



DEFINITIONS, V2.0
TERO PROGRAMS
TERO CARBON AVALIAÇÕES E CERTIFICAÇÕES S.A.



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VERSION 2.0
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IDENTIFICATION

DOCUMENT	Definitions
VERSION	2.0
INTEGRAL PART OF THE	Tero Program
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STANDARD	Tero Carbon Avaliações e Certificações S.A. (contato@terocarbon.com)
PROGRAM	All
SECTOR	All
TYPE	All

LIST OF ACRONYMS

AFOLU	Agriculture, Forestry and Other Land Use
APD	Avoided Planned Deforestation
BAU	Business as Usual
BECCS	Bioenergy with Carbon Capture and Storage
BL	Baseline
CBH	Circumference at Breast Height
CCS	Carbon Capture and Storage
CDM	Clean Development Mechanism
DBH	Diameter at Breast Height
ERC	Ethereum Request for Comments
GHG	Greenhouse Gas
IPCC	Intergovernmental Panel on Climate Change
LMA	Legal Reserve Area
MRV	Measurement, Reporting, and Verification
MUA	Multiple Use Area
NBS	Nature-Based Solutions
NFT	Non-fungible Token
PA	Project Area
PDD	Project Design Document
PPA	Permanent Preservation Area
SFI	Sample Forest Inventory
TBS	Technology-Based Solutions
VVB	Validation/Verification Body



LIST OF PROGRAMS

Certification Program
Methodologies Program
Assets Program

Additionality

Additionality refers to a project's ability to demonstrate that the achieved reductions in greenhouse gas (GHG) emissions and/or removals are additional to those that would occur in the reference scenario, i.e., without its implementation. In other words, additionality assesses whether the project's activities are essential for generating these reductions and/or removals or if they would naturally occur regardless of the project.

According to the Intergovernmental Panel on Climate Change (IPCC, 2007)¹, additionality is defined as the reduction of emissions from sources or the increase in removals by GHG sinks that would not occur in the absence of one or more activities implemented by a project within a previously established baseline scenario. This definition is also included in the Kyoto Protocol and the Clean Development Mechanism (CDM)².

Afforestation

The establishment of a forest in areas that historically lacked tree cover, aiming to capture carbon, restore ecosystems, and enhance environmental services.

Agricultural Crop

A set of practices, techniques, and methods used in the systematic cultivation of plant species to produce food, fibers, bioenergy, and other plant-based products. It encompasses all stages, from soil preparation, seeding, management, and harvesting to post-harvest processes, following industry standards and technical guidelines.

Agricultural Cultivation Area

A designated land area specifically prepared and used for planting and growing agricultural crops. This may include open fields, greenhouses, and

¹ IPCC. <https://archive.ipcc.ch/ipccreports/tar/wg3/index.php?idp=454>. Accessed in March 2025.

² MMA.

<https://antigo.mma.gov.br/clima/convencao-das-nacoes-unidas/protocolo-de-quioto.html>. Accessed in March 2025.

other agricultural systems where plants are cultivated for consumption, processing, or sale. These areas are managed to optimize crop productivity and can play a significant role in carbon sequestration projects through photosynthesis and the sustainable management of agricultural practices.

Allometry

Allometry is the study of mathematical relationships between an organism's dimensions and its structural or functional characteristics. In forest engineering, it is applied to estimate biomass based on variables such as Diameter at Breast Height (DBH) and Circumference at Breast Height (CBH), being fundamental for carbon stock quantification.

Asset Minting

The process of creating and issuing new environmental assets on the blockchain, making them unique, traceable, and tradable. At Tero Carbon, minting is used to represent tokenized carbon credits and carbon stocks, ensuring transparency, security, and integrity in transactions.

Asset Transfer

The act of moving/transferring assets through the Tero Platform from one Tero Account (digital wallet) to another Tero Account (digital wallet).

Avoided Planned Deforestation (APD)

The decision to forgo the right to clear natural forest vegetation within the geographical boundaries of the Multiple-Use Area (MUA), committing to a zero-deforestation policy on the property.

Baseline (BL)

The initial reference point that establishes the starting measure for tracking changes or progress in a given phenomenon, project, or activity over

time. In the context of carbon projects and climate change mitigation, the baseline represents the greenhouse gas (GHG) emissions that would occur in the absence of the emission reduction and/or removal project. It is an estimate of the GHG emissions that would be generated without the implementation of the project's activities, considering factors such as common industry practices, existing regulations, land-use changes, and others.

The baseline is essential for determining the additionality of a project, meaning whether the achieved GHG emission reductions and/or removals go beyond what would naturally occur. It serves as a comparison point for calculating the avoided or reduced emissions from the project and, consequently, the amount of carbon credits that can be generated.

