

Cercarbono's Protocol for Voluntary Carbon Certification

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Version 3.1

® CERCARBONO

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Contents

Index of tables.....	5
Index of figures.....	5
Acronyms	6
Terms and definitions	7
Summary.....	10
Foreword	11
1 Introduction.....	13
2 Principles	15
2.1 Principles to be considered by CCMPs.....	15
2.2 Principles considered in carbon credits	18
3 Programme objectives.....	20
4 Scope.....	21
4.1 Sectoral scopes.....	22
4.1.1 Energy sector	22
4.1.2 Industry sector.....	22
4.1.3 Transport sector	22
4.1.4 Construction sector	23
4.1.5 Mining/mineral production sector	23
4.1.6 Metal production sector.....	23
4.1.7 Fugitive emissions sector	23
4.1.8 Waste management sector	23
4.1.9 Land use sector.....	23
4.2 Use of the protocol and certification programme documents.....	25
5 CCMP requirements	26
5.1 Components of the CCMP	28
5.2 Description of the methodology	29
5.2.1 Additionality	31
5.2.2 Eligibility	31
5.2.3 Non-permanence	31
5.2.4 Determination of the baseline scenario.....	31
5.2.5 Establishment of the project scenario	32
5.2.6 Identification of GHG emission sources	33
5.2.7 Identification of carbon pools	47
5.2.8 Selection of emission sources and carbon reservoirs to monitor or estimate GHG emissions or removals	47
5.2.9 Methodological deviations.....	48
5.3 CCMP monitoring	49
5.4 Grouped projects	50
5.4.1 Special considerations for projects in the land use sector	51
5.5 Accreditation period	52
5.6 Renewal of the crediting period	52
5.7 Co-benefits and compliance with the Sustainable Development Goals.....	53

5.8	Effective participation	54
5.8.1	Public consultations of the CCMP	54
5.8.2	Public consultations of documents, tools and methodologies developed by stakeholders	56
5.8.3	Public consultations of documents, tools and methodologies developed by Cercarbono	57
5.8.4	Frequently asked questions and contact	57
5.9	Legal and documentary management	57
5.9.1	Management of legal requirements	58
5.9.2	Data quality management.....	58
5.10	Retroactive period.....	58
6	Preliminary and subsequent actions to the validation and verification processes	59
6.1	Actions prior to the validation and verification processes	59
6.2	VVB requests	60
6.3	Information list of the VVB	61
6.4	Facts discovered after validation or verification	61
7	Requirements of the validation process	62
7.1	Validation plan	62
7.2	Evidence gathering plan.....	62
7.2.1	Recognition.....	62
7.2.2	Property.....	62
7.2.3	CCMP limits	63
7.2.4	Baseline scenario selection	63
7.2.5	Quantification and monitoring methodologies	63
7.2.6	Leakage.....	64
7.3	Information and data control system	64
7.4	CCMP calculations.....	65
7.5	Future estimates	65
7.6	Uncertainty.....	65
7.7	CCMP evaluation	67
7.8	Validation opinion.....	67
7.9	Proper disclosure of the CCMP	67
7.10	Validation report.....	67
7.11	Validation statement.....	68
8	Requirements of the verification process	70
8.1	Verification plan	70
8.2	Risk evaluation	71
8.2.1	Risk types.....	72
8.3	Evidence gathering plan.....	72
8.3.1	Data register	72
8.3.2	Aggregate GHG data and information	72
8.4	Implementation of activities and verification techniques.....	73
8.4.1	Analysis tests	73

8.4.2	Control tests	73
8.4.3	Estimation tests	73
8.4.4	Sampling	73
8.4.5	Visits to the CCMP site, area, or facilities	74
8.5	Property evaluation	76
8.6	Information and data control system	76
8.7	CCMP status assessment	76
8.8	Assessment of conformity with requirements	76
8.9	Verification opinion	77
8.10	Verification report	77
8.11	Verification statement	78
8.12	Verification event timelines	79
9	Authorized validation and verification bodies	81
10	Certification process requirements	82
10.1	Stage 1. Creation and activation of an account	83
10.2	Stage 2. Establishment of contracts	84
10.2.1	Cercarbono's voluntary carbon certification programme services	84
10.2.2	Terms of use of public content	85
10.2.3	Veracity and quality of the data or information provided	86
10.3	Stage 3. Upload of CCMP support documents	86
10.3.1	Monitoring the status of the CCMP	88
10.4	Stage 4. Pre-registration of the CCMP	88
10.5	Stage 5. CCMP registration	88
10.6	Stage 6. Upload of validation support documents	89
10.7	Stage 7. Upload of verification supporting documents	89
10.8	Stage 8. Carboncer registration and issuance certification	90
10.8.1	Checking of documents for the certification of the emission of carbon credits ...	90
10.8.2	Document review for Carboncer emission certification	91
10.8.3	Carboncer emission report	92
10.8.4	Carboncer registration and issuance certification	92
10.9	Duration of the certification process	94
10.10	Certification process costs	94
10.11	CCMP migration from other standards or certification programmes	94
10.11.1	Prerequisites to the migration process	96
10.11.2	Requirements to request migration	96
10.11.3	Migration of the CCMP to Cercarbono and conversion of credits to Carboncer ...	97
10.11.4	Analysis of the crediting period granted by the standard or certification programme from which the CCMP comes	98
10.11.5	Analysis of the verification events of the standard or certification programme from which the CCMP comes	99
10.11.6	Analysis of the renewal of the CCMP crediting period	99
10.11.7	Rare cases of CCMP migration	100
10.12	Cercarbono CCMP migration to other standards or certification programmes	100

10.13	Facts discovered after certification.....	101
10.14	Change of destination of carbon credits.....	101
11	Validity of the protocol	102
12	Memberships and affiliations	103
12.1	International.....	103
12.2	Nacional.....	103
13	References.....	104
14	Document history	106

Index of tables

Table 1. Sectoral scopes and CCMP activities covered by this version of the protocol.	24
Table 2. GHG emission sources by type of CCMP.	33
Table 3. Information from the CCMP that will migrate to Cercarbono's voluntary carbon certification programme.	97

Index of figures

Figure 1. CCMP cycle under Cercarbono's voluntary carbon certification programme.	26
Figure 2. Phases of Cercarbono's voluntary carbon certification process.	82
Figure 3. Considerations in the migration of CCMP from other standards or certification programmes to Cercarbono.	95

Acronyms

ASOCARBONO	Colombian Association of Carbon Market Actors
CCMP	Climate Change Mitigation Programme or Project
CDM	Clean Development Mechanism
CEO	Chief Executive Officer
CO₂e	Carbon dioxide equivalent
DOE	Designated Operational Entity
EAv	GHG emissions avoidance
EDest	GHG emissions destruction
EDisp	GHG emissions displacement
EnEf	Energy efficiency
FCEf	Fuel change efficiency
GHG	Greenhouse Gases
GhgR	GHG removal
IAF	International Accreditation Forum
ID	Identification code or number
IETA	International Emissions Trading Association
IPCC	Intergovernmental Panel for Climate Change
ISO	International Organization for Standardization
LPG	Liquefied Petroleum Gas
ONAC	National Accreditation Body (Colombia)
PDD	Project Description Document
RDF	Refuse Derived Fuels
REDD+	Reduction of Emissions from Deforestation and Forest Degradation and other actions in this sector
Ren	Renewable energy
SB	Stabilized biomass
SDGs	Sustainable Development Goals
UNFCCC	United Nations Framework Convention on Climate Change
VVB	Validation and Verification Body

Terms and definitions

The terms and definitions that guide the understanding of this protocol and the context of the carbon market have been deposited in the document “***Terms and Definitions of the Voluntary Certification Programme of Cercarbono***”, available on its website: www.cercarbono.com, section: Documentation.

- above ground biomass
- accreditation
- accreditation period
- activity data
- additionality
- agricultural activity
- agricultural land
- alternative fuel
- anaerobic digestion
- associated gas
- avoidance of greenhouse gas emissions
- baseline scenario
- below ground biomass
- biomass
- biomass waste
- calibration
- carbon buffer
- carbon credit
- carbon credit emission certificate
- carbon credit registry
- carbon dioxide equivalent
- carbon footprint
- carbon market
- carbon pool
- carbon stock
- Carboncer
- Carboncer withdrawal
- CCMP activity
- CCMP area
- CCMP developer
- CCMP duration
- CCMP holder
- CCMP legal representative
- CCMP lifespan
- CCMP operator
- certification
- certification programme
- certifier user
- client
- climate change mitigation
- climate change mitigation initiative
- climate change mitigation programme
- climate change mitigation project
- co-benefit
- co-composting
- co-generation
- commitment
- composting
- confidential information
- conflict of interest
- contract
- criteria
- cumulative rounding error
- dead wood
- deforestation
- destruction of greenhouse gas emissions
- developer user
- displacement of greenhouse gas emissions
- double counting
- electronic signature
- eligibility
- emission factor
- energy crop
- energy efficiency

- evaluation
- evidence
- external transfer
- field
- forest activity
- forest degradation
- forest land
- fossil fuel
- fuel switching efficiency
- fugitive fuel emission
- gasification
- general account user
- global warming potential
- governance
- greenhouse gas
- greenhouse gas emissions
- greenhouse gas information system
- greenhouse gas removal
- greenhouse gas storage
- grouped project
- instance
- interested party
- inventory
- land use
- landfill gas
- leakage
- level of assurance
- liquefied petroleum gas
- liquid waste
- litterfall
- marketer user
- material error or discrepancy
- methodological tool
- methodology
- monitoring
- monitoring report
- natural gas
- no carbon taxation
- non-compliance
- non-permanence
- offset mechanism
- ownership
- pooled carbon buffer
- principle
- project cycle
- Project Description Document
- project ownership
- project scenario
- project start date
- property right
- raw material
- reduction of greenhouse gas emissions
- reforestation
- regasification
- regulated carbon market
- removal factor
- renewable energy
- report
- requirement
- reservoir
- retroactivity period
- reversal
- revision
- rising gas
- rounding
- sectoral scope
- segment
- soil organic carbon
- solid waste
- source of greenhouse gas emissions
- start date of crediting period
- sustainable development
- taxable person or end user
- term of commitment

- test
- torch
- traditional knowledge
- uncertainty
- useful life of areas, machinery, equipment, and technology
- validation
- Validation and Verification Body
- validation and verification body user
- validation or verification opinion
- validation report
- validation statement
- validator
- verification
- verification period
- verification report
- verification statement
- verifier
- voluntary carbon market
- voluntary certification protocol
- waste energy
- waste management
- woody biomass

Summary

The regulatory and technical framework that governs Cercarbono's voluntary carbon certification programme to certify climate change mitigation initiatives and with which different actors in the carbon market can participate is presented, highlighting the most important principles that these types of initiatives should contemplate, and the results derived from them, as well as the different sectors in which they can operate.

It presents a detailed guide aimed at holders and developers with the most important elements that the formulation and development of these initiatives must consider, such as criteria of additionality, eligibility, and non-permanence, as well as the bases that support the identification and selection of the baseline and project scenarios, including emission sources and carbon reservoirs. In a complementary way, it presents some elements that strengthen the development of these initiatives, such as the scenarios for effective participation, the contribution to the Sustainable Development Goals, and legal and documentary management.

The protocol also highlights the requirements that such initiatives must consider within the validation and verification processes, under which the validation or verification bodies intervene, which evaluate and support the evidence presented and issue or not the respective validation or verification statements. Finally, it details the entire process that these initiatives must comply with so that the emission and registration of carbon credits achieved by the programmes activities or projects contemplated by them can be registered and subsequently certified.

Foreword

Cercarbono is an international voluntary carbon certification programme, whose mission is to facilitate and guarantee to individuals, companies, and the public the registration of Climate Change Mitigation Programmes or Projects (CCMPs), the certification of emissions and the registration of carbon credits obtained by these CCMPs.

This protocol has been developed by Cercarbono's technical team and endorsed by its Board of Directors and CEO.

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The protocol will be updated periodically to adapt it to international circumstances and the needs of national contexts.

A draft of this document was made available for consideration by society at large, through the third public consultation on the Cercarbono website and through invitations to individuals and public and private companies.

Cercarbono is grateful for the participation of companies and independent individuals who expressed their opinions and recommendations, which helped to strengthen this document.

- ALLCOT
- ATMOSPHERE ALTERNATIVE
- CAIA INGENIERIA
- C-DEG SAS ESP
- CELSIA
- CEMENTO ARGOS
- CO2CERO SAS
- COMPAÑIA AGRICOLA DE LA SIERRA SC
- COMSA
- CONSULTORÍA FORESTAL
- CORPORACION MASBOSQUES
- DEUTSCHE CERTIFICATION BODY SAS
- ENTITY
- EPIC SUSTAINABILITY
- EPM
- GLOBAL CONSULTING AND ASSESSMENT SERVICES SA DE CV
- ICROA
- IETA
- PROGRAMA PÁRAMOS Y BOSQUES
- PROYECTO MODELO S INNOVADORES DE CONSERVACIÓN
- SUGO COLOMBIA
- MADS
- MGM INNOVA
- RUBY CANYON ENVIRONMENTAL

- SOUTH POLE
- SUGO COLOMBIA SAS
- TCC SAS

The following is an updated version of the document with new elements that will allow both the participation of several economic sectors and different actors in the solution of the environmental problem of climate change.

1 Introduction

Cercarbono is a certification company with a voluntary carbon certification programme, certifying the removal of Greenhouse Gases (GHG) and the reduction (avoidance, displacement, and destruction) of GHG emissions from climate change mitigation initiatives carried out in different sectoral areas¹. This certification takes place mainly in the framework of countries' commitments to address climate change following the Kyoto Protocol in 1997 and the Paris Agreement in 2015.

In this sense, these countries have been developing different regulatory or voluntary schemes to encourage compliance with their GHG emissions mitigation goals, in which the development of Climate Change Mitigation Programmes or Projects (CCMP) and the purchase of carbon credits from this type of initiatives.

This protocol describes the formalization process and the requirements that the CCMPs must meet to obtain the emission of carbon credits through the Cercarbono certification programme, credits that are unique, real, and measurable, called “Carboncer”.

In this way, CCMP holders, Carboncer buyers/sellers or any other entity that participates in the voluntary carbon market will be able to count on the support of adequate, reliable, impartial, transparent, and pertinent validation, verification, and certification processes.

The protocol, although it provides the guidelines to carry out the validation and verification processes², focuses on defining the principles that govern the registration of the CCMP and the certification of emission and the registration of the carbon credits of the different types of CCMP accepted by Cercarbono. It also describes in a general way the procedures and steps necessary for Cercarbono's voluntary carbon certification process, as well as some specific methodological aspects. However, the specific methodological aspects of the different types of CCMP are defined in the methodologies accepted or developed by Cercarbono.

The protocol is based on ISO 14064-1:2018, ISO 14064-2:2019, ISO 14064-3:2019, and ISO 14065:2013 Standard. Its structure is global and is governed by the requirements of the international voluntary markets. It also considers and adopts the regulations established

¹ To develop climate change mitigation initiatives, the UNFCCC established 15 sectoral scopes: 1. Energy; 2. Power distribution; 3. Energy demand; 4. Manufacturing industry; 5. Chemical industry; 6. Construction; 7. Transportation; 8. Mining and mineral production; 9. Metal production; 10. Fugitive emissions of fuels; 11. Fugitive emissions from the production and consumption of halocarbons and sulfur hexafluoride; 12. Solvent used; 13. Waste management and disposal; 14. Afforestation and reforestation and 15. Agriculture. Cercarbono covers 14 of these sectors, which are grouped and described in [Section 4](#).

² The Validation and Verification Bodies (VVB) authorized by Cercarbono are referenced in [Section 9](#).

by a specific country or compensation mechanism according to the use or destination of the carbon credits.

2 Principles

The principles listed in this section establish the fundamental norms and concepts that govern Cercarbono's voluntary carbon certification programme. They are presented to facilitate the general interpretation of the requirements established under the programme.

The principles establish the basis for the justifications and explanations that the holder or developer of the programme or project³ should consider in the formulation and implementation of climate change mitigation initiatives. These should refer to the relevant principles and how they have been applied.

The Validation and Verification Bodies (VVBs) during the validation and verification processes must explicitly verify compliance with the principles of Cercarbono, referencing them in the audit reports and reporting any conflict or non-compliance with them to the CCMP.

2.1 Principles to be considered by CCMPs

Below are listed all the principles that should be considered by right holders, programme, or project developers and by any other actors willing to certify their climate change mitigation initiatives by Cercarbono.

Accuracy

Measurements made in the CCMPs agree with or are reasonably close to the actual values.

Coherence

The results of the GHG emissions inventories, both in the baseline and project scenarios, must be comparable over time. Any changes in the data, scope, calculation methods, or other factors that are relevant to the time series need to be clearly documented.

The calculations performed by the CCMP must be reproducible and technically validated, so that they can generate consistently well-supported results.

Comparability

Results obtained by the programme or project activity must be comparable with the use of methodologies, guides, and protocols, among others, so that the estimation and calculation of GHG emissions and removals and reductions (avoidance, displacement, or destruction) of GHG emissions achieved by the CCMP can be independently evaluated and homologated.

³ Throughout this document these are also referred to as the holder or developer of the CCMP, for short.

Completeness

All significant GHG emission sources generated by the CCMP must be included, as appropriate to the type of programme or project. Those sources that, added together, do not exceed 5 % of the total emissions generated by the CCMP throughout its period of accounting for results are considered non-significant. Likewise, all relevant information that supports decision-making and the results expected or achieved by the CCMP, as well as the procedures to achieve said results, must be included.

Conservativeness

Conservative assumptions, methodologies, values, and procedures should be used to ensure that CCMP GHG emissions are not underestimated and that CCMP GHG removals or reductions (avoidances, displacements, or destructions) of GHG emissions are not overestimated.

The data, assumptions and procedures used for calculations of GHG emissions, and removals and reductions (avoidance, displacement, or destruction) of GHG emissions must be technically correct, consistent, and reproducible. On the feasibility of using two values of the same parameter at the same scale, the most conservative one should be used.

Consistency

The assumptions, values and procedures used by the CCMP for the calculation of GHG emissions and removals and reductions (avoidance, displacement, or destruction) of GHG emissions shall be technically correct, consistent, comparable, and reproducible.

Do not generate net damage

It must be ensured that the programme or project activities contemplated by the CCMPs do not generate net damage to the areas or communities surrounding it, in social, environmental, or legal aspects, due to the benefits achieved around the mitigation of climate change.

Evidence

The evidence used by the CCMP must be sufficient and appropriate to ensure that rational, reliable, and reproducible methods are employed to ensure that GHG removals and reductions (avoidance, displacement, or destruction) of GHG emissions are genuine and correctly calculated.

Exhaustiveness

All relevant information should be included to support decision-making, minimising uncertainty, increasing confidence in the data and results expected or achieved by the CCMP, as well as the procedures for achieving those results, to generate comprehensive, accurate,

consistent, comparable, complete, and reproducible accounting and reporting of GHG emissions and removals, and reductions (avoidance, displacement, or destruction) of GHG emissions under consideration.

Integrity

All GHG emission sources and carbon pools should be included along with quantification of their GHG emissions and removals in the baseline scenario, as well as GHG emissions and removals and reductions (avoidances, displacements, or destructions) of GHG emissions generated in the project scenario, using data and parameters from recognised sources, as well as technically supported modelling.

Precision

Efforts should be made to reduce the variability or dispersion (standard deviation) of the information obtained in the measurement of GHG emissions and removals, and reductions (avoidance, displacement, or destruction) of CCMP GHG emissions, minimising the standard deviation between data. Efforts should also be made to ensure the accuracy of the information, raising its credibility, and strengthening the principles of accuracy and transparency.

Relevance

CCMP must be suitable and relevant and for the sector in which it operates.

Reliability

Data and parameters from recognised sources should be included, as well as technically supported models that support the GHG removals and reductions (avoidances, displacements, or destructions) of GHG emissions calculated, accounted, or monitored by the CCMP. The data, variables and parameters must be representative of the reality or context in which the CCMP is being developed, and therefore direct measurement methods that integrate statistical representativeness are encouraged.

Recognized sources are those included in the Good Practice Guide of the Intergovernmental Group of Experts on Climate Change (IPCC) in its most up-to-date version, or in previous versions if their use is technically justified, as well as the methodological tools of the Clean Development Mechanism (CDM). Academic articles published in indexed journals are also valid.

Transparency

Genuine, clear, honest, justified, appropriate, understandable, truthful, timely, transparent, robust, sufficient, and auditable information related to the CCMP's processes, assumptions, processes, and intrinsic limitations shall be used, so as to ensure the reliability and credibility of its GHG removal or GHG emission reduction (avoidance, displacement or

destruction) results. All references and sources of information must be explicitly mentioned and made available to third parties, ensuring that they are public and permanent, so that any calculations can be reconstructed and generate results equal to those obtained by the CCMP.

2.2 Principles considered in carbon credits

Cercarbono presents below the principles that the CCMP must consider, mainly in the validation, verification, and certification processes. The actors involved in these processes must review and support their compliance.

Carbon credits generated by GHG removal, or GHG emission reduction (avoidance, displacement, or destruction) programme or project activities must be:

Additional

Carbon credits generated by CCMPs must demonstrate their additionality as a requirement to participate in the carbon market in national and international contexts. For this, the CCMPs will consider the “**Cercarbono's Tool to Demonstrate Additionality of Climate Change Mitigation Initiatives**”, available on their website: www.cercarbono.com, section: Documentation.

