

BCR STANDARD

From differentiated responsibility to common
responsibility

BIOCARBON REGISTRY®

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NOTE: This document is a faithful translation of the “ESTÁNDAR BCR. De la responsabilidad diferenciada, a la responsabilidad común”. Versión 3.1. 25 de julio de 2023. If there is an unintended difference in interpretation between the English and Spanish versions, the Spanish version shall prevail.

Table of contents

1	Introduction	7
1.1	Background.....	7
1.2	Objectives	8
2	Version.....	8
3	General Terms.....	9
4	Language	9
5	Scope.....	9
6	Area of Application.....	11
7	Principles.....	11
7.1	Pertinence	12
7.2	Total coverage	12
7.3	Coherence	12
7.4	Accuracy.....	12
7.5	Transparency	12
7.6	Conservative attitude.....	12
8	Normative References	12
9	Methodological Documents.....	13
10	General Requirements.....	13
10.1	Project Types	13
10.1.1	GHG Removal Activities	14
10.1.2	REDD+ activities.....	14
10.1.3	Activities in the Energy Sector	14
10.1.4	Activities in the transport sector.....	15
10.1.5	Activities on waste handling and disposal.....	15
10.2	Project Location	16
10.3	Project Scale.....	16
10.4	Start Date	16
10.5	Quantification Periods.....	17
10.6	Additionality.....	17

10.7	Compliance with Applicable Legislation.....	18
10.8	Climate change adaptation.....	18
11	Quantification and monitoring of GHG emission reductions and removals.....	20
11.1	Conservative approach and uncertainty management	20
11.2	Baseline or reference scenario.....	21
11.3	Leakage and non-permanence	22
11.4	Mitigation results	22
12	Carbon ownership and rights	22
12.1	Land Ownership.....	24
13	Risk Management	24
13.1	Reversal Risk Management	25
14	Environmental Aspects	26
15	Socioeconomic Aspects	26
16	Stakeholders' Consultation	27
16.1	Public Consultation.....	27
17	Sustainable Development Goals	28
18	REDD+ Safeguards.....	29
19	Special categories, related to co-benefits.....	31
19.1	Special categories components	31
19.1.1	Biodiversity conservation.....	31
19.1.2	Community Benefits.....	32
19.1.3	Gender Equity	33
19.2	Categories and additional benefits	33
19.2.1	Category 1. Orchid	33
19.2.2	Category 2. Wax Palm	34
19.2.3	Category 3. Andean Condor.....	35
20	Grouped Projects	36
20.1.1	Activities in the AFOLU Sector	37
20.1.2	Activities in the energy, transportation, and waste sectors	37
21	Monitoring Plan.....	38
22	Validation and verification.....	40

22.1	Validation	41
22.2	Verification	42
22.3	Other considerations for validation and verification	43
22.4	Validation or verification statement.....	43
23	Conformity Assessment Bodies (“CAB”)	44
24	Certification and Registration of Verified Carbon Credits (VCC)	46
25	Other GHG Programs	46
26	Double Counting	47
27	Registry Platform	48
28	Public Information.....	49
ANNEX A. GLOSSARY OF TERMS		50

Index of figures

Figure 1. Requirements of the Orchid category	34
Figure 2. Requirements of the Wax Palm category	35
Figure 3. Requirements of the Andean Condor	36

Acronyms and abbreviations

AFOLU	Agriculture, Forestry, and Other Land Use
BCR	BioCarbon Registry
CAB	Conformity Assessment Bodies
CDM	Clean Development Mechanism
CH ₄	Methane
CO ₂	Carbon dioxide
CO _{2e}	Equivalent carbon dioxide
FAO	Food and Agriculture Organization of the United Nations
GHG	Greenhouse gases
HCV	High Conservation Value
IAF	International Accreditation Forum
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
IUCN	International Union for Conservation of Nature
LMT	Landscape management tools
N ₂ O	Nitrous oxide
NCRE	Non-Conventional and Renewable Energy Sources
REDD+	Reduction Emissions from Deforestation, Degradation and forest conservation, sustainable management, or improvement of carbon stocks in forests
SDGs	Sustainable Development Goals
UNFCCC	United Nations Framework Convention on Climate Change
VCC	Verified Carbon Credits

1 Introduction

1.1 Background

According to the 2018 Report of the Global Commission on the Economy and Climate¹, "the impacts of rapid and unequivocal global warming are clear." Therefore, said commission considers that the current challenge is to accelerate the transition to a better, more inclusive, and newer climate economy, particularly through five key systems: energy, cities, land use and food, water, and industry. In this way, the path to low-carbon growth will create new opportunities for sustainable and equitable development.

The IPCC Special Report (2018)² is a report that focuses on ethical considerations and, in particular, the principle of equity throughout the transition to a low carbon economy. In the same vein, this report acknowledges that the majority of global warming impacts and required mitigation actions needed to limit warming to 1.5°C fall disproportionately on the poorest and most vulnerable communities.

The IPCC also suggests that limiting warming to 1.5°C is not impossible but will require a series of unprecedented transitions in all areas of society, indicating that the following years are crucial. Consequently, the IPCC considers that ambitious, near-term mitigation actions are indispensable to achieve sustainable development and poverty eradication while limiting warming to 1.5°C.

On the other hand, the 2019 Emissions Gap Report³ stated that *"to achieve the goal of keeping global warming to 2°C, between 2020 and 2030 global emissions would need to be reduced by about 3% each year, and to achieve the Paris Agreement goal of keeping global warming to 1.5°C, average annual reductions of more than 7% would need to be achieved."* In order to achieve this goal, societies will need to come together and strive for the common good and increase the deployment of renewable energy and nature-based solutions. Although the transition to this new *"low carbon growth"* economy may have begun, it is clear that the pace of progress has not yet been fast enough. Therefore, it is believed that by setting goals for both adaptation and mitigation we can effectively address climate change. This will involve developing strategies that connect adaptation and mitigation

¹ <http://newclimateeconomy.report/>

² Allen, M.R., O.P. Dube, W. Solecki, F. Aragón-Durand, W. Cramer, S. Humphreys, M. Kainuma, J. Kala, N. Mahowald, Y. Mulugetta, R. Perez, M. Wairiu, and K. Zickfeld, 2018: Framing and Context. In: Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

with social objectives and the overall equitable development of communities at the local, regional and national levels.

In this way public and private organizations, companies, and citizens are increasingly turning to voluntary carbon markets and by doing so they are taking responsibility for their contribution to climate change and commit to offsetting their greenhouse gas emissions (“GHG emissions”) through GHG Projects. In view of all the mentioned above, GHG Projects, registered with BIOCARBON REGISTRY STANDARD, are based on activities with an impact on climate economy and have the potential to reduce GHG emissions through enhanced global adaptation and resilience measures.

1.2 Objectives

The objectives of this Standard (from now on referred to as “BCR STANDARD”) are:

- (a) establish the principles and requirements applicable to the GHG Projects, to obtain the certification and registry on BIOCARBON REGISTRY;
- (b) provide the necessary conditions to ensure quality in the quantification and management of the GHG emission reduction and removals;
- (c) afford the requirements related to the baseline and additionality, uncertainty management, as well as the management of risks, leakages, and non-permanence;
- (d) guide Conformity Assessment Bodies (CAB), related to the validation and verification processes of GHG Projects;
- (e) support projects conformity within the rules and application procedures for the certification and registry of the GHG Projects;
- (f) ensure the overall efficiency and integrity of the BCR STANDARD.

2 Version

This document constitutes Version 3.1. July 25, 2023.

This version of the document may be adjusted periodically. Intended users should ensure that they are using the updated version.

Holders of GHG projects have a three-month transition period for using the updated version, starting from its publication.

This also applies to the documents cited in this and the other documents on the BCR Program.

3 General Terms

The following general terms apply for this Standard:

- (a) "Shall" is used to indicate that the requirement shall be met;
- (b) "Should" is used to suggest that, among several possibilities, a course of action recommended as particularly appropriate;
- (c) "May" is used to indicate that it is permitted.

4 Language

The operating languages of the Program are English and Spanish. The project document, the monitoring report and the validation and verification reports, as well as all other documentation required under the BIOCARBON REGISTRY Program shall be in Spanish or English.

Nevertheless, it is considered important that the documentation contained in the public registry be submitted in English.

5 Scope

This document is a standard for the certification and registration of GHG Projects, as well as the issuance of Verified Carbon Credits (hereinafter VCC). The BCR STANDARD is a GHG Program, which also includes guidance for the registration of GHG Projects that demonstrate compliance with the requirements established in the national legal frameworks, as well as compliance with the rules and procedures established by BIOCARBON REGISTRY.

The certification and registration of GHG Projects are possible within this program's framework if such projects have been previously validated and verified by accredited Conformity Assessment Bodies ("CAB"), accredited in accordance with the provisions of section 22 of this document.

This document provides the set of principles and requirements necessary for the certification and registry of GHG Projects, and the issuance of Verified Carbon Credits in BIOCARBON REGISTRY, ensuring that they comply with the conditions established in this Standard.

