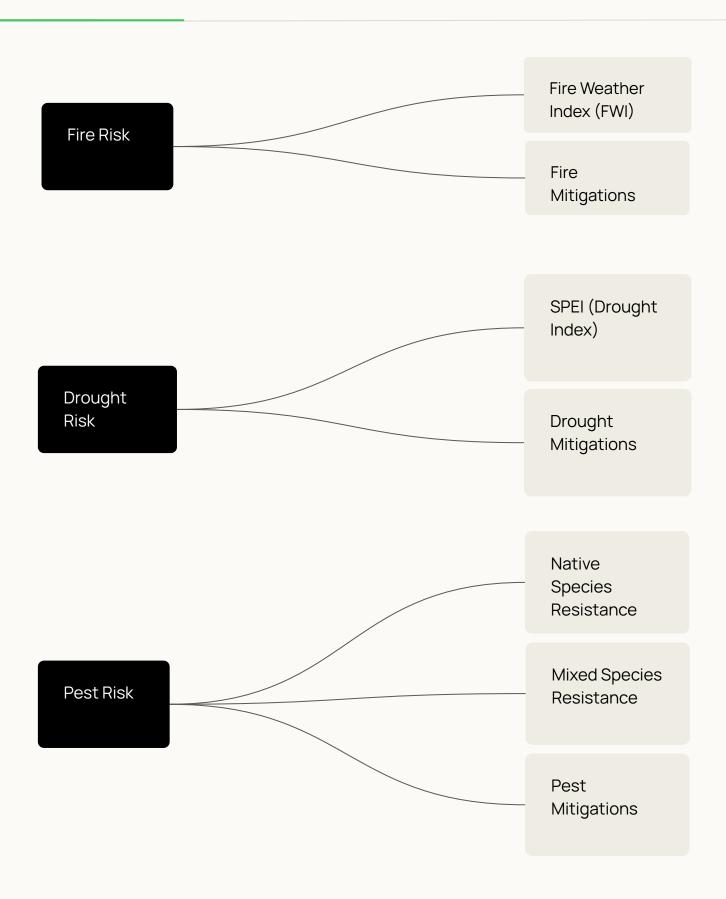
The project's permanence reflects the likelihood of carbon being successfully sequestered for an atmospherically significant time (i.e. 100 years) as a result of the project activities. Assessing permanence involves examining potential risks that could prevent long-term sequestration of carbon.

#### ( Scoring Logic

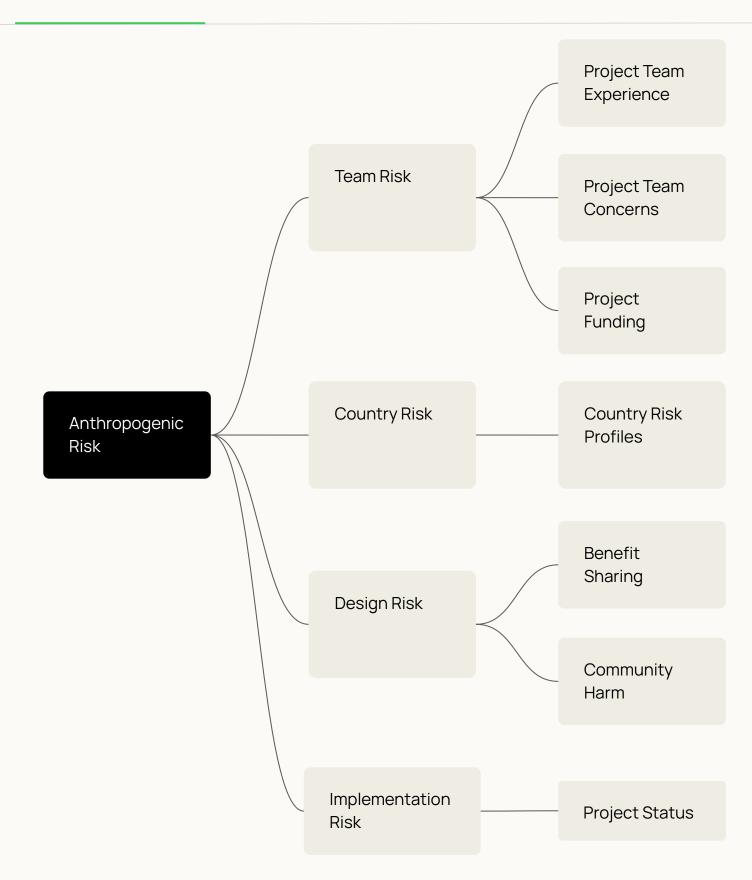
Using a combination of project-specific info on design and mitigations, pre-computed geospatial statistics and country risk profile data we are able to approximate the permanence risk for each project.