Independently verified

All GHG removals and reductions (avoidance, displacement, or destruction) of GHG emissions generated by the CCMP must be verified to a reasonable level of assurance by an independent verifying body, authorised by Cercarbono and accredited in the sector in which it is being undertaken.

Measurable

All GHG emissions and removals, and reductions (avoidance, displacement, or destruction) of GHG emissions generated by the CCMP must be quantified, using recognised measurement tools (including uncertainty and leakage adjustments), considering and against a credible baseline scenario.

CCMPs have at their disposal different technical documents prepared by Cercarbono, among them are its own methodologies and regulatory guidelines, available on its website: www.cercarbono.com.

Not double counted

A tonne of carbon dioxide equivalent (tCO₂e) resulting from the removal of GHGs or the reduction (avoidance, displacement, or destruction) of GHG emissions generated by the CCMP may not:

- Be counted more than once to demonstrate compliance with the same GHG mitigation goal.
- Be accounted for to demonstrate compliance with more than one GHG mitigation goal.
- Be used more than once to obtain remuneration, benefits, or incentives.
- Be verified, certified, or accredited through the implementation of more than one GHG mitigation initiative.

In this sense, Cercarbono has established the “**Carboncer Issuance and Retirement Procedures and Double-Counting Prevention Policies**”, available on its website: www.cercarbono.com, section: Documentation.

Permanent

Carbon credits generated by CCMPs must be permanent over a 100-year horizon.

Programmes or projects for GHG removal that present a risk of reversibility of GHG emissions to the atmosphere, shall take into account the “**Cercarbono's Tool to Estimate Carbon Buffer in Initiatives to Mitigate Climate Change in the Land Use Sector**”, available at the website: www.cercarbono.com, section: Documentation.

Real

All GHG removals and reductions (avoidances, displacements, or destructions) of GHG emissions generated by the CCMP must be demonstrated to have occurred.

Unique

Each GHG removal and each reduction (avoidance, displacement, or destruction) of GHG emissions is associated with a single carbon credit, corresponding to one tonne of carbon dioxide equivalent (tCO₂e) as a unit. Carbon credits will be registered and retired through the EcoRegistry platform.

3 Programme objectives

- Align climate change mitigation objectives generated at an international level with the requirements of the Cercarbono programme, as a guarantee of legal compliance with the CCMP.
- Consolidate a registration system that complies with all the rigor that the carbon market deserves, generating security and transparency of all the CCMP that are part of the programme.
- Promote the dynamics of the carbon market, generating trust through transparency in its actions and providing greater accessibility using technologies that facilitate the management and access to information.
- Establish, advise, or approve guidelines or methodologies that allow the development of CCMPs, which can be adapted to the dynamics of the different economic sectors, complying with regulations and with the final intention of promoting initiatives that generate GHG removals and reductions (avoidance, displacement, or destruction) of real and proven GHG emissions.
- Support and coordinate actions that contribute to the fulfilment of the Sustainable Development Goals (SDGs) by the CCMP.

4 Scope

This protocol has been defined for the CCMP registration and for the certification of the emission and registration of Carboncer carbon credits from CCMP through Cercarbono's voluntary carbon certification.

The activities allowed under the Cercarbono programme can be presented at programme or project level. According to the amount of GHG removed or reduced (avoided, displaced, or destructed) GHG emissions achieved by a CCMP during its duration, they can be considered in one of the two types of scale covered by Cercarbono:

CCMP Type 1: those that remove or reduce 10,000 or more tons of CO₂e, on average per year.

CCMP Type 2: those that remove or reduce less than 10,000 tons of CO₂e, on average per year.

CCMPs, according to the sector, may consider the following programme or project activities (hereafter referred to as CCMP activity or activities):

a) Removal of GHG.

b) Reduction⁴ of GHG emissions, which includes:

- **Renewable energy (REn):** generation or use of energy by hydroelectric, photovoltaic, wind, geothermal, ocean and biomass renewable sources. It may include cogeneration actions (electricity, heat, water, steam, or gas).
- **Energy efficiency (EnEf):** generation or use of energy by implementing or renewing processes, machinery, tools, or technologies that require less energy demand to achieve the same performance or perform the same function more efficiently. It may include cogeneration and raw material switching actions.
- **Fuel change efficiency (FCEf):** implementation of fuel switching to lower GHG emitting fuels. Includes electric, hydrogen, hybrid, natural gas, Liquefied Petroleum Gas (LPG), biodiesel or bioethanol sources or supply.
- **GHG emissions avoidance (EAv):** adoption of technologies or processes that control or avoid GHG emissions to the atmosphere.

⁴ Regulatory frameworks often highlight only the GHG emissions reduction activity without delving into the differences that exist within this climate change mitigation result. Therefore, actions such as renewable energy, energy efficiency and fuel change efficiency listed under the GHG emission reduction activity and the CCMP activities that integrate the avoidance, displacement, or destruction of GHG emissions are generally considered as reduction of GHG emissions. However, Cercarbono under this protocol establishes the differences that exist between these actions or programme, or project activities, which will be highlighted (when appropriate) in the emission of carbon credits obtained under a reduction of GHG emissions.

- **GHG emissions displacement (EDisp):** adoption of technologies or processes that displace more GHG-intensive production.
- **GHG emissions destruction (EDest):** adoption of technologies or processes for this purpose.

CCMPs can contemplate more than one programme or project activity simultaneously if they are justified and supported by a methodology.

4.1 Sectoral scopes

In line with the international carbon market and as adopted by the IPCC, the sectors covered by Cercarbono's voluntary certification programme for the implementation of the CCMPs are:

4.1.1 Energy sector

- **Energy generation:**

Corresponds to CCMP activities that reduce (avoid or displace) GHG emissions by GHG sources in power plants, power grids or facilities that provide energy.

- **Energy distribution:**

Corresponds to CCMP activities that reduce (displace) GHG emissions by GHG sources in power plants, energy networks or facilities that provide or demand energy.

- **Energy demand:**

Corresponds to CCMP activities that reduce (displace) GHG emissions by GHG sources in power plants or facilities that demand energy.

4.1.2 Industry sector

- **Manufacturing industries:**

Corresponds to CCMP activities that reduce (avoid) GHG emissions from GHG sources in manufacturing facilities or companies.

- **Chemical industries:**

Corresponds to CCMP activities that reduce (avoid, displace, or destroy) GHG emissions by GHG sources in chemical facilities or companies.

4.1.3 Transport sector

Corresponds to CCMP activities that reduce (displace) GHG emissions from GHG sources in companies that have or use automobile (public and private), air and maritime fleets.

4.1.4 Construction sector

Corresponds to CCMP activities that reduce (displace) GHG emissions by GHG sources in infrastructure construction.

4.1.5 Mining/mineral production sector

Corresponds to CCMP activities that reduce (avoid or destroy) GHG emissions from GHG sources in mineral production plants or processes.

4.1.6 Metal production sector

Corresponds to CCMP activities that reduce (avoid) GHG emissions from GHG sources in metal production plants or processes.

4.1.7 Fugitive emissions sector

- **Fugitive fuel emissions:**

Corresponds to CCMP activities that reduce (avoid, displace, or destroy) GHG emissions from fugitive fuel emissions.

- **Fugitive fuel emissions from the production and consumption of halocarbons and sulphur hexafluoride (SF6):**

Corresponds to CCMP activities that reduce (avoid or destroy) GHG emissions from the production and consumption of halocarbons and SF6.

4.1.8 Waste management sector

Corresponds to CCMP activities that reduce (avoid or destroy) GHG emissions from GHG sources in solid and liquid waste management plants.

4.1.9 Land use sector

- **Forest land:**

Corresponds to CCMP activities that remove GHG or avoid GHG emissions from sources in forested areas.

- **Agricultural land:**

Corresponds to CCMP activities that remove GHG or that reduce (avoid or destroy) GHG emissions from sources in agricultural areas.

CCMP activities that include the GHG removal, must apply the ***“Cercarbono's Tool to Estimate Carbon Buffer in Initiatives to Mitigate Climate Change in the Land Use Sector”***, available on its website: www.cercarbono.com, section: Documentation.

Table 1. Sectoral scopes and CCMP activities covered by this version of the protocol.

Sectoral scope		CCMP activities						
		GHG removal	Reduction of GHG emissions					
			Renewable energy	Energy efficiency	Fuel change efficiency	Emissions avoidance	Emissions displacement	Emissions destruction
Energy	Generation	-	X	X	X	X	X	-
	Distribution	-	X	X	X	-	X	-
	Demand	-	X	X	X	-	X	-
Industry	Manufacturing	-	X	X	X	X	-	-
	Chemical	-	X	X	X	X	X	X
Construction		-	-	-	X	-	X	-
Transport		-	X	X	X	-	X	-
Mining/mineral production		-	X	-	X	X	-	X
Metal production		-	X	X	X	X	-	-
Fugitive emissions	Fuel	-	-	-	X	X	X	X
	Production and consumption of halocarbons and sulphur hexafluoride	-	-	-	X	X	-	X
Waste management		-	X	X	-	X	-	X
Land use	Forestry	X	-	-	-	X	-	-
	Agriculture	X	-	-	X	X	-	X

4.2 Use of the protocol and certification programme documents

Cercarbono's voluntary carbon certification programme responds to the international requirements of the voluntary carbon market, respecting and adopting at the same time requirements, regulations or decisions established in national contexts, with the final use or destination of the carbon credits determining its framework for action.

This protocol as well as the technical and informative documents that are part of Cercarbono's voluntary carbon certification programme have been elaborated in two languages: Spanish and English. CCMPs established in Spanish-speaking countries may submit their documentation in either of these languages. However, CCMPs are encouraged to submit their documentation in English to facilitate the trading of carbon credits in the international market. Cercarbono also supports the submission of CCMPs documentation in French or Portuguese but does not guarantee communication in these languages.

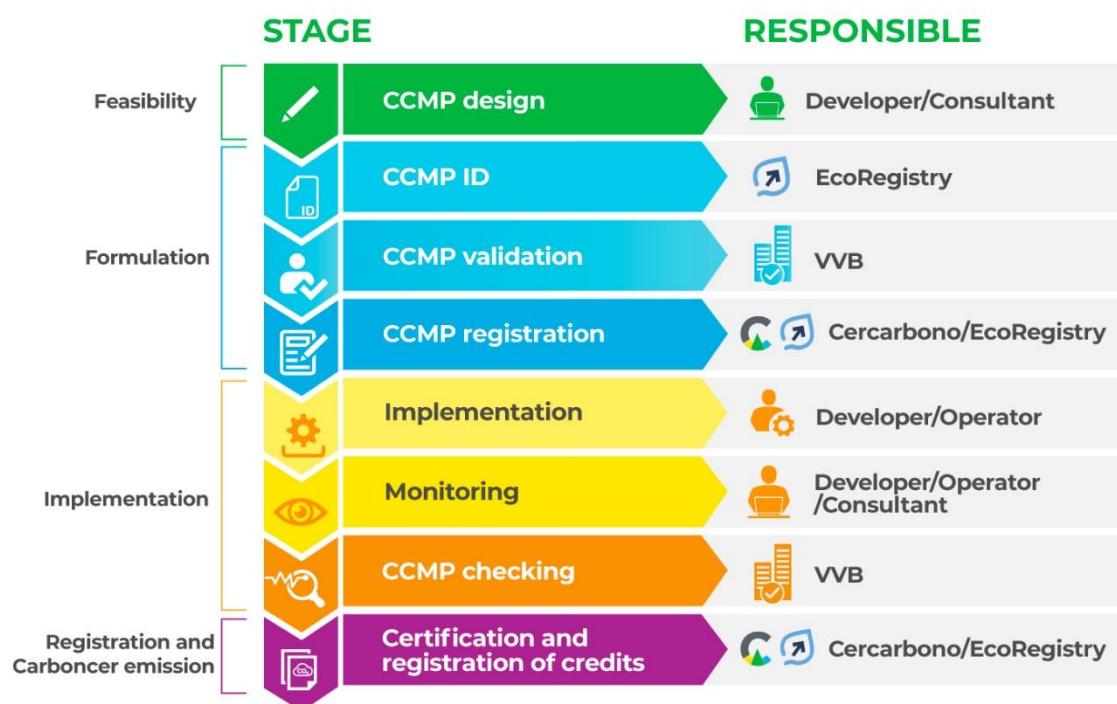
It is mandatory to provide, at a minimum, the information requested in the Cercarbono templates (PDD, audit report, monitoring report, among others), but it is not mandatory to use them.

5 CCMP requirements

This section describes the different requirements and technical characteristics that CCMPs who wish to be part of Cercarbono's voluntary carbon certification programme must meet, based on the ISO 14064-2:2019 Standard.

Compliance with each of these requirements will be thoroughly reviewed by Cercarbono, ensuring that they comply with the provisions of the validation and verification processes (independent or together) by the authorized VVBs, thus ensuring the traceability of each CCMP. Therefore, the CCMP must identify, consider, and use relevant and available criteria or procedures for each stage of the project cycle (*Figure 1*).

Figure 1. CCMP cycle under Cercarbono's voluntary carbon certification programme.



In the Cercarbono context, the project cycle required for a CCMP to be registered and to generate carbon credits due to GHG removal or reduction of GHG emissions is composed of eight stages:

- 1) **CCMP design:** the CCMP holder must evaluate the proposed programme or project activity and the additionality requirements; subsequently proposes (directly or indirectly through a developer or consultant) a Project Description Document (PDD) (see *Section 5.1*), prepared in accordance with this protocol, based on an approved

methodology and that includes the baseline scenario, the calculations of GHG removal or reduction of GHG emissions and the monitoring plan of the programme or project activities that remove GHG or reduce GHG emissions depending on the type of programme or project.

- 2) **CCMP identification:** once an account is created in Cercarbono through EcoRegistry, the holder-type users⁵ or CCMP developer attaches documents that support its feasibility stage, including the PDD. With this information, EcoRegistry generates an identification number (ID) of the CCMP with which it will be recognized throughout the process.
- 3) **Validation:** a VVB evaluates the design of the CCMP and its baseline scenario. After the evaluation, a validation report is produced. If the design of the CCMP complies with all the requirements of the validation process of this protocol, the selected methodology and the regulations or laws in force under which it is governed, a validation statement is issued; otherwise, corrective actions are requested for adjustment by the CCMP and subsequent review by of the VVB.
- 4) **CCMP registration:** once compliance with the documentation provided in the formulation process has been reviewed⁶, and after the approval by Cercarbono of the pre-registration requested by the CCMP, it may be registered in the EcoRegistry platform, and, since then, publicly visible.
- 5) **Implementation:** the holder, developer, or operator of the CCMP executes the programme or project activities established in the PDD, with which GHG removal or reduction of GHG emissions is carried out.
- 6) **Monitoring:** measurements and calculations of GHG removal or reduction of GHG emissions are carried out, following the monitoring plan that is part of the PDD. The monitoring plan is designed following the approved methodology that was selected for the development of the CCMP.
- 7) **Verification:** a VVB verifies under this protocol that the CCMP has achieved the proposed GHG removal or reduction of GHG emissions, through periodic reviews (established or determined by the accreditation period, see [Section 8.12](#)). Subsequently, after the evaluation, a verification report is produced. If the programme or project activities meets all the requirements of the verification process, the selected methodology and the standard or laws under which it is governed, a verification statement is issued; otherwise, corrective actions are requested for adjustment by the CCMP and subsequent review by of the VVB.

⁵ In EcoRegistry, this account is called a general account.

⁶ Cercarbono also allows through EcoRegistry to register a CCMP when it has completed or not its validation or verification processes, since many of them have previously passed the formulation stage. In any case, it will require the request and approval of the pre-registration of the CCMP.

- 8) **Certification of emission and registration of carbon credits:** in this phase, once compliance with the documentation and with the validation and verification processes of a CCMP has been reviewed, a certification report is generated. The CCMP holder may ask Cercarbono to certify the emission of the Carboncer carbon credits obtained, complying with the requirements of Cercarbono's voluntary carbon certification process (see [Section 11](#)). Then EcoRegistry generates the registry and the emission of the carbon credits obtained from a verification. The registration of carbon credits in EcoRegistry guarantees the transparency of the information.

Note: It is possible to carry out the validation and verification processes simultaneously by a VVB, whose compliance is integrated into a single report. In these cases, if there are no corrective actions, an independent or joint validation and verification statement is generated, which can be used both in the CCMP registration and in the certification of the emission by Cercarbono and then in the registration and issuance of carbon credits in EcoRegistry.

5.1 Components of the CCMP

The CCMP holder must prepare a PDD that includes the following elements:

- a) Information from the holder or other participants of the CCMP, where applicable, detailing their roles and responsibilities, including contact information, and stakeholders.
- b) Title and objective(s) of the CCMP.
- c) Sectoral scope of the programme or project and type of CCMP.
- d) Description of the CCMP and how it will achieve GHG removal or reduction of GHG emissions, including the specific types of GHG that it considers.
- e) Justification for why the proposed CCMP is considered additional.
- f) Location and boundaries of the CCMP, including the organizational, geographic, and physical location information, which allows its unique identification and delimitation.
- g) Detailed description and support of the ownership or right of use of the area, facility, or process. The right of use can be demonstrated, inter alia, by means of lease or long-term mandate contracts or peaceful possession, inter alia, which are free from legal defects.
- h) Characteristics and conditions prior to the start of the CCMP of the area, facility, or process.
- i) Technologies, products, and services of the CCMP and the expected level of activity.
- j) Description and justification of the methodology selected and applied for the quantification of GHG removal or reduction of GHG emissions, as appropriate to the type of CCMP.

- k) Identification of the GHG emission sources of the CCMP in the baseline and project scenarios, estimated or calculated in tCO₂e.
- l) Emission or removal of GHG in the baseline scenario, estimated or calculated in tCO₂e.
- m) Total GHG removal or total reduction of GHG emissions that can occur in the project scenario, estimated, or calculated in tCO₂e.
- n) Net GHG removal or net reduction of GHG emissions that may occur in the project scenario, estimated, or calculated in tCO₂e.
- o) Monitoring plan.
- p) Leakage, if applicable and significant, calculated in tCO₂e.
- q) Identification of risks that could substantially affect the GHG removal or reduction of GHG emissions, as well as the measures to manage said risks.
- r) Authorizations and documents required by current legislation governing the development and operation of the CCMP, depending on the type of programme or project.
- s) Relevant results of stakeholder consultations and mechanisms for ongoing communication, if applicable. Include the definition of when and how stakeholders should be consulted.
- t) Chronological plan or actual dates and justification for the following:
 - Duration or lifespan of the CCMP (in years): indicating the start date (day.month.year) of the activities and the end date of the programme or project (day.month.year).
 - The crediting period of the CCMP.
 - The CCMP monitoring period, frequency, and reporting, including relevant CCMP activities at each step of the project cycle, as appropriate.
 - The frequency of verification events, including the periods in which they are intended to be carried out or are carried out.

Cercarbono has a “**Project Description Document**” template, available on its website: www.cercarbono.com, section: Documentation.

5.2 Description of the methodology

The protocol allows the use of methodologies and their components, as well as complementary methods, modules, or tools (always implementing the latest version) developed within the framework of the ISO 14064-2:2019 Standard. These include:

- Approved by the United Nations Framework Convention on Climate Change (UNFCCC) including those of the Clean Development Mechanism (CDM).
- Those from certification programmes or carbon standards that are in accordance with this protocol if their use is free or authorized by said programmes or standards.

- Recognised in national contexts according to the type of CCMPs, which are aligned with their current legal framework and if their use is free or authorised by self-regulators. For acceptance, a Cercarbono team assesses the soundness of the methodology and its alignment with the principles and procedures of its certification programme.
- Additional methodologies developed by stakeholders⁷ (developers, holders, independent companies) under public consultation processes supported by Cercarbono (see [Section 5.8.2](#)).
- Own methodologies generated by Cercarbono, publicly consulted, and reviewed by a third party (see [Section 5.8.3](#)).

A CCMP may select one or more methodologies (including additional tools) to demonstrate its mitigation results, which must be adopted in accordance with the type of CCMP to which it corresponds and with the regulation under which it is framed.

The regulations, procedures, tools, and methodologies accepted under this protocol are listed on the Cercarbono website. When methodologies approved by the CDM are used, the use or not of the modules or complementary tools to these must be justified.

That methodology, method, module, or tool that is not on the list but that complies with the characteristics, may be submitted for consideration by the Cercarbono certification programme by request to the email address info@cercarbono.com.

The methodologies or tools from the CDM may be used without permission, but their reference must be duly integrated in the documents: name, version, year, among others, with the latest version being implemented or the use of a previous version supported, in any case, must be active.

Methodologies or tools from standards or certification programmes other than the CDM, may be used if the CCMP considers their copyright or use permits (when applicable). To avoid conflicts with other certification programmes, it will be encouraged to use the methodologies or tools developed by Cercarbono, which must also be duly referenced in the CCMP documents.

Methodologies or any other new tool from stakeholders in the context of the carbon market, may be publicly exposed on the Cercarbono website, with prior authorization and support from the certification programme (see [Section 5.8.2](#)).

⁷ For this purpose, they must follow the guidelines established in the document “*Cercarbono's Process for the Approval of Methodologies Within the Framework of the Voluntary Carbon Certification Programme*”, in its most recent version. Available on the website: www.cercarbono.com, section: Documentation.

CCMPs must establish and justify the conditions of applicability of the methodology or selected methodological tools used to:

- Establish eligibility, where applicable.
- Determine baseline and project scenarios.
- Estimate GHG emissions or removals in the baseline scenario.
- Quantify net GHG emissions and removals, or net reductions of GHG emissions in the project scenario.
- Identify risks of non-permanence, when appropriate.
- CCMP monitoring.