BAU Scenario (Business as Usual)

The BAU scenario (Business as Usual) refers to the natural course of activities that would occur without the implementation of specific measures to mitigate carbon emissions or change consumption and production patterns. In other words, it describes the status quo, where human activities continue without interventions to reduce environmental impact.

Blockchain

Blockchain is a distributed ledger technology that stores data in sequential, immutable interconnected blocks. Each block contains a set of validated transactions and a cryptographic hash of the previous block, ensuring the record's integrity and security. As a decentralized system, blockchain is not controlled by a single entity but maintained by a network of participants, providing transparency and resilience.

Buffer Reserve

A reserve of credits intended to compensate for potential losses in carbon sequestration due to risks or reversals, such as adverse natural events, serving as a security mechanism to ensure the project's environmental integrity.

Carbon Credit (tCO₂e)

A tradable, autonomous asset representing the effective reduction or removal of one metric ton of carbon dioxide equivalent (tCO₂e), with the legal nature of a civil fruit. It is generated from emission reduction or greenhouse gas removal projects or programs based on an asset, following a market-based approach and adhering to national or international methodologies that establish criteria and rules for the measurement, reporting, and verification of emissions. These methodologies encompass activities such as forest conservation and preservation, carbon retention in soil or vegetation, reforestation, sustainable forest management, restoration of degraded areas, recycling, composting, energy recovery, and environmentally appropriate waste disposal, among others.

Carbon Stock (tCO₂e)

A financial and environmental asset that is transferable and represents the maintenance or storage of one metric ton of carbon dioxide equivalent (tCO₂e). This includes all forms of carbon storage, except greenhouse gases present in the atmosphere.

Carbon Credit Retirement on Blockchain

Carbon credit retirement is the process of permanently removing these assets from the market for greenhouse gas (GHG) emissions compensation. On the blockchain, this mechanism is known as "burning," where credits are irreversibly removed from circulation and recorded.

Carbon Pool

A carbon pool that has the potential to accumulate (or lose) carbon over time. For AFOLU (Agriculture, Forestry, and Other Land Use) projects or programs, it includes aboveground biomass, belowground biomass, litter, deadwood, soil, and harvested wood products.

Carbon Project

Refers to a specific, unique, and temporary initiative aimed at reducing and/or removing greenhouse gas (GHG) emissions. Carbon projects can encompass an indefinite number and type of activities, including the implementation of cleaner and more efficient technologies, the protection and restoration of forests, agriculture, the development of renewable energy, carbon capture and storage, among other climate mitigation initiatives.

Certification

A set of procedures and guidelines used to validate and verify projects that generate assets through the reduction and/or removal of greenhouse gas (GHG) emissions. This process is led by Tero Carbon in collaboration with validation and verification bodies (VVB), ensuring that projects meet the highest standards of quality and integrity.

Crediting Period

The Crediting Period, or Environmental Asset Acquisition Period, refers to the timeframe during which the measurement and verification of the carbon stock occur for the issuance of Verified Carbon Credits. This period is defined as the interval between the date of the last carbon stock verification (Previous Date) and the date of the current carbon stock verification (Current Date).

$$\text{Crediting Period} = \text{Previous Date to Current Date}$$

This period aligns with the project's monitoring cycle, meaning the start and end dates of the monitoring for each verification.

Deforestation

The total or partial removal of forest vegetation from an area, either temporarily or permanently, due to human activities such as agricultural expansion, logging, urbanization, or infrastructure development.

Developer

A legal entity, including multiple entities, responsible for implementing carbon credit generation projects based on a specific methodology. This can be achieved through funding, technical assistance, or other means, in partnership with the credit generator.

Digital Wallet

It is a technological tool that enables users to securely store, manage, and transact digital assets using blockchain infrastructure. At Tero Carbon, each user account is automatically linked to a digital wallet that utilizes Magic technology to ensure the security of transactions and the control over environmental assets, such as carbon credits and tokenized carbon stocks.

Double Counting

Refers to a situation in which the same greenhouse gas (GHG) emission reduction is claimed and accounted for by more than one party or entity. This can occur when a carbon credit is issued for an emission reduction in a specific project, but the same reduction is also accounted for or claimed by another entity as part of its own emission reduction targets.

Eligibility

A set of criteria and requirements that a methodology or project must meet to qualify and be accepted within a certification or methodologies program.

Forest

An area with a tree canopy cover (or an equivalent level of cover) greater than 10 percent and an area exceeding 0.5 hectares. The trees must be capable of reaching a minimum height of 5 meters when mature in situ. It may consist of closed forest formations, where trees of various strata and undergrowth cover a significant proportion of the ground, or open forest formations with continuous vegetation cover, where tree canopy cover exceeds 10 percent.