The **Permanence** score reflects the project's exposure to non-permanence risks such as **Pests**, **Drought**, **Fire**, or **Anthropogenic** threats. The score is calculated by taking the highest individual risk score among these four categories.











#### **Fire Risk**

#### **PERMANENCE**

#### Description

Fire is one of the main physical drivers of carbon stock losses in projects that involve biological storage, which can ultimately lead to credit reversal events. Assessing fire risk is essential for understanding the likelihood of the project's impact being reversed by a natural hazard.

#### ( Scoring Logic

The Fire Risk score evaluates the project's vulnerability to fire, using fire weather index (FWI) data when available and adjusting for mitigation measures.

#### If FWI data is available:

- For mangrove projects: the fire risk is calculated as the fire weather index plus mitigation, but capped so it cannot be higher than 3 and never lower than 1.
- For all other projects: the score is calculated as the fire weather index plus mitigation, with a lower limit of 1.

#### If FWI data is not available:

The score is based on the average rating of project-specific fire risk assessments.



#### (i)

#### Description

The (FWI) is a numerical scale indicating wildfire risk based on weather conditions. It ranges from 0 to 100 with higher values signifying a greater likelihood and intensity of potential fires. The FWI is calculated using temperature, relative humidity, wind speed, and rainfall data to assess and quantify fire risk conditions.

#### Scoring Logic

The Fire Weather Index (FWI) score estimates long-term fire risk over the next 100 years based on projected FWI values. The Fire Weather Index (FWI) quantifies meteorological conditions that contribute to fire ignition and spread, providing a clear assessment of fire danger for emergency management and the public. As a unitless scale, higher values indicate increased fire risk. It is calculated using key weather factors, including temperature, precipitation, relative humidity, and wind speed.

The calculation uses the average FWI at the country level; if no country-level data is available, the average FWI across all rated projects is used instead.

- If  $100 \ge X \ge 38 \rightarrow \text{very high risk}$
- If  $38 > X \ge 21.3 \rightarrow \text{high risk}$
- If  $21.3 > X \ge 11.2 \rightarrow \text{moderate risk}$
- If  $11.2 \rightarrow X \ge 5.2 \rightarrow low risk$
- If  $5.2 > X \ge 0 \rightarrow \text{very low risk}$

**Sylvera** 

PERMANENCE - FIRE RISK

#### **2** Data Inputs

| Input name                 | Description  | Dropdown Options |
|----------------------------|--|------------------|
| Average Fire Weather Index | Average Fire Weather Index (over time) for the project or region of interest | N/A              |
| Fire Weather Index         | Fire Weather Index (over time)<br>for the specific project<br>boundary       | N/A              |



#### Fire Risk Mitigations

PERMANENCE - FIRE RISK

#### (i) Description

The project developers could implement various activities to mitigate potential natural hazards. This could reduce the potential permanence risks to the project.

#### Scoring Logic

Scoring Logic: The Fire Risk Mitigations score is determined by whether the project undertakes activities that directly reduce fire risk. These activities include:

- Fire breaks (setup, expansion, or maintenance)
- Fire brigade
- Deadwood management

If at least one of these activities is implemented, the project's fire risk score is increased by one, lowering risk. If none of these activities are present, no adjustment is applied.

#### **2** Data Inputs

| Input name                | Description  | Dropdown Options                               |
|---------------------------|--|--|
| Natural risks mitigations | The present or planned (claimed) project natural risk mitigations. | Activities list and mapping contained in Annex |



#### **Drought Risk**

**PERMANENCE** 

#### (i) Description

Drought is one of the main physical drivers of carbon stock losses in projects that involve biological storage, which can ultimately lead to credit reversal events. Assessing drought risk is essential for understanding the likelihood of the project's impact being reversed by a natural hazard.