5.2.1 Additionality

The additionality criteria established by Cercarbono's certification programme are detailed in the ***“Cercarbono's Tool to Demonstrate Additionality of Climate Change Mitigation Initiatives”***, available on its website: www.cercarbono.com, section: Documentation.

Complementary to this, the CCMP can use the CDM additionality tool.

5.2.2 Eligibility

For land use CCMP, the eligibility requirements will be defined according to the selected methodology that has been accepted or developed by Cercarbono.

This section does not apply to CCMPs outside the land use sector.

5.2.3 Non-permanence

For land use CCMP⁸, the non-permanence of the removal of GHG is supported by using the ***“Cercarbono's Tool to Estimate Carbon Buffer in Initiatives to Mitigate Climate Change in the Land Use Sector”***, available on its website: www.cercarbono.com, section: Documentation.

For CCMP outside the land use sector, this section does not apply.

5.2.4 Determination of the baseline scenario

Based on the selected methodology, the CCMP shall determine the baseline scenario, considering the following:

- a) The description of the CCMP, including all identified GHG emission sources and carbon pools.

⁸ Non-permanence will not be applied to land use CCMP in which its programme or project activity focuses on the reduction (avoidance or destruction) of GHG emissions.

- b) Types, activities and technologies of existing and alternative programmes or projects that provide an equivalent type and level of activity of products or services for the CCMP.
- c) Data availability, its reliability, and limitations.
- d) Other relevant information on present or future conditions, such as the rules or laws under which it is governed, assumptions or technical, economic, sociocultural, environmental, geographical, site-specific, and temporal projections.

The CCMP holder must demonstrate functional equivalence in the type and level of activity of the products or services provided between the project scenario and the baseline scenario and must explain, as appropriate, any significant difference between the two.

The CCMP head shall select (or establish), describe, and apply criteria and procedures to identify and justify the baseline scenario.

The justification of the baseline scenario must consider its probable future behaviour (GHG emission sources or carbon reservoirs) to comply with the principle of conservatism.

If the circumstances of the programme or project change during the crediting period, so that the current baseline scenario may no longer be valid, a new evaluation of it will be necessary. If this demonstrates that the baseline scenario is no longer valid, the CCMP shall perform a validation process again (same as for a crediting period renewal process).

5.2.5 Establishment of the project scenario

The CCMP shall make a description of the programme or project activity and the means used to achieve GHG removal, or reduction of GHG emissions.

- a) A CCMP developed in the land use sector should include:
 - Description of forestry activities (when applicable) that includes forestry planning, the type of species and justification for its use, the production of plant material, the establishment and maintenance of plantations and harvesting.
 - Description of agricultural activities (when applicable) that includes the type of woody species implemented and justification for their use, the establishment and maintenance of crops and harvesting.
 - Information (when applicable) on any conservation, management, or planting activities to be carried out in the CCMP area, including a description of how various organizations, communities, and other entities are involved.
 - Information (when applicable) on innovative processes or technologies to be implemented in the CCMP area, including a description of how they generate a removal different from that obtained by carbon reservoirs or a reduction of GHG emissions due to the implementation of new technologies.

b) For CCMPs other than the land use sector, it should include:

- A description of the major manufacturing or production technologies, systems, and equipment involved, including information on the age and average service life of the equipment based on manufacturer specifications and industry standards, as well as capabilities, and existing and anticipated load factors and efficiencies.
- The types and levels of services (usually in terms of mass or energy flows) provided by the systems and equipment being modified or installed and their relationship, if any, with other equipment and manufacturing or production systems outside the limit of the CCMP. Describe how this would have been done in the baseline scenario.
- If applicable, a list of facilities, systems, and equipment in operation under the existing scenario prior to CCMP implementation.

Describe the selection or definition of criteria, procedures, or methodologies to quantify emissions, removals, and reductions of GHG emissions during the implementation and operation of the CCMP. Detail the criteria and procedures to quantify them.

5.2.6 Identification of GHG emission sources

The following are the GHG emission sources that can be considered in a CCMP, depending on the type of activity envisaged.

Table 2. GHG emission sources by type of CCMP.

Sector/Programme or project Activity	Baseline scenario			Project scenario			Leakage		
	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
Energy									
Renewable energy (REn)	Yes	Dp	No	Dp	Dp	Dp	Dp	No	No
Energy efficiency (EnEf)	Yes	Dp	No	Yes	Dp	Dp	Dp	Dp	No
Fuel change efficiency (FCEf)	Yes	Dp	No	Yes	Dp	Dp	Dp	Dp	No
GHG emissions avoidance (EAv)	Yes	No	No	Dp	No	No	No	No	No
GHG emissions displacement (EDisp)	Yes	No	No	Dp	No	No	No	No	No
Industry									
Renewable energy (REn)	Yes	Dp	Dp	Yes	Dp	Dp	Dp	No	No
Energy efficiency (EnEf)	Yes	No	No	Yes	No	No	Dp	No	No
Fuel change efficiency (FCEf)	Yes	No	No	Yes	Dp	Dp	Dp	No	No
GHG emissions avoidance (EAv)	Yes	Yes	No	Dp	Dp	Dp	Dp	No	No
GHG emissions displacement (EDisp)	Yes	No	No	Yes	No	No	Yes	No	No

Sector/Programme or project Activity	Baseline scenario			Project scenario			Leakage		
	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
GHG emissions destruction (EDest)	Yes	Dp	No	Yes	No	No	Dp	No	No
Construction									
Fuel change efficiency (FCEf)	Yes	No	No	Yes	No	No	Dp	No	No
GHG emissions displacement (EDisp)	Yes	No	No	Yes	No	No	Dp	No	No
Transportation									
Renewable energy (REn)	Yes	No	No	Yes	No	No	Dp	No	No
Energy efficiency (EnEf)	Yes	No	No	Yes	No	No	Dp	No	No
Fuel change efficiency (FCEf)	Yes	No	No	Yes	No	No	Dp	No	No
GHG emissions displacement (EDisp)	Yes	No	No	Yes	No	No	Dp	No	No
Mining/mineral production									
Renewable energy (REn)	Yes	Yes	No	Yes	Dp	No	No	No	No
Fuel change efficiency (FCEf)	Yes	No	No	Yes	No	No	No	No	No
GHG emissions avoidance (EAv)	Yes	Yes	No	Yes	No	No	No	No	No
GHG emissions destruction (EDest)	Yes	Yes	No	Yes	Dp	No	No	No	No
Metal production									
Renewable energy (REn)	Yes	No	No	Yes	No	No	No	No	No
Energy efficiency (EnEf)	Yes	No	No	Dp	No	No	No	No	No
Fuel change efficiency (FCEf)	Yes	No	No	Dp	No	No	No	No	No
GHG emissions avoidance (EAv)	Yes	No	No	Dp	Dp	No	Dp	No	No
Fugitive emissions									
Fuel change efficiency (FCEf)	Yes	No	No	Yes	No	No	Yes	No	No
GHG emissions avoidance (EAv)	Yes	Dp	No	Yes	Dp	No	Dp	No	No
GHG emissions displacement (EDisp)	Yes	Dp	No	Yes	Dp	No	Dp	No	No
GHG emissions destruction (EDest)	Dp	No	No	Dp	No	No	No	No	No
Waste management									
Renewable energy (REn)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Energy efficiency (EnEf)	Yes	Yes	No	Yes	Dp	Dp	Dp	No	No
GHG emissions avoidance (EAv)	Yes	Yes	No	Yes	Yes	Dp	No	No	No
GHG emissions destruction (EDest)	Yes	Yes	Dp	Yes	Yes	Dp	Dp	Dp	Dp
Land use									
GHG removal (GhgR)	No	Dp	Dp	No	Dp	Dp	Dp	Dp	Dp
Fuel change efficiency (FCEf)	Yes	Dp	No	Yes	No	No	Dp	No	No
GHG emissions avoidance (EAv)	Yes	Dp	Dp	Yes	No	No	No	No	No

Sector/Programme or project Activity	Baseline scenario			Project scenario			Leakage		
	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O	CO ₂	CH ₄	N ₂ O
GHG emissions destruction (EDest)	Yes	Yes	Dp	Yes	No	No	Dp	No	No

Note: Dp: depends on the type of CCMP and the applied methodology; in these cases, it is necessary to justify their inclusion or exclusion.

The type of GHG emission source varies according to the specific characteristics of the CCMP. These sources are defined and justified in detail in an approved methodology for the quantification of GHGs selected for the development of a CCMP.

The **Table 2** highlights the most common and important GHGs generated in each sector. However, other types of GHGs that are relevant in each sector should be considered within the CCMP and the selected methodology.

Next, it is described in a general way and as a guide, the GHG emission sources that could be considered in each of the sectors according to the type of programme or project activity stated in **Table 2**. These sources are considered in the GHG quantification methodologies selected for the development of a CCMP.

5.2.6.1 Energy sector

- For REn CCMPs:

In the baseline scenario, CO₂ emissions due to the use of fossil fuels or due to the generation of electricity or heat (steam or non-steam thermal energy), or in cogeneration, when appropriate, should be considered. CH₄ emissions from uncontrolled burning or decomposition of biomass residues should also be considered, when applicable.

In the project scenario, it is expected that GHG emissions will not be generated, or these will be reduced; therefore, the different activities that generate GHG emissions must be considered. For geothermal CCMPs, fugitive CO₂ and CH₄ emissions from non-condensable gases contained in geothermal steam and CO₂ emissions from the use of fossil fuels must be considered. For new hydroelectric CCMPs with reservoirs, CO₂ emissions due to site preparation or reservoir area must be considered. For hydroelectric CCMPs with already established reservoirs, CH₄ emissions from solid or liquid waste disposal should be considered. For solar CCMPs, CO₂ emissions from the use of fossil fuels in complementary operations and in solar production processes. For CCMP that include biomass, the CO₂ emissions, CH₄ and N₂O. In cogeneration CCMP, CO₂ emissions from fossil fuel consumption for process elements, power generation (electricity and heat) on site and by cogeneration facilities.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that could generate them should be considered. For CCMP that include biomass, CO₂ emissions must be considered.

- For EnEf CCMPs:

In the baseline scenario, CO₂ emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy), or in cogeneration, when applicable, as well as those generated in production should be considered of chilled water or for the operation of the plant. In addition, CH₄ emissions from uncontrolled burning or decomposition of excess biomass residues, when applicable.

In the project scenario, CO₂ emissions due to the use of fossil fuels to generate electricity or heat (steam or non-steam thermal energy) must be considered. In cogeneration CCMP, CO₂ emissions from the use of fossil fuels in parts of the process, from on-site power generation (electricity and heat), from chilled water production and from its facilities. For CCMP that include biomass, CH₄ emissions from biomass burning to generate energy, CO₂, CH₄ and N₂O emissions due to energy crops to produce raw material, and CO₂ emissions from transportation or processing of biomass on site and out of it.

In some CCMPs of this type it is expected that no leakage emissions will be generated; However, the different activities that generate them must be considered, such as CO₂ and CH₄ emissions due to the extraction, processing, liquefaction, transportation, regasification, and distribution of fossil fuels in natural gas CCMP. CO₂ emissions associated with the exhaust of recovered heat, the diversion of which to energy units may increase emissions elsewhere, as well as CO₂ and CH₄ emissions due to the diversion of biomass waste to other applications or due to displacement of activities prior to the CCMP.

- For FCEf CCMPs:

In the baseline scenario, CO₂ emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or in cogeneration, when applicable, should be considered. Also, CH₄ emissions from uncontrolled burning or decomposition of excess biomass residues, when applicable.

In the project scenario, CO₂ emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) must be considered. In cogeneration CCMP, CO₂ emissions due to the use of fossil fuels for process elements, on-site power generation (electricity and heat) and by its facilities. For CCMP that include biomass, CH₄ emissions from biomass burning to generate energy and CO₂, CH₄ and N₂O emissions due to energy crops to produce raw material, as well as CO₂ emissions from transportation or processing of biomass in the site and outside of it.

When applicable, the different activities that generate emissions due to leakage should be considered.

- For EAv CCMPs:

In the baseline scenario, CO₂ emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or in cogeneration, when applicable, should be considered.

In the project scenario, it is expected that GHG emissions will not be generated, or these will be avoided; therefore, the different activities that generate GHG emissions must be considered.

In CCMP of this type no emissions are generated by leakage.

- For EDisp CCMPs:

In the baseline scenario, CO₂ emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or in cogeneration, when applicable, should be considered.

In the project scenario, it is expected that GHG emissions will not be generated or will be displaced; therefore, the different activities that generate GHG emissions must be considered.

In CCMP of this type no emissions are generated by leakage.

5.2.6.2 Industry sector

- For REn CCMPs:

In the baseline scenario, CO₂ emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or in cogeneration, when applicable, should be considered. In CCMP that include biomass, CH₄ emissions from burning or decomposition of organic matter and CO₂, CH₄ and N₂O emissions by energy crops must be considered.

In the project scenario, CO₂ emissions from the use of fossil fuels must be considered. In residual energy recovery plants, CO₂ emissions from heat supply or reaction heat processes, from supplementary use of electricity and from gas cleaning. For dry or instantaneous steam geothermal power plants, CH₄ and CO₂ emissions from non-condensable gases contained in geothermal steam. For binary geothermal power plants, fugitive emissions of CH₄ and CO₂ from non-condensable gases contained in geothermal steam, hydrocarbons, or low global warming potential refrigerants and fugitive emissions of hydrocarbons such as n-bu-

tane and isopentane contained in the heat exchanger. For hydroelectric plants, CH₄ emissions from the reservoir. In CCMP that include biomass, CO₂, CH₄ and N₂O emissions by energy crops.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate them must be considered. For CCMP that include biomass, the CO₂ emissions due to transportation, the use of organic waste and the transfer of biomass must be considered, as well as the change in activities prior to the CCMP outside its area.

- For EnEf CCMPs:

In the baseline scenario, CO₂ emissions due to the consumption of fossil fuels and the consumption of energy for the preparation of raw materials, alternative fuels and for the operation of equipment should be considered.

In the project scenario, CO₂ emissions from electricity consumption (on the grid and self-generated), from the preparation of raw materials, alternative fuels and from the operation of equipment must be considered.

Depending on the type of CCMP, different sources of leakage emissions are considered or not.

- For FCEf CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels, from the consumption of electricity, steam, network, or captive source and from the preparation of raw materials and alternative fuels (for example, drying of materials or fuels should be considered with external dryers). Also, CO₂ emissions, when applicable, in thermal energy processes and in cogeneration plants.

In the project scenario, CO₂ emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) must be considered. For cogeneration CCMP, CO₂ emissions due to the use of fossil fuels in parts of the process, those due to the generation of energy on site (electricity and heat) and those generated by its facilities. For geothermal CCMPs, fugitive CO₂ and CH₄ emissions from non-condensable gases contained in geothermal steam and CO₂ emissions from the use of fossil fuels must be considered. For hydroelectric CCMPs with already established reservoirs, CH₄ emissions from solid or liquid waste disposal should be considered. For solar CCMP, CO₂ emissions from the use of fossil fuels in complementary operations and for solar production processes. For CCMP that include biomass, CH₄ emissions from biomass burning to generate energy, CO₂, CH₄ and N₂O emissions due to energy crops to produce raw material, CO₂ emissions from transportation or processing of biomass on site and off it, and CH₄ emissions from wastewater in biomass treatment.

In some CCMPs of this type it is expected that no leakage emissions will be generated; However, the different activities that generate them must be considered, such as CO₂ emissions from transportation and collection of biomass, due to the diversion of biomass residues from applications of other uses, due to the change in activities prior to the CCMP and due to extraction fuel, processing, liquefaction, transportation, regasification, and distribution of fossil fuels.

- For EAv CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels to generate heat and CH₄ emissions from uncontrolled burning or decomposition of biomass residues should be considered.

In the project scenario, when applicable, CO₂ emissions from fossil fuel use, on-site electricity generation and biomass transportation, CH₄ emissions from biomass treatment wastewater, and CH₄ and N₂O emissions due to energy crops to produce raw material should be considered.

CO₂ emissions due to leakage from diversion of biomass residues and the change of activities prior to the CCMP must also be considered.

- For EDisp CCMPs:

In the baseline scenario, CO₂ emissions from energy use due to inefficient equipment that generate high emissions of this type of GHG should be considered.

In the project scenario, it is expected that GHG emissions will not be generated due to the use of less energy due to the implementation of more efficient equipment.

In some CCMPs of this type it is expected that no leakage emissions will be generated; however, the different activities that generate them must be considered.

- For EDest CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels to generate heat or energy should be considered as well as fluorinated GHGs (CF₄, C₂F₆, CHF₃, CH₃F, CH₂F₂, C₃F₈, C₄F₈ and SF₆) that are released into the atmosphere after being used in industrial production processes. CH₄ emissions are considered for biomass use.

In the project scenario, only CO₂ emissions from the use of fossil fuels should be considered, when applicable, since fluorinated GHGs are recovered and destroyed in a catalytic oxidation unit within the destruction process. In some cases, CH₄ is recovered and burned.

In some CCMPs of this type it is expected that no leakage emissions will be generated; however, the different activities that generate them must be considered.

5.2.6.3 Construction sector

- For FCEf CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels should be considered within the processes of traditional construction or material (brick and cement) of walls.

In the project scenario, GHG emissions are expected to be reduced using building materials and wall material (gypsum concrete).

In some CCMPs of this type it is expected that no leakage emissions will be generated; however, the different activities that generate them must be considered.

- For EDisp CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels should be considered within the processes of traditional construction or material (brick and cement) of walls.

In the project scenario, GHG emissions are expected to shift from the use of building materials and wall material (gypsum concrete).

In some CCMPs of this type it is expected that no leakage emissions will be generated; however, the different activities that generate them must be considered.

5.2.6.4 Transportation sector

- For REn CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels should be considered in different modes of transport by road (bus, tourist minibus, train, motorcycle, taxi), air (plane) and sea (boat, ship).

In the project scenario, CO₂ emissions should not be generated by modes of transport that use electricity. However, CO₂ emissions should be considered from the use of low-emission fuels, on land, air, or maritime transit routes (routes power supply and trunks, as applicable).

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate them must be considered.

- For EnEf CCMPs:

In the baseline scenario, CO₂ emissions from mobile sources of different modes of transport must be considered by road (bus, tourist minibus, train, motorcycle, taxi), air (plane) and sea (boat, ship).

In the project scenario, CO₂ emissions from the use of low-emission fuels must be considered, in land, air or sea transit routes (supply and trunk routes, as appropriate).

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate them must be considered.

- For FCEf CCMPs:

In the baseline scenario, CO₂ emissions from mobile sources of different modes of transport must be considered by road (bus, tourist minibus, train, motorcycle, taxi), air (plane, plane) and sea (boat, ship).

In the project scenario, CO₂ emissions from the use of low-emission fuels or electricity, in land, air or sea transit routes (power and trunk routes, as appropriate) should be considered.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate them must be considered.

- For EDisp CCMPs:

In the baseline scenario, CO₂ emissions from mobile sources of different modes of road transport (bus, tourist minibus, train, motorcycle, taxi) should be considered.

In the project scenario, CO₂ emissions from fuel use should not be considered or they are reduced, since the modes of transport are changed to bicycles or electric tricycles that partially displace the existing transport system that operates under traffic conditions mixed.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate them must be considered.

5.2.6.5 Mining/mineral production sector

- For REn CCMPs:

In the baseline scenario, CO₂ or CH₄ emissions are generated by burning or decomposition of biomass in the production of materials.

In the project scenario, in the production of materials, CO₂ or CH₄ emissions are generated by fuels with a lower carbon content and by burning biomass, respectively.

No significant sources of leakage are expected in this type of CCMP.

- For FCEf CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels to generate energy must be considered, as well as carbonates that are released into the atmosphere after being used in mineral production processes.

In the project scenario, only the CO₂ emissions from the use of fossil fuels should be considered, when applicable, since the raw materials containing carbonates are changed.

In this type of CCMP it is expected that no emissions will be generated by leakage.

- For EAv CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels to generate energy must be considered, as well as carbonates that are released into the atmosphere after being used in mineral production processes.

In the project scenario, CO₂ emissions are expected to be avoided as raw materials containing carbonates are changed.

In this type of CCMP it is expected that no emissions will be generated by leakage.

- For EDest CCMPs:

In the baseline scenario, the CH₄ emissions that are released into the atmosphere by operating mines and geological structures should be considered.

In the project scenario, CH₄ emissions are destroyed by oxidation, or it is used for power or heat generation.

In this type of CCMP it is expected that no emissions will be generated by leakage.

5.2.6.6 Metal production sector

- For REn CCMPs:

In the baseline scenario, CO₂ emissions occur from the use of fossil fuels to produce iron and steel.

In the project scenario, in the production of iron and steel, CO₂ emissions are reduced by the implementation of charcoal as a renewable energy source.

No significant sources of leakage are expected in this type of CCMP.

- For EnEf CCMPs:

In the baseline scenario, CO₂ emissions occur from the use of fossil fuels and material in metal production.

In the project scenario, GHG emissions are reduced due to less use of polluting material and more efficient equipment that uses less fossil fuels.

No significant sources of leakage are expected in this type of CCMP.

- For FCEf CCMPs:

In the baseline scenario, CO₂ emissions occur from the use of fossil fuels within mineral or steel production.

In the project scenario, GHG emissions are reduced by switching from fossil fuels to charcoal as a renewable energy source.