The scope of this Standard is limited to:

- (a) the following greenhouse gases covered by the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O);
- (b) GHG emissions reductions or carbon sequestration or removals that exceed any GHG reduction or removals required by law, regulation, or legally binding mandate;
- (c) GHG projects using a methodology developed or accepted by BIOCARBON REGISTRY, applicable to GHG removal activities and REDD+ activities;
- (d) quantifiable GHG emission reductions and removals generated by the implementation of GHG removal activities or REDD+ activities;
- (e) GHG projects using a methodology developed or accepted by BIOCARBON REGISTRY, applicable to activities in the energy, transportation, and waste handling and disposal sectors;
- (f) quantifiable GHG emission reductions and removals generated by the implementation activities in the energy, transportation, and waste handling and disposal sectors.

This document presents the requirements for the certification and registration of projects aimed at reducing GHG emissions and/or removals. The BCR STANDARD includes other documents³ that constitute the methodologies for the quantification of GHG emission reductions and removals, defined by sector and/or type of project (See section 8).

The BCR STANDARD establishes the necessary procedures to meet the requirements for quality, integrity, and transparency in the development of methodologies. Those elements are described in the BCR Guidance “Methodologies Development and Approval”⁴.

The guidance provides the elements and procedures for developing or evaluating methodologies, including procedures for reviewing and approving methodological documents and tools that ensure the conditions set by BioCarbon Registry, take into account best practices, and ensure the scientific and technical basis needed for climate action and carbon markets.

³ Methodological documents or guidance

⁴ <https://biocarbonregistry.com/tools/methodologies-development-and-approval.pdf>

Methodology development and approval includes a review process to assess the consistency of the methodology developments with the BCR STANDARD and eligible activities of the GHG Program.

The use of the BCR Standard and the application of methodologies that are structured and developed under the BCR Standard is permitted exclusively for projects that are certified and registered with BIOCARBON REGISTRY. Consequently, the use of the BCR STANDARD or methodologies for the registration of projects in another registry system is prohibited.

6 Area of Application

The BCR STANDARD intends to serve:

- (a) any natural or legal person, public or private that seeks to register its GHG Project within BIOCARBON REGISTRY;
- (b) any natural or legal person, public or private that seeks to register their GHG Project to demonstrate its mitigation results in the context of compliance national climate change targets, established under the UNFCCC, as a result of the implementation of such actions;
- (c) GHG project holders;
- (d) independent entities that perform validation and verification processes of GHG Projects, meaning, Conformity Assessment Bodies (“CAB”);
- (e) the persons in charge of carrying audits of validation and verification;
- (f) actors involved in the trading and transaction of GHG emission reductions and removals;
- (g) entities involved in climate change information management.

7 Principles

Holders of GHG projects and, in general, all those involved in the design, development, validation, verification, and certification of GHG Projects should apply the following principles⁵:

⁵ As set out in the ISO 14064-2 Standard

7.1 Pertinence

To select sources, sinks, GHG reservoirs, data, and methodologies appropriate to the intended user.

7.2 Total coverage

Include all relevant GHG emissions and removals. Include all relevant information to support the criteria and procedures.

7.3 Coherence

Allow for meaningful comparisons in GHG-related information.

7.4 Accuracy

Reduce bias and uncertainty as much as possible.

7.5 Transparency

Disseminate sufficient and appropriate GHG-related information to enable future users to make decisions with reasonable confidence.

7.6 Conservative attitude

Use conservative assumptions, values, and procedures to avoid overestimating the emission reductions or the increase of GHG removals.

8 Normative References

The following references are indispensable for the implementation of this Standard:

- (a) BCR Methodological Documents and BIOCARBON REGISTRY Guidelines and Tools, as applicable to GHG Projects;
- (b) Clean Development Mechanism (“CDM”) rules, procedures, methodologies, and methodological tools, where applicable;
- (c) National legislation applicable to GHG Projects;
- (d) ISO 14064-2:2019(es). Greenhouse gases - Specification with guidance, at the project level, for quantifying, monitoring, and reporting the reduction of emissions or the enhancement of removals of greenhouse gases, or that which updates it;

- (e) ISO 14064-3:2019(es). Greenhouse gases - Part 3: Specification with guidance for validation and verification of greenhouse gas declarations, or its amendment;
- (f) ISO 14065:2013(es). Greenhouse gases - Requirements for bodies undertaking validation and verification of greenhouse gases for use in accreditation or other forms of recognition, or that which updates it;
- (g) This Program Glossary of terms.

9 Methodological Documents

The BCR Standard includes methodological documents for quantifying GHG emission reductions or removals, at the project level.

The methodological documents contain the applicability criteria and detailed steps for quantifying and monitoring results against design and implementation of GHG Projects, by a given project type.

Although the methodological documents contain specific guidance for each type of GHG Project, each GHG Project shall also adhere to the general principles and requirements outlined in this Standard.

All methodological documents developed by BIOCARBON REGISTRY and approved by the BIOCARBON REGISTRY Technical Committee are available on www.biocarbonregistry.com.

Project holders in the energy and waste sector, shall use methodologies approved by the Executive Board of the Clean Development Mechanism (CDM – UNFCCC)⁶.

10 General Requirements

To certify GHG Projects with BCR STANDARD, GHG Project Holders shall comply with the requirements outlined below.

10.1 Project Types

As noted in section 3 (Scope), this document provides the Standard for certification of GHG Projects.

⁶ The CDM methodologies are available in <https://cdm.unfccc.int/methodologies/index.html> and the CDM Methodological tools in <https://cdm.unfccc.int/Reference/tools/index.html>

The GHG Projects include activities in the AFOLU, Energy, Transportation, Waste, and AFOLU sectors that result in the removal or reduction of GHG emissions against an established baseline.

Projects in the AFOLU sector may include GHG removal activities and REDD+ projects. The energy sector activities comprise of energy generation from Non-Conventional and Renewable Energy Sources (NCRE). Activities in the transportation sector include emission reduction activities related to fuel switching or other means of reducing GHGs. Finally, waste sector activities include the handling and final disposal of solid, liquid, industrial, household, or mixed waste.

10.1.1 GHG Removal Activities

In the AFOLU sector, GHG Removal Activities are classified as GHG mitigation activities and include agricultural and forestry activities.

These may include silvopastoral systems (grasses and planted trees), agroforestry systems (agroforestry crops), commercial plantations (forest plantations), and other landscape management tools, as well as crops, as long as they grow in areas that are not natural forests or vegetation cover other than forest⁷.

NOTE: The land at the geographic boundaries of the project does not correspond to the forest category (according to the national forest definitions for the Clean Development Mechanism) or to a natural vegetation cover other than forest either at the starting date of the project activities or five years before the project start date.

10.1.2 REDD+ activities

REDD+ activities are GHG Projects aimed at reducing emissions due to deforestation and forest degradation, as well as promoting conservation, sustainable forest management and increasing forest carbon stocks.

10.1.3 Activities in the Energy Sector

(a) Non-Conventional and Renewable Energy Sources ("NCRE")

This type of GHG Project is an alternative to the mining energy sector, and describes the generation of energy by non-conventional sources of renewable energy. NCRE refers to energy generated by solar, wind, biomass, and hydraulic power, defined below:

⁷ The names in parentheses correspond to the definitions contained in CORINE Land Cover. See Glossary of Terms.

Solar Energy: Energy obtained from that non-conventional source of renewable energy that consists of electromagnetic radiation from the sun.

Wind Energy: Energy obtained from that non-conventional source of renewable energy that consists of the movement of air masses.

Biomass Energy: Energy obtained from the unconventional source of renewable energy based on the spontaneous or induced degradation of any organic matter that has had its immediate origin as a result of a biological process. It also refers to plant photosynthesis products and products from heterotrophic organisms, provided that those products are not in contact with traces of elements that confer some degree of danger on them.

Hydraulic Power: Energy from small hydroelectric developments. Energy obtained from that non-conventional source of renewable energy is based on water bodies on a small-scale. This includes only small hydroelectric plants (PCH), i.e., with an installed capacity between 500 and 20,000 kW, run-of-river operation.

(b) Energy Efficiency

Energy efficiency refers to the ratio between the energy consumed and the total energy used in any process along the energy chain. This concept is an essential component of sustainable development which also involves adhering to current regulations on the environment and renewable natural resources.

This category includes projects related to the adoption of new technologies (of use, measurement, and analysis), good operational practices, and habits to optimize the use of energy resources and when applicable to reduce GHG emissions associated with the use of energy resources.

10.1.4 Activities in the transport sector

The program considers GHG Projects that include emission reduction activities related to fuel switching or other means of reducing GHGs.

10.1.5 Activities on waste handling and disposal

The treatment and final disposal of solid or liquid, industrial, household, or mixed waste generates GHG emissions. The BIOCARBON REGISTRY offers registration for projects that are involved in waste handling and disposal and aim to reduce GHG emission through utilizing waste or eliminating GHG emissions.

To classify their projects, Project holders shall apply the methodologies outlined in sector 13 of the Clean Development Mechanism (CDM): Waste handling and disposal.

Some project proponents may also classify as renewable energy or energy efficiency. However, for this Standard's purposes, any projects that are not covered by the latest

version of the guidance for the certification and registration of Non-Conventional and Renewable Energy Sources (NCRE) shall classify as Waste Sector projects.

Waste handling and disposal projects can include the following activities:

- (a) Burning, oxidation, or use of gas in a landfill;
- (b) Recovery and recycling of materials coming from waste;
- (c) Use of gases, including syngas as a renewable energy source;
- (d) Use or replacement of technology to eliminate or reduce the generation of GHG in solid waste treatment systems;
- (e) Use or replacement of technology to eliminate or reduce the generation of GHG in wastewater treatment;
- (f) Burn or use of gas in systems of wastewater treatment.