#### ( Scoring Logic

The project's overall drought risk is assessed using the Standardized Precipitation–Evapotranspiration Index (SPEI) combined with the presence of any planned or implemented drought-mitigation activities.

#### If SPEI data is available:

• The score is based on the SPEI (Drought Risk Index) adjusted by any drought mitigation measures, which if present reduce the score by 1.

#### If SPEI data is not available:

 The score is based on the average drought risk of rated projects in comparable regions.



## Standardised Precipitation and Evapotranspiration Index

PERMANENCE - DROUGHT RISK

#### (i)

#### Description

The Standardised Precipitation and Evapotranspiration Index (SPEI) metric is a relative measure of surface water surplus (for positive values) or deficit (negative SPEI values) with respect to the climate of the reference period, and it is based on a global initiative of standardised simulations of climate change.

#### Scoring Logic

The Standardized Precipitation–Evapotranspiration Index (SPEI) is a multi-scale drought indicator derived from climatic data. It measures anomalies in water balance and helps assess the onset, duration, and severity of drought conditions relative to normal patterns across natural and managed systems, including agriculture, ecosystems, rivers, and water resources (Vicente-Serrano et al. 2010).

The drought risk score is calculated using the average SPEI for the project's country. If no country-level data is available, the average drought risk across all rated projects is used instead.

- If  $X \le -3 \rightarrow \text{very high risk}$
- If  $-3 < X \le -2 \rightarrow \text{high risk}$
- If  $-2 < X \le -1 \rightarrow \text{moderate risk}$
- If  $-1 < X \le -0.5 \rightarrow low risk$
- If  $X > -0.5 \rightarrow \text{very low risk}$

## Standardised Precipitation and Evapotranspiration Index

PERMANENCE - DROUGHT RISK

#### **2** Data Inputs

| Input name                 | Description  | Dropdown Options |
|----------------------------|--|------------------|
| Average Drought Risk Index | Average Drought Severity (over time) for the project or region of interest | N/A              |



#### **Drought Risk Mitigations**

PERMANENCE - DROUGHT RISK

#### (i)

#### Description

The project developers could implement various activities to mitigate potential natural hazards. This could reduce the potential permanence risks to the project.

#### Scoring Logic

Scoring Logic: The Drought Risk Mitigations score is based on whether the project takes action to reduce vulnerability to drought. If at least one of these activities is present, the drought risk score is increased by one, lowering risk. If no such activities are present, no adjustment is applied.

#### වී Data Inputs

| Input name                | Description  | Dropdown Options                               |
|---------------------------|--|--|
| Natural risks mitigations | The present or planned (claimed) project natural risk mitigations. | Activities list and mapping contained in Annex |



#### **Pest Risk**

#### **PERMANENCE**

#### Description

Pests are one of the main physical drivers of carbon stock losses in projects that involve biological storage, which can ultimately lead to credit reversal events. Assessing pest risk is essential for understanding the likelihood of the project's impact being reversed by a natural hazard.

#### ( Scoring Logic

The Pest Risk score combines forest characteristics with mitigation activities to assess vulnerability to pest outbreaks.

- The score is calculated as the average of the Planting Structure score and the Forest Composition score, which together capture inherent pest susceptibility.
- This average is then adjusted upwards if pest mitigation activities (e.g., thinning, tree resilience measures, or pest management interventions) are in place.



#### **Native Pest Resistance**

PERMANENCE - PEST RISK

#### (i) Description

The nativeness of species planted informs the potential severity of the pest risk, as native species are more adapted to local ecosystems and resistant to local pests.

#### Scoring Logic

- Natural regeneration (no planting involved) → very low risk.
- Mostly native species → low risk.
- Mixed species composition → neutral risk.
- No information disclosed → neutral risk.
- Mostly non-native species → high risk.