No significant sources of leakage are expected in this type of CCMP.

- For EAv CCMPs:

In the baseline scenario, CO₂, PFCs and SF₆ emissions occur within mineral production.

In the project scenario, CO₂, PFCs and SF₆ emissions are avoided due to the use of gas, lower energy consumption and improvement in mineral production processes.

No significant sources of leakage are expected in this type of CCMP.

5.2.6.7 Fugitive emissions sector

- For FCEf CCMPs:

In the baseline and project scenarios, CO₂ emissions due to the use of gas associated with oil fields (including lift gas) that is flared or ventilated should be considered.

In addition, fugitive CO₂ emissions due to energy consumption or the burning of fossil fuels must be considered.

- For EAv CCMPs:

In the baseline scenario, CO₂ emissions due to the use of fossil fuels and natural gas should be considered. For sources of GHG emissions in the recovery of production gas for exploitation, CO₂ and CH₄ emissions due to the burning of gas in tea and CH₄ emissions by venting and by using fossil fuels. For GHG emission sources in reducing physical leakage, CH₄ emissions from physical leaks from systems, equipment and components should be considered. For GHG emission sources in torch burning efficiency, CH₄ emissions from incomplete burning of existing methane fractions should be considered.

In the project scenario, CO₂ emissions from fossil fuel use and electricity consumption must be considered, as well as CH₄ emissions from gas production. For GHG emission sources in

the recovery of production gas for its use, CO₂ emissions should be considered in the recovery, pre-treatment, and transport, when applicable, and by compression or decompression of the recovered gas for later use, when applicable. For GHG emission sources in reducing physical leakage, GHG emissions are not considered. For GHG emission sources in torch burning efficiency, CH₄ emissions from incomplete burning of existing methane fractions should be considered.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate them must be considered, especially those derived from physical leaks.

- For EDisp CCMPs:

In the baseline scenario, the sources of GHG emissions in the recovery of production gas for exploitation, the CO₂ and CH₄ emissions due to the burning of gas in tea, and the CH₄ emissions by venting and by use should be considered of fossil fuels. GHG emission sources must also be considered in reducing physical leaks and CH₄ emissions from physical leaks from systems, equipment, and components. For GHG emission sources in torch burning efficiency, CH₄ emissions from incomplete burning of existing methane fractions should be considered.

In the project scenario, the sources of GHG emission should be considered in the recovery of production gas for its use, the CO₂ emissions in the recovery, pre-treatment, and transport, when applicable, and by compression or decompression of the recovered gas to later use, when applicable. For GHG emission sources in the reduction of physical leaks, GHG emissions are not considered, but for the GHG emission sources in the efficiency of burning in teas, as well as the CH₄ emissions due to the incomplete burning of the fractions of existing methane.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate them must be considered, especially those derived from physical leaks.

- For EDest CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels or from production processes should be considered.

In the project scenario, it is expected to reduce (destroy) CO₂ emissions.

In this type of CCMP it is expected that no emissions will be generated by leakage.

5.2.6.8 Waste management sector

- For REn CCMPs:

In the baseline scenario, CO₂ emissions from heat generation and combustion, and CH₄ and N₂O emissions from waste decomposition on site should be considered. Hazardous waste is incinerated without generating useful energy.

In the project scenario, CO₂ emissions from the use of fossil fuels and the use of electricity must be considered, as well as CO₂, CH₄ and N₂O emissions generated in waste treatment processes and CH₄ emissions from water treatment residuals. Although it is expected that GHG emissions will be reduced by the implementation of alternative processes in waste treatment, such as composting, gasification, anaerobic digestion with collection and burning of biogas or its use, mechanical/thermal treatment process to produce Refuse Derived Fuels (RDF), stabilized biomass (SB) and its use, and incineration of fresh waste for power generation.

CH₄ emissions associated with composting and co-composting, anaerobic digestion, and the use of RDF and SB should be considered as leakage.

- For EnEf CCMPs:

In the baseline scenario, CO₂ emissions from heat generation and waste decomposition on site should be considered. Also, CH₄ emissions from anaerobic lagoons, mud pits and electricity generation.

In the project scenario, CO₂ emissions from the use of fossil fuels and the use of electricity must be considered, as well as CO₂, CH₄ and N₂O emissions generated in waste treatment processes and CH₄ emissions from water treatment residuals.

CH₄ emissions associated with composting and co-composting, anaerobic digestion, and the use of RDF and SB should be considered as leakage.

- For EAv CCMPs:

In the baseline scenario, CO₂ emissions from energy generation (electrical or thermal) and from sludge transport should be considered, as well as CH₄ emissions from decomposition of waste in the landfill and from wastewater treatment and sludge.

In the project scenario, CO₂ emissions from electricity consumption, use of fossil fuels and those due to transportation must be considered, as well as CH₄ emissions from wastewater and sludge treatment and from decomposition of waste in landfills and, when applicable, CH₄ and N₂O emissions derived from landfill aeration.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that can generate them must be considered.

- For EDest CCMPs:

In the baseline scenario, CO₂ emissions from electricity consumption or generation and from heat generation, CH₄ emissions from waste decomposition and manure treatment processes, as well as CO₂ and CH₄ emissions must be considered due to the use of natural gas and CH₄ and N₂O emissions from waste treatment processes.

In the project scenario, CO₂ emissions from the use of fossil fuels to generate electricity or heat or used in transport must be considered, as well as electricity consumption, CH₄ emissions from burning, CO₂ and CH₄ emissions from landfill gas distribution and N₂O and CH₄ emissions from waste and manure treatment processes, from sludge composting and manure storage tanks.

No significant sources of leakage are expected in this type of CCMP; However, the different activities that generate CH₄ emissions from the application of treated manure to the soil must be considered, as well as those related to anaerobic digestion in a digester, in addition to CO₂, CH₄ and N₂O emissions from the application of residues treated to the ground and by the transport of treated sludge or effluent.

5.2.6.9 Land use sector

- For GhgR CCMPs:

In the baseline scenario, the CH₄ and N₂O emissions associated with site preparation and the use of fertilizers, when applicable, should be considered.

In the project scenario, burning for site preparation is not accepted (only in the woody crops segment if allowed by law); in this type of emissions, CO₂ is not considered as a source, but is accounted for as a change in carbon stocks. GHG emissions from fertiliser use should be included unless they are insignificant.

No significant emissions from leakage are expected in this type of CCMP; however, emissions that generate CH₄ emissions from displacement of agricultural or livestock activities should be considered.

- For FCEf CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels and CH₄ from the disposal of faeces, biomass or residues that decompose anaerobically and are emitted into the atmosphere must be considered.

In the project scenario, CO₂ and CH₄ emissions are reduced by changing fuel and using biogas.

No significant sources of leakage are expected in this type of CCMP.

- For EAv CCMPs:

In the baseline scenario, CO₂ emissions from fuel use and, where applicable, N₂O emissions from fertilizer use and CH₄ due to anaerobic decomposition of organic matter should be considered.

In the project scenario, CO₂ and CH₄ emissions are reduced by changing fuel and less fertilizer or the use of nitrogen-fixing bacteria.

No significant sources of leakage are expected in this type of CCMP.

- For EDest CCMPs:

In the baseline scenario, CO₂ emissions from the use of fossil fuels and CH₄ from the disposal of faeces, biomass or residues that decompose anaerobically and are emitted into the atmosphere must be considered.

In the project scenario, CO₂ emissions from the use of fossil fuels and CH₄ emissions from waste management systems or animal stool that are captured, destroyed, or used as an energy source should be considered.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that can generate them must be considered.

5.2.7 Identification of carbon pools

For CCMP in the land use sector, the carbon reservoirs are above-ground biomass, underground biomass, dead wood, litter, and soil organic carbon. When estimating carbon stocks in carbon pools, biomass above ground and biomass below ground should be considered as a minimum. The CCMP may or may not consider the carbon present in dead wood, litter, and soil organic carbon. The inclusion of carbon pools varies according to the specific characteristics of the CCMP and is defined and justified in detail in approved methodologies that include the estimation or calculation of carbon stock changes in pools.

For CCMPs other than the land use sector, this section does not apply.

5.2.8 Selection of emission sources and carbon reservoirs to monitor or estimate GHG emissions or removals

The CCMP will select and apply the criteria and procedures to estimate or monitor the sources of GHG emissions and the selected carbon reservoirs using appropriate and reliable data, providing the justification for not selecting in the regular monitoring any GHG emission source or carbon reservoir identified in the baseline scenario, according to the criteria of the selected methodology.

5.2.8.1 Quantification of GHG emissions or removals in the baseline scenario

The CCMP shall establish the criteria, procedures, and methodologies to quantify the emissions or removals of GHG emissions in the baseline scenario, separately quantifying the source of GHG emission or carbon reservoir in said scenario, converting the amount of each type of GHG to tCO₂e.

The CCMP head shall select and apply criteria and procedures of the “*Cercarbono's Tool to Estimate Carbon Buffer in Initiatives to Mitigate Climate Change in the Land Use Sector*”, available on its website: www.cercarbono.com, section: Documentation; developed to support an eventual reversal of the GHG emissions removal programme or project activity in accordance with the selected methodology.

If applicable, according to the selected methodology, the CCMP holder or developer shall select or develop GHG emission or removal factors that:

- 1) Are derived from a recognized source.
- 2) Are appropriate for the GHG emission sources and carbon pools in question.
- 3) Are appropriate for the time of quantification.
- 4) Generate accurate and reproducible uncertainty quantification results.
- 5) Are consistent with the intended use of the PDD.

5.2.8.2 Quantification of GHG emissions and removals, and reductions of GHG emissions in the project scenario

The CCMP shall establish criteria, procedures, and methodologies for quantifying GHG emissions and removals, as well as GHG emission reductions that may occur during its implementation and operation.

The CCMP shall quantify, as appropriate, GHG emissions or removals or GHG emission reductions separately for each GHG emission source or carbon pool in the project and baseline scenario, converting the amount of each type of GHG to tCO₂e. GHG removals or GHG emission reductions shall be quantified as the difference between the emissions or GHG removals or GHG emission reductions of the relevant GHG emission sources and carbon pools in the project scenario and those applicable in the baseline scenario.

5.2.9 Methodological deviations

If the CCMP requires a methodological deviation from the selected methodology, the following shall be submitted:

- Description of the mandatory requirement from which the deviation is requested, including a cross-reference to the specific section of the methodology where the requirement is described.

- Justification for requesting the deviation.
- Proposed methodological alternative.
- Proposal to implement the deviation, with its date of implementation.
- Assessment and description of the impact of the deviation on GHG removal or GHG emission reductions of the CCMP.

The CCMP shall consider that:

- The deviation does not adversely affect the conservative principle of the methodology.
- The deviation does not represent a violation of the regulatory framework applicable to the CCMP activity.

The deviation request will first be assessed on a macro basis by Cercarbono, based on the programme rationale, who will indicate whether it "proceeds" or "does not proceed". In the case of "proceed", the detailed assessment and validation/verification of the deviation will be done by the contracted VVB.

5.3 CCMP monitoring

The CCMP shall establish a monitoring plan that includes procedures for measuring or estimating, recording, compiling, and analysing data and information relevant to quantifying and reporting on GHG emission sources and carbon pools to establish their GHG emissions and removals or GHG emission reductions relevant to the project scenario, including, in CCMPs related to land use, a GHG reporting system using appropriate technologies. The monitoring plan shall include the following, as appropriate:

- 1) Purpose of monitoring.
- 2) List of measured and monitored parameters.
- 3) Types of data and information to be reported, including units of measure.
- 4) Origin of the data.
- 5) Monitoring methodologies (estimation, modelling, or measurement), calculation approaches and uncertainty. In the case of measurement, establish or include protocols for the calibration and maintenance of measurement equipment, as appropriate.
- 6) Monitoring frequency of the different variables and components, considering the needs of the interested parties.
- 7) Definition of roles and responsibilities, including procedures to authorize, approve and document changes to recorded data.
- 8) Controls that include internal evaluation of input, transformation and output data, and procedures for corrective actions.
- 9) GHG information management systems, including the location and retention of stored data and data management that includes a procedure for the transfer of data between different forms of systems or documentation.

10) Structure of the monitoring report.

When measuring and monitoring equipment is used, the CCMP holder must guarantee and have the evidence to demonstrate that these are used and kept calibrated or verified, as appropriate. The GHG monitoring criteria and procedures shall be applied in accordance with the monitoring plan.

When the CCMP, after monitoring the programme or project activity (before or after a verification event), identifies significant changes in the results of their activity, they must carry out a reprojection of the project scenario.

Cercarbono has a “**Monitoring Report**” template, available on its website: www.cercarbono.com, section: Documentation, which can serve as a basis for considering the most important elements of this stage.

Cercarbono allows the development of audits or field verifications remotely by the VVB, in situations in which due to circumstances of force majeure they cannot be carried out directly on the ground⁹.

5.4 Grouped projects

Grouped projects are those implemented under one or more methodologies from the same sector, focused on GHG removal or GHG emission reduction in a specific area or facility and period, which are structured to allow for the addition of one or more instances of the mitigation activity or its scaling up after validation. The grouping and eligibility criteria must be explicitly defined in advance in the PDD to allow for the addition of new participants and implementation instances that are not known at the time project implementation begins. The implementation of a grouped project allows the project not to have to perform a separate registration, validation, and verification process for each new implementation instance, facilitating future expansion of the project and reducing its transaction costs.

Some examples of grouping criteria may be:

- Implementation instances in charge of the same participants of the initial project (e.g., expansion of the same company).
- Admission of new members to an existing associative institution (e.g., a cooperative, which is the holder or developer of the project).

⁹ For more details, see the document “*Cercarbono's Guidelines for Remote Audits*”, available on the website: www.cercarbono.com, section: Documentation, in which the conditions that must be met to carry out this type of audits were established.

- Expansion of an incentive or support programme with rules defined from the beginning (e.g., an international cooperation project).

The rules for the inclusion of new participants or implementation instances (eligibility criteria) must be established from the initial design of the project and cannot be modified later. Specifically, the following criteria should be considered:

- The geographic scope in which implementation instances can be added must be defined during the project validation and cannot be modified later. In no case can activities implemented in more than one country be grouped together.
- The number of implementing instances that can be added to a grouped project is unlimited.
- Implementation instances that adopt technologies or processes other than those established during project design may not be included.
- The inclusion of new implementation instances will not extend the lifespan of the project, nor will it affect the crediting period.
- The inclusion of new implementation instances shall be done through validation during the project verifications. The start of activities of each implementation instance may be retroactive until the date of the previous verification of the project, as of the second verification. The implementation instances must all meet the eligibility and other requirements established in this protocol and in the methodology selected for the initial implementation of the project.
- The VVB in charge of the verification shall evaluate the compliance of each of the implementation instances with the selected methodology and the pertinent rules established in the Cercarbono certification programme.
- It shall be necessary to carry out an additionality analysis for the implementation instances to be added to the project, considering the potential baseline scenarios that correspond to the situation at the time the implementation instances are added.
- It shall be necessary to update the baseline and project scenarios, to include the effect of both in the project, adding the information of the new implementation instances; it shall not be necessary to redo the calculations corresponding to the implementation instances that were already in operation.
- The monitoring system cannot be changed.

5.4.1 Special considerations for projects in the land use sector

- In the case of REDD+ projects, if the country where the project would be implemented has defined sub-national reference levels, its implementation may only occur at one of these sub-national levels.

- In the case of REDD+ projects, all implementation instances must include the same activities and the same reservoirs initially included in the project. See Cercarbono's REDD+ methodology for more details.

Implementation instances cannot be added with species, technologies or combinations of species that have not been explicitly defined during the validation of the project, although new technologies or processes may be included during the revalidation of the crediting period. The inclusion of new species, technologies or species combinations can only be considered through methodological deviations that are in line with the PDD.

5.5 Accreditation period

The duration or lifespan of the CCMP is established by the CCMP, who must provide the supports for said duration, which includes, but is not limited to, action or management plans (of processes, machinery, equipment, resources human resources, financial resources, among others) and the lifespan cycle of areas, machinery, and equipment, among others. During the validation and verification processes, the VVB shall evaluate and support the legitimacy of the duration or lifespan of the CCMP, which shall be reviewed during the certification stage by Cercarbono.

To demonstrate climate change mitigation results, CCMPs may establish a lifespan of 10 to a maximum of 100 years, except in the case of CCMPs in the land use sector, where the minimum lifetime must be 30 years. The duration or lifespan of the established CCMP may not be renewed. The start of the implementation of the CCMP will determine its starting date and, therefore, that of its crediting period.

The CCMP shall choose the starting date of the crediting period (day.month.year). For CCMP in the land use sector, the crediting period will be 20 years or equal to the duration or lifespan of the CCMP if it is less than 20 years, counted from the moment it generates the first removals or reductions of GHG emissions. For CCMP in other sectors, the crediting period will be 10 years or equal to the duration or lifespan of the CCMP, if this is less than 10 years, counted from the moment it generates the first reductions of GHG emissions.

5.6 Renewal of the crediting period

After the initial crediting period, if the CCMP lifetime limit has not yet been reached, this period may be renewed. In the case of CCMP in the land use sector, it may be renewed as many times as desired, for periods of 10 years or a shorter period, until the end of its lifetime. For CCMP in other sectors, that period may be renewed twice for periods of 10 years or for a shorter period, provided that the duration or lifetime of this is not exceeded. The renewal of the crediting period shall be carried out through a new validation statement. It shall be analysed if the CCMP continues to be additional and if it continues to comply with the requirements of this protocol.

Compliance with the additionality criterion shall be reviewed under verification and certification events throughout the CCMP accreditation period. If changes in the CCMP implementation that affect this criterion are detected by the CCMP or the VVB, the PDD must be updated, revaluating the baseline and project scenarios to demonstrate the additionality of the CCMP, backed by a new validation event within the established crediting period.

To renew the crediting period, the CCMP must have had, at a minimum, verifications every five years during the previous crediting period.

In the case of CCMP that have not carried out verifications during the last five or more years, they must present a justification for the non-execution and comply with the provisions of **Section 8.12**.

5.7 Co-benefits and compliance with the Sustainable Development Goals

It is desirable that the CCMP promote and demonstrate activities aimed at improving environment and the quality of life of local populations affected by the CCMP, through the adoption of good practices and including the protection of traditional knowledge and improving the use of natural resources. Compliance with all environmental and social laws is mandatory in the context in which the CCMP develops. In no case will it be accepted that the CCMP deteriorate the quality of life of the local or neighbouring populations.

These actions may include the following:

- a) Generation of income and employment.
- b) Strengthening the capacities of the communities with training activities.
- c) Protection of traditional knowledge of communities.
- d) Actions to mitigate GHG emissions linked to programmes that promote the sustainable use of natural resources and promote the quality of life of communities.

The CCMP must report the co-benefits generated by its activity; however, for the structured and systematic reporting of these co-benefits in the framework of the United Nations Sustainable Development Goals, Cercarbono has developed the ***“Cercarbono's Tool to Report Contributions from Climate Change Mitigation Initiatives to the Sustainable Development Goals”***, available on: www.cercarbono.com, section: Documentation, to respond to the 2030 Agenda established worldwide to end poverty, protect nature and guarantee peace and prosperity.

CCMPs wishing to demonstrate results around the SDGs shall use the tool. The selection of the SDGs by sector and type of CCMP shall be established under validation or verification events. Meanwhile, the results around the SDGs by each CCMP can only be reported and reviewed in verification events.

REDD+ activities shall support results around the safeguards framework established for this type of CCMP activity, such as environmental, social and governance measures or safeguards to avoid negative impacts and promote benefits.

The CCMPs requiring carrying out an environmental impact assessment must do so following the guidelines established by the competent environmental authority in the country where they are developed. If these guidelines do not exist, one of the following methods can be used:

- Expert judgment
- Quantitative physical and mathematical models
- Cumulative impact assessment
- Matrices and interaction diagrams
- Rapid Impact Assessment Matrix
- Battelle Environmental Evaluation System

CCMPs that properly implement Cercarbono's SDG Tool will have a differentiation seal available on the issuance certificate and on the EcoRegistry platform.

5.8 Effective participation

This section presents the different milieus in which Cercarbono facilitates the interaction between the different actors that intervene in the carbon market for the formulation, development, and transparent implementation of the CCMP, in a way that allows guaranteeing their full and effective participation in accordance with the procedures under which they operate.

Some of these milieus are constituted by public consultations, which as a planning mechanism allows the effective participation of said actors. In this sense, Cercarbono has established three types of consultations that must be considered by the different actors and that are implemented in accordance with the CCMP activity and its requirements.

In addition to consultations, Cercarbono has designed spaces such as frequently asked questions and contact form on its website (www.cercarbono.com), available in Contact Section, in which the different actors can also participate. These spaces for the effective participation of actors are detailed below.

5.8.1 Public consultations of the CCMP

CCMPs will have separate spaces on the EcoRegistry platform for gathering opinions and comments from stakeholders, guaranteeing the confidentiality of the sensitive information of the CCMP and that required by participants. One is open during the public consultation while the other is open in a permanent basis.

Each CCMP may be consulted prior to a validation event or in the pre-registration stage and after a verification event or in the certification stage. In the first case, the consultations to stakeholders (expanded below) will be considered, when applicable. In the second case, there will be a space for permanent participation in which CCMP can receive comments on the documents and information available in EcoRegistry and on the performance of the CCMP throughout its accreditation period. Public consultations in the pre-registration and certification stages shall be carried out on the EcoRegistry platform.

