CCC+ Reference

Certified Carbon Calculation + CCC+ (V3-2) PT

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Version	Description	Date
V1-0	First version of the CCC+ Reference.	06/06/2021
V2-0	Updating some concepts.	06/14/2024
V3-0	Review of the entire reference and adaptation for the national and international market.	09/09/2024
V3-1	Clarification on the Methodology Used	02/10/2024
V3-2	Adding Formulas and Constants	04/01/2025

Preface

CERTIS: Tradition and Innovation at the Service of Quality

Founded on November 16, 1998, CERTIS has a rich and remarkable history, standing out on the national and international scene as a reference in certification and training. Since its inception, CERTIS has embraced both tradition and innovation, based on solid values and a futuristic vision that allows it to be at the forefront of the sector.

CERTIS began its journey by investing in a culture of excellence, focused on offering integrated and innovative solutions for contemporary challenges. Over the years, it has established itself as a reference certification body, standing out for the credibility and rigor of its services.

The company has progressively acquired prestigious accreditations, recognized by entities such as the Portuguese Accreditation Institute (IPAC) and other international organizations, which reinforces its leadership position. These accreditations attest to CERTIS' compliance with the most demanding quality standards and reflect its commitment to continuous improvement and customer satisfaction.

CERTIS offers a wide range of certification services, covering various sectors such as quality and sustainability. These services are provided with a high degree of specialization and are constantly updated to keep up with market trends and demands, highlighting its innovative side.

In addition to certification, CERTIS invests significantly in training, with the aim of qualifying professionals and organizations for new challenges. CERTIS training programs are highly qualified and geared towards developing skills that drive competitiveness and sustainable development of companies.

CERTIS's journey is marked by constant adaptation and innovation. Incorporating the latest technologies, the company has implemented digital solutions that facilitate and streamline certification and training processes. This focus on technological innovation has allowed CERTIS to stay one step ahead, offering high-quality services with greater efficiency and effectiveness.

Since 2022, CERTIS has become part of the QIMA group, a world leader in quality control and certification services. This integration has brought significant value to CERTIS' operations, allowing us to benefit from QIMA's vast experience and global presence. With operations in more than 85 countries, QIMA offers integrated

solutions that ensure the highest standards of compliance and quality, further strengthening our commitment to excellence and sustainability.

Today, CERTIS continues to be synonymous with trust, transformation and progress. With a highly qualified team and a strong commitment to its founding values, CERTIS is ready to face future challenges and continue its mission of promoting quality and excellence in all sectors of the economy.

The Certified Carbon Calculation +, CCC+, was developed with the aim of enabling production units (forestry, agricultural and livestock farming) to demonstrate the annual carbon balance of their activities on the farm. In the first phase, this arose from the need for primary producers to clearly demonstrate their contribution to carbon capture, namely their agricultural activities (given the widespread misinformation in the media about livestock production, which only refers to emissions, considering these, regardless of whether it is extensive or intensive).

In its most recent phase, this framework arose from the need to achieve the goals set by the United Nations to mitigate climate change, because all stakeholders must be involved and integrated into mitigation and compensation systems. Thus, this framework was developed based on national and international references.

Louis Vaz Freire

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Objective

The Certified Carbon Calculation + (CCC+) is a certification developed by CERTIS, with the aim of providing customers with information regarding their contribution to carbon neutrality and to national and international commitments to halt climate change. With its own formula for calculating the annual carbon balance of production units, in accordance with the principles of the Intergovernmental Panel on Climate Change, IPCC, and the Portuguese Environment Agency, APA, among others. CERTIS provides indicators that allow them to optimize their economic and environmental sustainability, considering the actual result of the cultural practices already carried out in the previous year.

The CCC+ considers all production units and their productive components, whether forestry, agricultural and/or livestock, thus enabling production units, even those without a forestry component, to also contribute to national and global targets for combating climate change. It allows you to understand whether your annual balance will be carbon sequestration or emission by calculating greenhouse gas emissions.

This certification demonstrates the producer's concern and contribution to the environmental results of their management of the production unit. This concern and contribution results from the search to reduce emissions and increase carbon sequestration, through changes in their management decisions of the production unit based on the principles of sustainability: social, environmental and economic. Thus, also contributing, individually, to the goals of carbon neutrality, in addition to stimulating continuous improvement in the management of production units.

On the other hand, CCC+ enables access to the sponsored carbon credit market as well as the voluntary carbon credit market, if producers so wish.

This standard is a dynamic document that can be updated and improved on an ongoing basis, allowing it to respond to the different needs of producers (activities, geographies, etc.) and to the needs of the carbon market with its specificities. All interested parties may make suggestions for updating the CCC+ standard, but the ultimate responsibility for publishing new versions lies exclusively with CERTIS, the sole holder of the standard. Whenever it deems it appropriate, Certis consults independent experts and other interested parties, privately or publicly.

Scope (Types of Projects covered by the methodology)

This CCC+ standard has a national and international scope of application, being applicable without prejudice to the different international, community and/or national provisions that govern the health, safety and general regulatory compliance of the production unit.

Any production unit that applies for control of the CCC+ standard implicitly undertakes to respect the legislation, directives and regulations applicable in its field of activity, and this must be under the management of the same entity.

The reference is applicable to:

a) Any production unit, whether forestry, agricultural, livestock, farming, agroforestry, etc.;
b) Any geographical location on the globe, with the respective need to adapt the standard values used, depending on the specificities of the type of crops/species in the region/location in question (to be carried out by CERTIS);
c) Scope 1- Direct Emissions;
d) Scope 2- Indirect Energy Emissions.

The reference is NOT applicable:

a) Any transformation unit;
b) Any hotel unit;
c) Scope 3- Other Indirect Emissions
d) Companies that already have another carbon credit project.

Each project, depending on its type, can obtain different types of carbon credits.

Methodology Used

The present CCC+ reference has developed a methodology, consisting of audits and monitoring. The reference is updated whenever appropriate, recurring to internal technicians and, in justifiable cases, also with consultation, with independent experts and other interested parties, privately or publicly.

Monitoring:

- Monitoring always takes into account all planned and actual activities;

- Monitoring always considers annual performance, so it does not work based on estimates;

- Monitoring takes into account all plant and animal species used for production;

- Consider all forest species;

- Soil analysis considered;

- Considers biodiversity when this factor is applicable;

- The calculation methodology considers allometric equations adapted to the species and region, considering the best scientific practices;

- Considers all inputs and outputs of the production unit, which allows calculating and monitoring real emissions and carbon sequestration;

- Considers the calculation of biomass, of plant species, using Satellite technology, namely LIDAR, as well as monitoring with Drone to reduce the risk associated with the calculation.