It also includes young natural areas and all plantations established for forestry purposes that have not yet reached a 10 percent canopy density or a tree height of 5 meters, as well as areas that are typically part of the forested area but are temporarily unstocked due to human intervention or natural causes, yet are expected to revert to forest.

Included: Forest nurseries and seed orchards that form an integral part of the forest; forest roads, clearings, firebreaks, and other small open areas; forests within national parks, nature reserves, and other protected areas, such as those of scientific, historical, cultural, or spiritual significance; windbreaks and tree shelterbelts with an area greater than 0.5 hectares and a width exceeding 20 meters; plantations primarily used for forestry purposes, including rubber plantations and cork oak stands.

Excluded: Land predominantly used for agricultural practices.

Geographical Boundaries of the Project

The spatial delimitation that defines the area where the project's activities will be implemented and monitored. These boundaries establish the project's geographical scope, including the direct intervention area and, when applicable, relevant influence zones for the project's execution and impact.

Generator

An individual or legal entity, Indigenous peoples, or traditional communities that own or have usufruct rights over an asset that serves as the basis for greenhouse gas (GHG) emission reduction or removal projects.

Greenhouse Gases (GHGs)

These are gaseous components present in the Earth's atmosphere that have the ability to absorb and re-emit infrared radiation, thereby contributing to global warming. The main GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tropospheric ozone (O₃), water vapor (H₂O), and fluorinated gases such as sulfur hexafluoride (SF₆).

Human activities, such as the burning of fossil fuels, deforestation, intensive agriculture, and industrial production, have significantly increased the

concentration of these gases in the atmosphere, intensifying the greenhouse effect and contributing to global climate change.

Hash

A sequence of characters generated by a cryptographic hash function, which transforms data of any size into a fixed-size output. This sequence is unique for each specific input data set, functioning as a "fingerprint" of the data. At Tero Carbon, the hash serves as the transaction record ID, used to identify operations such as minting, transferring, and retiring environmental assets on the blockchain.

Implementer

The organization responsible for the project's governance during its execution period. The implementer is in charge of carrying out and/or coordinating the activities outlined in the methodologies.

Leakage

Leakage in a carbon project refers to the transfer or displacement of greenhouse gas (GHG) emissions from one area or activity to another as a direct result of the project's actions or interventions. This transfer can occur due to various factors, including changes in production patterns, displacement of economic activities, migration of communities, or unintended indirect effects of the project's activities.

Legal Reserve Area (LRA)

A portion of rural property with native vegetation designated for biodiversity conservation, sustainable use of natural resources, and ecological support of the region. Its maintenance is legally required and may vary in size depending on the biome in which it is located.

Measurement, Reporting, and Verification (MRV)

An integrated set of processes used in greenhouse gas (GHG) emission reduction projects to ensure the accurate collection of relevant data on project activities, the transparent communication of this data through regular reports, and the independent verification of compliance and accuracy by a qualified third party.

Methodology

A set of rules, procedures, and guidelines established to quantify, monitor, and verify greenhouse gas (GHG) emission reductions or carbon removal from the atmosphere. These methodologies are developed to ensure the integrity and quality of the generated carbon credits, guaranteeing that emission reductions or carbon removals are measurable, verifiable, additional, permanent, and consistent with the best available scientific and technical practices.

Multiple Use Area (MUA)

An area designated for the exploitation of natural resources that allows for a variety of activities, such as agricultural production, forestry management, recreation, and environmental conservation, aiming to balance productive uses with ecosystem preservation

Nature-Based Solutions (NBS)

Nature-Based Solutions (NBS) refer to actions that leverage ecosystems and natural processes to address environmental, social, and economic challenges, such as climate change mitigation and adaptation, biodiversity conservation, water and food security, and resilience to natural disasters. These solutions include practices such as reforestation, restoration of degraded ecosystems, sustainable forest management, and regenerative agriculture, providing long-term environmental and socioeconomic benefits.

Non-fungible Token (NFT)

It is an electronic token created on a blockchain network to represent carbon credit certificates, carbon stocks, or other environmental assets, ensuring traceability, authenticity, and exclusivity in the transaction of these digital assets.

Permanence

The concept of permanence has biophysical, political, and practical foundations. In a carbon project, permanence refers to the project's ability to sustain greenhouse gas (GHG) emission reductions over time in a durable and sustainable manner. In other words, the permanence of biologically sequestered carbon can be defined as the point in time when the stored carbon has effectively fulfilled its role in offsetting the global warming potential of the original emission it is compensating for.

Permanent Preservation Area

Legally protected land with native vegetation, essential for conserving water resources, biodiversity, and environmental stability. It includes riverbanks, steep slopes, and springs, where human intervention is restricted to prevent environmental degradation.

Project Area (PA)

Geographical area where project activities are carried out, including all physical locations directly involved in the removal or reduction of greenhouse gas emissions.