5.8.1.1 Consultations with stakeholders

Corresponds to participatory spaces in which the CCMPs present and discuss their scope and the activities to be implemented, as well as their potential impacts and benefits to stakeholders. The CCMPs must report the participation processes and ensure that they are updated in a public repository, available online, in accordance with the provisions of section 5.3 of the ***Methodology for the Implementation of REDD+ Projects Consistent with the Reference Levels Submitted by Colombia to the UNFCCC***.

This type of consultation is carried out especially when the CCMP is carried out in an area in which a local population is established or when the programme or project activity may have an environmental, social, or economic impact on local populations or society in general.

If stakeholder consultation is required (as is the case of REDD+ projects), it shall be carried out during the validation process. The CCMP holder shall report on all mechanisms used for the dissemination of complete and relevant information from the consultation. The information must be available on the EcoRegistry platform while the CCMP is in the pre-registration or validation phase or in any other means of participation that is designed for a certain sector or type of programme or project.

The CCMP holder shall prepare and make available to stakeholders a descriptive document of the CCMP, which must:

- Identify the stakeholders, which can include a map of actors or organizations, an institutional map of the governance structures or institutions and leaders associated with decision-making in the territory, related to the programme or project activities, identifying themselves Consensual decisions (and their follow-up) with local governance structures.
- Use a format and develop content that is consistent with stakeholders, which should include at a minimum:
 - 1) The name of the CCMP holder.
 - 2) A brief description of the CCMP, including name, size, location, duration, and type of activities.

- 3) A summary of the PDD, which includes GHG emissions and removals, or reductions of GHG emissions generated in the project scenario and those that apply to the baseline scenario, expressed in tCO₂e.
- 4) Describe the deviations from the selected methodology, if applicable, and justification of why such deviations are made.
- 5) A list of all relevant GHG emission sources and carbon pools (including criteria for their selection and quantification).
- 6) A description of the baseline scenario.
- 7) A general description of the criteria and procedures that will be used to calculate GHG emissions and removals, or reductions of GHG emissions from the CCMP and those that apply to the baseline scenario, expressed in tCO₂e.
- 8) The date of the report and the period it covers.
- 9) Evidence of the appointment of the authorized legal representative on behalf of the holder of the CCMP, if different from this one.
- 10) The certification programme for which the CCMP subscribes.
- 11) Establish a meeting plan or schedule for decision-making around the CCMP.
- 12) Establish a mechanism for complaints, claims and requests and their traceability.
- 13) Establish a protocol for managing conflicts when they arise.
- 14) Generate an agreement document that will be signed by the stakeholders for the development of the CCMP.

This document must be presented and discussed in a meeting between the CCMP holder or developer, and the identified stakeholder in the CCMP area or neighbouring it. This meeting can conclude in common agreements or in defining the means in which the stakeholders can contribute. Subsequently, the results achieved by the public consultation and the monitoring of its compliance shall be recorded in a document that must be submitted prior to the validation process. The follow-up to said document must be reviewed in verification events.

When required or requested in the pre-registration stage, this document shall be made available to the public by Cercarbono through the EcoRegistry platform, for a period of at least 30 solar days and the comments received shall be made available to the CCMP holder, who must update the PDD, considering the comments received during the public comment period.

5.8.2 Public consultations of documents, tools and methodologies developed by stakeholders

Stakeholders operating in the context of the carbon market may submit methodologies, methods, modules, or tools supported by ISO 14064-2:2019 Standard to public consultation. For this, Cercarbono has established on its website in the section: Consultations, a

space called “Public consultations of stakeholders”, in which the public consultation of any of the aforementioned documents shall be available, for a minimum period of 30 solar days.

Cercarbono has established within its procedures, a document on the “***Cercarbono's Process for the Approval of Methodologies Within the Framework of the Voluntary Carbon Certification Programme***”, which specifies the approval of new or already developed methodologies. This document is available on its website: www.cercarbono.com, section: Documentation.

5.8.3 Public consultations of documents, tools and methodologies developed by Cercarbono

Cercarbono continuously develops different documents, tools, and methodologies to strengthen and consolidate administrative, financial, and technical processes. As the participation and feedback of different actors in the carbon market is of great importance in the development of these instruments, Cercarbono has been developing different public consultations. To do this, it has established on its website in the section: Queries, a space called “Cercarbono Public Consultations”, in which the public consultation of any of these instruments shall be available for a minimum period of 30 solar days.

The public consultation section of the Cercarbono website, references active and finished public consultations.

5.8.4 Frequently asked questions and contact

Cercarbono has established on its website the section: Frequently Asked Questions, in which there are relevant questions and answers for the formulation, development and implementation of the CCMP as well as for the contextualization of actors around the carbon market. Questions and answers that will be constantly updated.

Cercarbono's website also has a section called Contact, in which the different actors in the carbon market can submit their doubts, questions or specific comments, through the means of communication referenced therein.

5.9 Legal and documentary management

CCMPs must keep all documentation and records generated to demonstrate that the programme or project activity has been implemented as designed. Any deviation of the implementation from the design must be solidly justified. Therefore, the CCMP must have documentation that demonstrates its conformity with the requirements of this document. This documentation must be consistent with the validation and verification needs of Cercarbono's certification programme (considering the guidelines of the ISO 14064-2:2019 Standard).

The holder of the CCMP must have documentation that demonstrates the conformity of the CCMP with this protocol. This documentation must be consistent with the validation, verification, and certification processes. The EcoRegistry platform will support all the information from the entire project cycle generated by those responsible for each stage of the project.

5.9.1 Management of legal requirements

The CCMP must list, describe, and justify compliance with the laws, statutes, and regulatory frameworks under which it is governed (local, regional, and national), that apply to the programme or project activity, including the environmental requirements that correspond and the record of the specific actions of the CCMP, when applicable.

In addition, the CCMP holder shall sign a declaration that its CCMP has not been registered for carbon credits under any certification program or standard, or for GHG removals or GHG emission reductions required by a particular legal or regulatory framework and that, if registered by Cercarbono, shall not seek partial or full registration of the CCMP under any other programme or standard, or its use for compliance with any climate change mitigation commitment required by a particular legal or regulatory framework, unless it withdraws the CCMP from Cercarbono in compliance with the requirements defined for that purpose. For this purpose, Cercarbono may request additional information, clarifications, or corrections on the already validated CCMP and will request to present the ***“Declaration of CCMP Registration in Cercarbono's Voluntary Carbon Certification Programme”***, available on its website: www.cercarbono.com, section: Documentation.

5.9.2 Data quality management

The CCMP shall establish and apply procedures for the management and quality of data and information, including the evaluation of uncertainty, relevant for the baseline and project scenarios, in accordance with the provisions of the selected methodology. The CCMP must minimize, as far as possible, the uncertainties related to the quantification of GHG removals, or reductions of GHG emissions.

5.10 Retroactive period

Cercarbono's voluntary certification programme allows for a retroactivity of five years, both for the initiation of mitigation activity and for the generation of credits, unless the regulatory framework in which the credits will be used provides for a shorter retroactivity period. This condition does not apply in the case of initiatives that have been duly registered in other certification programmes and that migrate to Cercarbono, in which case the initiative may have been in execution for longer periods of time, if no more than five years have passed from the moment of its last verification. More information on this in **Section 10.11**.

6 Preliminary and subsequent actions to the validation and verification processes

6.1 Actions prior to the validation and verification processes

Before starting the validation and verification processes, the authorized VVB shall select a team or person who has the necessary skills and competencies to carry out these processes, who must have a sufficient understanding of the GHG-related programme or project activity, and relevant information of the sector in which the CCMP operates to plan and carry out the validation and verification, in order to identify the types of potential material errors, their probability of occurrence, and to select the procedures for gathering evidence (tests analysis or estimates, evaluations, calculations, samplings, or consultations considered relevant for evaluation and conclusion).

Also, prior to the validation and verification process, the VVB shall define with the client:

- 1) The commitment term where the type and level of commitment of each process is established or, if it is the case, of the joint processes of validation and verification (carried out at the same time), as well as the level of reasonable assurance of the statement(s) issued, thus establishing the manner and timing of evidence collection.
- 2) The objectives of the validation and verification with which the precision of the statement(s) and its/their conformity with the requirements of the validation and verification processes of the protocol is established.
- 3) The materiality threshold of the process to be performed (validation or verification). This threshold should be less than 5 % and shall be set according to the level of mitigation outcomes generated by the CCMP:
 - i. 5 % for CCMPs generating less than 25 thousand tCO₂e.
 - ii. 3 % for CCMPs between 25 and 100 thousand tCO₂e.
 - iii. 1 % for CCMPs of more than 100 thousand tCO₂e.
- 4) If they correspond to validation and verification processes carried out for the first time or to updates. Normally, a validation process covers the entire crediting period of a CCMP. Validation processes after the first time, shall be carried out to update the programme or project activities, either by adding implementation instances (areas, processes, machinery, or facilities) both in the baseline scenario and in the of project, as happens in grouped projects or by changes due to external factors (such as environmental catastrophes, market, policies, among others). The verification processes after the first time shall be carried out as many times as have been established in the monitoring plan, in accordance with the crediting period of the CCMP or when the holder of the latter considers it. In both processes, the documentation of the previous validation and verification process shall be considered, as applicable.
- 5) The evaluation criteria considering the requirements of the CCMP. The validator and verifier shall evaluate them considering:

- The method of determining the scope and limits of the engagement.
 - GHGs, GHG emission sources and carbon reservoirs to be accounted for.
 - Quantification methods.
 - Requirements for Disclosures.
- 6) The scope of the declaration and the spatial limits (of facilities, physical infrastructure, activities, technologies, and processes), temporal limits (period), types of GHG emission sources, carbon reservoirs and GHG leakage.
 - 7) The material discrepancy thresholds required by stakeholders, which can be quantitative (includes errors in declarations, incomplete inventories, misclassified GHG emissions or misapplication of calculations) or qualitative (control problems that decrease the confidence of the validator and verifier in the reported data, poorly managed documented information, difficulty in locating the requested information, non-compliance with regulations indirectly related to GHG emissions or removals).
 - 8) The action to define the property of the CCMP, with the corresponding supports.
 - 9) Carry out a check or review of conflicts of interest by the VVB.
 - 10) Present the signed declaration that shows that there are no conflicts of interest on the part of the VVB and the CCMP, with an issue date of eight solar days prior to a validation or verification event. For this, Cercarbono has a form of ***“Declaration of Conflict of Interest Made by the VVB”***, available on its website: www.cercarbono.com, section: Documentation.
 - 11) Review compliance with the co-benefits or contribution to the proposed SDGs and the legal authorization of the CCMP, when applicable.

6.2 VVB requests

The VVB, as soon as possible, shall notify the CCMP of requests for clarifications, erroneous statements, or non-conformities, as well as communicate intentional errors or non-compliance with laws or regulations that govern them.

If the CCMP holder does not respond adequately within a maximum period of six months, the VVB shall issue a negative validation or verification opinion thus supporting its withdrawal from the process.

Likewise, if the VVB determines that there is not enough information to support the validation or verification statement, it shall request additional information. If this information is not corrected, the CCMP shall not be able to continue with the validation or verification process.

6.3 Information list of the VVB

The validator and verifier shall keep the following records:

- 1) Terms of commitment.
- 2) Validation and verification plan.
- 3) Evidence collection plan.
- 4) Gathering of evidence.
- 5) Requests for clarifications, corrections or nonconformities derived from the validation or verification, and the conclusions reached.
- 6) Communication with the client about important requests.
- 7) Record holders or documentation collected during audits and field visits.
- 8) The conclusions reached and the opinions of the validator or verifier.

The documentation of the CCMP validation and verifications shall remain available on the EcoRegistry platform for a period of at least ten years.

6.4 Facts discovered after validation or verification

The VVB shall obtain sufficient appropriate evidence and identify relevant information up to the date of the validation and verification opinion. If facts or new information are discovered that could materially affect the validation and verification opinion after this date, the validator or verifier shall take the appropriate measures, including communicating the matter as soon as possible to the CCMP. The VVB can also communicate to other stakeholders the fact that the trust of the original opinion may now be compromised given the facts discovered or new information.

If the facts are discovered after the carbon credits have been issued, Cercarbono will seek to offset the integrity of those credits in future verifications of the same CCMP or, if not possible, by relying on Cercarbono's collective carbon buffer.

7 Requirements of the validation process

This section details the most important elements contemplated in the validation process of a CCMP based on the ISO 14064-3 Standard, under which the VVB issues opinions in the validation report and a validation statement.

7.1 Validation plan

The validator must develop a validation plan that addresses the previous actions contemplated in [Section 6.1](#).

The validator shall evaluate the accuracy and completeness of the PDD. The validator must communicate the validation plan and notify the CCMP holder of the field visits.

If the evidence collected indicates a material error or identifies a nonconformity in the criteria, it may be necessary for the validator to modify the validation plan and the evidence collection plan, as necessary.

7.2 Evidence gathering plan

The validator shall design an activity plan for the collection of sufficient and appropriate evidence of each CCMP activity with which it will support its conclusion. Except in cases where the validator chooses to examine all the evidence.

The validator shall use a risk-based process to identify the evidence to be collected from each GHG-related activity. The validator shall use any validation activity or technique to design the evidence collection plan, including field visits.

The validator shall perform the validation in accordance with the validation plan and the evidence collection plan related to the activities of the CCMP around:

7.2.1 Recognition

The validator shall determine if the stakeholders, if any, recognize the activity of the CCMP and if it is appropriate for them. It shall evaluate if there are geographical or temporal restrictions specified by the stakeholders and if they comply with the programme or project activity. It shall also assess whether the programme or project activity is real, quantifiable, verifiable, and permanent by reviewing and evaluating the calculations used.

7.2.2 Property

The validator shall assess whether the CCMP holder has the right to claim GHG removals, or reductions of GHG emissions expressed in the validation statement.

It shall also review the holdship or property rights of the area or lands contemplated by the CCMP, which demonstrate the right of use during the duration of this.

7.2.3 CCMP limits

The validator shall assess whether the limits established by the CCMP holder are appropriate. To do this, it shall evaluate the scope of the validation process, making sure that it includes all spatial¹⁰ and temporary¹¹ limits, as well as all sources of GHG emissions and carbon reservoirs.

7.2.4 Baseline scenario selection

The VVB shall assess whether the baseline scenario is the most appropriate, plausible, and complete hypothetical scenario. To do this, the CCMP must:

- 1) Establish whether the determined baseline scenario is recognized by stakeholders, where appropriate.
- 2) Assess whether the baseline scenario is established using a credible, documented, and repeatable process.
- 3) Evaluate whether the baseline scenario is appropriate for the proposed project or programme activity, in the period to which it refers.
- 4) Evaluate the selection of the baseline scenario, including how the conservativeness principle, uncertainty, common practice, and the operating environment affect its selection.
- 5) Evaluate the designed operating conditions and activity levels associated with the methodology for quantifying GHG removals, or reductions of GHG emissions used in the CCMP, to determine how accurate, complete, and conservative estimates will be produced.

In a CCMP, the baseline scenario must be updated once the crediting period ends, when it is required to validate it again, or when it comes to adding new instances. In grouped projects, validation of the CCMP by addition of new instances is not required; these are validated during verification events.

7.2.5 Quantification and monitoring methodologies

The validator shall assess whether the selected quantification methodologies and associated measurements and monitoring are appropriate, assessing whether they are accurate, reliable, and conservative, and whether they have been properly applied. In addition, the validator should review if the ranges and operating conditions or assumptions have been met for the purposes of disclosure and material error.

¹⁰ Specified by geodetic coordinates or polygons to delimit the geographic area or areas that comprise(s) the CCMP.

¹¹ It refers to the duration of the CCMP.

The quantification, measurement and monitoring methodologies include calculations, models, mass balance and their associated direct and indirect measurements, among others.

The validator shall also review the estimated values contemplated in the quantification of GHG removals, or reductions of GHG emissions, so that they comply with the criteria and future projections. To do this, it shall consider the methodology used, the applicability of the assumptions and the quality of the data used in the estimation. The validator may make comparisons with its own estimates to evaluate estimates submitted.

The VVB shall review if the CCMP holder mentions and correctly uses the selected methodology(ies) or other technical tool, its latest version being implemented or the use of a previous version supported, considering their copyright or use permits (when applicable).

If there is any disagreement, the validator shall request evidence that proves the effectiveness and performance of the parameters used in the quantification, measurement, monitoring methodology and in the estimated or calculated values.

7.2.6 Leakage

Depending on what the selected methodology indicates in this regard and when appropriate, the validator shall evaluate that the CCMP activity has adequately addressed the management of any potential leakage.

7.3 Information and data control system

The validator shall evaluate the GHG information management system and the procedures of the activities contemplated by the CCMP to determine if they can be relied upon during the validation. To do this, the validator must:

- 1) Identify all measured and monitored data and assess whether they correspond to the calculations, including measured and monitored data for the project or programme activity.
- 2) Identify and confirm the acceptability of all additional information used in the results of GHG emissions calculations, including, but not limited to, emission factors, conversions, and global warming potentials.
- 3) Assess whether there is a planned, sufficient, and appropriate record control to connect the measurements to the report.
- 4) Identify key points in the data management process that are at high risk of misreporting and assess data controls at key risk points.
- 5) Identify responsibilities for the GHG data and information management system and assess whether a segregation of duties has occurred and whether the levels of responsibility are adequate.
- 6) Assess whether data collection and control and operating frequencies are appropriate.

- 7) Assess whether data backup and recovery systems are reliable enough.
- 8) Assess whether the content of the PDD and to whom it is distributed is appropriate.
- 9) Assess whether the data control and information management system are transparent and meets customer requirements.

The documentation to be evaluated by the VVB is first uploaded by the general or developer account users to EcoRegistry platform, thus guaranteeing its availability.

7.4 CCMP calculations

The validator must confirm the calculations used in the CCMP, reviewing:

- 1) The correct application of the calculations (for example, emission factors, default values, among others).
- 2) The correct application of the conversion of units of measurement and potentials of global warming.
- 3) That the calculations have been carried out in accordance with the selected methodology.

To confirm GHG removal or reduction of GHG emissions proposed by the programme or project activity, the validator shall evaluate and compare the baseline scenario and the proposed project scenario, including the consistency of the assumptions and limits throughout the crediting period and duration or lifespan of the CCMP.

7.5 Future estimates

If applicable, the validator shall evaluate future estimates associated with the CCMP so that it can assess the proposed approach and inherent assumptions in the projection, the applicability of the scope of the projection to the proposed CCMP activity, and the data and information sources used in the projection, including their suitability, completeness, accuracy, and reliability.

7.6 Uncertainty

The uncertainty of the measured results reflects the lack or accuracy of the knowledge of the measurement value.

The CCMP must quantify the deviation of the parameters or input data used and the results obtained, and thus determine, control, and avoid possible errors in the measurement processes that generate uncertainty.

ISO/IEC Guide 98-3 establishes the rules for evaluating and expressing the uncertainty of measurement that can be considered. According to this guide, the sources of uncertainty¹² that influence a measure are:

- Incomplete definition of the measure.
- Imperfect realization of the measurement definition.
- Unrepresentative sampling, the measured sample does not represent the defined measurement.
- Inadequate knowledge of the effects of environmental conditions on measurement or imperfect measurement of environmental conditions.
- Personal bias in reading analogue instruments.
- Finite instrument resolution or discrimination threshold.
- Inaccurate values of measurement standards and reference materials.
- Inaccurate values of constants and other parameters (for example, GHG emission factors and activity data) obtained from external sources and used in data reduction algorithms.
- Approaches and assumptions incorporated into measurement methods and procedures.
- Variations in the repetition of measurement observations under apparently identical conditions.

For the modification of values related to the quantification of GHG results, to reduce uncertainties, rounding operation should be correctly used, minimizing accumulated rounding errors, preferably using values indicated by observation and measurement, calculated with as many decimal values as possible; it is suggested that they be at least four, although the trend of all data must be observed to define the appropriate level.

The validator shall assess whether the uncertainty associated with the CCMP affects the disclosure or the validator's ability to reach a conclusion. To do this, the validator must:

- 1) Identify uncertainties that are greater than expected.
- 2) Evaluate the effect of the uncertainties identified in the CCMP.
- 3) Determine the appropriate course of action for a given uncertainty.

In addition, the validator must identify assumptions with high potential for change and assess whether these changes create a material error or discrepancy for the CCMP.

¹² Sources that are not necessarily independent, some can be grouped in one.

7.7 CCMP evaluation

The validator shall use the evidence gathered to assess the CCMP against the validation criteria outlined here. The validator shall also assess individually and collectively whether uncorrected errors are important to the CCMP, as well as compliance with requirements, and finally reassess recognition.

7.8 Validation opinion

The validator shall present a validation opinion based on the evidence gathered during the validation process. The opinion that the validator shall generate can be of three types:

- a) **Positive opinion:** in which it guarantees that there is sufficient and appropriate evidence to support the estimates of GHG emissions and removals, or reductions of GHG emissions in accordance with the requirements of the validation process.
- b) **Modified opinion:** in which it is ensured that identified errors have been corrected to estimate GHG emissions and removals, or reductions of GHG emissions in accordance with the validation process.
- c) **Negative opinion:** in which it is concluded that there is insufficient or appropriate evidence to support a positive or modified opinion, or when the estimates of GHG emissions and removals, or reductions of GHG emissions are not properly applied and are not consistent with the validation process.

The validation statement may be issued only when the validator has generated a positive or modified opinion.