Regular audits:

Audits are carried out annually, both on-site and remote audits (online and documentary).

Ensures continuous improvement and compliance with the points of this CCC+ benchmark.

Issuance of carbon credit reports and certificates:

- Certificates and reports with annual results will be issued after one year of monitoring and subsequent certificates always require annual monitoring.

- Any interruption in monitoring will require the process to start from scratch and the credits previously issued will be cancelled.

- For additionality credits that require a long-term stay, they must be clearly identified in the plan and management practices must be clearly aligned with this purpose.

- In the case of projects where the viability for their execution is absolutely necessary to sell credits, there may be a contract that allows the purchase of credits before their issuance, however the purchasing organization only takes physical possession of them after their issuance, eliminating the risk associated with the estimates. This purchase of credits cannot exceed 25% of the estimated credits for the project for a maximum horizon of 30 years.

- The framework has procedures in place, when they are additionality credits, to require that the renewal of any activity at the end of its credit period includes a reassessment of its reference bases, as well as procedures and assumptions to quantify, monitor and verify the mitigation, including the reference scenario, and its replacement.

- For the purposes of mitigating possible reversals, no more than 90% of the credits obtained may be sold.

Reference update

Whenever there is a change to the CCC+ Standard that is considered relevant, there is a 30-day consultation period for comments from interested parties. This period may be extended by legal requirement of any of the interested parties. In this context, the minimum interested parties to be consulted are all projects certified in this scope, and bodies that have recognized this standard.

References

The references presented below are relevant to the application of this reference.

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Greenhouse Gas Protocol (GHG Protocol)	GHG Guidance
Guide to Sustainable Development	17 Goals to Transform our World
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Millennium Ecosystem Assessment	Millennium Ecosystem Assessment. (2005). Ecosystems and Human Well-being: Biodiversity Synthesis. Washington, DC: World Resources Institute.
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	Directorate-General for Agriculture and Rural Development (DGADR). (2022). National Reference for Integrated Production Mode.
International Labour Organization (ILO)	ILO Declaration on Fundamental Principles and Rights at Work (1998)
Program for the Endorsement of Forest Certification (PEFC)	PEFC Council. (2010). Sustainable Forest Management – Requirements. PEFC ST 1003:2010.
National Certification Framework for Sustainability in the Wine Sector (RNCSSV)	Vine and Wine Institute, IP (2020). National Reference for Sustainability Certification of the Wine Sector (RNCSSV). Lisbon: IVV.
The Integrity Council for the Voluntary Carbon Market	The Fundamental Principles of Carbon

Terms and Definitions

Additionality -Principle according to which greenhouse gas (GHG) emission reductions or carbon removals are only considered additional if they exceed the level of reductions or removals that would have occurred in the absence of the specific project, intervention or activity. Additionality is therefore a measure of the effectiveness of the project in generating climate benefits that would not have occurred otherwise.

Follow-up Audit-Systematic, independent and documented examination of processes and documentation, carried out periodically after the initial audit, with the aim of ensuring continued compliance with the requirements established by the certification system and identifying any needs for improvement.

Audit-Systematic, independent and documented process to obtain and objectively evaluate evidence that determines whether the unit in question (e.g. production unit) is in compliance with the CCC+ Standard audit criteria established for the unit.

Document Audit -This type of audit focuses on reviewing an organization's documents and records to verify compliance with standards and regulations and the accuracy of the information reported. Examples of documents include inventories, annual production reports, energy and fuel consumption records, invoices, etc. These can be done remotely, at a lower cost and with less disruption to daily operations.

On-site Audit-Audits conducted on-site at the organization's facilities or project site for visual inspection and direct verification of practices and operations. The process includes interviews with employees and other stakeholders, inspection of equipment, observation of operating procedures, and direct measurement of emissions or processes.

Remote Sensing Audit-Use of advanced technologies to monitor and evaluate operations and practices remotely, such as drones, remote sensors, satellites and geographic information systems (GIS).

Mixed Audit (Hybrid)-Combination of documentary, on-site and remote audits for a more complete and robust approach.

Biodiversity-The diversity of life forms in a given ecosystem, region or across the planet, including genetic variability within populations and between different species, as well as the diversity of the ecosystems in which these species occur.

Biodiversity encompasses all forms of life, from microorganisms to large animals, and is fundamental to the balance and resilience of ecosystems, providing essential services such as pollination, climate regulation and the maintenance of soil and water quality.

Certification-Act by which an independent third party states that it is reasonably expected that a product or service, duly identified, is in conformity with the specified Standard.

Credibility -An essential attribute of a certification process that ensures that all assessments, audits and decisions are reliable, impartial and based on objective and rigorous criteria. Credibility implies that the certifying body upholds high standards of technical competence, transparency and integrity, ensuring that the certificates issued are valid, recognized and trustworthy.

Carbon Credit-Unit emitted for each ton of CO2 reduced/sequestered by a production unit. A carbon credit as one metric ton of CO2 equivalent of GHG emissions reductions or removals.

Verified carbon credits-Carbon credits issued after an effective reduction of greenhouse gas (GHG) emissions or carbon sequestration by the project, duly verified by an independent, duly qualified verifier, in accordance with the criteria established in this reference.

He must-is used to indicate an obligation or mandatory requirement. When a requirement states that something "must" be done, it means that it is imperative that the action, condition or procedure in question be fulfilled or carried out, with no flexibility or room for choice. Failure to comply with a requirement marked "must" usually results in non-conformity with the standard.

It should-is used to indicate a recommendation or good practice that is advisable but not mandatory. The term implies that following the suggested action or condition is beneficial and desirable, but not imperative. In this way, "should" establishes a clear guideline on what is considered appropriate or preferable, but allows for a margin of flexibility and judgment on the part of the normative subjects.

Ecoregions- Relatively large geographic units characterized by a homogeneous ecological composition and structure in terms of flora, fauna and environmental conditions. Each ecoregion has a specific set of natural habitats, biological communities and ecological phenomena, differentiating it from the surrounding regions.

Greenhouse gases (GHG)-Gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth's surface, atmosphere, and clouds. This property of absorption and emission of radiation is what causes the greenhouse effect, contributing to global warming and climate change.

