



Amsterdam, 24-04-2025

To whom it may concern,

We hereby confirm that on 24-04-2025, a total of **1311** Carbon Removal Certificates (hereafter units) were issued to Ricardo Caeiro, *Rua de Evora n. 91 Reguengos de Monsaraz, Portugal*; hereby identified by us with project identification number: BBLL020. Out of these units 20% are kept in a holding pool for risk mitigation purposes. The characteristics of the units can be found on the attached Data Validation Statement (Annex I).

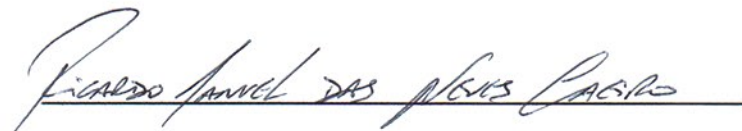
All transactions (purchase / sale) of the units must be recorded in the Oncra Ledger at all times. Therefore, the purchase/sale of these units must be reported to Oncra in written form which needs to be confirmed to be legally acceptable.

The applicable Oncra Guidelines at the time of issuance of these units can be found in the version dated February 2025. In case of questions regarding the provided units, please contact us at the contact details below.

For Oncra, legally represented by Climate Cleanup Foundation,

Sven Jense  
Director

And the remover, legally represented by Ricardo Caeiro,

  
Remover



# Annex I. Project Validation Certificate

This Validation Certificate proves that Remover has provided Oncra with the necessary information to obtain reasonable assurance about the accuracy of its actual carbon removal.

|                                                    |                                                                            |
|----------------------------------------------------|----------------------------------------------------------------------------|
| Certification code                                 | <b>BBLL020</b>                                                             |
| Remover / operator                                 | <b>Ricardo Caeiro - contracted by Bamboologic</b>                          |
| Oncra Approved Project Name                        | <b>Bamboo Ricardo Caeiro</b>                                               |
| Type of Activity / Removal practice                | <b>Bamboo forest</b>                                                       |
| Location                                           | <b>Reguengos de Monsaraz, Portugal</b>                                     |
| Technology Readiness Level (TRL)                   | <b>9 (Implementation)</b>                                                  |
| Methodology                                        | <b>ONCRA Land Stored Carbon Protocol</b>                                   |
| Project duration                                   | <b>20 years: 2023 - 2043</b>                                               |
| Expected storage duration                          | <b>20 years</b>                                                            |
| Initial crediting period                           | <b>12 years</b>                                                            |
| Surface area                                       | <b>6.1 ha</b>                                                              |
| In project scope / boundary                        | <b>Total Ecosystem Carbon stock (TEC)</b>                                  |
| Out of scope                                       | <b>Harvest / construction stored carbon (CSC)</b>                          |
| Potential net CO <sub>2</sub> removal              | <b>2185 tCO<sub>2</sub>e</b>                                               |
| Potential net CO <sub>2</sub> removal 1st 12 years | <b>1311 tCO<sub>2</sub>e</b>                                               |
| Holding pool, excluded in potential                | <b>20%</b>                                                                 |
| Units transferred to holding pool                  | <b>262</b>                                                                 |
| Potential units issued                             | <b>1049</b>                                                                |
| Certificate ids                                    | <b>BBLL020-0.001 – BBLL020-1.049</b>                                       |
| Data repository                                    | <b><a href="https://oncra.org/bbll020/">https://oncra.org/bbll020/</a></b> |
| Final legal ownership                              | <b>Ricardo Caeiro</b>                                                      |
| Date of approval and issuance                      | <b>24/04/2025</b>                                                          |
| Verifier                                           | <b>Hajna Julia Tijssen</b>                                                 |



# Annex I. Project Validation Certificate

## Empirical crediting base

This document summarises the projection model and outcomes following Oncra empirical crediting principles. These principles state a strict application of a measuring, verification and reporting (MRV) process to test the model pathways against real world data points from actual measurements, and are based on the Oncra Guidelines as effective at time of issuance at <https://oncra.org/guidelines/>.

## Scope

In scope are Above Ground (AGB), Below Ground and Soil Organic Carbon (SOC), following CDM AR-ACM0003. Out of the current scope of this statement are storage in produce and construction materials, as well as related avoided emissions due to displacement. Project boundaries follow the Land Stored Carbon protocol, and a fixed 20% project emissions margin has been derived from an LCA estimate which includes fertiliser, irrigation, other farming practices and project management. The project timeline is set at 20 years, with potential units issued for the first 12 years.

## General description

Ricardo Caeiro is setting up a 6.1 hectare bamboo forest in Reguengos de Monsaraz, Portugal. The project includes the increase in carbon storage in the ecosystem (Total Ecosystem Carbon, or TEC), compared to the baseline TEC. As it grows, the bamboo system can increase the amount of carbon sequestered in the soil. In addition, carbon is stored in biomass that grows below-ground (the roots) and in the above-ground growing biomass (e.g. in woody material).

As a reference system, full-grown bamboo systems from references (King et al., 2021; Yuen et al., 2017) were used for the SOC and AGB data (see KML file in 'Maps & Ownership' folder). For above ground biomass, the ESA Sentinel dataset was used from 2010-2020 for the baseline AGB data.

## Double counting and Additionality

As bamboo systems are not currently in the national climate policies (NDC's) for Portugal, and no government afforestation plans are known at time of analysis, additionality is likely and double counting is unlikely. Furthermore, the carbon stored on the land previous to the start of the project has been included in the baseline.

## Permanence

The remover has declared a minimum duty of care of 20 years. The remover does not intend to sell the land and will keep regenerating the land over this period. If the remover does have to sell the land due to unforeseen circumstances, they would search for people that would continue the project. Additionally, given expected policy developments due to climate impacts, a carbon storage timespan of 100 years is estimated with reasonable assurance.

**Diversity provision**

A high level of diversity is provided by the bamboo system, as a high diversity of harvestable trees and shrubs are grown alongside different crops. This high level of plant diversity is also expected to increase the animal diversity (e.g. insects, soil fauna and birds). For these reasons, no extra diversity holding pool has been established.

**Risk mitigation**

Oncra and remover agree on this assessment, as well as on the provisions to take if measurements do not align with the trend of these model projections. These provisions include a 20% holding pool.

**Leakage**

No significant leakage is expected from the project.