7.9 Proper disclosure of the CCMP

The validator shall assess how the CCMP has had an adequate disclosure and shall ensure that material disclosures occur. To do this, the validator must assess whether the disclosure:

- a) It is accurate and complete.
- b) It is a fair reflection of GHG-related activity.
- c) Contains unintended biases.
- d) Address the requirements and needs of stakeholders.

7.10 Validation report

The validator shall present a validation report that shall include at least:

- 1) An appropriate title.
- 2) One recipient.
- 3) The holdership and location of the CCMP.

- 4) A statement of responsibility stating that the client is responsible for the preparation and presentation of the CCMP PDD in accordance with the requirements of the validation process.
- 5) The scope of the validation.
- 6) The duration or lifespan of the CCMP and its justification.
- 7) The crediting period and its justification.
- 8) A statement that the validator is responsible for expressing an opinion on the CCMP based on the validation.
- 9) A description of the validation evidence collection procedures used to evaluate the PDD.
- 10) The validation opinion.
- 11) The description of the baseline scenario.
- 12) Net GHG emissions and removals, or reductions of GHG emissions projected in the project scenario during the crediting period of the project.
- 13) The date and place of the field visit.
- 14) The date of the report.
- 15) Name of the validator or validation team.
- 16) The location and signature of the validator or validation representative.

Cercarbono has a “**Validation or Verification Report**” form, available on its website: www.cercarbono.com, section: Documentation.

7.11 Validation statement

The validator shall deposit the documentation for this step in EcoRegistry. This should include the validation report, the validation statement and any other information considered important by the validator.

The validation statement must include the following information:

- Name and logo of the VVB.
- Name of the CCMP.
- Location or total area of the CCMP, when applicable.
- Sector in which the CCMP is developed.
- Customer name and identification.
- List the criteria under which the validation was evaluated (methodology, tools, protocol, among others).
- List the audited documents.
- The level of assurance of the validation.
- The duration or lifespan of the CCMP (from day.month.year until day.month.year).
- The crediting period or its renewal granted (from day.month.year until day.month.year).

- The total GHG emissions and removals, or reductions of GHG emissions estimated during the CCMP crediting period.
- The annual disaggregation of GHG emissions and removals, or reductions of net GHG emissions estimated or projected in the baseline and project scenarios throughout the duration or lifespan of the CCMP, including, when apply, the amounts allocated for the carbon credit reserve.
- Date of issuance of the declaration (day.month.year).
- Signature of the auditor or audit leader.

Cercarbono has a “**Validation or Verification Statement**” form, available on its website: www.cercarbono.com, section: Documentation.

8 Requirements of the verification process

This section details the most important elements contemplated in the verification process of a CCMP based on the ISO 14064-3 Standard, under which the VVB issues opinions in the verification report and a verification statement.

8.1 Verification plan

The verifier must develop a verification plan that addresses the previous actions contemplated in [Section 6.1](#), as well as must evaluate or analyse:

- 1) What is established in the PDD.
- 2) The validity of the baseline scenario.
- 3) GHG emission sources.
- 4) Changes in GHG emissions, reductions of GHG emissions and carbon stocks in carbon pools over a period determined in the project scenario.
- 5) The implementation of the quantification methods and the notification of any changes.
- 6) The sources of GHG information.
- 7) The information and data control system.
- 8) The supervision of the administration of the CCMP reporting data and support processes.
- 9) The availability of evidence for the information that supports the PDD.
- 10) The results of the previous verifications, when applicable.
- 11) The results of the sensitivity or uncertainty analysis.
- 12) The type of GHG.
- 13) The monitoring plan, which will establish the number and periodicity of verification events and their justification in situations of being carried out before or after what is proposed.
- 14) The monitoring methodology applied (that is, direct measurement of GHG emissions or calculation of GHG emissions with indirect measurement of activities and calculation data).
- 15) The monitoring report.
- 16) The results of the validation report.
- 17) Other relevant information, if applicable.

The time range between verification events established by the CCMP can be between six months and five years, according to the period of accreditation or economic capacity of the CCMP, information that is detailed in [Section 8.12](#).

8.2 Risk evaluation

The verifier shall conduct a risk assessment of the PDD to identify an erroneous or non-conforming statement. The risk assessment shall consider the results of the assessment to the material discrepancy.

Risk assessment may consider:

- 1) The probability of intentional error in the PDD.
- 2) The effect of GHG emission sources on the PDD.
- 3) The probability of missing a potentially significant GHG emission source.
- 4) Presence of significant or unusual leakage not considered.
- 5) The nature of the specific operations of the CCMP.
- 6) The degree of complexity in determining the organizational limit or the CCMP.
- 7) Any change from previous periods.
- 8) The probability of non-compliance with applicable laws and regulations that may have a direct effect on the content of the PDD.
- 9) Any significant economic or regulatory change that may affect GHG emissions and their reporting.
- 10) The selection, quality, and sources of GHG data.
- 11) The level of detail of the documentation available.
- 12) The nature and complexity of quantification methods.
- 13) Subjectivity in the quantification of GHG emissions.
- 14) Any significant estimates and the data on which they are based.
- 15) The characteristics of the information and data control system.
- 16) Any control used to monitor and report GHG data.
- 17) The experience, skills, and training of the staff.

Sources of information for risk assessment can be obtained by conducting site or area visits, or performing high-level analytical procedures to determine other areas of risk which may include:

- a) Evaluation of changes in GHG emissions.
- b) Assessment of changes in GHG emissions and removals, or reductions of GHG emissions over time.
- c) Evaluation of GHG emissions and removals, or reductions of expected GHG emissions compared to those reported.

In the case of REDD+ projects, the risk assessment must consider the social and environmental safeguards of the CCMP.

8.2.1 Risk types

Inherent, control, and detection risks must be identified and evaluated for the verification statement. Risks to be identified:

- a) For GHG emissions or reductions of GHG emissions: occurrence, completeness, precision, range of calculation dates and classification.
- b) For GHG removals: existence, rights and obligations, integrity, range of calculation dates, precision, and assignment.

8.3 Evidence gathering plan

The verifier shall design an activity plan for the collection of sufficient and appropriate evidence of each CCMP activity with which to support its conclusion. Except in cases where the verifier chooses to examine all the evidence.

The verifier shall use a risk-based process to identify the evidence to be collected from each GHG-related activity. The verifier must design and carry out procedures and analysis tests for each type of GHG emission and removal, or reduction of GHG emissions.

The verifier shall develop activities to collect evidence that determine if the PDD conforms to the requirements of the verification process.

The verifier shall perform the verification in accordance with the verification plan and the evidence collection plan.

If the CCMP holder or developer has made any changes to the PDD, because of clarification requests, misstatements and non-conformities, the verifier shall evaluate these changes.

The verifier shall design a plan with which to collect evidence related to the programme or project activities carried out by the CCMP, around:

8.3.1 Data register

The verifier shall collect and evaluate the existence of data records of GHG removals, or reductions of GHG emissions.

8.3.2 Aggregate GHG data and information

The verifier shall collect evidence of the data aggregation process, including the agreement of the CCMP with the records made during the preparation of the PDD.

8.4 Implementation of activities and verification techniques

8.4.1 Analysis tests

If performing analytical tests, the verifier should consider the ability of the test to reduce or mitigate the identified risk, the reliability of the data to be analysed, and the likelihood that the test will identify misstatements.

If analytical tests identify fluctuations or relationships that are inconsistent with other relevant information or that differ significantly from expectations, the verifier shall investigate such differences, obtain additional evidence, and perform other evidence-gathering activities.

8.4.2 Control tests

The verifier, in collecting evidence, shall test the operational effectiveness of the controls, if:

- Deviations are detected, the verifier shall assess whether the deviations affect the ability to trust those controls, and whether additional testing of the controls is necessary.
- Additional tests of controls are necessary and if another type of evidence collection should be applied.
- The characteristics of the data allow the use of tests of control, the verifier must collect evidence to establish the operational effectiveness of those controls.

8.4.3 Estimation tests

The verifier shall assess whether the estimates, if any, meet the criteria and methods for them to be carried out; among them, if they have been applied consistently in previous periods or if they have been modified in previous periods, and are appropriate.

If required, the verifier shall evaluate the suitability of the estimation methodology used, the applicability of the assumptions in the estimation and the quality of the data used in the estimation.

The verifier shall collect evidence of the operational effectiveness of the controls that govern the development of the estimate.

The verifier may develop his own estimate or range to evaluate the established estimate.

8.4.4 Sampling

If sampling is used, the verifier must consider the purpose of collecting evidence and the characteristics of the population from which the sample will be drawn, tending to make it statistically significant.

8.4.5 Visits to the CCMP site, area, or facilities

8.4.5.1 Site, area, or facility selection

Field audits or site, area or facility visits should be planned to collect the information necessary to reduce verification risks. These audits are carried out to evaluate, measure and corroborate *in situ* all the aspects referenced in the CCMP, in its supports, its calculations of GHG removal or reduction of GHG emissions and other required information. They are normally carried out on site to verify that they were carried out under the parameters required by the VVB and on the date assigned¹³.

In some cases, these field audits may be carried out remotely by the VVBs, as detailed in the document “**Cercarbono's Guidelines for Remote Audits**”, available on: www.cercarbono.com, section: Documentation.

For field audits, the verifier shall identify the need to visit the sites, areas, or facilities, including the number and location of these, considering:

- a) The results of the risk assessment and the efficiency in the collection of evidence.
- b) The number and size of sites, areas, or facilities associated with the CCMP.
- c) The diversity of activities at each site, area, or facility that contribute to the verification statement.
- d) The nature and magnitude of GHG emissions at different sites, areas or facilities, and their contribution to the verification statement.
- e) The complexity of quantifying the sources of GHG emissions generated at each relevant site, area, or facility.
- f) The degree of confidence in the management of the GHG information and data system.
- g) Any risks identified in the risk assessment that indicate the need to visit specific locations.
- h) The results of previous verifications or validations, if any.

8.4.5.2 Circumstances that require a site, area, or facility visit

The verifier must conduct a site, area, or facility visit in any of the following circumstances:

- a) An initial verification.
- b) A post-verification, for which the verifier has no direct knowledge of the activities and results of the pre-verification.

¹³ In joint validation and verification processes, the field audit can be carried out in parallel, making sure that it meets the requirements of both processes.

- c) A verification where there has been a change of ownership of a site, area, or facility and where emissions, GHG removals and GHG reductions from the site, area or facility are used for verification reporting.
- d) When misstatements are identified during verification, indicating the need to visit a site, area, or facility.
- e) There are unexplained changes in GHG emissions or removals or GHG emission reductions since the verification statement.
- f) The addition of a site, area, or facility required for the verification statement.
- g) Changes in the scope or limit of the reports.
- h) Significant data management changes involving the specific site, area, or facility.

The verifier may determine that the above circumstances do not require a site, area, or facility visit based on the results of the risk assessment and evidence collection plan and considering the results of any prior verification to the same site, area, or facility. If a verifier determines that a site, area, or facility visit is not necessary, the decision must be justified and documented.

8.4.5.3 Activities to perform during visits to the site, area, or facilities

The verifier must collect evidence at the site, area, or facility to assess, as determined by the risk assessment:

- 1) Scope and limits of the site, area, or facilities.
- 2) Operations and activities relevant to GHG emission sources and carbon reservoirs.
- 3) Information systems and data control.
- 4) Physical infrastructure.
- 5) Equipment, such as measuring devices and instruments, to establish the traceability of applicable calibration and monitoring information.
- 6) Equipment types, assumptions, and supporting calculations (for example, verifying that the information the manufacturer uses as the basis for GHG emissions calculations matches the installed equipment).
- 7) Processes and material flow that affect GHG emissions.
- 8) Compliance with operating and data collection procedures.
- 9) Sampling equipment and sampling methodologies.
- 10) Monitoring practices against the requirements established by the responsible party or specified in the requirements.
- 11) Calculations and assumptions made to determine GHG data, emissions and, as appropriate, GHG removals, or reductions of GHG emissions.
- 12) The quality control and guarantee procedures established to prevent or identify and correct any errors or omissions in the reported monitoring parameters.

8.5 Property evaluation

The verifier shall assess whether the CCMP holder has the right to claim GHG removals or reductions of GHG emissions expressed in the verification statement.

8.6 Information and data control system

The evaluation of the information and data control system will depend on the results of the risk assessment.

Evidence collection activities to evaluate the design and effectiveness of the information and data control system should consider:

- 1) The selection and management of GHG data and information.
- 2) The processes for collecting, processing, and consolidating GHG data and information.
- 3) The systems and processes that ensure the validity and accuracy of GHG data and information.
- 4) The design and maintenance of the GHG information system.
- 5) Systems, processes, and personnel that support the GHG information system, including activities to ensure data quality.
- 6) The results of the maintenance and calibration of machinery, equipment, and instruments.
- 7) The results of the previous verifications.

The documentation evaluated by the VVB will be stored in EcoRegistry, thus guaranteeing its availability.

8.7 CCMP status assessment

The verifier shall assess any changes in risks and material discrepancy thresholds that may have occurred during the verification. The verifier shall assess whether the applied high-level analysis procedures are still representative and appropriate.

The verifier shall determine if the evidence collected is sufficient and appropriate to generate a conclusion. If the verifier considers that they are insufficient, additional activities can be carried out to collect evidence. In the same way, the VVB shall check that there are no errors or material discrepancies.

8.8 Assessment of conformity with requirements

The verifier shall assess any nonconformity with the requirements of the verification process. To assess conformity, the verifier should consider the following:

- 1) The scope of the CCMP implementation, including area(s), technology installation and measurement equipment.
- 2) The operation of the CCMP.
- 3) The monitoring plan and methodology, including the requirements in the criteria.
- 4) Changes in the monitoring plan, installed equipment, or baseline scenario.
- 5) Conservative judgments that have a material effect on the verification statement.
- 6) The results of the validation.
- 7) The results of previous verification events.
- 8) Evaluation of changes from previous periods.

The verifier shall determine if the changes from previous periods that make the periods incomparable have been properly disclosed.

8.9 Verification opinion

The verifier shall present a conclusion based on the evidence gathered and write a verification opinion. The verifier shall issue a:

- a) **Positive opinion:** which guarantees that there is sufficient and appropriated evidence to support the quantification of GHG removals or reductions of GHG emissions and that these comply with the verification requirements; and that the effectiveness of the controls has been evaluated and the verifier has confidence in them.
- b) **Modified opinion:** which ensures that identified errors have been corrected to support GHG removals or reductions of GHG emissions and these comply with the requirements of the verification process.
- c) **Negative opinion:** that concludes that there is not sufficient or appropriate evidence to support a positive or modified opinion, or when the quantification of GHG removals or reductions of GHG emissions is not properly applied or they are not consistent with the verification process.

The verification statement may be issued only when the verifier has generated a positive or modified opinion.

8.10 Verification report

The verifier shall present a verification report which shall include at least:

- 1) An appropriate title.
- 2) One recipient.
- 3) A statement of responsibility, where it indicates that the client is responsible for the preparation and presentation of the PDD of the CCMP in accordance with the requirements.
- 4) The lifespan of the CCMP.

- 5) The crediting period of the CCMP or its renewal where applicable (from day.month.year to day.month.year).
- 6) The scope and period of the verification.
- 7) A statement that the verifier is responsible for expressing an opinion on the CCMP based on the verification.
- 8) A description of the verification evidence collection procedures used to evaluate the CCMP.
- 9) The emissions and removals of GHG emissions from the baseline scenario during the verification period.
- 10) The annual GHG removals or reductions of GHG that were calculated in the project scenario during the verification period and, when applicable, the amount allocated to the credit buffer.
- 11) The verification opinion.
- 12) The reference to the criteria and requirements considered during the verification.
- 13) A summary of the verification statement.
- 14) The date of the verification report.
- 15) The date and location of the field visit.
- 16) Name of the verifier or verification team.
- 17) The location and signature of the verifier or verification representative.

Cercarbono has a “**Validation or Verification Report**” form, available on its website: www.cercarbono.com, section: Documentation.

8.11 Verification statement

Document issued by the VVB, which refers to the verification report and contains a unilateral representation that the CCMP has verified compliance with the requirements of the verification process and has issued a positive or modified opinion. In this declaration, the VVB must have verified the annual disaggregation of GHG removals, or reductions of GHG emissions achieved by the CCMP, said disaggregation may have been carried out in a linear way, using the principle of conservatism or through modelling of annual growth rates of the species used, especially for projects in the land use sector.

The verifier shall deposit the documentation for this stage with EcoRegistry, which should include the verification report, the audit or findings report, the verification statement and any other information deemed important.

The verification statement must include the following information:

- 1) Name and logo of the VVB.
- 2) Customer name and identification.
- 3) Name of the CCMP.
- 4) Location or total area of the CCMP, when applicable.

- 5) List of the facility or total area audited.
- 6) Sector in which the CCMP is developed.
- 7) List of the criteria under which the verification was evaluated.
- 8) List of audited documents.
- 9) The level of assurance of the verification.
- 10) The total duration or lifespan of the CCMP (from day.month.year until day.month.year).
- 11) The crediting period of the CCMP or its renewal, where applicable (from day.month.year to day.month.year).
- 12) The total estimated GHG removals, or reductions in the CCMP crediting period.
- 13) The annual disaggregation of net GHG emissions, removals, or reductions of net GHG emissions quantified in the baseline and project scenarios for the audited verification period, including, where applicable, the amounts allocated for the carbon credit reserve. Rounded values can be used.
- 14) List of the destination of carbon credits.
- 15) Signature of the auditor or audit leader.

Cercarbono has a “**Validation or Verification Statement**” form, available on its website: www.cercarbono.com, section: Documentation.

8.12 Verification event timelines

CCMPs can carry out verifications (depending on the type of programme or project, the mitigation results obtained and the developer's preferences) at least every six months and maximum every five years.

If a CCMP has not performed verifications for four years and nine months, or if its crediting period is ending, it will receive an alert from our programme indicating the need for verification.

If for any reason the CCMP considers that it will not carry out said verification within the remaining term, it will have a grace period of one year, if it notifies the Cercarbono programme, up to two months after the five years from the last verification or, if it is the first verification, from the start of the CCMP, on the expected delay with the corresponding justification.

If the notification and justification for the delay is not received and later the CCMP wishes to carry out a verification with a delay between one and two years, it must make a formal notification to our programme, again justifying the delay and providing evidence of the uninterrupted development of the monitoring plan.

CCMPs that have not notified the Cercarbono programme of expected delays in verifications or have not justified such delays, or in any case do not carry out verifications until two years

after the maximum period allowed between verifications, shall carry out a revalidation justifying the absence of verifications. If no verification events were carried out within the accreditation period granted, the accreditation period may not be renewed; in this case, the CCMP may apply as a new programme or project considering the changes that have been generated around the baseline scenario and other important elements implemented by the CCMP, as well as complying with all the requirements set out in the validation and verification processes.

9 Authorized Validation and Verification Bodies

The Validation and Verification Bodies (VVB) authorized by Cercarbono must ensure that they are accredited by an accreditation body that is a signatory member of the International Accreditation Forum (IAF), which has in its offer of services the accreditation programme of GHG Emissions Validation or Verification Body under the requirements of ISO 14065 Standard. VVBs that are accredited under the United Nations Clean Development Mechanism (CDM) as a Designated Operational Entity (DOE) are also allowed.

In national contexts, the VVBs authorized by Cercarbono must be accredited by the corresponding national authority (such as the National Accreditation Body -ONAC- in Colombia).

Cercarbono has the document “**Requirements for the Authorization of Validation and Verification Bodies**” and the form “**Application for Authorization of Accreditation as Validation and Verification Body**”, available on its website: www.cercarbono.com, section: Documentation.

VVBs are required to issue a validation report and a validation statement supporting the baseline scenario and the project scenario, and a verification report and a verification statement indicating that GHG removals, or reductions of GHG emissions achieved by the CCMP were generated in accordance with the selected methodology and the criteria defined in this protocol.

The performance of the VVBs is regularly evaluated in each certification process. The list of VVBs authorized by Cercarbono is available on its website.