Project Design Document (PDD)

The Project Design Document (PDD) is a document that organizes and presents the project's key public information according to the chosen methodology.

Proponent

The proponent is the individual or legal entity that formally assumes responsibility for the greenhouse gas (GHG) emission reduction or removal project.

Public Consultation

A formal process in which a methodology or project is made available for public review and comments before its finalization and publication. During the consultation, individuals, organizations, and stakeholders can provide feedback, suggestions, and opinions. This participation allows for the consideration of different perspectives, enhancing the transparency, quality, and legitimacy of decisions and initiatives.

Reforestation

The planting of forests on lands that previously contained forests but were converted to another use. According to [Decree No. 8.972, dated January 23, 2017](#), which establishes the National Policy for Native Vegetation Recovery, reforestation is the planting of forest species, whether native or not, in pure or mixed stands to form a forest structure in an area originally covered by deforested or degraded forest.

Revegetation

"Revegetation" is a direct human-induced activity aimed at increasing carbon stocks in specific locations through the establishment of vegetation covering a minimum area of 0.05 hectares, which does not meet the definitions of afforestation and reforestation contained herein.

Reversal

It is the release of previously sequestered carbon back into the atmosphere. This can occur either intentionally or unintentionally and may be caused by various factors such as wildfires, deforestation, vegetation degradation, or failures in project maintenance.

Retokenization

Retokenization refers to the process of issuing new tokens to replace existing ones, often occurring when tokens have been discontinued, retired, or require updating to accurately represent changes in the underlying assets.

Sample Forest Inventory (SFI)

A method for assessing the quantity and quality of forest resources in a given area using a representative statistical sampling approach. Instead of measuring and evaluating all trees or the entire forest area, sample plots are selected within the forest for data collection. These samples are chosen randomly or systematically to ensure they are representative of the forest as a whole.

Social and Environmental Safeguards

Set of principles, guidelines, and measures designed to prevent, mitigate, and manage negative social and environmental impacts in projects and programs. Their goal is to ensure that initiatives contribute to sustainable development, respect human rights, protect vulnerable communities, and conserve biodiversity. These safeguards include criteria such as social participation, transparency, equity, respect for Indigenous and traditional populations, ecosystem protection, and mechanisms for monitoring and mitigating risks.

Technology-Based Solutions (TBS)

Technology-Based Solutions (TBS) refer to approaches that leverage technological innovations to address environmental, social, and economic challenges, such as climate change mitigation and adaptation, carbon capture and storage, energy efficiency, and sustainable resource management. These solutions include technologies such as carbon capture and storage (CCS), bioenergy with carbon capture and storage (BECCS), renewable energy, low-carbon industrial processes, and new agricultural techniques to reduce emissions and increase production efficiency.

Tero Platform

A technological platform for project registration and asset transactions between Tero wallets, developed by Tero Carbon to support the company's processes.

Token

A digital unit that represents a specific quantity of environmental assets, such as carbon credits or carbon stock. These tokens are created and recorded on a blockchain network, ensuring transparency, traceability, and security in asset transactions. Each carbon token is associated with a verified and quantified reduction in greenhouse gas (GHG) emissions and can be traded and transferred between different stakeholders, such as companies, investors, and governments, for emission offsetting or investment in carbon reduction projects.

Tokenized Asset

A digitally represented environmental asset on the blockchain, which can be implemented as either a fungible token (ERC-1155) or a non-fungible token (ERC-721A), depending on its issuance context and application. This tokenization enables traceability, security, and transparency in transactions, facilitating management and integration with other digital solutions.

Traceability

Refers to the ability to transparently and reliably track and document the history of carbon offset transactions, from the minting of carbon credits to their eventual retirement. This enhances trust and credibility in the carbon market, ensuring that carbon credits are genuine, not subject to double counting, and that the associated emission reductions are accurately verified and quantified.

Validation

The process through which Tero Carbon, together with an independent validation body (VVB), assesses a project before its implementation to verify its

compliance with the chosen methodology. At this stage, due diligence is conducted on the project information, individuals, and organizations, as well as the provided documentation.

Validation/Verification Body (VVB)

An external validation/verification body that independently participates, along with Tero Carbon, in the validation and verification of the project. It is the third party responsible for reviewing/auditing the information provided by the Project Developer.

Verification

The process by which Tero Carbon, together with an independent verification body (VVB), assesses whether there has been avoidance, removal, or reduction of greenhouse gases (GHGs) during a given monitoring (crediting) period, originating from the carbon project in question. During this phase, due diligence is conducted on the provided quantifications, as well as on the maintenance of related information, people, entities, and documentation.



VERSION HISTORY

VERSION	DATE	NOTES
2.0	04/01/2025	Layout update and insertion of new definitions.
1.0	08/19/2024	Initial version approved by the Management and released for public consultation.