10.2 Project Location

GHG Projects seeking certification and registration with the BCR STANDARD may be located in any country.

10.3 Project Scale

GHG Projects, classified as GHG removal activities, and REDD+ Projects, are not subdivided into project scale categories.

The GHG Projects in sectors other than AFOLU are subdivided in large-scale and small-scale, following the definitions of the Clean Development Mechanism⁸.

10.4 Start Date

The start date for GHG Projects is when the activities that result in actual reductions/removals of GHG emissions begin. That is when the implementation, construction, or real action of a GHG Project begins.

For GHG removal forestry activities, oil palm cultivation and other crops, this starting date corresponds to the time on which site preparation, the establishment of crop,

⁸ Information available in https://cdm.unfccc.int/methodologies/documentation/meth_booklet.pdf

commencement of restoration activities, or other actions related to project activities begin.

For REDD+ projects, the start date is when the project activities reduce emissions from deforestation and forest degradation. For instance, those may be forest management strategies' start and, when applicable, forest resource conservation plans, including agreements or contracts. In other words, concrete actions to reduce deforestation/degradation.

Project owners can only certify and register, with the BCR STANDARD, projects whose start date is defined within the five (5)⁹ years prior to the start of validation¹⁰.

10.5 Quantification Periods

The quantification periods of GHG emission reductions or removals are as follows:

- (a) for GHG removal projects, a minimum of 20 years and a maximum of 30 years;
- (b) for REDD+ projects, a minimum of 20 years and a maximum of 40 years;
- (c) for projects in the energy, transport, and waste sectors, the same rules on quantification periods (crediting period), as defined by the Clean Development Mechanism, shall apply. A maximum of seven years, renewable at most twice, or a maximum of ten years with no renewal option.

10.6 Additionality

In order to demonstrate that project activities generate Verified Carbon Credits (VCC) that represent additional emissions reductions, avoidances, or removals, the project holder shall follow the guidance provided in BCR's "Baseline and Additionality Guidance"¹¹. This guidance informs that for AFOLU projects, the additionality and baseline provisions are described in the AFOLU methodological document.

Instead, energy, transport, and waste project holders shall use the Clean Development Mechanism Tool for Demonstrating and Assessing Additionality (am-tool-01-v7.0.o.o.pdf)¹², or the tool that modifies or updates it. Available at: <https://cdm.unfccc.int/methodologies/index.html>.

⁹ This applies for the registered projects in BCR, for projects migrating from other standards, the rules of the standard in which they originate apply.

¹⁰ Validation begins once a commercial agreement has been signed with the CAB.

¹¹ <https://biocarbonregistry.com/en/baseline-and-additionality-tool/>

¹² Available in <https://cdm.unfccc.int/methodologies/PAMethodologies/tools/am-tool-01-v7.0.o.o.pdf>

The BCR Baseline and Additionality Guidelines is a mandatory guidance covering the requirements established to ensure a realistic and conservative estimate of baseline emissions; it also provides requirements to ensure that activities are additional in all eligible sectors.

On the other hand, GHG Project Holders shall demonstrate that emission reductions (or removals) do not correspond to emission reductions attributable to the implementation of legally required actions.

10.7 Compliance with Applicable Legislation

The GHG Project Holder shall demonstrate compliance with legislation related to the activities carried out by the GHG mitigation activities.

In this sense, the project holder shall have a documented procedure, the Documentary Management System. This procedure identifies relevant legislation and regulations access them on an ongoing basis, demonstrating that it has a process for periodically reviewing compliance.

Accordingly, the project holder shall maintain an updated list of all legislative requirements that apply to its GHG Project activities.

Besides, in compliance with these documented procedures, the GHG Project Holder shall¹³:

- (a) determine and have access to legal and other requirements related to its activities;
- (b) determine how these legal and other requirements applicable to the GHG Project;
- (c) take these legal and other requirements into account when establishing, implementing, maintaining, and continuously improving its document management system.

10.8 Climate change adaptation

The Intergovernmental Panel on Climate Change ("IPCC") defines adaptation to climate change as "*the adjustment in natural or human systems in response to actual or expected climatic inducements or their impacts that reduces the harm caused and enhances beneficial opportunities*".

¹³ Adapted from ISO 14001. Environmental management systems. Requirements with orientation for their application.

Considering this definition and based on the importance of linking mitigation with adaptation, jointly with efforts to reduce GHG emissions, GHG Project Holders shall demonstrate actions to reduce or mitigate current and future impacts derived from climate change and climate variability.

In this sense, in addition to having robust and clear criteria to demonstrate their contribution to climate change mitigation, project holders shall carry out actions related to climate change adaptation, demonstrating that these are derived from the GHG Project activities and so the project holder shall demonstrate that they:

- (a) consider one or more of the strategic lines proposed in the National Climate Change Policies and/or focuses aspects outlined in the regulations of the country where the project is implemented;
- (b) improve conditions for the conservation of biodiversity and its ecosystem services, in the areas of influence, outside the project boundaries; i.e., natural cover on environmentally key areas, biological corridors, water management in watersheds, among others;
- (c) implement activities that generate sustainable and low-carbon productive landscapes;
- (d) propose restoration processes in areas of specific environmental importance;
- (e) design and implement adaptation strategies based on an ecosystem approach;
- (f) strengthen the local capacities of institutions and/or communities to take informed decisions to anticipate negative effects derived from climate change (recognition of conditions of vulnerability); as well as to take advantage of opportunities derived from expected or evidenced changes.

For activities in the AFOLU sector, the project holder shall develop either actions or measures to adapt to climate change, such as:

- (a) agricultural, forestry, and fisheries production systems better adapted to high temperatures, droughts, or floods, to improve competitiveness, income, and food security, especially in vulnerable areas;
- (b) integrated actions that assist in the efficient use of soil, including, i.e., the conservation of existing natural cover, land use consistent with land vocation and agroecological conditions, family farming, and agricultural technology transfer that increases competitiveness by reducing vulnerability to climate change;

- (c) reduction of GHG emissions from agricultural activities, compared to the non-project scenario (i. e., replacement of pastures for livestock feed and use of planting methods that reduce emissions from crop management);
- (d) actions causally related to climate change adaptation measures, such as use and management of seeds resistant to temperature change, water management through rainwater harvesting, recycling, drainage, and irrigation, reforestation of watersheds to prevent erosion, soil management with practices that reduce compaction, and techniques to reduce fertilizer use.

11 Quantification and monitoring of GHG emission reductions and removals

11.1 Conservative approach and uncertainty management

GHG Project Holders should establish and apply mechanisms for managing uncertainty in the baseline quantification and mitigation results.

According to the International Organization for Standardization (ISO), "*uncertainty is the parameter associated with the result of quantification, which characterizes the dispersion of values that could reasonably be attributed to the quantified quantity. Uncertainty information generally specifies quantitative estimates of the likely dispersion of values and a qualitative description of the likely causes of the dispersion*"¹⁴.

As best practice, the project holders should use national or local values and data where available. Given this, GHG Project Holders may use the IPCC default values if and only if local or national data (for the type of Project and parameter required) are not available¹⁵. When using default values, to follow the conservative principle, traditional values of settings should be used¹⁶, for example, by the use of the lower limit of the range of data as long as it corresponds to the most conservative assumption¹⁷.

¹⁴ ISO 14064-2:2019(en)

¹⁵ GUIDANCE ON IPCC DEFAULT VALUES (Extract of the report of the twenty-fifth meeting of the Executive Board, paragraph 59) "The Board agreed that the IPCC default values should be used only when country or project specific data are not available or difficult to obtain". https://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guidi6_v01.pdf

¹⁶ The conservative principle for a parameter refers to the value that, when used in calculations, is more likely to result in underestimation rather than overestimation of GHG emission reductions or removals (ISO 14064-2:2019).

¹⁷ The conservative principle shall be ensured by the appropriate choice of parameters affecting the project's GHG emissions, removals, sinks and reservoirs.

Finally, if the Project makes references to external documents susceptible to updates, such as the IPCC Guidelines for National GHG Inventories, the project holders shall use the most recent version of those documents.

To manage uncertainty in projects in the AFOLU sector, BIOCARBON REGISTRY determines criteria and guidelines to comply with the uncertainty management associated with models to estimate emission reductions / removals in GHG Projects¹⁸.

If the data and parameters applied to estimate the reduction or removal of GHG emissions shall be consistent with the emission factors, activity data, projection of GHG emissions, and the other parameters used to construct the inventory national of GHG and the national reference scenario. If this is the case, then it is unnecessary to apply the percentages defined for the discount factor provided in the guidelines for managing uncertainty.

11.2 Baseline or reference scenario

In order to comply with the methodology for GHG emission reductions or removal activities, GHG Project Holders shall establish a baseline or reference scenario that represents the GHG emissions that would occur in the absence of a GHG Project.

The definition of this scenario should follow the guidelines outlined in the BIOCARBON REGISTRY methodological documents and other applicable methodologies, using the most up-to-date versions available, and:

- (a) transparently regarding assumptions, methods, parameters, data sources, and factors;
- (b) considering uncertainty and using prudential assumptions;
- (c) specifically, for each GHG Project activity;
- (d) considering relevant national as also when applicable to sectoral policies and circumstances;
- (e) maintaining consistency with the emission factors, activity data, projection variables of GHG emissions, and the other parameters used for the construction of the reference scenario;
- (f) implementing procedures to ensure data quality under ISO 14064-2 and the requirements of the selected methodology;

¹⁸ Contained in the methodological documents, developed by sector or Project type.