Global warming potential (GWP100)

(Source: IPCC 2021)

Gas	GWP
CO2	1
CH_4	27,2
N_2THE	273

Impartiality-Absence of conflicts of interest and maintenance of a neutral attitude, so that conclusions and results are based exclusively on objective evidence and established criteria. This ensures the integrity, reliability and acceptance of the certifications issued.

Influence of Animals on the Carbon Cycle Process by which animals, through their biological, behavioral and ecological activities, indirectly affect the flows and distribution of carbon in ecosystems. It occurs through various interactions in the animal-soil relationship.

Stakeholders-refers to all individuals, groups or organizations that have a direct or indirect interest in the execution, results or impacts of a project or activity. They may influence or be influenced by the actions, objectives and policies of the organization involved. Stakeholders are crucial in the decision-making process and in the management of projects, ensuring transparency and accountability. Common Types of Stakeholders: Internal (Employees, Managers, Owners) and External (Customers, Local Community, Suppliers, Government and Regulators, Non-Governmental Organizations (NGOs) and Interest Groups and Investors and Financial Partners).

He can-is used to indicate a possibility or permission, without implying obligation or restriction. The term is often used to allow choosing, among several options or courses of action, those that are considered most appropriate.

Global warming potential (GWP)- is the measurement that shows how much a given mass of a greenhouse gas is capable of retaining heat in the atmosphere, compared to the same mass of equivalent CO2 gas. The GWP value is always calculated for a given period of time (such as 20, 50 or 100 years) and considering the absorption capacity of infrared rays. CO2 is used as a reference for the calculation, and its GWP was established as a standard and is 1. The higher the GWP value, the greater the impact on global warming. The GWP of other gases is calculated based on CO2.

Global warming potential (GWP100)

(Source: IPCC 2021)

Gas	GWP
CO2	1
CH_4	27,2
N_2THE	273

Registration-Document that expresses results obtained or provides evidence of activities carried out.

Scope 1-Direct, own, greenhouse gas emissions from sources within the production unit.

Scope/ Scope 2-Indirect emissions, both own and non-own, of greenhouse gases that are generated outside the boundaries of the production unit.

Scope/ Scope 3-Indirect, non-own emissions of greenhouse gases from the useful life of products, which do not come from sources within the production unit and are not controlled by it.

Natural Carbon Sequestration- Process by which living organisms, such as trees and other plants, remove carbon dioxide (CO_2) from the atmosphere and store it in the biomass (trunk, branches, leaves and roots) through photosynthesis.

Sustainability - The ability to meet the needs of the present without compromising the ability of future generations to meet their own needs. This concept encompasses three fundamental pillars: environmental, economic and social. In the environmental context, it refers to the responsible management of natural resources, the preservation of biodiversity and the minimization of negative environmental impacts. In the economic context, it refers to development that promotes inclusive and efficient economic growth without depleting natural

resources. In the social domain, sustainability seeks to promote equity, social justice and well-being for all communities.

Transparency- Quality or characteristic of being clear, open and easily accessible for verification of information, processes and decisions. Promotes accountability, trust and facilitates informed decision-making, ensuring that all actions and policies are carried out ethically and in accordance with established standards.

Production Unit- Physical space geographically delimited by property limits and type of management.

Verification-Confirmation, through objective evidence, that the requirements for a specific use or application have been met.

Conservation zones and protected areas- Specifically designated and managed geographic areas with the aim of conserving biodiversity, protecting natural and cultural ecosystems and maintaining essential ecosystem services.

Abbreviations

APA	Portuguese Environment Agency
CCC+	Certified Carbon Calculation
CO2	Carbon Dioxide
FSC	*Forest Stewardship Council*
GEE	Greenhouse Gases
IPCC	*Intergovernmental Panel on Climate Change*
PEFC	*Program for the Endorsement of Forest Certification*
NGO	Non-Governmental Organizations

Principles Considered

To create this benchmark, the Fundamental Carbon Principles listed by the Integrity Council for the Voluntary Carbon Market were taken into consideration, which are as follows:

1. Effective Governance;
2. Monitoring;
3. Transparency;
4. Robust, independent third-party validation and verification;
5. Additionality;
6. Permanence;
7. Robust quantification of reductions and removals;
8. No double counting;
9. Benefits and safeguards of sustainable development;
10. Contribution to the net zero transition.

General Requirements

The CCC+ Standard is intended to standardize the assessment and certification of agricultural, forestry and livestock production units in the context of carbon emissions and sequestration. This standard is a dynamic document that can be updated according to the needs of producers and carbon markets.

The organization must operate a management system in accordance with the requirements of this standard, to ensure correct implementation and maintenance of the process(es).

The management system must be appropriate to the type (forestry, agricultural and/or livestock) and volume of work performed and cover the subcontracted activities relevant to the production unit.

1. Legal Requirements

The Organization must be legally established, with a clear, documented and uncontested legal record, including written authorizations from the competent authorities for specific activities, as well as having legal rights to operate in the Production Unit. Demonstrating compliance with all applicable environmental, labor and economic legislation.

2. Environmental Requirements

The Organization shall define and implement, proportionate to the scale, intensity and risk of activities and their negative impacts, measures to avoid and mitigate negative impacts that are environmentally significant resulting from management activities. If requested by stakeholders, these measures shall be communicated to neighbours and landowners with adjacent areas.

2.1. Additionality

The Organization must promote additionality in its production unit, through measures that add value to the “scenario” that was previously in place, with sustainable practices that result in increased biodiversity, reduced emissions and additional carbon sequestration.

To be considered as additionality-only credits, projects must have a plan throughout the duration of the project to have this additionality; the minimum period for additionality projects is 25 years.

2.2. Biodiverse Pastures

The Organization may implement biodiverse pastures in the production unit as a measure to enhance the improvement of the soil and the surrounding environment.

2.3. Environmental Values and Impacts

The Organization must consider the environmental measures taken throughout the management of the production unit, such as:

a) Environmental awareness;
b) Sustainable management of the production unit;
c) Reduce waste production as much as possible;
d) Dispose of the waste produced correctly;
e) Water Conservation - Efficient Water Management;
f) Biodiversity Conservation Protection of Natural Areas;
g) Implementation of Ecological Corridors;
h) Reduction of Greenhouse Gas (GHG) Emissions;
i) Use of Renewable Energy;
j) Machine and Equipment Optimization;
k) Promotion of Sustainable Agricultural Practices;
l) Use of Natural Fertilizers and Pesticides;
m) Environmental Monitoring and Audits;
n) External Audits;
o) Environmental Education and Training. Awareness and Technical Training Programs;
p) Chemical Product Management;
q) Replacement of Hazardous Products;
r) Noise and Noise Pollution Management.