#### ឿ Data Inputs

| Input name                    | Description  | Dropdown Options  |
|-------------------------------|--|---|
| Nativeness of species planted | Whether the species being planted by the project are native to that area or not. | Mostly Native; Mostly Non-native; Mixed; N/A - Natural regeneration; No information |



#### **Mixed Species Resistance**

PERMANENCE - PEST RISK

#### (i) Description

#### Description

Different planting structures within the project can facilitate or hinder the spread of pests and pathogens. Monocultures have a higher risk of promoting pests and diseases, while it is harder for pests to spread among different plant species planted closely together in polycultures.

#### Scoring Logic

- Natural regeneration (no planting involved) → very low risk.
- Polyculture planting → low risk.
- Mixed species → neutral risk
- No information disclosed → neutral risk.
- Monoculture planting → very high risk.

#### பே Data Inputs

|   | Input name         | Description   | Dropdown Options   |
|---|--------------------|---|--|
| ſ | Planting structure | The planting structure (i.e. inter-mixing of species) that the project deploys/will deploy. | Monoculture;<br>Polyculture;<br>Mixed;<br>Natural regeneration |



#### **Pest Risk Mitigations**

PERMANENCE - PEST RISK

#### (i)

#### Description

The project developers could implement various activities to mitigate potential natural hazards. This could reduce the potential permanence risks to the project.

#### Scoring Logic

The Pest Risk Mitigations score evaluates whether the project undertakes activities that reduce pest and disease threats. If at least one of these activities is present, the pest risk score is increased by one, lowering risk. If none of these activities are present, no adjustment is applied.

#### **鉛** Data Inputs

| Input name                | Description  | Dropdown Options                               |
|---------------------------|--|--|
| Natural risks mitigations | The present or planned (claimed) project natural risk mitigations. | Activities list and mapping contained in Annex |



## **Anthropogenic Risk**

**PERMANENCE** 

#### i Description

The project's impact could be reversed or hindered due to human-driven factors. Assessing potential internal and external anthropogenic risks is crucial for understanding the likelihood of the project being interrupted and/or its impact reversed due to human interference.

#### 😯 Scoring Logic

#### If Implementation Risk is present:

• The overall **Anthropogenic Risk** score is set equal to the **Implementation Risk** score.

#### If Implementation Risk is not present:

• The score is the highest risk of the **Country Risk**, **Design Risk**, and **Team Risk** scores.



#### **Country Risk**

PERMANENCE - ANTHROPOGENIC RISK

#### (i) Description

External factors associated with the geopolitical context of the project's country could interrupt or reverse the impact of the project's activities. Assessing potential geopolitical risks is crucial for understanding the likelihood of the project's impact being reversed.

#### ( Scoring Logic

The Country Risk score is based on the Country Risk Profiles component.



## Country Risk Profiles

PERMANENCE - ANTHROPOGENIC RISK - COUNTRY RISK

#### (i) Description

Country risk score reflects the risk levels associated with a variety of factors that could hinder the project's implementation, including the country's political stability, government effectiveness and reputation, corruption levels etc.

#### Scoring Logic

#### Countries are scored on:

- Government reputation
- Political stability and
- Track record with human rights

to infer the inherent risk to operations in that country.

See more with **Country Profiles**.

#### ឿ Data Inputs

| Input name                          | Description  | Dropdown Options |
|-------------------------------------|--|------------------|
| Sylvera Country Profiles<br>Product | Risk profiles for carbon credit projects across key countries. | N/A              |



#### **Team Risk**

PERMANENCE - ANTHROPOGENIC RISK

#### (i) Description

Internal factors associated with the project's team could interrupt or reverse the impact of the project's activities. Assessing the project's team reputation and experience is crucial for understanding the likelihood of the project's impact being reversed.

#### Scoring Logic

The **Team Risk** score evaluates internal risks to project operations, drawing on three factors: the amount of available project funding, the experience of the project team, and any concerns flagged by compliance checks such as ComplyAdvantage. The score is calculated as the average of: **Project Team Concerns**, **Project Funding**, and **Project Team Experience**. If one or more factors are missing, the calculation uses only the data that is available.



## Project Team Experience

PERMANENCE - ANTHROPOGENIC RISK - TEAM RISK

#### (i) Description

The project's team experience (or lack thereof) could affect the way in which the project activities are implemented. This could potentially limit or ensure the long-term effectiveness of the activities, affecting the project's permanence.