- (g) in such a way that no GHG reductions or removals can obtain, due to decreases in an activity outside the project business;
- (h) covering emissions and removals of all gases, defined in the applied methodologies, included in the project boundary under consideration.

11.3 Leakage and non-permanence

GHG Projects should use mechanisms for managing the risk of leakage, taking account the established in the methodological documents of BCR STANDARD.

Likewise, the GHG Project Holder shall ensure the permanence of the project activities to quantify the GHG reductions or removals, following the conditions set forth by the BCR Program.

The project holders shall demonstrate that take actions to ensure the project benefits are maintained over time. For this, the GHG Project Holder shall apply the BCR Tool “Permanence and Risk Management”¹⁹.

The monitoring of project activities, through verifications, shall evaluate the permanence of project activities.

Additionally, the BCR Standard considers the validity of the VCC as follows:

- (a) VCC issued for projects in the energy, transport and waste sectors expire 3 years after the end of the quantification period of the GHG Project.
- (b) VCC issued for a project in the AFOLU sector expire 5 years after the end of the quantification period of the GHG Project.

11.4 Mitigation results

The GHG Project proponents shall ensure that GHG mitigation results, obtained because of their implementation, are verifiable within the framework of ISO 14064-3:2019 or those norms that update it.

12 Carbon ownership and rights

Carbon rights refer to the ownership of verified carbon credits (VCC) as well as the rights to benefits from the sale of credits or other payments or interests received from GHG emissions reductions or removals. That is, carbon rights provide the right to benefit from

¹⁹ Available in <https://biocarbonregistry.com/tools/risk-and-permanence.pdf>

GHG emission reductions or removals. To demonstrate full legal ownership of VCCs GHG Project Holders shall most provide evidence of their ownership.

To ensure transparency, carbon rights shall be supported by evidence of a process based on full, prior, and informed consent. In particular, if a GHG Project performs activities within territories of ethnic groups or traditional local communities, it is essential that both its members, individuals, and environmental authorities respect for their rights and follow the procedures outlined by the law.

If the GHG Project Holder is a natural or legal person and not a member of a local ethnic groups or traditional communities, they shall first require certification from the corresponding authority to determine if there are any Ethnic Communities in the area of the project. If there are then the Fundamental Right to Prior Consultation shall be guaranteed, when applicable.

GHG Project Holders shall demonstrate carbon rights, with agreements and documents that ensure this requirement is met, with at least the following information:

- (a) parties who sign the agreement(s);
- (b) agreement objectives;
- (c) agreement date;
- (d) name of the GHG Project;
- (e) period of quantification of GHG reductions/removals;
- (f) responsibilities, obligations, and rights of each of the signatory parties.

In the event that the project includes ethnic groups as participants, the project holder shall present proof that the person signing the documents, within the scope of the project, is the person with the authority in charge to do so.

If the project holder is the ethnic community, the documentation shall be submitted by the authority that legitimately represents the community.

In some cases, carbon rights are together with other ones, such as land tenure rights, i.e., in the AFOLU sector Projects. The requirement related to this aspect is described in detail below.

12.1 Land Ownership

In the case of AFOLU projects, the GHG Project Holder shall demonstrate land tenure, as provided for in applicable national regulations.

The project holder shall demonstrate that he or she holds land tenure on the property where the project activities are taking place, at least during the period of quantification of GHG reductions or removals. If the project holder does not represent the "landowner" he shall demonstrate that he has an agreement with the holder of the land tenure right.

13 Risk Management

The GHG Project Holder shall assess the risks related to the implementation of project activities in the environmental, financial and social dimensions.

Based on the identification of risks in these three dimensions, the project holder shall design measures to manage the risks, so that the reduction or removal of GHG emissions are maintained during the quantification period of the project.

In this regard, the project holder shall:

- (a) identify the potential natural and anthropogenic risks that GHG mitigation actions may face and determine the measures necessary to mitigate such risks;
- (b) identify potential financial risks related to expected costs and investments, as well as project cash flows and define the necessary measures to mitigate financial risks;
- (c) determine, in the medium and short term, the risks associated with the participation of local communities and stakeholders in the activities proposed by the project holder.

The GHG Project Holder shall use appropriate methodologies to carry out the assessment of the expected risks (direct and indirect) and consider mitigation measures, within the framework of adaptive management.

Adaptive management is a process by which project actions can be adapted to future conditions to ensure the achievement of the proposed objectives. It is a structured decision-making process that considers the impact variables in order to reduce the uncertainty of the results.

Finally, and taking into consideration the above, risk assessment and management shall be adequate, accurate and objective. In this sense, the BCR Tool "Permanence and Risk Management" shall be applied.

13.1 Reversal Risk Management

The GHG Project Holder shall demonstrate the actions taken to ensure that the project is maintained over time, by including clauses or provisions focused on this objective in the agreements or contracts, or by implementing a management plan associated with the risk of reversal.

Nevertheless, the above-mentioned, in any case, for the AFOLU projects, once the GHG emission removals or reductions (estimated based on the selected quantification methodology) have been registered, the system will automatically discount and maintain a reserve of 20% of the total quantified GHG emission reductions or removals for each verified period.

This reserve serves as a guarantee to replace any lost VCC due to unforeseen events that may require the replacement of credits that have already been sold in the market. The BIOCARBON REGISTRY periodically reviews this percentage and, if necessary, adjusts it.

During each verification period, a 10% discount is applied to the Verified Carbon Credits generated by a project. The discount is placed in a reserve account specifically designated for that project. The remaining 10% of VCC generated during the verification process will be placed in a General Reserve Account in the BioCarbon Registry.

At the end of the quantification period, when the last verification process is complete, any remaining reserve funds in the project's reserve will be transferred to a general reserve account called the BCR Reserve. In this account, the VCCs are kept to account for any potential reversals in the future.

In all cases, if an event occurs that means loss or decrease of the VCCs issued and registered in the registry platform, the project holder shall inform and provide a report to BIOCARBON REGISTRY within a period of no more than one year after the event occurred. Once BIOCARBON REGISTRY receives such report and examines the veracity and timeliness of the information, if applicable, it will retire the related amount from the Reserve Account in the registration system and issue a retirement statement, which will be sent to the project holder.

Verified Carbon Credits placed in the project reserve account may be released and placed on the market at a later verification, if and only if the GHG Project remains under the BCR Standard and active in the BioCarbon Registry system. Provided that there has been no cancellation of such credits, as described above.

Moreover, in order to assure that all necessary provisions have been taken for reversal risk management, the CAB shall demonstrate that it has assessed the risks derived from its

validation or verification activities. Also, adequate arrangements to cover the responsibilities derived from its activities of validation or verification in the geographic areas it operates.

In this sense, the CAB shall submit proof of having civil liability insurance. Hence, the CAB shall have civil liability insurance covering responsibility for validation and verification processes.

14 Environmental Aspects

Without prejudice to the fact that, due to the development of the proposed activities within the context of the project, the project holder is obliged to develop an environmental management plan or that which is contemplated in the legislation of the country in which the project is developed, the project holders shall carry out an environmental assessment, analyzing the probable effects on biodiversity and ecosystems within the limits of the project. The analysis shall be supported with reliable and recent references.

Suppose this assessment leads to the conclusion that adverse effects would generate. In that case, the project holder shall define actions and corrective measures to prevent and when applicable to diminish the environmental effects derived from the development of the GHG Project activities.

The project holder shall demonstrate that the project activities do not cause any net-harm to the environment. To support this, the project holder shall apply the BCR Tool. No Net Harm Environmental and Social Safeguards (NNH)²⁰.

15 Socioeconomic Aspects

GHG Project Holders shall analyze the significant socioeconomic effects of project activities within the project boundaries, clearly explaining the assumptions used and justifying the review results. The assessment shall also refer to related documentation and evidence.

Suppose this assessment leads to the conclusion that adverse effects would generate. In that case, the project holder shall define actions and corrective measures to prevent and when applicable to diminish the social and economic effects derived from the development of the project activities.

²⁰ Available in <https://biocarbonregistry.com/en/no-net-harm/>

The project holder shall demonstrate that the project activities do not cause any net-harm to the local communities and society in general. To prove this, the project holder shall apply the BCR Tool. No Net Harm Environmental and Social Safeguards (NNH).

16 Stakeholders' Consultation

Holders of GHG Projects should carry out a stakeholder consultation before validation, in order to provide information on the project's activities, design and facilitate access to all information related to the project's potential environmental and social effects.

This stakeholder consultation is different from the previous query, noted in section 11 of this document. GHG Project Holders shall establish appropriate mechanisms for stakeholders to comment on the project and demonstrate how stakeholders are appropriately engaged.

The stakeholder consultation scope should include a description of the potential effects (positive and negative) of the project and the considerations of the stakeholder comments.

About the participants in the local stakeholder consultation, GHG Project Holders should invite, as a minimum, representatives of directly affected local stakeholders and representatives of local authorities relevant to the project activities.