2.4. Conservation Zones and Protected Areas

The Organization must preserve the conservation zones and protected areas that are within the production unit, mainly for endemic/native species, threatened species and archaeological finds.

2.5. Biodiversity

The Organization must promote the conservation and recovery of habitats, the increase of biodiversity in its production unit throughout the years of the project, as well as the control of invasive species.

2.6. Soil conservation

The Organization shall promote soil conservation in order to reduce the risk of soil erosion through appropriate cultural practices, such as crop rotation, minimum tillage following contour lines, cover crops, green manures, and reduced use of chemical pesticides.

2.7. Water consumption

The Organization must promote conscious water consumption, in order to avoid wasting water due to its scarcity, through its accounting, use of probes, and if possible, be self-sufficient.

3. Social Requirements

The Organization must play a crucial role in promoting sustainable and responsible management of agricultural, forestry and livestock production units. These requirements ensure that operations not only benefit the environment and the economy but also contribute positively to the well-being of local communities and stakeholders.

3.1. Workers' Rights

The Organization upholds the principles and rights at work defined in the International Labour Organization Declaration on Fundamental Principles and Rights at Work (1998). These categories are:

a) Freedom of association and effective recognition of the right to collective bargaining;
b) Elimination of forced or compulsory labor;
c) Effective suppression of child labor;
d) Elimination of discrimination in employment and occupation.

Therefore, the Organization must have formalized employment contracts, payment records, equality and non-discrimination policies, labor audit reports and periodic inspections.

3.2. Gender equality

The Organization shall promote that there is equality in the practices and conditions of employment, training, hiring and management activities, if they comply.

3.3. Working conditions - Protection of workers through health, safety and training practices

The Organization must ensure that practices are appropriate to the scale, intensity and risk of the production unit.

a) Must ensure that workers are trained and supervised to safely and effectively operate activities in the Production Unit.
b) It must promote a safe, healthy and dignified working environment, ensuring that all facilities and work practices comply with health and safety standards. This includes access to personal protective equipment (PPE) and accident prevention measures.

The Organization shall have records of safety inspection reports, accident and incident records, health and safety training programs, and emergency plans.

3.4. Community Relations

The Organisation shall demonstrate transparent interaction with local stakeholders. It shall identify, prevent and resolve issues of property tenure or customary rights that may be settled out of court in a timely manner through engagement with affected stakeholders. Records of community meetings, community development programmes, social impact reports and community action plans shall be maintained.

Each project must have a list of interested parties, which must include name, contact person, and means of contact, preferably email and mobile phone, the type of organization (NGO, State body, Company, Union, etc.) and specifying the field of interest (Social, environmental, economic).

3.5. Public Consultation

The Organization must, at the beginning of the project, carry out a Public Consultation with Interested Parties for a period of at least 30 days before the first on-site audit is carried out. The list of interested parties must be comprehensive in accordance with point 3.4.

CERTIS and the organization, if applicable, publish the Public Consultation period on their respective websites.

The Organization shall record, consider and respond to all comments. All comments received by CERTIS shall also be recorded, considered and responded to.

Whenever any operational activity has an impact considered relevant or is different from what was previously consulted, it must comply with our public consultation with the parties affected or potentially interested in that operation.

If there is a legal requirement for other public consultation periods, these must be respected.

The public consultation process is transparent and respects confidentiality.

3.6. International Bill of Human Rights: Universal Declaration of Human Rights

The country in which the project is implemented must have ratified the International Bill of Human Rights.

4. Economic Requirements

The Organization must ensure that the operations of production units are not only environmentally responsible and socially fair, but also economically sustainable in the long term.

Financial Sustainability: Ensures that the production unit operates profitably and sustainably over time, enabling continued investment in sustainable practices and innovative technologies.

Transparency and Compliance: It promotes transparency in financial operations and ensures compliance with legal and tax regulations, reducing the risk of non-compliance and government audits.

Economic Resilience: It improves the resilience of the production unit in the face of potential economic crises, ensuring its continuity and long-term success.

4.1. Long-term commitment

The Organization must manage the production unit in a way that maintains its long-term sustainable economic viability, always adding social and environmental values whenever possible. It must present and develop long-term business plans that consider the financial sustainability and economic resilience of the production unit.

4.2. Input Billing

The Organization must keep a record of all inputs entering the Production Unit, ensuring transparency and traceability, documenting in detail all expenses and raw material inputs, including invoices, receipts and delivery notes.

4.3. Output Billing

The Organization must keep records of all outputs entering the Production Unit, ensuring that all products are accounted for in a transparent manner, documenting in detail all sales and product outputs, including invoices, receipts and release notes.

4.4. Financial Reports

The Organization must ensure the integrity and transparency of the financial operations of the production unit.

You must provide a document where it is possible to verify all products that leave your production unit in order to verify whether there are sales of carbon credits so that there is no double counting of credits, thus maintaining the credibility and transparency of the project and certification process. You must therefore submit annual financial reports, including Model 22, IES (Simplified Business Information) and Annex 3 of the IRS, as applicable.

5. Management System Requirements

5.1. Production unit document

The Organization must keep all documents updated and record changes, periodically communicating to CERTIS any changes made that alter the scope of the certification.

5.1.1. Farm Identification Document (IE)

The Organization must keep the farm identification document up to date.

5.1.2. Orthophotographic document of the plot (P3)

The Organization must keep the plot's orthophotographic document up to date and communicate any changes and updated documents to the certification body.

The orthophotographic document must be provided in pdf and shapefile.

5.2. Production Unit Management Planning

The Organization must have a management plan for the entire production unit to project all the activities to be carried out and plan in advance.

5.3. Soil Analysis

The Organization must carry out annual soil analyses on production units to monitor the evolution of the physical and chemical state of the soil (Annex IV). In specific cases, after analyses in the first year, this may be done every 5 years. Considering that there is no change in the soil in the intervening years.

5.4. Management Activities

The Organization must define and implement, proportionate to the scale, intensity and risk of agricultural, livestock and forestry activities.