#### Scoring Logic

Projects are scored on the basis of the proponents track record in developing carbon projects.

#### பே Data Inputs

| Input name | Description                             | Dropdown Options |
|------------|---|------------------|
| Entities   | The entities involved with the project. | N/A              |



## Project Team Concerns

PERMANENCE – ANTHROPOGENIC RISK – TEAM RISK

#### (i) Description

The project's team reputation could point to potential mismanagement risks, which could limit the long-term effectiveness of the project activities or interrupt their implementation.

#### Scoring Logic

The Project Team Concerns score evaluates potential risks associated with the project team using compliance checks (e.g., ComplyAdvantage). It assumes that links with nefarious activities could undermine the effectiveness of project operations.

- If there are no ComplyAdvantage results of concern → very low risk.
- If there is one ComplyAdvantage result of concern → moderate risk.
- If there are multiple ComplyAdvantage results of concern → very high risk.

#### ្វេក Data Inputs

| Input name                  | Description   | Dropdown Options   |
|-----------------------------|---|--|
| Known proponent legal flags | Whether there any ComplyAdvantage hits of concern related to the project proponents.            | There is one ComplyAdvantage result of concern; There are multiple ComplyAdvantage results of concern; There are no ComplyAdvantage results of concern |
| Adverse media review        | Is there any adverse media<br>evidence on the project<br>proponent/developer/other<br>entities? | No adverse media<br>Yes - minor<br>Yes - significant red flags   |



## Project Funding

PERMANENCE - ANTHROPOGENIC RISK - TEAM RISK

#### i Description

Assessing the availability of funding to conduct the project activities is crucial for understanding potential implementation risks, as the lack of necessary funding could lead to reversing the project's impact.

#### Scoring Logic

The Project Funding score assesses the level of financial security available to support the project.

- If the project has secured some funding and/or offtake agreements → very low risk.
- If the project has not disclosed whether funding or offtake agreements have been secured → moderate risk.
- If the project has disclosed that neither funding nor offtake agreements have been secured → very high risk.

#### **ង**។ Data Inputs

| Input name | Description                                       | Dropdown Options   |
|------------|---|--|
| Funding    | The extent of the funding secured by the project. | The project claims to have secured some funding and/or offtake agreements; The project has not disclosed whether funding or offtake agreements have been secured; The project has disclosed that neither funding nor offtake agreements have been secured; |



#### Design Risk

PERMANENCE - ANTHROPOGENIC RISK

#### i Description

Community buy-in is necessary for successful project operations. The presence of benefit-sharing mechanisms, or public evidence of community harm, are used as proxies for community buy-in to evaluate project design risk to longer term operations.

#### ( Scoring Logic

The **Design Risk** score evaluates whether the project's design supports long-term operations, using benefit-sharing plans and disclosures as a proxy for community buy-in. The logic assumes that strong community support is essential for project success and that evidence of community harm increases risk.

- If evidence of Community Harm is present → the score is set equal to the community harm score (lower, reflecting higher risk).
- Otherwise → the score is calculated as the average of the Community Harm and Benefit Sharing scores.
- If one factor is missing → the calculation uses the data that is available.



63

#### Description

Mechanisms ensuring that the benefits (e.g., revenue, resources, capacity-building) derived from the project are equitably distributed among stakeholders, including local communities and project partners. Benefit-sharing is one of the key ways in which a community can ultimately benefit from a project, and therefore positive implementation can be used as a proxy for engagement and long-term success operating the project.

#### ( Scoring Logic

The Benefit-sharing score assesses whether project revenues are shared fairly and transparently with local communities, which is a key determinant of community support and long-term project success.

- Very low risk:
  - Benefit-sharing is not disclosed.
- Low risk:
  - Benefit-sharing is minor but not well evidenced.
- Moderate risk:
  - Benefit-sharing is minor and well evidenced.
  - Benefit-sharing is moderate but not well evidenced.
  - Benefit-sharing is unclear.
- High risk:
  - Benefit-sharing is significant but not well evidenced.
  - Benefit-sharing is moderate and well evidenced.
- Very high risk:
  - Benefit-sharing is significant and well evidenced.
  - By default, where the community is the project proponent and directly receives carbon revenue.