Holders of GHG Projects should provide evidence that sent invitations to stakeholders and that their feedback and comments were carefully analyzed and considered. If any of the relevant stakeholders did not receive an invitation, the project holders should provide appropriate justification.

16.1 Public Consultation

The projects are open for comments for a period of 30 calendar days. The start date of the consultation for comments corresponds to the day on which the project appears on the registry page.

Interested parties should request to BIOCARBON REGISTRY (info@biocarbonregistry.com), and to the project holder the documentation related to the project under validation. The request shall be complete and accompanied by the sender's information (name, organization and e-mail).

Comments should be sent to BIOCARBON REGISTRY. At the end of the public consultation period, BIOCARBON REGISTRY will send the comments received to the project holder.

Once comments are received, the project holder shall consider all comments received during the consultation period. If applicable, it shall adjust the project design or demonstrate that the comment is not relevant.

For its part, the Conformity Assessment Body shall demonstrate that it has examined all information related to the stakeholder consultation and include a conclusion on this in the validation report.

The public registry contains a section called Public Comment, which include the results of public consultation period.

17 Sustainable Development Goals

The GHG Project shall encourage climate action, based on sustainable development and the common benefit. To this end, GHG Project Holders shall assess how the GHG Project contributes to the Sustainable Development Goals (SDGs).

The 17 objectives of sustainable development include recognition and efforts regarding fundamental rights and actions to improve well-being and quality of life, such as food security, healthy living, education, gender equality, access to water and energy, economic growth, and sustainable use of ecosystems and peaceful societies.

To demonstrate compliance with this requirement, project holders shall demonstrate the contribution of the project, determining for example, whether the project activities contribute positively to actions such as:

- (a) To reduce the proportion of men, women, and children of all ages living in poverty in all dimensions according to national definitions;
- (b) To ensure that all men and women, particularly the poor and vulnerable, have equal rights to economic resources and access to essential services, ownership, and control of land and other property;
- (c) To improve agricultural productivity and the income of small-scale food producers, women, indigenous peoples, family farmers, livestock, and fishers;
- (d) To ensure the sustainability of food production systems and implement resilient agricultural practices that increase productivity and production, contribute to the maintenance of ecosystems, and strengthen adaptive capacity;
- (e) To achieve universal sanitary coverage, including protection from financial risks, access to quality essential health services, and access to safe, effective, affordable, and quality medicines and vaccines for all;
- (f) To reduce the number of deaths and illnesses caused by hazardous chemicals and by pollution and contamination of air, water, and soil;

- (g) To ensure the full and active participation of women and equal opportunities for leadership at all levels of decision-making in political, economic, and public life;
- (h) To give women equal rights to economic resources, as well as access to ownership and control of land and other property, financial services, inheritance, and natural resources;
- (i) To support the efficient use of water resources and ensure the sustainability of freshwater extraction and supply to address water scarcity;
- (j) To provide full and productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of fair value;
- (k) To protect labor rights and promote a safe and secure working environment for all workers, including migrant workers, migrant women, and persons in precarious employment;
- (l) To promote inclusive and sustainable industrialization and significantly increase the industry's contribution to work and gross domestic product under national circumstances.

Project holders shall clearly demonstrate the contribution of the project to the relevant Sustainable Development Goals. In order to assess contribution to the Sustainable Development Goals (“SGDs”), project holder shall apply the BCR SDG Tool available at <https://biocarbonregistry.com/en/sdg/>.

18 REDD+ Safeguards

The implementation of REDD+ activities can generate benefits for communities and the environment and reduce GHG emissions. However, there may be some social and environmental risks associated with their implementation.

In this sense, REDD+ safeguards are measures aimed at preventing the impairment of fundamental social, economic, or environmental rights and the occurrence of negative impacts from the design and implementation of REDD+ activities. It also includes measures to improve the obtainment and distribution of benefits generated by REDD+ activities.

In undertaking the actions referred to in paragraph 70²¹ of the Report of the Conference of the Parties on its 16th session, held in Cancun from 29 November to 10 December 2010, and the Decision 17/CP.21²², the project holder should promote and respect the following safeguards for REDD+ projects:

- (a) That actions complement or are consistent with the objectives of national forest programs and relevant international conventions and agreements;
- (b) Transparent and effective national forest governance structures, taking into account national legislation and sovereignty;
- (c) Respect for the knowledge and rights of indigenous peoples and members of local communities, by considering relevant international obligations, national circumstances and laws, and noting that the United Nations General Assembly has adopted the United Nations Declaration on the Rights of Indigenous Peoples;
- (d) The full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities, in the actions referred to in paragraphs 70 and 72 of this decision²³;
- (e) That actions are consistent with the conservation of natural forests and biological diversity, ensuring that the actions referred to in paragraph 70 of this decision²⁴ are not used for the conversion of natural forests, but are instead used to incentivize the protection and conservation of natural forests and their ecosystem services, and to enhance other social and environmental benefits;
- (f) Actions to address the risks of reversals;
- (g) Actions to reduce displacement of emissions.

These seven safeguards are a set of general principles and individual countries are responsible for interpreting their scope, according to their own national context. Consequently, the REDD+ project holder shall demonstrate compliance with the aforementioned REDD+ safeguards, considering the national context and including the definition of indicators for monitoring, reporting, and verification.

²¹ Encourages developing country Parties to contribute to mitigation actions in the forest sector by undertaking the following activities, as deemed appropriate by each Party and in accordance with their respective capabilities and national circumstances: (a) Reducing emissions from deforestation; (b) Reducing emissions from forest degradation; (c) Conservation of forest carbon stocks; (d) Sustainable management of forests; (e) Enhancement of forest carbon stocks. Available in: <https://unfccc.int/resource/docs/2010/cop16/eng/o7a01.pdf#page=12>

²² <https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a03.pdf>

²³ Decision 1/COP.16

²⁴ Ibid, p. 29

The BCR Standard comprises a REDD+ Safeguards (or Cancun Safeguards) interpretation tool for REDD+ project holders to demonstrate compliance with REDD+ safeguards.

In this sense, the proposed interpretation shall be mandatorily applied by the project holder and the Conformity Assessment Bodies for the implementation, validation and/or verification of REDD+ projects that are structured and developed under the BCR Standard.

The project holder shall apply the BCR Program Tool to ensure that No Net Harm principles are considered. For REDD+ projects, these projects shall also be assessed under the REDD+ Safeguards²⁵.

19 Special categories, related to co-benefits

Generally, actions related to climate change mitigation bring additional benefits to reducing or removing GHG emissions. In this regard, the IPCC (2007)²⁶ notes that the term co-benefits *"reflects that most policies designed to address greenhouse gas (GHG) mitigation also have other, often at least equally important, justifications involved in the adoption of those policies."*

In the framework of this Standard, the definition and measurement of co-benefits is not a mandatory requirement. However, holders of GHG Projects can demonstrate that their projects provide additional benefits for the society or environment if they have confirmed a model of criteria and indicators to verify the measurement and outcome.

Co-benefits can be divided into three additional benefits: biodiversity conservation, community benefits and gender equity. The GHG Project Holder shall comply with the conditions defined for each of the three categories to constitute the project's additional benefits. The categories and conditions required to obtain a class are outlined in section 19.1.

The GHG Project Holder should propose a model of criteria and indicators that would monitor each of the conditions and demonstrate compliance with them. The monitoring plan should include a section that provides for the measurement and tracking of co-benefits.

19.1 Special categories components

19.1.1 Biodiversity conservation

When apply, the GHG Project Holder should demonstrate that the project:

²⁵ <https://biocarbonregistry.com/en/safeguards-redd/>

²⁶ Climate Change 2007: Working Group III: Mitigation of Climate Change

- (a) develops practical actions and measures to halt the loss of biological diversity, enabling ecosystems to continue to provide essential services;
- (b) sets objectives and activities in support of the Aichi Targets²⁷ for Biodiversity;
- (c) demonstrates which High Conservation Values (HCV) are in the project area²⁸;
- (d) demonstrate the no presence of invasive species as a result of the project activities;
- (e) demonstrates that the project area is in areas where globally threatened species are present (according to the UICN Red List²⁹) and that the GHG Project is taking action to conserve these species;
- (f) incorporates, in its administration and management systems, the traceability of raw materials from biodiversity.

19.1.2 Community Benefits

The benefits of communities should be real actions that create public value and local development, emphasizing improving life quality of the communities. This criterion does not consider generating employment as a co-benefit.

The holder of the GHG Project demonstrate that:

- (a) identifies and strengthens mechanisms for social and community participation, at the local and regional levels;
- (b) implements sustainable production systems, combining production and conservation actions to generate local development;
- (c) considers pre-existing social conflicts and supports the development of efficient models with the management of post-conflict scenarios;
- (d) the project creates short and long-term benefits to small-scale productive projects with community members in the project area;
- (e) generates actions that improve the capacities and access to opportunities of community groups in vulnerable situations;

²⁷ <https://www.cbd.int/aichi-targets/>

²⁸ Based on criteria defined by the High Conservation Value (HCV) network. <https://hcvnetwork.org/>

²⁹ <https://www.iucnredlist.org/>

- (f) defines possible impacts on cultural, archaeological, or historical heritage and describes measures to prevent or mitigate such effects;
- (g) Under the GHG Project, activities produce an average net increase in the income of local, low-income producers.