5.4.1. Implementation of management activities

The Organization must implement all activities in the production unit in a structured manner, aiming at its economic and sustainable viability and efficient use of natural resources.

5.4.2. Monitoring and evaluation

5.4.2.1 The Organization may have a specialist technician in the production unit, so that he or she can help make the best decisions throughout the project.

5.4.2.2 The organization must list all emission sectors (by types of activities), and define mitigating measures whenever possible, with expected emission reduction results.

5.4.2.3 The organization shall list a potential risk of reversing emission reductions or carbon sequestration, and the mitigating measures for each of the potential risks, for example:

- Deforestation

- Forest fires

- Soil manipulation

- Pests and diseases.

5.4.2.4 Project monitoring must be annual, with the overall verification including satellite readings being carried out at least every 5 years.

5.5. Record of all activities

5.5.1. Field Notebook

The Organization must have a document recording all operations carried out throughout the calendar year in the production unit.

5.5.2. List of animal components

The Organization must provide an annual list of the number of animals present in the production unit, broken down by species, age and sex.

6. Logo Usage Requirements

If the Organization intends to use a logo to market products from the production unit, it must comply with the following points:

a) After evaluating the production unit and issuing the certificate, the carbon balance must be positive, that is, there was carbon sequestration;
b) The use of the logo is only permitted in calendar years in which carbon sequestration occurs and in which the sum of the history of previous years results in carbon sequestration;
c) Labeling must comply with national and community legislation, as well as the product specifications;
d) The labeling must contain a sentence indicating that the product was produced in a production unit where carbon sequestration occurred in the year xxxx;
e) The use of the logo requires approval by CERTIS.
f) Graphic standards are expressed in Annex I - Use of brand/logo - Rules

7. Requirements for Trading Carbon Credits

1) The Organization must have an updated record of all credit transactions carried out and notify CERTIS of all sales made; the minimum frequency of communication is monthly.
2) The registration of the marketing of credits must be carried out in the form provided by CERTIS, which must contain at least the following information:
    a. Name and address of the buyer;
    b. Date of sale;
    c. Name or description of each type of credit sold;
    d. Amount of credits for type;
    e. Identification of Origin- Property/Management Unit/Production Unit;
    f. Certificate code associated with the origin of the credits.
3) The Organization must keep copies of invoices (or similar sales documents) for a minimum period of 10 years for all credits sold.
4) For the purposes of mitigating possible reversals, no more than 90% of the credits obtained may be marketed.
5) Each credit can only be traded once regardless of whether it may have more than one classification, thus eliminating Double Counting.
6) Credits may have a composite classification with the aim of valuing them more, for example credits classified as additionality and biodiversity.
7) Credits are only issued after one year of monitoring and so on.

8. Publication and Transparency

The certificate issuing process complies with the procedures established by CERTIS, where the audit is carried out by one team, and the review and decision by another team.

The issuance of certificates and, eventually, credits is always done publicly, identifying the project.

The organization therefore authorizes the public availability of certificates and respective information on the CERTIS website.

Any interested party can contact CERTIS directly at certis@certis.pt .

9. Permanence

The Organization has the duty to notify the certifying entity, CERTIS, of the occurrence of reversal events that have consequences for carbon sequestration, such as fires, deforestation, changes in soil condition.

If the certifying entity is not notified, these events will be verified and noticeable in the on-site audit, if they occur before the audit, satellite readings that are carried out throughout the year and soil analyses, where the events will be detected.

Final Considerations

This framework serves as a detailed guide for the certification and trading of carbon credits, promoting sustainable agricultural, forestry and livestock practices that contribute to climate change mitigation. CERTIS is responsible for ensuring compliance with these principles and for updating the framework as necessary.

ANNEX I- Use of brand/logo- Rules

All rules for using the logo are available in the CCC+ Simplified Graphic Standards Manual.

ANNEX II- Types of Carbon Credits

Credit Type	Definition	Requirements
Additionality Credits	Credits that result exclusively from additionality. Evidence of what the baseline scenario would be is necessary for this consideration. Evidence of the implementation of practices and technologies that result in additional emission reductions to those that would occur in a baseline scenario. The use of performance benchmarks and audit reports that prove the effective reduction of emissions is essential. It refers to the capacity of a project to generate GHG reductions or removals that are greater than those that would have occurred had the project not been implemented. The aim is to ensure that interventions actually contribute to climate change mitigation in a genuine way and are not simply the result of activities that would have happened anyway.	→ Regulatory Surplus → Performance Benchmark → Investment Barrier → Common Practice
Good Management Credits	Evidence of sustainable management practices that contribute to carbon reduction and additional sequestration. This consists of improving the practices of existing projects. Implementation of sustainable management practices for forests and natural ecosystems that reduce the risk of degradation and maintain carbon stocks in the long term. They can be complementary to other certifications such as forest management with sustainable management principles and criteria (PEFC or FSC certification).	→ Implementation of Sustainable Practices → Soil Conservation and Improvement → Efficient Water Management → Reduction of GHG Emissions → Biodiversity Protection → Animal Welfare → Waste Management
Biodiversity Credits	Demonstration of measures that promote biological diversity within and around production units. Examples include native species conservation programs and the implementation of	→ Habitat Conservation and Recovery → Protection of Endangered Species

	ecological corridors. Initiatives that prevent habitat loss and ensure species protection, which contributes to the stability of ecosystems and their ability to store carbon.	→ Invasive Species Control → Sustainable Management of Natural Resources → Community Involvement
Food Production Credits	System reflects agricultural practices that contribute to carbon capture and promote sustainable food production. Initiatives such as regenerative agriculture and organic production can be highlighted. It can be associated with a labeling system that reflects agricultural practices that contribute to carbon capture, with these products being identified with the CCC+ seal, thus promoting sustainable food production.	→ Implementation of Sustainable Agricultural Practices → Efficient Use of Natural Resources → Sustainable Nutrient Management → Loss and Waste Reduction → Animal Welfare Practices → Biodiversity Conservation → Community Involvement and Social Responsibility
Protection Carbon Credits	They represent the reduction or removal of one tonne of carbon dioxide equivalent (CO_2e) from the atmosphere, resulting from activities that prevent the emission of greenhouse gases (GHG) through the protection of natural ecosystems. These credits are generally generated by initiatives that include: Prevent Deforestation: Protect existing forests to prevent the release of carbon stored in biomass and soil. Protection of Sensitive Ecosystems: Conservation of areas such as mangroves, wetlands, peatlands and other ecosystems with large carbon reserves, known as "blue carbon".	→ Habitat Conservation and Recovery → Protection of Endangered Species → Sustainable Management of Natural Resources → Invasive Species Control → Community Involvement

ANNEX III- Carbon Balance Calculation Formula

The CERTIS calculation formula was developed by a team of experts, transposing experience in scientific research to the real needs of production units, respecting the principles of the IPCC and the APA.