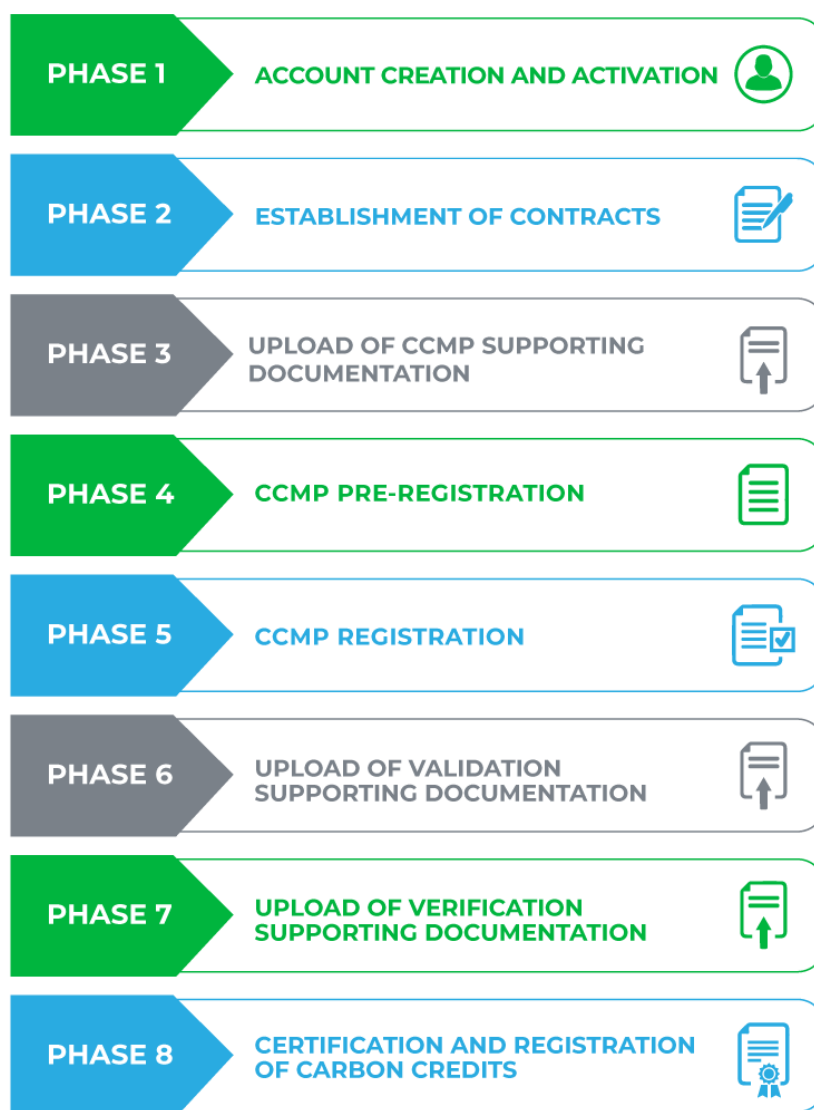
Cercarbono will review any conflict of interest that arises with respect to a VVB. If there is a conflict, it will assign a committee to study the case and, according to the review and analysis of such conflict, the exercise of the VVB will be allowed or not under Cercarbono's voluntary carbon certification programme. For this, Cercarbono has a form of “**Declaration of Conflict of Interest Made by the VVB**”, available on its website: www.cercarbono.com, section: Documentation.

10 Certification process requirements

To support both the registration of the CCMP as well as the emission certification and the registration of Carboncer carbon credits generated, Cercarbono has established the following stages to carry out the voluntary carbon certification process, which integrates the validation and verification processes and details the certification process. This guarantees CCMP compliance in each of the phases of the project cycle stated in [Section 5](#).

As seen in [Figure 2](#), Cercarbono's voluntary carbon certification process consists of eight phases as detailed below.

Figure 2. Phases of Cercarbono's voluntary carbon certification process.



These phases guarantee that CCMP holders, Carboncer buyers/sellers or any other entity that participates in the voluntary carbon market in national and international contexts, will count on the support of a certification process according to the principles established in this protocol (see **Section 2**). Each of the phases is described below.

10.1 Stage 1. Creation and activation of an account

To participate in Cercarbono's voluntary carbon certification programme, it is necessary to open an account. To do this, access the Cercarbono website¹⁴ and in the section: Projects, a link to the EcoRegistry platform¹⁵ allied to Cercarbono, can be found, from where the account can be created.

This platform supports all the information that is part of the pre-registration, formulation, validation, verification, and certification processes for the registration of the CCMP and the issuance, monitoring, transfer, and withdrawal of Carboncer.

The steps to be followed for the creation and use of the account can be found in the “**Registry Platform User's Manual EcoRegistry**”, available on their website: www.ecoregistry.io/.

Currently, there are five types of account on the EcoRegistry platform:

- General account.
- Developer.
- Validation and verification body.
- Certifier.
- Marketer.

These types of accounts are detailed in the mentioned manual. Users of each account must accept the “**Terms and conditions**” implied in its creation, available on the EcoRegistry website when creating an account.

Due to the continuous update and development of the EcoRegistry platform, the types of accounts may increase, decrease, or supply internal changes that are updated in the user manual.

The activation of the account will be effective between two and five business days, after its analysis by EcoRegistry.

¹⁴ www.cercarbono.com

¹⁵ www.ecoregistry.io/

10.2 Stage 2. Establishment of contracts

The CCMP will contact Cercarbono to access the services of its voluntary carbon certification programme, via email: info@cercarbono.com.

In the case of the developer, he must have a representation document or special power of attorney from the CCMP that certifies him as such. Cercarbono has two forms of special power of attorney: “**Power of Attorney with Withdrawals**” and “**Power of Attorney Without Withdrawals**”, that are available on the Cercarbono (section: Certification: Documentation) and EcoRegistry websites.

If the CCMP is a new initiative in the context of the carbon market, the licensee must fill out the form of “**Declaration of CCMP Registration in Cercarbono's Voluntary Carbon Certification Programme**”, available on its website: www.cercarbono.com, section: Documentation. If the CCMP comes from another certification programme, it must consider **Section 10.11**, which details the elements to consider regarding its migration.

Both the holder and the developer of the CCMP can initiate or formalize this stage before or after Stage 1 in which an account is created.

10.2.1 Cercarbono's voluntary carbon certification programme services

Thanks to the alliance that Cercarbono has with EcoRegistry, as well as Cercarbono's technical team, the voluntary carbon certification programme provides the following services, supported on the EcoRegistry platform:

- a) **CCMP information repository:** storage of information from CCMP under formulation that have not started the voluntary carbon certification process.
- b) **CCMP pre-registration:** application for the formal registration of the CCMP on the EcoRegistry platform, in the pre-feasibility or formulation stage.
- c) **CCMP registration:** official and public provision of the CCMPs on the EcoRegistry platform, in the pre-feasibility or formulation stage or after the validation process.
- d) **VVB information repository:** official disposition of the reports, findings or audits and statements generated in the validation and verification processes.
- e) **Certification and registration of carbon credits:** generation of a certificate that supports the issuance of credits for GHG removal or reduction of GHG emissions from a CCMP and the administration of a single serial that EcoRegistry performs for such credits.
- f) **Issuance, monitoring, transfer, and withdrawal of carbon credits:** according to the functionalities of the EcoRegistry platform, the generation of the certificates will be enabled once the payment method chosen by the user is fulfilled, in accordance with the terms, times and conditions of the services.

- g) **Publication of updated information of the CCMP:** consists of the provision of data from the CCMPs on the EcoRegistry platform. A list of CCMPs is presented that relates them, from where their information can be accessed. This supports the emission of carbon credits from the different CCMPs.

EcoRegistry platform is designed to have public information on the CCMPs, so that third parties can access the offer of goods or services from Cercarbono's voluntary carbon certification programme or to exercise the right to be informed. EcoRegistry is not responsible for the accuracy and treatment of the information provided by account users. Therefore, it is important to review the “**Terms and conditions**” established in EcoRegistry when creating an account.

The information that will be publicly exposed can include:

- The complete PDD.
- The validation report.
- The findings or audit of the validator.
- The validation statement.
- The monitoring report.
- The verification report.
- The verifier's findings or audit.
- The verification statement.
- The certification report.
- The certificate of emission of carbon credits.
- The withdrawal certificate.
- The CCMP withdrawal table.

For more details on the information that will be available, review the “**Registry Platform User's Manual EcoRegistry**” in which this information is detailed.

The information subject to the registration and publication services will be permanently consulted, so there will be no obligation for EcoRegistry to eliminate or withdraw it if users do not update. If a developer or operator user wishes to transfer credits to another registry system, he/she shall inform the programme of this intention, withdraw the certified carbon credits available to date and report the withdrawal (see [Section 10.12](#)). EcoRegistry will in no way ensure the portability of the data. This information and other related information are expanded in the “**Terms and conditions**” established by EcoRegistry.

10.2.2 Terms of use of public content

The information available in EcoRegistry, which includes (but is not limited to) documents, texts, data, graphics, presentation, and design, as well as the software, source codes and in general the computer programme that constitutes and supports the services have copyright

protection in accordance with the legislation (of national and international contexts) under which it is governed.

EcoRegistry confers the right of use to view the content of its platform, in accordance with the publication of information that it has, and to make a cache copy for that purpose only. To expand this or other information, consult the “**Terms and conditions**” and the “**Treatment of personal data**” established by EcoRegistry, available on its website when creating an account¹⁶.

10.2.3 Veracity and quality of the data or information provided

The data that is entered in the EcoRegistry platform by the users of the different accounts, in each one of the forms or fields required in the services must be truthful, complete, and up to date. To expand this or other information, consult the “**Terms and conditions**” and the “**Treatment of personal data**” established by EcoRegistry, available on its website when creating an account.

Account users guarantee that the information complies with:

- a) The legal requirements.
- b) The requirements of Cercarbono's voluntary carbon certification programme.

Account users agree to make the necessary corrections or improvements to the information provided that are requested by Cercarbono at any time.

10.3 Stage 3. Upload of CCMP support documents

Once user accounts have been activated, they are responsible for providing documents throughout the certification process.

General or developer account users, once they access the EcoRegistry platform, have the option to create a project and check boxes to complete information related to the CCMP, where: 1) defines the development phase in which the CCMP (formulation, validation or verification) and 2) determines the VVB in charge of the validation and verification of the CCMP, as well as the sector, type of CCMP, evaluation criteria of the validation and verification (that is, the parameter under which was or will be evaluated) and the selected methodology.

The steps that account users (general account, developer or VVB) must follow to upload the information related to the CCMP can be found in the “**Registry Platform User's Manual EcoRegistry**”, available on its website: www.ecoregistry.io/.

¹⁶ Some sections like this are taken from the terms and conditions established by EcoRegistry.

This section also requests information on the location of the CCMP (country, department, and municipality¹⁷) and summary data on net GHG removals or reductions of total GHG emissions expected, the percentage of carbon credits buffer, where applicable, GHG removals or reductions of net GHG emissions, and the destination of the carbon credits obtained by these activities.

While completing the above information, the CCMP and the VVB upload the information according to the verification event to be certified. For this, there are several folders¹⁸ available on the EcoRegistry platform:

- a) **Project Description Document:** where the PDD and related findings are deposited.
- b) **Support documents:** where documents or additional or complementary information of the CCMP are deposited.
- c) **Calculations:** where the information of all the mathematical operations is deposited, including the estimates, calculations or measurements made in the CCMP.
- d) **Report and validation statement:** where the audit report of the validation event(s), the declaration of validation, declaration of conflict of interest of the validator and other supports related to them is deposited.
- e) **Monitoring report:** where the monitoring report is deposited, which supports the results obtained by the CCMP prior to a verification event.
- f) **Verification report and statement:** where the audit report of the verification event(s), the verification statement, declaration of conflict of interest of the verifier and other supports related to them is deposited.
- g) **Mapping:** where all the satellite images or maps of the CCMP are deposited.
- h) **Issuance certificate:** where the certification report and the carbon credit emission certificate are deposited.

In each folder, all the documents necessary for the validation or verification process may be uploaded. It is recommended that all documents be uploaded in PDF format except for cartography and calculation data.

Once the CCMP has uploaded the information, the platform generates a permanent and unique identifying number (ID) for the CCMP.

When a CCMP has completed the validation process by a VVB user, the platform enables a folder to the CCMP in which the CCMP monitoring report is uploaded, which continues in the verification process.

¹⁷ Any other available geographical designation may be requested from EcoRegistry.

¹⁸ The number of these folders may increase or decrease after updating the EcoRegistry platform, but the total information provided by each CCMP will remain intact.

All the information or communications generated after the upload of the information will be sent to the email registered at the time of activating the account of the CCMP.

The CCMP undertakes to supply all the information that is requested only within the platform. EcoRegistry does not take responsibility for the information provided outside the platform, in external links or hyperlinks.

10.3.1 Monitoring the status of the CCMP

The holder or developer of the programme or project can monitor the status of their CCMP in two ways: a) from their personal account in EcoRegistry and b) from the official list of projects that are part of the voluntary carbon certification process available on the sites Cercarbono and EcoRegistry website.

The status of a CCMP can be presented as:

- a) **In pre-registration:** CCMP that are in the pre-feasibility or formulation stage.
- b) **In formulation:** CCMP that are in the pre-feasibility stage or formulation and are formally registered.
- c) **In validation:** the formulation stage has been completed and the validation stage has been initiated.
- d) **Validated:** all documentation supporting CCMP validation has been reviewed and verified to be correct and complete.
- e) **In verification:** the validation stage has been completed and the verification stage has been initiated.
- f) **Verified:** all documentation supporting CCMP verification has been reviewed and verified to be correct and complete.
- g) **Certified:** compliance with all the documents that are part of the validation and verification process has been reviewed and certified.

10.4 Stage 4. Pre-registration of the CCMP

This stage is carried out with the authorization of Cercarbono, making sure that all the documents are complete and duly approved by the user corresponding to their pre-feasibility, formulation, or migration stage from another certification programme with corresponding supports. The CCMP must not be registered with another certification programme.

In this way, the CCMP appears in the public list in “***In pre-registration***” status on the EcoRegistry platform.

10.5 Stage 5. CCMP registration

This stage is carried out automatically in the EcoRegistry platform when all the documents are complete and duly approved by the corresponding user in the stage, and the validation has been completed by an authorized VVB.

At this stage, the CCMP appears on the official and public list “***In formulation***” status on the EcoRegistry platform.

The CCMP must be registered in the national registry established for this type of initiative, complying with the requirements established therein and reporting enough information to prevent double counting and the double use of the resulting credits.

10.6 Stage 6. Upload of validation support documents

When the auditor has finished the validation process, VVB account users will be able to access the platform to complete the information related to the CCMP, upload the validation report, the findings (where applicable) or audit report and the validation statement. The number of tonnes of CO₂e to be removed or reduced established in the PDD is also confirmed, with the possibility to modify them. Then the electronic signature process starts, where the certifier receives a code to his registered email or mobile phone to confirm his authentication. General account users will be notified of the progress of the CCMP.

At this stage it is necessary to update the CCMP information that has been entered in the corresponding national registry. The CCMP continues to appear in the official and public listing “***In validation***” status on the EcoRegistry platform.

The duration of the validation process is established between the VVB and the CCMP; it normally takes one to three months.

At the end of this stage, the status of the CCMP will change to “***Validated***” on the EcoRegistry platform.

10.7 Stage 7. Upload of verification supporting documents

When the auditor has finished the verification process, VVB account users can access the platform to complete the information related to the evaluated CCMP and upload the verification report, the findings report (when applicable) or audit report and the verification statement, confirming the number of tonnes of CO₂e removed or reduced by the CCMP, with the possibility to modify them. Then the electronic signature process starts, where the certifier receives a code to his registered email or mobile phone to confirm his authentication. General account users are notified of the progress of the CCMP.

At this stage it is necessary to update the CCMP information that has been entered in the relevant national registry. The CCMP continues to appear in the official and public listing in the EcoRegistry platform in “***In verification***” status.

The duration of the verification process is established between the VVB and the CCMP.

At the end of this stage, the status of the CCMP will change to “***Verified***” on the EcoRegistry platform.

10.8 Stage 8. Carboncer registration and issuance certification

At this stage, the certifying user shall carry out an exhaustive review of the documentation uploaded to the EcoRegistry platform, with which it will be possible to verify GHG removals, or reductions of GHG emissions from the CCMP and thus emit and register Carboncer certified carbon credits.

In the event of any inconsistency in the documentation, a request will be sent to the CCMP holder, the CCMP developer or the VVB (whichever corresponds) so that they can be corrected and thus be able to proceed with the issuance of Carboncer.

Cercarbono has established the “**Carboncer Issuance and Retirement Procedures and Double-Counting Prevention Policies**”, available on its website: www.cercarbono.com, section: Documentation.

Once this stage is completed, the CCMP continues to appear on the official and public list in “**Certified**” status on the EcoRegistry platform.

10.8.1 Checking of documents for the certification of the emission of carbon credits

At this stage, the certifier-type user will carry out a general check of the information required to continue with the certification process. If additional information is required, it will be requested in the first instance from the VVB or in the absence of a timely response, directly from the CCMP.

This type of user has access to all the information provided by the other users (general account, developer and validation and verification body). However, it focuses on the list of verification documents that is expanded below.

For the certification of the emission of Carboncer carbon credits, the certifying user shall ensure that the following documents are found in the document file of the EcoRegistry platform:

- 1) The legal document that accredits the holder of the CCMP.
- 2) The PDD.
- 3) The report of findings or corrective actions of the validation, if applicable.
- 4) The validation report.
- 5) Other supports of the validation (including the declaration of conflict of interest or other relevant documents).
- 6) The statement of validation.
- 7) The monitoring report.
- 8) The report of findings or corrective actions of the verification, if applicable.
- 9) The verification report.

- 10) Other verification supports (including the declaration of conflict of interest or other relevant documents).
- 11) The verification statement.

If the CCMP submits the list of documents under a joint validation and verification carried out by an authorized VVB, an integrated check of the information and documents shall be carried out, making sure that they are complete.

This stage lasts from one to three business days.

10.8.2 Document review for Carboncer emission certification

To certify the emission of Carboncer, the certifier shall ensure that:

- 1) The legal document that proves the holder of the CCMP has been signed by all interested parties.
- 2) The PDD contains all the relevant sections of the Cercarbono PDD template and complies with existing legal regulations.
- 3) The validation report is signed by the validator of the responsible VVB.
- 4) In the validation corrective actions report (if applicable), the evidence that shows that these were resolved, incorporated, and related in the validation report has been reviewed.
- 5) In the validation statement, it will be checked that it corresponds to the CCMP, its areas and actions and that it is duly signed by the validating entity.
- 6) Other information that is considered important, that supports the validation of the CCMP (includes specific documentation, proof of land tenure, rights or holdership of the property, proof of contracts, conflict of interest, among others), is complete and sufficient.
- 7) The monitoring report is based on an approved methodology, which complies with the established programme or project activities.
- 8) The evidence has been reviewed, showing that the findings and corrective actions found in the verification were resolved, incorporated, and related in the verification report.
- 9) The verification report is signed by the verifier of the responsible VVB.
- 10) The verification statement is duly signed by the verifying body.
- 11) The additional verification documents (verifier compliance documents showing that the verifier agrees with any order, contracts, conflict of interest, among others) are complete and sufficient.
- 12) The number of tons of CO₂e removed or reduced entered on the platform is consistent with reality.

These items should be reviewed at each Carboncer issue event. In addition to verifying that all documents are complete and duly signed, when necessary, that the verification has been

completed by an authorized VVB and that the CCMP has not been issued the same GHG removals, or reductions of GHG emissions under another certification programme.

If the validation and verification phases of the project cycle have been carried out jointly by an authorized VVB, the information and documents shall be reviewed to verify that the CCMP complies with the required requirements.

This stage lasts from three to five business days.

10.8.2.1 Request for additional information for the Carboncer issue

When the certifier has any doubt or disagreement about the information presented or additional documents are required that support a specific point for the Carboncer issue, it sends the CCMP (when applicable) a message requesting the corresponding clarification or additional documentation required to continue the Carboncer issuance process.

If the CCMP (when applicable) does not include the requested information or documentation, the Carboncer cannot be issued and the CCMP will not be able to continue in the certification process. The requested documentation must be uploaded to the EcoRegistry platform.

10.8.3 Carboncer emission report

The certifier shall write a report that supports the review and verification of all the information presented by the CCMP.

This report will support CCMP compliance up to the verification phase and will review the verification period.

The final report shall be sent to the CCMP (when applicable).

This stage lasts from three to five business days.

10.8.4 Carboncer registration and issuance certification

Once the certifying user has reviewed and verified all the information requested for the Carboncer emission process, a certificate of the emission of carbon credits for the removal or reduction of GHG emissions shall be sent to the CCMP, which will also be available in EcoRegistry. Then the electronic signature process begins, where the certifier receives a code to his registered email or to his cell phone to confirm his authentication.

This certificate lists the quantity of Carboncer issued under a unique serial number generated by EcoRegistry, an indefinite validity of the carbon credits issued, a total duration of the CCMP, as well as the VVB that validated and verified it. In the case of CCMPs that require a credit buffer to guarantee the permanence of GHG removals, the credits buffer reached by the CCMP shall be released in accordance with the provisions of the ***“Cercarbono's Tool***

to Estimate Carbon Buffer in Initiatives to Mitigate Climate Change in the Land Use Sector", available on its website: www.cercarbono.com, section: Documentation.

The total amount of carbon credits supported in the verification report and the total amount of carbon credits issued by Cercarbono shall be listed in the CCMP database and in the EcoRegistry platform.

Cercarbono's voluntary carbon certification programme uses the EcoRegistry platform, safely guaranteeing the issuance, monitoring, transfers, and withdrawals of all Carboncer, in accordance with the principle of transparency and avoiding double counting. To register the carbon credits issued, the certifying user shall request EcoRegistry to register the certified Carboncer. Each Carboncer will have a unique serial number assigned by the EcoRegistry platform, which will guarantee control and monitoring of transfers and withdrawals.

As mentioned above, in EcoRegistry the information of the CCMP documents that support its certification of emission and registration of carbon credits will be available to the public, information that will be stored for a minimum period of 10 years from the issuing date. generates the issuance of credits. Confidential information (which includes specific documentation, communications agreements, proof of land tenure, proof of contracts or other evidence, spreadsheet or technical data of the programme or project), shall be entered in the database of the CCMP as restricted access documents (only available for internal audit purposes and processes before government entities, if required) and, therefore, will not be publicly available.

The general or developer account user who has the respective entitlement may use the GHG removal or GHG emission reduction certificate to be retired on behalf of the taxpayer or end-user, who will consume them in to offset the carbon footprint generated by their activities. A GHG removal or GHG emission reduction certificate can only be withdrawn once and is thus deducted from the total number of certificates issued for the initiative. The removal certificate to be issued will contain the following information:

- a) Date of withdrawal of carbon credits.
- b) Name and ID of the CCMP.
- c) Name and ID of the CCMP holder.
- d) Amount of carbon credits withdrawn.
- e) Serials of carbon credits withdrawn.
- f) Company name and Tax ID of the taxpayer and the destination that will have the credits.
- g) Name or company name and tax ID of the end user for the purposes of voluntary compensation.
- h) CCMP crediting period.