## பே Data Inputs

| Input name                 | Description  | Dropdown Options  |
|----------------------------|--|---|
| Benefit-sharing disclosure | Whether any benefit-sharing mechanisms have been disclosed, their scale and the level of evidence to back them up. | Yes - significant and well evidenced; Yes - significant but not well evidenced; Yes - moderate and well evidenced; Yes - minor and well evidenced; Yes - moderate but not well evidenced; Yes - minor but not well evidenced; Yes - by default, community is the proponent and in direct receipt of carbon revenue; No - not disclosed; Unclear |



#### (i)

#### Description

Potential negative impacts on local communities—such as land conflicts or reduced access to resources—arising from project activities. Evidence of community harm suggests a lack of successful and/or positive engagement locally, which could threaten the long-term success operating the project.

#### Scoring Logic

The Community Harm score evaluates whether the project is associated with harm to local communities, and the extent to which that harm is being addressed.

- Very low risk:
  - No evidence or unknown whether community harm has occurred.
- Low risk:
  - Harm is plausible but evidence is minimal.
- Moderate risk:
  - Harm is evidenced, but its extent is not significant.
- High risk:
  - Harm is evidenced, significant in extent, but work is being done to address it.
- Very high risk:
  - Harm is evidenced, significant in extent, and no work is being done to address it.



## **Community Harm**

PERMANENCE - ANTHROPOGENIC RISK - DESIGN RISK

## **2** Data Inputs

| Input name     | Description   | Dropdown Options   |
|----------------|---|--|
| Community Harm | Whether there is any evidence through research and in the public domain that there has been some harm to the community, if so the significance of the claims, evidence and whether there is any claims of work being done to counteract the concerns. | No / unknown; Yes - plausible/minimal evidence; Yes - evidenced, extent not significant; Yes - evidenced, extent significant, work being done; Yes - evidenced, extent significant, no work being done |



#### **Implementation Risk**

PERMANENCE - ANTHROPOGENIC RISK

#### i Description

Internal factors associated with the management and implementation of the project could interrupt or reverse the impact of the project's activities and issuance of credits. The project's status with its associated registry is a key point to consider current and future risk of activities or credit issuance being ceased or reversed.

#### Scoring Logic

Project's can be suspended or withdrawn from their registry, meaning they cannot issue credits. The **Implementation Risk** score is based on the **Project Status** score.



#### **Project Status**

PERMANENCE - ANTHROPOGENIC RISK - IMPLEMENTATION RISK

#### (i) Description

The registry-listed status indicates the project's ability to issue credits, with withdrawn projects' issuance being at the highest risk and projects placed on hold being temporarily disabled from issuing due to registry investigations, indicating a delivery risk.

#### Scoring Logic

The Project Status score reflects the standing of the project in its registry.

- If the registry status is "Withdrawn" → very high risk.
- If the registry status is "On Hold" (including "On Hold see notification letter")
   → high risk.
- Otherwise → Project Status is not scored (null).

#### **ង** Data Inputs

| Input name      | Description                                | Dropdown Options |
|-----------------|--|------------------|
| Registry status | The project status listed on the registry. | N/A              |



69

# Safeguarding and Co-Benefits

#### (i) Description

Ensuring that the necessary community and environmental safeguards are in place for a project, where relevant, is critical to ensure the project's successful on-going operations (captured within the Permanence Score) as well as reputation (see Reputational Risk for more information) and ensuring No Net Harm principle is met. The extent to which the project goes above and beyond carbon impact to contribute to the local community and biodiversity is measured as "Co-benefits" considering the type of project activities and benefit-sharing mechanisms as place, which can be used as a quality differentiator dependent on the user's priorities.

#### 😯 Scoring Logic

The **Safeguarding and Co-Benefits** score provides a blended view of a project's local impact beyond carbon, considering both community and biodiversity outcomes. It assumes that significant community harm prevents any net positive co-benefits from being claimed.

#### If **Community Harm** is present:

- The score is the minimum of the **Biodiversity** score and the **Community** score
- This ensures that positive biodiversity outcomes cannot override evidence of community harm.