For calculations, the calendar year is considered (January 1 to December 31). The formula includes:

a) Specific data for each production unit relating to all inputs and outputs over a period of 1 year (January to December), including all carbon emission and sequestration values in all cultural operations of the production unit throughout the year.
b) Biomass value of the plant component - calculated by satellite (in cases where the plant component is higher than 1 meter above ground level) or values taken from scientific bibliography (verified and referring to each type of crop/species).
c) Specific data of the documents provided to comply with the requirements announced above.

Name	Formula	
Parameters and constants (animal and vegetation data, as well as conversion, emission, loss and sequestration factors are taken from bibliographic sources such as APA, IPCC, scientific articles)		
Global warming potential (GWP100) (Source: IPCC 2021)	$Emi_{CO2e(x,y)} = Emi_{(x,y)}(z) \times GWP_{(z)}$	EmiCO₂e(x,y) - CO₂e emissions for emission type "x", in year "y", (kg CO₂e/year) GWP(z) – Global warming potential of gas "z" Emi(x,y)(z) – Emissions of type "x" of gas "z", in year "y", (kg gas z/year)
CH_4 emissions from livestock effluent management		
CH4 emission FACTOR from livestock effluent management for an animal "i", in year "y", (kg CH4/(head.year)) (Source: IPCC 2006)	$EF_{GEP(i,y)}(CH_4) = (VS_{(i)} \times 365) \times \left[Bo_{(i)} \times 0{,}67 \times \sum_{jk} \frac{MCF_{(jk)}}{100} \times MMS_{(ijk)}\right]$	VS(i) – Volatile solids excreted on average by animal "i", (kg.dm/day) Bo(i) – Maximum CH_4 production capacity of the manure of animal "i", (m3 CH_4/kg VS excreted) 0.67 – Conversion factor from m3 of CH4 to kg of CH4 MCF(j,k) – CH_4 conversion factor for livestock effluent management

		system type “j” for climate region “k”, in year “y”, (%) MMs(i,j,k) – Fraction of livestock effluent from animal “i” treated in management system “j” in climate region “k”, (Dimensionless)
N_2O emissions from livestock effluent management (LEM)		
N2O emission FACTOR by direct emission from livestock effluent management of animal type “i”, in year “y”, (kg N2O/(head.year)) IPCC 2006 (formula 10.25)	$EF_{N2O(direct)(i,y)}(GEP) = \sum_s \left(N_{ex(i,y)} * MS_{(i,s)}\right) * EF_{3(s)} * \frac{44}{28}$	Nex(i,y) – Average annual N excretion in the country of interest by type of animal “i”, in year “y”, (kg N/(head.year)); MS(i,s) – Fraction of nitrogen/manure per animal “i” that is treated in the effluent management system “s”, (Dimensionless); EF3(s) – Direct emission factor of N_2O from the effluent management system “s”, through livestock effluent management, (kg N_2O-N/kg N). 44/28 – Conversion from kg N_2O-N to kg N_2O.
LOSS of N due to volatilization of NH_3 and Nox	Volatilization-MMS $=\Sigma_s$[Nex(i,y)x MS(i,s)x FracGasMS(i,s)]	Nex(i,y) – Average annual N excretion in the country of interest by type of animal “i”, in year “y”, (kg N/(head.year));

of the type of animal "i", in year "y", (kg N/(head.year)) IPCC 2006 (adapted from formula 10.26)		MS(i,s) – Fraction of nitrogen/manure per animal "i" that is treated in the effluent management system "s", (Dimensionless); FracGasMS(i,s) - Fraction of N loss by NH3 and Nox volatilization by animal type "i", in year "y"
Indirect N_2O emission by N volatilization from livestock effluent management of animal type "i", in year "y", (kg N2O/(head.year)) IPCC 2006 (formula 10.27)	$N_2O_{G(mm)} = \left(N_{volatilization-MMS} \bullet EF_4\right) \bullet \frac{44}{28}$	Nvolatilization-MMS - LOSS of N derived from the volatilization of NH_3 and Nox of the type of animal "i", in year "y", (kg N/(head.year)) EF4 - N_2O emission factor per volatilized and redeposited N [kg N_2O–N (kg NH_3–N + NOX–N volatilised)-1] 44/28 – Conversion from kg N_2O-N to kg N_2O
LOSS of N from Leaching of the type of animal "i", in year "y", (kg N/(head.year)) IPCC 2006 (adapted from formula 10.28)	$N\text{leaching-MMS} = \Sigma_s[Nex(i,y) \times MS(i,s) \times FracleachMS(i,s)]$	Nex(i,y) – Average annual N excretion in the country of interest by type of animal "i", in year "y", (kg N/(head.year)); MS(i,s) – Fraction of nitrogen/manure per animal "i" that is treated in the effluent management system "s", (Dimensionless); FracleachMS(i,s) - Fraction of N loss by leaching by animal type "i", in year "y"

Indirect N_2O emission by N leaching from livestock effluent management of animal type "i", in year "y", (kg N2O/(head.year)) IPCC 2006 (formula 10.29)	$N_2O_{L(mm)} = \left(N_{leaching-MMS} \bullet EF_5\right) \bullet \frac{44}{28}$	Nleaching-MMS - LOSS of N derived from NH3 and Nox leaching of the type of animal "i", in year "y", (kg N/(head.year)) EF5 - N_2O emission factor per N leached [kg N2O–N (kg N leaching/runoff)-1] 44/28 – Conversion from kg N_2O-N to kg N_2O
N_2O Emissions from the Management of AGRICULTURAL SOILS		
Amount of N from the deposition of manure and urine on pasture by cattle on pasture, in year "y", (kg N/year) IPCC 2006 (formula 11.5)	$F_{PRP,CPP(y)} = \sum_i \left(N_{(i)} \times N_{ex(i)}\right)$	N(i) – Number of heads of animals of type "i" (unit) Nex(i,y) – Average annual N excretion in the country of interest for animal "i", in year "y", (kg N/head.year)
Amount of available organic N from animal sources for animal type "i", (kg N/(head.year)) IPCC 2006 (adapted from formula 10.34)	$FAM = \Sigma_s[Nex(i,y)*MS(i,s)*(1-FracGasMS(i,s) - FracleachMS(i,s))] + AMext$	Nex(i,y) – Average annual N excretion in the country of interest by type of animal "i", in year "y", (kg N/(head.year)); MS(i,s) – Fraction of nitrogen/manure per animal "i" that is treated in the effluent management system "s", (Dimensionless);