19.1.3 Gender Equity

According to the Food and Agriculture Organization of the United Nations (“FAO”), it is clear that *“climate change has a more pronounced impact on women, especially indigenous and peasant women whose agricultural dependence, living conditions and marginalization expose them more to changes in climate, loss of diversity and pollution.”*³⁰

Also, according to López (2017)³¹, “international agreements on forests, biodiversity, and climate change mention the need to mainstream gender, all of which is required by Article 2, which calls on States Parties to appropriate the principle of equality between men and women (...) to ensure a remedy for discrimination against women”.

In this perspective, the project holder should demonstrate that he considers the determinants set out in the national gender-related policy framework.

It also demonstrates that it includes among its activities, strategies, or actions that support the goals related to the SDG *“achieving gender equality and the empowerment of women and girls”*, in the applicable context.

19.2 Categories and additional benefits

19.2.1 Category 1. Orchid

Orchids are the most diverse and evolving group of flowering plants on the planet, with about 25,000 to 30,000 species worldwide, of which 4,270 are native to Colombia, and 1,572 are endemic. Figure 1 shows the requirements to obtain the Orchid Category.

³⁰ <http://www.fao.org/family-farming/detail/es/c/335922/>

³¹ Salvaguardas y Género - Documento de Recomendaciones. Diana López Consultora de Género para el Programa ONU REDD Colombia. Marzo de 2017.

Figure 1. Requirements of the Orchid category



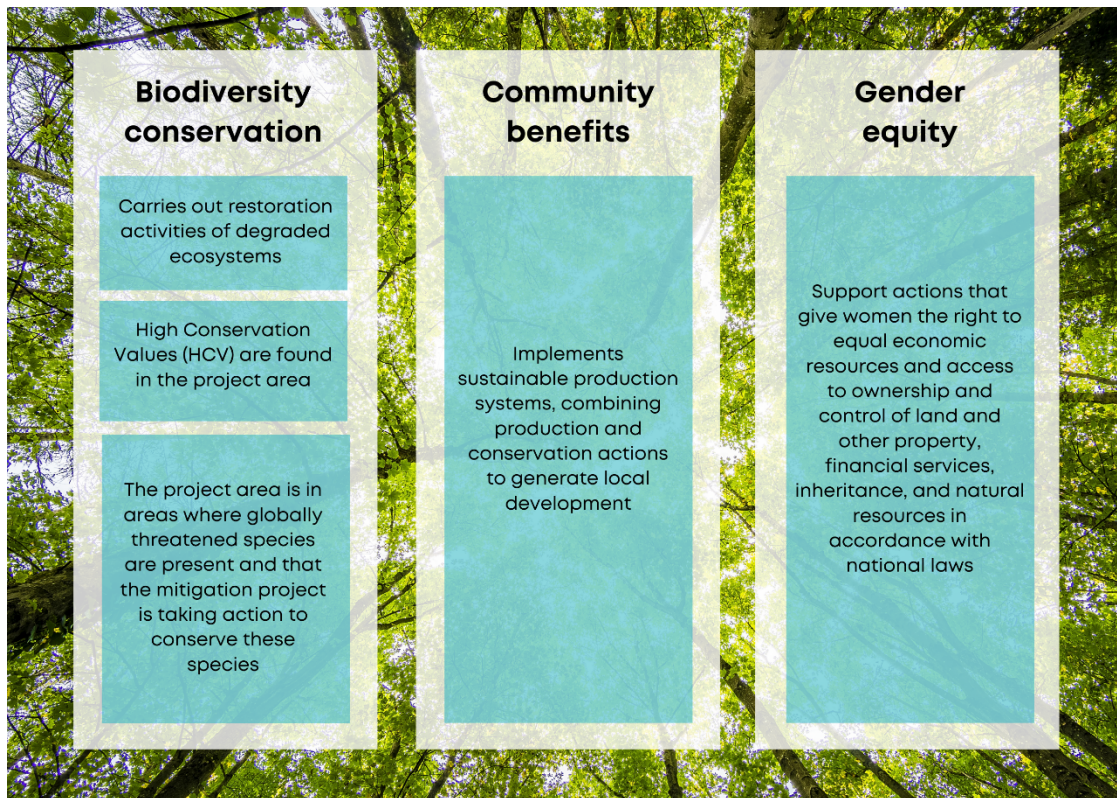
Source: BIOCARBON REGISTRY, 2022.

19.2.2 Category 2. Wax Palm

The Wax Palm (*Ceroxylon quindiuense*) grows in one of the most threatened ecosystems globally, the Tropical Foggy Forest. The *Ceroxylon quindiuense* palms constitute one of the most spectacular landscapes of the Colombian Andes. Despite representing Colombia's national tree, the species was categorized as endangered (EN) by Galeano & Bernal (2005). Although there are still large populations in some sectors of the central mountain range, their habitat has been considerably reduced, and it is estimated that their populations have decreased by more than 50% in the last three generations (210 years)³². Figure 2 shows the requirements to obtain the Wax Palm Category.

³² Ministerio de Ambiente y Desarrollo Sostenible. 2015. Plan de conservación, manejo y uso sostenible de la palma de cera del Quindío (*Ceroxylon quindiuense*), Árbol Nacional de Colombia. Textos: Bernal R., G. Galeano, M. J. Sanín. Ministerio de Ambiente y Desarrollo Sostenible - Universidad Nacional de Colombia, Bogotá. 80 pp. In: https://www.minambiente.gov.co/images/BosquesBiodiversidadyServiciosEcosistemicos/pdf/Programas-para-la-gestion-de-fauna-y-flora/Plan_de_conservacion_y_uso_sostenible_de_la_palma_de_cera_del_Quindio%20ADO.pdf

Figure 2. Requirements of the Wax Palm category



Source: BIOCARBON REGISTRY, 2022.

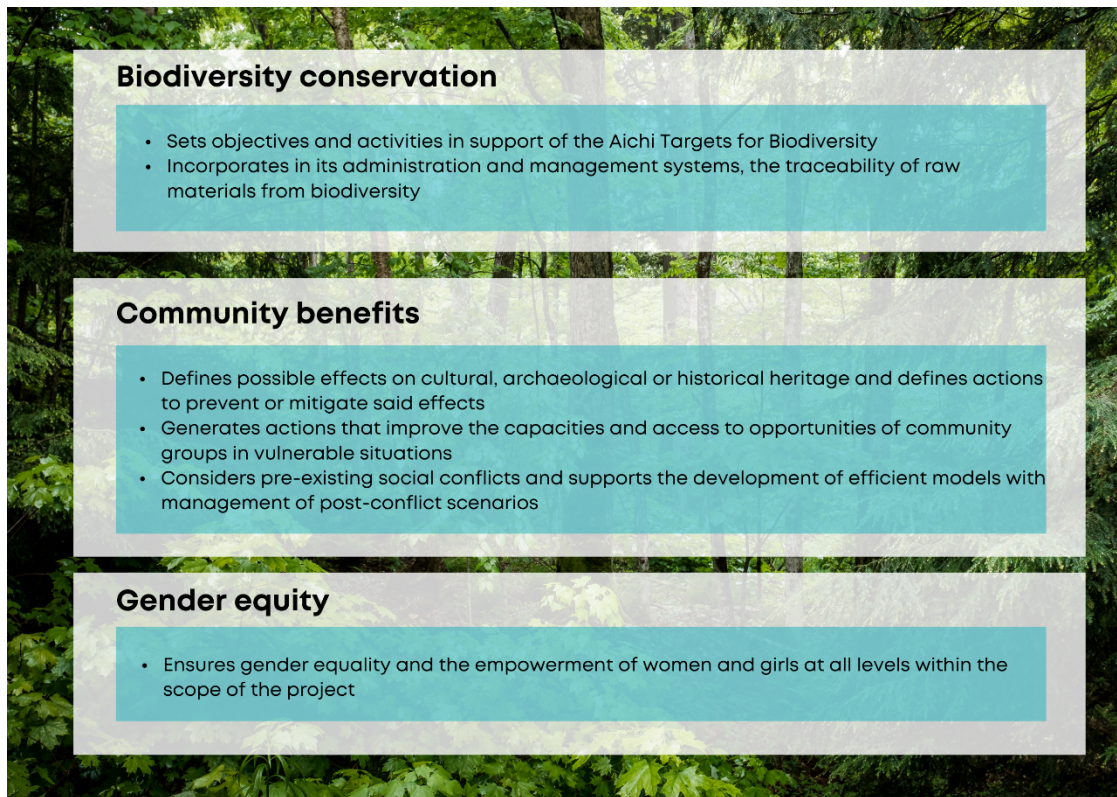
19.2.3 Category 3. Andean Condor

The Andean Condor (*Vultur gryphus*), the sun's messenger, is considered the most giant and most massive flying bird globally³³. It is also one of the birds that fly at the highest altitudes, fly using the vertical thermal updrafts of warm air, and reach up to 6500 meters of height; then, it can glide for hundreds of kilometers almost without moving its extended wings. The natural distribution of Andean Condor covers the Andes Mountains, from southern Tierra del Fuego (Argentina and Chile) to western Venezuela. One of its significant habitats is in the Colca Canyon (Peru). The Andean Condor is considered a near-threatened species by the UICN (International Union for Conservation of Nature),

³³ Ministerio de Ambiente, Vivienda y Desarrollo Territorial. Sin fecha. Programa nacional para la conservación del cóndor andino en Colombia. Plan de acción 2006-2016. 32 pp. In: https://www.minambiente.gov.co/images/BosquesBiodiversidadyServiciosEcosistemicos/pdf/Programas-para-la-gestion-de-fauna-y-flora/4023_100909_prog_conserv_condor.pdf

threats to the population include habitat loss and secondary poisoning³⁴. Figure 3 shows the requirements for the Andean Condor category.