#### If **Community Harm** is not present:

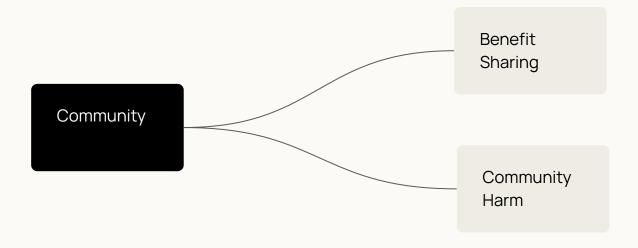
The score is the average of the **Biodiversity** score and the **Community** score.

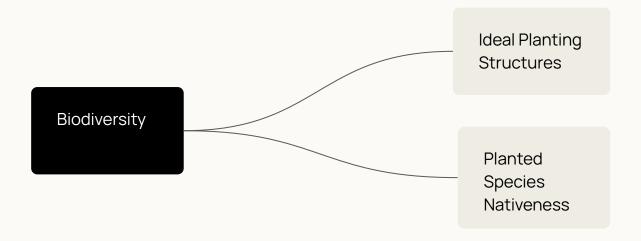
Note: A project-specific analysis of species and biodiversity, as well as due diligence on community engagement processes, is necessary to establish the true extent of risks or potential co-benefits.



# Safeguarding and Co-Benefits

(i) Description





#### **Biodiversity**

SAFEGUARDING AND CO-BENEFITS

#### (i) Description

The project's potential to support diverse species and habitats. It can be assumed that the more native or naturally introduced a forest's structure is, the better for local biodiversity the project is.

#### ( Scoring Logic

The score takes the average of the **Ideal Planting Structures** and **Planted Species Nativeness** components. If one score is missing, the score will be based on the available component.



## Ideal Planting Structures

SAFEGUARDING AND CO-BENEFITS - BIODIVERSITY

#### (i) Description

The optimal arrangement, density, and diversity of plantings for maximizing ecological benefits and carbon sequestration. Thoughtful design can enhance resilience, productivity, and overall project contribution to biodiversity.

#### Scoring Logic

This score evaluates how the planting structure of a project supports biodiversity. Naturally structured or diverse forests are better adapted to local ecosystems and provide stronger biodiversity benefits, while monocultures pose greater risks.

- · Natural regeneration (no planting involved) → very low risk.
- Polyculture planting → low risk.
- · Mixed planting  $\rightarrow$  neutral risk.
- Monoculture planting → very high risk.

#### **ង**ៗ Data Inputs

| Input name         | Description   | Dropdown Options                                      |
|--------------------|---|---|
| Planting structure | The planting structure (i.e. inter-mixing of species) that the project deploys/will deploy. | Monoculture; Polyculture; Mixed; Natural regeneration |



## **Planted Species Nativeness**

SAFEGUARDING AND CO-BENEFITS - BIODIVERSITY

#### (i) Description

The suitability of chosen species to the local environment, on the basis of whether those species are native to that location. Projects that align with native ecosystems often have higher resilience, lower maintenance costs, and stronger ecological integrity.

#### Scoring Logic

This score assesses whether the species composition of the project forest supports ecosystem resilience and biodiversity. Planting native species is assumed to be better suited to local ecosystems, less prone to pest outbreaks, and less likely to cause ecological damage than non-native plantings.

- Natural regeneration (no planting involved) → very low risk.
- Mostly native species  $\rightarrow$  low risk.
- Mixed species composition  $\rightarrow$  neutral risk.
- Mostly non-native species  $\rightarrow$  very high risk.

#### **妈** Data Inputs

| Input name                    | Description  | Dropdown Options  |
|-------------------------------|--|---|
| Nativeness of species planted | Whether the species being planted by the project are native to that area or not. | Mostly Native; Mostly Non-native; Mixed; N/A - Natural regeneration; No information |



#### Community

SAFEGUARDING AND CO-BENEFITS

#### (i) Description

The potential impact of a project on the local community must meet the No Net Harm principle such that all minimum expected safeguards are met, and any benefits above and beyond must be evidenced. Benefit-sharing mechanisms are used as a proxy to measure this as one of the most popular ways that carbon projects engage with local communities.