		FracGasMS(i,s) - Fraction of N loss by volatilization FracleachMS(i,s) - Fraction of N loss by leaching by animal type "i", in year "y" AMext - Amount of N relative to manure from outside the farm (kg N/year)
N_2O emissions from agricultural soils of direct origin (kg N_2O/year) IPCC 2006 (adapted from formulas 11.1 and 11.2)	EmiN2O-direct =[(FPRP,CPPxEF3PRP,CPP) + (FPRP,SOxEF3PRP,SO)+ (FAM + FSEW + FCOMP + FOOA + FSN)xEF1 + (FAM + FSEW + FCOMP + FOOA + FSN)FR x EF1FR] x44/28 + EmiN2O-direct(FR)	FPRP,CPP(i,y) – Quantity of N from the deposition of waste by cattle, pigs and poultry in pastures that is incorporated into the soil by type of animal "i", in year "y", (kg N/(head.year)); FPRP,SO(i,y) – Quantity of N from the deposition of waste by sheep and other animals on pastures that is incorporated into the soil by type of animal "i", in year "y", (kg N/(head.year)); FAM(i,y) – Amount of organic N available from animal origin, for animal type "i", (kg N/(head.year)) FSEW(y) – Amount of N applied through WWTP sludge in the region of interest, in year "y", (kg N/year); FCOMP - Quantity of urban waste compounds applied to the soil, in year "y", (kg MS/year);

		FOOA(y) – Amount of N applied through other organic fertilizers in year "y", (kg N/year); FSN(y) – Amount of N applied through synthetic fertilizers per year, in year "y", (kg N/year); EF1 – N_2O emission factor from N added to the soil via synthetic or organic fertilizers or crop residues, (kg N_2O-N/kg N); EF1FR – N_2O emission factor from N added to the soil of RICE CROPS via synthetic or organic fertilizers or crop residues, (kg N_2O-N/kg N); EF3(PRP,CPP) – N_2O emission factor from N added to the soil through the deposition of cattle waste and urine, (kg N_2O-N/kg N); EF3(prp,so) – N_2O emission factor from N added to the soil via sheep and other animal waste and urine deposited on pastures, (kg N_2O-N/kg N); 44/28 – Conversion from kg N_2O-N to kg N_2O.

		EmiN$_2$O-direct(FR) - Direct N$_2$O emissions from agricultural soils due to the incorporation of agricultural residues (kg N$_2$O/year)
Amount of N applied through agricultural residues per hectare of crop "t", in year "y" (kg N/(ha.year)) IPCC 2006 (adapted from formulas 11.1 and 11.7A)	$F_{CR(t,y)} = (AG_{DM(t)} * N_{AG(t)} * (1 - Frac_{Remove(t)})) + (AG_{DM(t)} + Crop_{(t,y)}) * R_{BG-BIO(t)} * N_{BG(t)})$	AGDM(t) – Dry matter of above-ground residues per hectare of crop "t", (kg/ha); NAG(t) – N content in above-ground residues of crop "t", (kg N/kg DM); Crop(t,y) – Dry matter harvested per hectare of crop "t", in year "y" (kg DM/(ha.year)); RBG-BIO(t) – Ratio above and below ground of crop "t", (Dimensionless); NBG(t) – N content in below-ground residues of crop "t", (kg N/kg DM).
Direct N$_2$O emissions from agricultural soils due to the incorporation of agricultural residues of crop "t", in year "y", (kg N2O/year)	$Emi_{N2O(Direct)(t,y)}(F_{CR}) = F_{CR(t,y)} * (Area_{(t,y)} * Frac_{Renew(t)}) * EF_1 * \frac{44}{28}$	EmiN2O(direct)(t,y)(FCR) – N$_2$O emissions from direct sources in agricultural soils due to the incorporation of agricultural residues from crop "t", in year "y", (kg N$_2$O/year); FCR(t,y) – Quantity of N applied through agricultural residues per hectare of crop "t", in year "y", (kg N/(ha.year));

		Area(t,y)) – Area of crop “t”, in year “y”, (ha/year); Areaburnt(t,y) – Area burned of crop “t”, in year “y”, (ha/year); Cf(t) – Combustion factor of crop “t”, (Dimensionless); FracRenew(t) – Fraction of area renewed annually of crop “t”, (Dimensionless) - for annual crops = 1 EF1 – N_2O emission factor from N added to the soil via synthetic or organic fertilizers or crop residues, (kg N_2O-N/kg N); (For Rice only) EF1FR – N_2O emission factor from N added to the soil of RICE CROPS via synthetic or organic fertilizers or crop residues, (kg N_2O-N/kg N); 44/28 – Conversion from kg N_2O-N to kg N_2O.
N_2O emissions of indirect origin relative to LOSS BY VOLATILISATION in year ‘y’, (kg N_2O/year)	$Emi_{N2O\text{-}indireta\text{-}volatilização} = [(F_{SN} \bullet Frac_{GASF}) + ((F_{ON} + F_{PRP}) \bullet Frac_{GASM})] \bullet EF_4 \bullet 44/28$	FSN(y) - Amount of N applied through synthetic fertilisers per year, in year ‘y’, (kg N/year); FON(y) - Amount of Nitrogen (N) contained in all organic fertilisers