This certificate of carbon credits shall be generated in PDF format electronically signed and can be printed without losing its authenticity, as soon as it is verified against the original electronically issued by EcoRegistry, which is accessed at the url provided by EcoRegistry, using the corresponding code of verification.

The process for defining the use of carbon credits is detailed in the “**Carboncer Issuance and Retirement Procedures and Double-Counting Prevention Policies**”, available on the website: www.cercarbono.com, section: Documentation.

10.9 Duration of the certification process

The duration of Cercarbono's voluntary carbon certification process varies according to the progress of the validation and verification processes. If both stages are completed, the process shall have a maximum duration of fifteen working days.

If a CCMP is validated, the time in the registration process depends on the users in charge of the progress of the CCMP at each stage, if EcoRegistry does not request missing or additional information or documentation from the holder, the developer or to the VVB, otherwise, they must incorporate the information or documentation requested, which shall immediately resume the process.

If a CCMP is verified, Carboncer's issuance and registration certification process shall have a maximum duration of ten business days if the certifier does not request information or documentation (missing or additional). If so, there will be a pause in the duration of the process until CCMP incorporates the information or documentation requested, which will immediately resume the excess duration of the process.

10.10 Certification process costs

The costs associated with Cercarbono's voluntary carbon certification process depend on the specific conditions of the CCMP and the requested service. This information can be requested by contacting directly info@cercarbono.com.

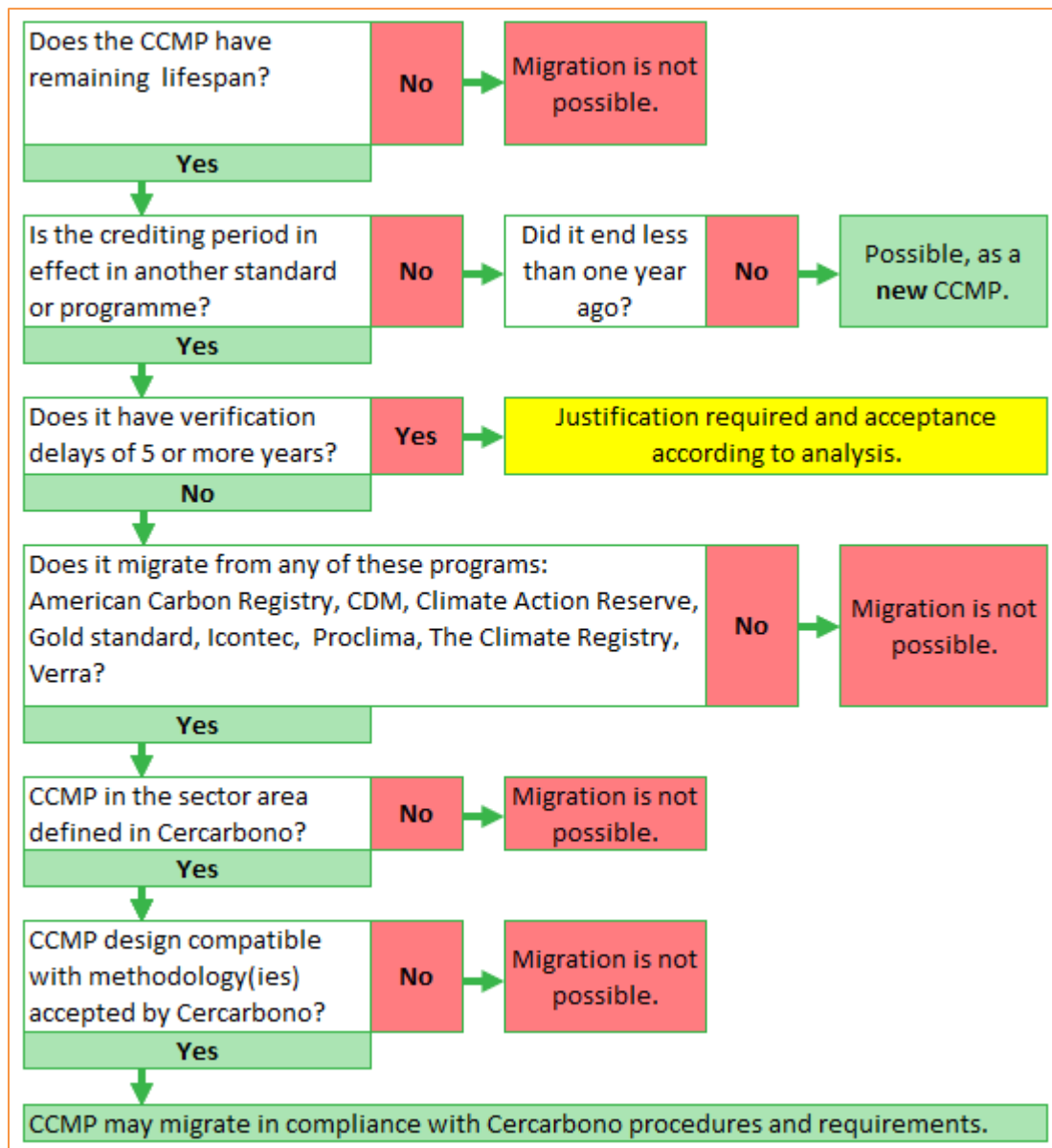
10.11 CCMP migration from other standards or certification programmes

The holder or developer of a CCMP that seeks to generate carbon credits and in turn wishes to certify them under the Cercarbono programme, have two main options to achieve it:

- a) Propose and develop a CCMP from its formulation with Cercarbono.
- b) Migrate an existing CCMP in other standards or certification programmes to Cercarbono's voluntary carbon certification programme (see **Figure 3**).

In the first option, the CCMP must present the “**Declaration of CCMP Registration in Cercarbono's Voluntary Carbon Certification Programme**”, available on its website: www.cercarbono.com, section: Documentation, and follow the steps described from **Section 5** of this protocol. For the second option, the CCMP, in addition to the sections mentioned above, must consider the aspects described below.

Figure 3. Considerations in the migration of CCMP from other standards or certification programmes to Cercarbono.



10.11.1 Prerequisites to the migration process

The requirements that the CCMP must consider changing from the certification programme to the Cercarbono voluntary carbon certification programme are:

- a) That the CCMP must come from any of the following standards or certification programmes¹⁹:
 - American Carbon Registry
 - CDM
 - Climate Action Reserve
 - Gold standard
 - Icontec
 - Proclima
 - The Climate Registry
 - Verified Carbon Standard
- b) That the CCMP programme or project activity that is going to migrate to Cercarbono's voluntary carbon certification programme is included among the sectoral scopes established in **Section 4**.
- c) That the elements or processes under which the CCMP was developed are included in the methodologies allowed for the development of CCMP under Cercarbono's voluntary carbon certification programme.

Any other standard or programme not listed may be eligible for inclusion, upon request to info@cercarbono.com.

10.11.2 Requirements to request migration

Cercarbono's voluntary carbon certification programme allows CCMPs registered in other standards or certification programmes to be migrated to Cercarbono. If these CCMPs have available carbon credits, they may be transferred to EcoRegistry if the following is provided:

- a) Cancellation or withdrawal of the CCMP from the standard or certification programme from which it comes: the CCMP must present evidence about the cancellation or withdrawal of the registration of the standard or certification programme from which it comes. The evidence includes letters of the formal request to withdraw the CCMP from the certification programme and the response generated to said request, the proof of the external transfer of the carbon credits, the URL or link of the programme or project registry where it is evidenced that is currently cancelled and other supports that guarantee the cancellation and withdrawal of the CCMP from said standard or certification programme.

¹⁹ With a prior application, some other unlisted standard or certification programme may be evaluated.

- b) Completed form of “**Declaration of Migration from Other Standards or Certification Programmes to Cercarbono**”, available on its website: www.cercarbono.com, section: Documentation.
- c) General and supported information of the CCMP detailing what is stated in **Table 3** and requesting the external transfer for the conversion of carbon credits (when applicable).

Table 3. Information from the CCMP that will migrate to Cercarbono's voluntary carbon certification programme.

Detail of the CCMP in the standard or certification programme from which it comes	Description
CCMP name	Name of the programme or project as found in the certification standard or programme from which it came.
Short description	Description of the programme or project activity.
Standard or certification programme	Certification standard or programme where credits will be cancelled.
CCMP status	Active and inactive.
Development status of the CCMP	Formulation, validation, verification or is it a certified programme or project.
Period of crediting granted	From day.month.year until day.month.year.
Renewal of the crediting period granted	Describe whether a crediting period renewal has been granted or scheduled to be granted. If granted, from what day.month.year until day.month.year.
Verification events	Number of verification events performed.
Credits to be reissued	Total amount of credits to be transferred and converted to Carboncer.
Programme or project link	Link to the website where the CCMP was registered.

Once the CCMP has these evidence and the information set out in points a), b), and c), the CCMP may request the migration to Cercarbono by email to info@cercarbono.com.

10.11.3 Migration of the CCMP to Cercarbono and conversion of credits to Carboncer

Cercarbono accepts the migration of CCMP from other standards or certification programmes if they present evidence that they would not incur a double accounting practice. For this, the holder must present the withdrawal supports in the standard or original certification programme of the CCMP and fill out the form “**Declaration of Migration from Other Standards or Certification Programmes to Cercarbono**”, available on its website: www.cercarbono.com, section: Documentation. In addition, the migrating CCMP must comply with the regulations and guidelines set forth in this protocol.

Cercarbono will make, as far as possible, a check that the CCMP is no longer registered under other standards or certification programmes. In this sense, its EcoRegistry platform has

been working on the development of interoperability actions with other registries and meta-registries to identify double counting events.

The VVBs in charge of new CCMP validation and verification processes after their migration must be included among the validation and verification bodies authorized by Cercarbono.

At the request of the CCMP holder or developer, Cercarbono's voluntary carbon certification programme can only be transferred externally and converted to Carboncer the carbon credits that have not been traded under the registry of the standard or certification programme from which it comes. The conversion of credits generated in another standard or certification programme shall be studied case by case, since the verification event under which they were generated shall be reviewed in depth (as well as relevant documents that support it), the certification programme from which they come, the VVB in charge of the verification and other pertinent elements of the CCMP. After this study²⁰), the exact number of carbon credits that can be converted by external transfer to Carboncer through EcoRegistry will be determined, indicating in them the year associated with the results of the programme or project activity.

After verifying that all the information is correct and complete and having complied with the CCMP registration process established by the Cercarbono programme, it will oversee registering the converted credits in EcoRegistry. In this case, an additional cost is associated with the CCMP migration process.

10.11.4 Analysis of the crediting period granted by the standard or certification programme from which the CCMP comes

An important aspect to consider of a CCMP that is going to migrate to Cercarbono from another standard or certification programme is the status of the CCMP crediting period, which leads to consider two possible situations:

- a) The CCMP has a valid crediting period:

In this case, Cercarbono recognizes and guarantees compliance with the guidelines and requirements established by the certification programme from which the CCMP comes up to the moment said accreditation period ends.

²⁰ Corresponds to the year in which GHG removal or reduction of GHG emissions is generated, referred to as *Vintage* in EcoRegistry.

- b) The CCMP has a crediting period that has expired more than one year:

The CCMP must request the renewal of the crediting period under Cercarbono's requirements if the lifespan of the CCMP allows it. If the CCMP has exceeded its lifespan, its crediting period cannot be renewed.

10.11.5 Analysis of the verification events of the standard or certification programme from which the CCMP comes

- a) CCMP with delays of verifications:

If the CCMP has a delay of five or more years in its verification events, it must consider the provisions of **Section 8.12** and its entry into the programme shall be subject to analysis. If the CCMP has a delay of less than one year, it may perform the verification under Cercarbono through an authorised VVB, presenting the required documentation at this stage.

- b) CCMP that did not perform verification events:

If the CCMP did not carry out verification events in the accreditation period granted by the standard or certification programme from which it comes, it must carry out a revalidation justifying the absence of verifications or apply the CCMP as a new programme or project considering the changes regarding baseline scenario and other CCMP elements.

10.11.6 Analysis of the renewal of the CCMP crediting period

- a) Renewal of the crediting period in the standard or certification programme from which the CCMP comes:
- In cases where the standard or certification programme has renewed the accreditation period of a CCMP and this has not ended, when it has migrated to Cercarbono's voluntary carbon certification programme, subsequent pending verification events will consider what has been established in **Section 8.12**.
 - In cases where the standard or certification programme has scheduled or planned the renewal of the crediting period of a CCMP and this has not been generated because the CCMP has not completed its initial crediting period, when it has migrated to the programme of Cercarbono's voluntary carbon certification will take into account the provisions of **Section 5.6**.
- b) Renewal of the crediting period in Cercarbono's voluntary carbon certification programme:
- Once the CCMP has migrated to Cercarbono's voluntary carbon certification programme, and demonstrates that its accreditation period granted in the standard or certification programme it comes from has ended and it still has

a lifespan, Cercarbono may renew said period taking into account the established on it in [Section 5.6](#).

- Once the CCMP has migrated to Cercarbono's voluntary carbon certification programme and shows that it has completed its accreditation period granted in the standard or certification programme from which it comes, but it does not have a lifespan, Cercarbono will not be able to renew said period.

10.11.7 Rare cases of CCMP migration

Cercarbono shall carefully study the migration of CCMP that present elements not considered in the entire [Section 10.11](#), which includes, but is not limited to:

- CCMP that migrate and have developed in countries other than Colombia. For this, the adoption of the ***“Cercarbono's Tool to Demonstrate Additionality of Climate Change Mitigation Initiatives”***, available on its website, will be considered: www.cercarbono.com, section: Documentation, the selected methodology and the destination of credits.
- CCMP that may not meet certain requirements of the standard or certification programme from which they are migrating.
- Non-adequacy of the CCMP with respect to the regulatory context related to the expected destination of use of the credits.
- Existence of indications of difficulties or objections related to stakeholders, social conflicts, non-compliance with safeguards, among other characteristics that must be reviewed in line with the provisions of this protocol.

10.12 Cercarbono CCMP migration to other standards or certification programmes

The holder or developer of a CCMP registered under Cercarbono's voluntary carbon certification programme who wishes to migrate it to a programme other than Cercarbono, must present a formal letter requesting the migration of the CCMP. Subsequently, a report on the status of the CCMP and carbon credits will be generated by EcoRegistry, referencing both the credits that have been withdrawn and those available for external transfer, indicating the name of the standard or certification programme of destiny. Cercarbono shall send said report to the CCMP.

Once a CCMP withdraws from Cercarbono and has pending verification events, they can only be certified by another programme (if applicable, and in compliance with its regulations in this regard). The CCMP will not be able to withdraw from Cercarbono if it has initiated this process, due to the risk of incurring double counting. In these cases, contractual penalties may apply.

If the CCMP holder or developer wishes to re-register it in the Cercarbono programme, they must consider the following:

- a) If the CCMP has not registered for another standard or certification programme during Cercarbono's retirement time:
 - If the crediting period has not expired, the pending verification events will consider what is described in **Section 8.12**.
 - If the crediting period has ended, provisions of **Section 5.6** must be considered.
- b) If the CCMP has signed up for another standard or certification programme during Cercarbono's retirement time:
 - If the crediting period has not ended and verification events have been carried out, evidence must be provided, especially regarding the development of the monitoring plan, the issuance of credits (serial, conversion requests or external transfer, if applicable) and others corresponding to said events.
 - If the crediting period has ended, each case shall be analysed to see the viability of renewing or not the crediting period as established in **Section 5.6**.
- c) If the CCMP complies with what is described in points a) or b), it may request again the creation of an account.

10.13 Facts discovered after certification

As part of the continuous review process, Cercarbono's voluntary carbon certification programme tracks certified CCMPs, in which notifications about findings found after their certification can be generated, if necessary, which are transmitted directly to the VVB and in some cases to the holders of programmes or projects to find justifications or request formal changes in the CCMP.

10.14 Change of destination of carbon credits

If a certain programme or project wishes to change the destination of the credits obtained or to be obtained, it must take into account the considerations defined in the “**Carboncer Issuance and Retirement Procedures and Double-Counting Prevention Policies**”, available on the website: www.cercarbono.com, section: Documentation.

11 Validity of the protocol

Cercarbono's protocol is updated when society in general or Cercarbono's clients demand clarification or inclusion of specific technical issues and to meet regulatory requirements at the international level and in different national contexts. Such updating is also done at the request of Cercarbono's board of directors and CEO. Interaction with clients is constant and they are informed in advance (mainly in the framework of meetings) of changes that the certification programme plans to make and subsequently of new developments (electronically).

This version of protocol (3.1) incorporates the relevant changes suggested by the participants in the public consultation of version 3.0 and other modifications that strengthen its understanding and comes into force from the date of its publication.

CCMPs that are already in the validation process, with the support of a contract signed with the VVB, may implement the previous version of this protocol (2.1) for voluntary carbon certification for a maximum of three months from the official publication of this version. For more information, see [Section 14](#).

12 Memberships and affiliations

12.1 International

Cercarbono is a member of the International Emissions Trading Association (IETA).

12.2 Nacional

- **Colombia:**

Cercarbono is affiliated to the Colombian Association of Carbon Market Actors (ASOCARBONO) since 2019 and is part of its board of directors.

13 References

Cercarbono. (2020). *Methodology for the Implementation of REDD+ Projects Consistent with the Reference Levels Submitted by Colombia to the UNFCCC (Version 1.1)*. Available in: www.cercarbono.com

Cercarbono. (2021a). *Carboncer Issuance and Retirement Procedures and Double-Counting Prevention Policies*. Available in: www.cercarbono.com

Cercarbono. (2021b). *Cercarbono's Guidelines for Remote Audits*. Available in: www.cercarbono.com

Cercarbono. (2021c). *Cercarbono's Process for the Approval of Methodologies Within the Framework of the Voluntary Carbon Certification Programme*. Available in: www.cercarbono.com

Cercarbono. (2021d). *Cercarbono's Tool to Demonstrate Additionality of Climate Change Mitigation Initiatives*. Available in: www.cercarbono.com

Cercarbono. (2021e). *Cercarbono's Tool to Estimate Carbon Buffer in Initiatives to Mitigate Climate Change in the Land Use Sector*. Available in: www.cercarbono.com

Cercarbono. (2021f). *Cercarbono's Tool to Report Contributions from Climate Change Mitigation Initiatives to the Sustainable Development Goals*. Available in: www.cercarbono.com

Cercarbono. (2021g). *Declaration of CCMP Registration in Cercarbono's Voluntary Carbon Certification Programme*. Available in: www.cercarbono.com

Cercarbono. (2021h). *Declaration of Migration from Other Standards or Certification Programmes to Cercarbono*. Available in: www.cercarbono.com

Cercarbono. (2021i). *Form: Application for Authorization of Accreditation as Validation and Verification Body*. Available in: www.cercarbono.com

Cercarbono. (2021j). *Form: Declaration of Conflict of Interest Made by the VVB*. Available in: www.cercarbono.com

Cercarbono. (2021k). *Form: Power of Attorney with Withdrawals*. Available in: www.cercarbono.com

Cercarbono. (2021l). *Form: Power of Attorney Without Withdrawals*. Available in: www.cercarbono.com

Cercarbono. (2021m). *Form: Validation or Verification Report*. Available in: www.cercarbono.com

Cercarbono. (2021n). *Form: Validation or Verification Statement*. Available in: www.cercarbono.com

Cercarbono. (2021o). *Requirements for the Authorization of Validation and Verification Bodies*. Available in: www.cercarbono.com

Cercarbono. (2021p). *Template: Monitoring Report*. Available in: www.cercarbono.com

Cercarbono. (2021q). *Template: Project Description Document*. Available in: www.cercarbono.com

Cercarbono. (2021r). *Terms and Definitions of the Voluntary Certification Programme of Cercarbono*. Available in: www.cercarbono.com

EcoRegistry. (2021). *EcoRegistry Registry Platform User's Manual*. Available in: [EcoRegistry User Guide V1 \(En\).pdf \(ecoregistry-documents-public.s3.amazonaws.com\)](https://ecoregistry-documents-public.s3.amazonaws.com/EcoRegistry_User_Guide_V1_(En).pdf)

ISO 14065:2013. *Greenhouse gases - Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition*.

ISO 14064-1:2018. *Greenhouse gases - Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals*.

ISO 14064-2:2019. *Greenhouse gases - Part 2: Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements*.

ISO 14064-3:2019. *Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements*.

ISO/IEC Guide 98-3:2008. *Uncertainty of measurement - Part 3: Guide to the expression of uncertainty in measurement (GUM: 1995)*.

14 Document history

Logbook		
Version	Date	Comments or changes
1.0	09.23.2019	Initial version of the protocol in public consultation from 09.23.2019 to 10.07.2019.
1.1	10.30.2019	Version with adjustments and changes generated after public consultation.
2.0	03.10.2020	Version for public consultation in which it integrates new definitions and activities of programmes or projects from the energy, industry, transportation, fugitive emissions and forestry sectors. Version 2.0. Public consultation carried out from 10.03.2020 to 30.03.2020.
2.1	04.13.2020	Version with adjustments and changes generated after the second public consultation.
3.0	08.03.2021	Version for public consultation carried out from 08.03.2021 to 09.03.2021.
3.1	02.11.2021	Version with adjustments and changes generated after the public consultation.