#### 🕄 Scoring Logic

The **Community** score evaluates co-benefits for local people, using benefit-sharing as a proxy while applying a cap where there is evidence of community harm. This reflects the assumption that significant net positive impacts cannot be claimed where harm is present.

If no evidence of Community Harm is available:

• The score is set equal to the **Benefit Sharing** score.

If evidence of **Community Harm** is available:

 The score is the lower of the **Benefit Sharing** score and the community harm score.

This ensures that evidence of harm always limits the community co-benefits score, meaning benefit-sharing cannot override identified risks.



75

#### Description

Mechanisms ensuring that the benefits (e.g., revenue, resources, capacity-building) derived from the project are equitably distributed among stakeholders, including local communities and project partners. Benefit-sharing is one of the key ways in which a community can ultimately benefit from a project, and therefore positive implementation can be used as a proxy for engagement and long-term success operating the project.

#### ( Scoring Logic

The Benefit-sharing score assesses whether project revenues are shared fairly and transparently with local communities, which is a key determinant of community support and long-term project success.

- Very low risk:
  - Benefit-sharing is not disclosed.
- Low risk:
  - Benefit-sharing is minor but not well evidenced.
- Moderate risk:
  - Benefit-sharing is minor and well evidenced.
  - Benefit-sharing is moderate but not well evidenced.
  - Benefit-sharing is unclear.
- High risk:
  - Benefit-sharing is significant but not well evidenced.
  - Benefit-sharing is moderate and well evidenced.
- Very high risk:
  - Benefit-sharing is significant and well evidenced.
  - By default, where the community is the project proponent and directly receives carbon revenue.



SAFEGUARDING AND CO-BENEFITS - COMMUNITY

## **2** Data Inputs

| Input name                 | Description  | Dropdown Options  |
|----------------------------|--|---|
| Benefit-sharing disclosure | Whether any benefit-sharing mechanisms have been disclosed, their scale and the level of evidence to back them up. | Yes - significant and well evidenced; Yes - significant but not well evidenced; Yes - moderate and well evidenced; Yes - minor and well evidenced; Yes - moderate but not well evidenced; Yes - minor but not well evidenced; Yes - by default, community is the proponent and in direct receipt of carbon revenue; No - not disclosed; Unclear |



77

#### (i)

#### Description

Potential negative impacts on local communities—such as land conflicts or reduced access to resources—arising from project activities. Evidence of community harm suggests a lack of successful and/or positive engagement locally, which could threaten the long-term success operating the project.

#### Scoring Logic

The Community Harm score evaluates whether the project is associated with harm to local communities, and the extent to which that harm is being addressed.

- Very low risk:
  - No evidence or unknown whether community harm has occurred.
- Low risk:
  - Harm is plausible but evidence is minimal.
- Moderate risk:
  - o Harm is evidenced, but its extent is not significant.
- High risk:
  - Harm is evidenced, significant in extent, but work is being done to address it.
- Very high risk:
  - Harm is evidenced, significant in extent, and no work is being done to address it.



78

## **Community Harm**

SAFEGUARDING AND CO-BENEFITS - COMMUNITY

## **2** Data Inputs

| Input name     | Description   | Dropdown Options   |
|----------------|---|--|
| Community Harm | Whether there is any evidence through research and in the public domain that there has been some harm to the community, if so the significance of the claims, evidence and whether there is any claims of work being done to counteract the concerns. | No / unknown; Yes - plausible/minimal evidence; Yes - evidenced, extent not significant; Yes - evidenced, extent significant, work being done; Yes - evidenced, extent significant, no work being done |



#### **Annex**

## Data Inputs

| Input name                | Description  | Dropdown Options   |
|---------------------------|--|--|
| Natural risks mitigations | The present or planned (claimed) project natural risk mitigations. | Fire patrols I A Satellite monitoring I A, B Fuel breaks I A Drought-resistant species I B, C Polyculture and/or diverse species planting I B, C Thinning I A, B Fire brigades I A Other fire monitoring system I A Dispersed project area I A, B, C Fire-fighting equipment I A Fire-resistant species I A Deadwood and litter clearing I A Irrigation I B, C Natural pest control training I C Pesticides I C Disease-infected tree extraction I C  A = Fire, B = Drought, C = Pests |



#### Disclaimer

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