Figure 3. Requirements of the Andean Condor



Source: BIOCARBON REGISTRY, 2022.

20 Grouped Projects

GHG Projects may be developed as grouped projects. Grouped projects are GHG Projects which can be expanded after the validation for example through the addition of new areas (in the case of projects in the AFOLU sector) and instances (in the other sectors). In this case, projects can expand without the need for a new validation of the project description. These projects shall comply with the conditions for grouped projects described below.

³⁴ <https://birdscolumbia.com/>

20.1.1 Activities in the AFOLU Sector

Activities classified as GHG removal activities and REDD+ projects may add areas to the Project (after validation). To do so, the project holder shall:

- (a) identify the expansion area of the Project during the validation process and define the criteria for the addition of the new regions;
- (b) comply with the guidelines of the BCR Standard, in its most recent version;
- (c) comply with all the provisions of the BIOCARBON REGISTRY methodological documents that apply in their latest release;
- (d) include emission reductions or removals only for validated project activities;
- (e) implement the GHG emission reduction or removal activities described in the validated project document;
- (f) demonstrate that baseline scenario, land tenure, and additionality considerations are consistent and valid for the new areas;
- (g) provide evidence of the start date of activities in the new areas, demonstrating that this date is later than the starting date of the project activities in the areas included in the validation;
- (h) in the case of REDD+ projects, further, demonstrate that the drivers of deforestation/degradation and the reference scenario are consistent with the validated characteristics for the initial project areas;
- (i) Similarly, for REDD+ projects, considering that in some cases, the leakage belt may overlap with the validated expansion area, the project holder shall update the leakage belt to include potential displacement of deforestation/degradation by the implementation of the REDD+ project activities.

20.1.2 Activities in the energy, transportation, and waste sectors

Similarly, GHG Project Holders that involve activities in those sectors may develop grouped projects. To this end, they shall meet the following requirements:

- (a) identify, during the validation process, the geographical area(s) within which (initial³⁵ and additional) instances of the project are developed and define the criteria for the addition of new cases;

³⁵ The initial instances are those included in the project description during validation.

- (b) comply with the guidelines of the BCR Standard, in their most recent version;
- (c) comply with all the provisions of the BIOCARBON REGISTRY methodological documents they apply, in their latest release;
- (d) include emission reductions only for validated project activities;
- (e) implement the GHG emission reduction activities described in the validated project document;
- (f) demonstrate that the new instances meet the conditions of applicability described in the methodology applied;
- (g) demonstrate that geographic areas (to be included in project boundaries) in which there are no initial instances are subject to the same baseline scenario conditions and additionality as the areas in which are the initial instances;
- (h) provide evidence of the start date of activities in the new instances, demonstrating that this date is later than the start date of the GHG emission reduction activities in the cases included in the validation (initial instances);
- (i) determine the baseline scenario and demonstrate additionality based on the initial instances of the project;
- (j) confirm that each instance complies with all methodology applied provisions, including the capacity limits set out in the methodologies applicable to the project type.

The BIOCARBON REGISTRY methodological documents can also provide additional specifications for grouped projects.

21 Monitoring Plan

As part of the project document, project holders shall submit a monitoring plan that contains the following:

- (a) necessary data and information to estimate GHG reductions or removals during the quantification period;
- (b) data and supplementary information for determining the baseline or reference scenario;
- (c) specification of all potential emissions that occur outside the project boundaries, attributable to the activities of the GHG Project (leakage);

- (d) information related to the assessment of environmental effects of the project activities;
- (e) procedures established for the management of GHG reductions or removals and related quality control for monitoring activities;
- (f) description of the methods defined for the periodic calculation of GHG reductions or removals and leakage;
- (g) the assignment of roles and responsibilities for monitoring and reporting the variables relevant to the calculation of reductions or removals;
- (h) the related procedures with the assessment of the project contribution with the Sustainable Development Goals (SDGs);
- (i) criteria and indicators related to the contribution of the project to sustainable development objectives;
- (j) procedures associated with the monitoring of co-benefits of the special category, as applicable;
- (k) criteria and indicators defined to demonstrate the additional benefits and measurement of co-benefits and the specific category, as applicable.

The monitoring plan shall base on a monitoring methodology approved within the framework of the methods referred to in section 8 and the following:

- (a) national circumstances and the context of the GHG Project;
- (b) monitoring good practices, adequate for the follow-up, and control of the activities of the GHG mitigation effort;
- (c) procedures to ensure data quality under ISO 14064-2

The GHG Project Holder shall demonstrate that the verified carbon credits are quantified, monitored, reported, and verified, through application of the BCR Tool “Monitoring, reporting and verification (MRV)”.³⁶

GHG Project Holders shall execute the monitoring plan validated by the CAB. Execution of the approved monitoring plan and, where appropriate, its modifications, shall be a requirement for verification.

³⁶ <https://biocarbonregistry.com/tools/monitoring-reporting-and-verification.pdf>

During the verification process, the project holder shall submit the report under the monitoring plan. Any revisions to the monitoring plan, either to increase its accuracy or information completeness, shall be justified and submitted to the CAB.

The OEC, based on the execution of the monitoring plan and the assessment of the estimated GHG emission reductions/removals and the baseline scenario, shall determine that these have been calculated in accordance with the methodology used by the GHG Project Holder.

22 Validation and verification

Project holders shall ensure that the validation and verification processes are carried out by an accredited and independent third-party. They shall confirm that the CAB meets all accreditation requirements with the authorities defined in this document.

The start of the project validation process should take place at the times set out in section 10.4 of this document. Verifications may be annual but shall be carried out every 5 years at the most for projects in the AFOLU sector and every 3 years for projects in sectors other than AFOLU.

CABs are responsible for conducting an objective assessment and issuing a validation or verification statement concerning the information submitted to them by the project holder and other criteria defined by the BCR STANDARD.

The scope of validation, and when applicable, of verification, shall include the following:

- (a) the boundaries or scenarios of the GHG Project and its baseline scenarios;
- (b) physical infrastructure, activities, technologies, and processes of the GHG organization or Project;
- (c) GHG sources sink as also when applicable to reservoirs;
- (d) types of GHGs;
- (e) areas or instances of the Project if it is a grouped project;
- (f) quantification periods;
- (g) evaluation of co-benefits;
- (h) indicators related to DSGs;
- (i) the monitoring plan.

The CAB should examine the data and information on GHGs, to develop evidence to evaluate the Project's GHG statement. This review should follow a sampling plan.

The CAB shall confirm whether the GHG Project meets the validation or verification criteria defined by this Program.

When assessing the material discrepancy, the CAB should consider the principles of the standards (ISO or those that apply) or the BCR STANDARD.

Validation and verification of grouped projects shall include analysis of the Project's conformity with bundled projects' requirements under the BCR STANDARD.

22.1 Validation

Validation is a systematic, independent, and documented process. This process assesses a GHG Project activities and baseline against defined criteria to verify that it meets the requirements specified current regulations, as stipulated by the BCR STANDARD.

When GHG Project Holders request validation of the project, they shall submit a GHG declaration to the CAB. They shall provide all information required by the CAB to carry out the validation process.

The validation and verification body, contracted by the GHG Project Holder, shall evaluate the documentation and information related to the design of the project and shall determine whether the project holder complies with all the provisions of this Standard and the others that apply to it, examining, among other aspects, the following;

- (a) GHG mitigation goals and results;
- (b) the adequate use of an appropriate methodology;
- (c) the assessment of uncertainty and conservative approach;
- (d) the baseline scenario and reference levels;
- (e) compliance with the additionality criteria of the GHG Project;
- (f) ownership and rights over carbon;
- (g) assessment of environmental and social aspects and no net harm;
- (h) criteria and indicators relating to co-benefits;
- (i) project's contribution to sustainable development goals;

- (j) stakeholder's consultation;
- (k) compliance with national legislation;
- (l) monitoring plan for quantification and monitoring of GHG emission reductions or removals under the selected methodology.

Similarly, the CAB shall do the validation process under guidelines established by the GHG mitigation mechanisms or the ISO 14064-3 standard.

Once it ends the information assessing and carried out all necessary procedures, the CAB shall inform the project holder of its decision to validate the GHG Project. The notification to the project holder should include:

- (a) the confirmation of the validation and the date of submission of the validation report to the GHG Program, or
- (b) an explanation of the reasons for rejection if the project, judging from the documentation, does not qualify for validation

If the CAB determines that the GHG Project meets all certification requirements, it shall submit a validation report's registration request. That report shall include the project document and project design documentation, either the quantification of GHG emission reductions or removals and, where appropriate, the conclusion on co-benefits (if applies) and the compliance with the indicators defined by the project holder concerning the ODSs.

22.2 Verification

Verification is the systematic, independent, and documented process for assessing the GHG Declaration against the verification criteria.