IPCC 2006 (formula 11.9)		applied to the soil, in year 'y', (kg N/year) FPRP(y) - Amount of N from the deposition of animal waste and urine on the pasture, in year 'y', (kg N/year) FracGASF - Fraction of N volatilised in the form of NH_3 and NOX from the application of N to the soil through synthetic fertilisers, (Adimensional) FracGASM - Fraction of N volatilised in the form of NH_3 and NOX from the application of N to the soil through organic fertilisers and the deposition of animal waste and urine on pasture, (Adimensional) EF4 - Emission factor for N_2O emissions deposited in the atmosphere from nitrogen in soils and surface waters, (kg N_2O-N) 44/28 - Conversion of kg N_2O-N to kg N_2O
N_2O emissions of indirect origin related to LOSS BY LIXIVISATION resulting	$Emi_{N2O\text{-}indireta\text{-}lexiviação} = (F_{SN} + F_{ON} + F_{PRP} + F_{CR}) \bullet Frac_{LEACH-(H)} \bullet EF_5 \bullet 44/28$	FSN(y) - Amount of N applied through synthetic fertilisers per year, in year 'y', (kg N/year);

from land management in year 'y', (kg N_2O/year) IPCC 2006 (formula 11.10)		FON(y) - Amount of Nitrogen (N) contained in all organic fertilisers applied to the soil, in year 'y', (kg N/year) FPRP(y) - Amount of N from the deposition of animal waste and urine on the pasture, in year 'y', (kg N/year) FCR(y) - Amount of N applied to soils through agricultural residues, in year 'y', (kg N/year) FracLEACH - Fraction of N leached from the application of N to the soil through synthetic or organic fertilisers, the deposition of animal waste and urine on pasture and the incorporation of crop residues (dimensionless); EF5 - Emission factor for N_2O emissions from nitrogen leaching and run-off, (kg N_2O-N) 44/28 - Conversion of kg N_2O-N to kg N_2O
CO_2 emissions from soil liming		

CO_2 emissions from liming in year "y", (kg CO_2/year) IPCC 2006 (formula 11.12)	$Emi_{C(y)}(CO_2) = [(F_{CaCO3} \times EF_{CaCO3}) + (F_{CaMg(CO3)2} \times EF_{CaMg(CO3)2})] \times \frac{44}{12}$	$FCaCO_3$ – Amount of limestone ($CaCO_3$) applied to the soil, in year "y", (kg $CaCO_3$/year) $EFCaCO_3$ – CO2-C emission factor due to limestone liming ($CaCO_3$), (kg CO_2-C/ kg $CaCO_3$) FCaMg (CO_3)2 – Amount of dolomite (CaMg (CO_3)2) applied to the soil, in year "y", (kg CaMg (CO_3)/year) $EFCaCO_3$ – CO_2-C emission factor for liming with dolomite (CaMg (CO_3)), (kg CO_2-C/ kg CaMg (CO_3)) 44/12 – Conversion from kg CO_2-C to CO_2
CO_2 emissions from the application of UREIA to soils		
CO_2 emissions from the application of ureia in year "y", (kg CO2/year) IPCC 2006 (formula 11.13)	$Emi_{CO2(y)}(Ureia) = EF_{Ureia} * F_{ureia} * \frac{44}{12}$	EFUurea – CO_2 emission factor due to the application of urea to soils, (kg CO_2-C/kg Urea); Ureia(y) – Amount of urea applied to soils, in year "y", (kg Ureia/year); 44/12 – Conversion of CO_2-C to CO_2.
CH_4 emissions from rice cultivation		

CH_4 emissions from rice cultivation in year "y", (kg CH_4/year) IPCC 2006 (adaptation formula 5.1)	$$Emi_{CH4(y)}(CA) = EF_{CH4(y)}(CA) * A_{rice(y)}$$	EFCH4(y)(CA) – CH_4 emission factor for rice crops, in year "y", (kg CH_4/(ha.year)); Arice(y) – Rice area referring to year "y", (ha/year)
CO_2 emissions from agricultural machinery		
CO_2 emissions from agricultural machinery in year "y", (kg CO_2/year)	$$Emi_{MA(y)}(CO_2) = EF_{MA} \times F_{MA(y)}$$	EFMA – CO_2 emission factor for agricultural machinery, (kg CO_2/ l Diesel); FMA(y) – Quantity of diesel used by the agricultural holding, in year "y", (l Diesel)
CO_2 sequestration by FOREST SPECIES		
CO_2 sequestration by tree type in year "y" of tree type "i" (kg CO_2/year)	$$SeqA(i,y)(CO2) = (wi - wf)x(1+R:S) \times 0.5x44/12$$	wi - Initial tree aboveground biomass (kg dry matter) wf - Final tree aboveground biomass (kg dry matter) R:S - Root/Shoot Ratio 0.5 - conversion of tree biomass to stored carbon 44/12 – Conversion from kg CO_2-C to CO_2

CO_2 sequestration by PERMANENT CROPS		
CO_2 sequestration by tree type in year "y" of tree type "i" (kg CO_2/year)	$SeqA(i,y)(CO2) = (wi - wf)x(1+R:S) \times 0.5x44/12$	wi - Initial tree aboveground biomass (kg dry matter) wf - Final tree aboveground biomass (kg dry matter) R:S - Root/Shoot Ratio 0.5 - conversion of tree biomass to stored carbon (except where other values are specified) 44/12 – Conversion from kg CO_2-C to CO_2
CO_2 Sequestration by Natural Grasslands and BIODIVERSE PASTURES with LEGUMINOSES		
CO_2 sequestration by natural pastures and biodiverse pastures with legumes in year "y" (kg CO_2/year)	$SeqP(y)(CO2) = (AreaPN(y)xFSPN + AreaPBL(y)xFSPBL)x1000x44/12$	AreaPN(y) – Area with natural pasture, in year "y", (ha); FSPN - C sequestration factor by natural pastures (t C/ha.year) AreaPBL(y) – Area sown with biodiverse pasture rich in legumes, in year "y", (ha); FSPBL - C sequestration factor by biodiverse pastures with legumes (t C/ha.year)

		44/12 – Conversion from kg CO_2-C to CO_2
CO_2 emissions from the production of the ELECTRICITY consumed		
CO_2 emissions from the production of the electricity consumed	Emi (ton CO_2/year) = (f * C) /1000	f- CO_2 emission factor for the production of ELECTRICITY consumed (kg CO_2 /kWh) C- total consumption for the year (kWh/year)

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ANNEX IV - Methodology for Soil Analysis

1. Soil Sampling

Sampling Principles:

- Stratification: Dividing the total area into homogeneous zones to ensure that samples correctly represent soil variability in the field.
- Sampling Depth: Collect samples at a minimum depth of 30 cm, unless otherwise specified for particular studies.
- Georeferencing: Record the coordinates of the locations where the samples are taken.

After collecting the soil samples, a simple analysis (texture, pH, carbonates, organic matter, phosphorus, potassium) should be carried out in an accredited laboratory.

Soil analysis must be carried out every year.

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