As per the provisions of ISO 14064-3, the CAB should consider the following:

- (a) conformity with applicable verification criteria, including the principles and requirements of BCR STANDARD in the scope of verification;
- (b) information and documentation on GHG Project planning, including procedures and criteria for the project, baseline, no net harm, quality control and assurance, risk management, monitoring, and reporting;
- (c) any significant changes, since the last reporting period or its validation, in the methods or principles of the GHG Project;

- (d) emissions, removals, emission reductions, and removal enhancements reported in the baseline and the GHG Project;
- (e) any significant changes in GHG emissions removals, emission reductions, and removals improvements since the last reporting period or since the Project's validation.

22.3 Other considerations for validation and verification

In all cases, the CAB shall consider the following criteria for the validation and verification of GHG Project:

- (a) The level of assurance of the validation and verification of the GHG Project should not be less than 95%;
- (b) The material discrepancy in the data supporting the GHG Project baseline and the estimate of GHG emission reductions or removals may be up to $\pm 5\%$;
- (c) The GHG Project baseline shall be consistent with the methodology applied, as appropriate;
- (d) The quantification of mitigation results against the validated baseline shall follow the provisions of the used methodology, as appropriate;
- (e) It includes co-benefits and sustainable development objectives evaluation.

22.4 Validation or verification statement

Once validation or verification is complete, the CAB shall issue the corresponding declaration, which shall comply with the following:

- (a) addresses the intended users of the GHG declaration;
- (b) describes the level of assurance of the validation or verification statement;
- (c) describes the objectives, scope, and criteria for validation or verification;
- (d) explains whether the data and information supporting the GHG declaration are hypothetical, projected as also when applicable to historical;
- (e) is accompanied by the GHG statement made by the responsible party;
- (f) includes the CAB's conclusion on the GHG declaration, including any qualifications or limitations;

- (g) adds conclusions on criteria and indicators related to co-benefits, and;
- (h) includes a judgment on the project's contribution to sustainable development objectives.

23 Conformity Assessment Bodies (“CAB”)

GHG Project shall undertake validation and verification processes, by an independent third-party, to ensure that the applied GHG emission reduction or removal quantification methodologies are verifiable in the framework of ISO 14064-3.

The validation and verification process shall be carried out by a conformity assessment body accredited by:

- (a) an accreditation body that is a signatory member of the International Accreditation Forum (“IAF”) that has in its portfolio GHG Emissions Verification Body accreditation program under the requirements of ISO 14065; or,
- (b) the Clean Development Mechanism (“CDM”) or whoever acts in its stead, under the requirements of the UNFCCC for Designated Operational Entity (“DOE”), as appropriate.

The conformity assessment bodies carrying out validation/verification of GHG Projects shall demonstrate the following:

- (a) the scope of their certification includes the project activities subject to the validation and verification process;
- (b) it has enough professionals who demonstrate the necessary ethical conduct to perform all the functions required for validation and verification;
- (c) the designated auditors in charge of validations and verifications have experience in the sector and type of the project;
- (d) has documented internal procedures for the performance of its function. Its function's methods include allocation of responsibilities within the organization;
- (e) has the appropriate competence to perform the tasks specified in the legislation in force and the provisions described in this Standard;

- (f) ensures the necessary expertise on environmental issues relevant to the verification of GHG Project and quality assurance in a conformity assessment;
- (g) has knowledge of the technical aspects of GHG Project and methodologies for quantification and monitoring of GHG emission reductions and removals, including competence to assess baselines and national reference levels, as well as maximum mitigation potentials;
- (h) has procedures for handling complaints, appeals, and disputes.

Furthermore, CABs shall work in an independent, reliable, non-discriminatory, and transparent manner, respecting applicable national legislation and complying with the following requirements:

- (a) have a documented structure, which protects its integrity, with provisions to ensure the impartiality of its operations;
- (b) have appropriate arrangements to safeguard the confidentiality of information obtained from GHG Project Holders;
- (c) demonstrate that they have no actual or potential conflict of interest with the operators of the GHG Project for whose validation or verification they carry out;
- (d) make available to BIOCARBON REGISTRY, upon request, information obtained from GHG Project Holder. Information classified as confidential shall not be disclosed without the written consent of the provider unless required by national legislation;
- (e) provides data used to determine additionality, as defined in this Standard, to select baselines, reference levels, and maximum mitigation potentials, and its use shall not be considered confidential.

CABs shall issue a verification statement, indicating that the GHG emission reductions or removals were generated following the guidelines defined in ISO 14064-2 and the results obtained in the verification carried out under ISO14064-3 or those that adjust and update them.

CABs shall demonstrate an annual internal evaluation to demonstrate knowledge of BCR Standard and methodologies. In addition, CABs shall provide evidence of their auditors being experienced in the sector and project type for which they are assigned and have the appropriate competence, including the proof of permanent training and upgrades.

24 Certification and Registration of Verified Carbon Credits (VCC)

The Conformity Assessment Body (“CAB”) completes the validation process and submits the validation statement to BIOCARBON REGISTRY. The validation statement certifies the GHG performance of the project as declared by the project holder.

After the validation process is complete, the verification process takes place. In this process the CAB verify that the GHG Project has achieved its GHG performance goals including the total GHG emission reduction or removal as declared by the project holder. If the verification process is successful, then the CAB can submit the Verification Statement to the BCR which includes a justification of the conformity of the GHG Project’s validation ensuring that it complies with all BCR regulations and application national and international laws.

When the GHG Project has passed both the validation and verification process, BCR will issue Verified Carbon Credits (VCC) from a validated and verified project. It is important to note that the VCC can only be issued for projects that have been previously verified by following the ISO 14064 -3 guidelines and the BCR Standard and that the CAB will have carried out the verification process under the provisions of the BCR Validation and Verification Manual.

25 Other GHG Programs

GHG Projects registered in other GHG programs may apply for certification and registration in BIOCARBON REGISTRY, as long as they comply with the following conditions:

- (a) The project registration has been withdrawn in the registration system of the standard from which the project comes;
- (b) The reductions or removals generated by the project are not part of another registered project, in BIOCARBON REGISTRY or other GHG programs;
- (c) GHG Project Holder shall demonstrate compliance with the requirements established in the national legal framework, as well as compliance with the rules and procedures established by BIOCARBON REGISTRY;

(d) GHG Project shall comply with the "BCR STANDARD OPERATING PROCEDURES."³⁷

For registration and VCC issuance, GHG Projects shall carry out verification as defined by BIOCARBON REGISTRY and based on the BIOCARBON REGISTRY methodology applicable to the project (if any).

If the project start date is earlier than described in section 9.4 of this document, the start date that aligns with the program or standard from which the project originates should be accepted. However, for subsequent verifications, the issuance of VCC will be done according to the rules of the BCR STANDARD.

The Conformity Assessment Body ("CAB") shall carry out the verification in accordance with the BCR Validation and Verification Manual³⁸. The Verification Opinion shall include a justification on the conformity of the validation of the GHG Project, ensuring that it complies with the applicable regulations and the procedures established by BIOCARBON REGISTRY.

26 Double Counting

Focused on achieving international targets related to GHG emission reductions and climate change mitigation, robust and transparent accounting is essential. This will enable effective assessment of national progress.

In a strict sense, the practice of double counting would result in the overestimation of benefits to projects and countries and would lead to an erroneous analysis of the real progress towards meeting this global objective.

Consequently, within the scope of this Standard, "*double counting*" is defined as the accounting of a Greenhouse Gas ("GHG") mitigation result in tons of CO_{2e}, in the following scenarios:

- (a) a ton of CO_{2e} is counted more than once to demonstrate compliance with the same GHG mitigation goal;
- (b) one ton of CO_{2e} is counted to demonstrate compliance with more than one GHG mitigation goal;

³⁷ BIOCARBON REGISTRY® 2023. BCR SOP. STANDARD OPERATING PROCEDURES. Version 1.0. January 13, 2023. Bogotá, Colombia. 34 P. <https://www.biocarbonregistry.com>

³⁸ https://biocarbonregistry.com/procedures/BCR_Validation-and-Verification-Manual.pdf

- (c) a ton of CO_{2e} is used more than once to obtain remuneration, benefits, or incentives;
- (d) one ton of CO_{2e} is verified, certified, or accredited assigning more than one serial to a single mitigation result.

Accordingly, avoidance of double counting is a requirement that prohibits the accounting, issuance, and retirement of GHG mitigation results that meet any of the conditions described above.

The Project Holder shall apply the BCR Tool “Avoiding Double Counting (ADC)” which sets out the principles and requirements for the BCR Program, to avoid double counting of emission reductions or removals³⁹.

27 Registry Platform

BIOCARBON REGISTRY has a public registry that enables the certification and allocation of a distinctive serial number for verified greenhouse gas (“GHG”) emission reductions or removals

To carry out registration in the BIOCARBON REGISTRY system, the GHG Project Holder shall provide the following documentation:

- (a) information about the Project and the holder of the project;
- (b) GHG Registration Authorization;
- (c) project Description Document;
- (d) report and validation declaration;
- (e) monitoring report;
- (f) report and verification declaration;
- (g) other documents, if required.

Only the project holder, or whoever is authorized by the holder to carry out the procedures required for this purpose, can apply for registration of project.

³⁹ <https://biocarbonregistry.com/tools/avoiding-double-counting.pdf>

The BIOCARBON REGISTRY allows for the registration of projects after the validation process has been completed, but it can also be requested before validation. If the Project Holder chooses to carry out the validation and the first verification simultaneously, the CAB shall issue a single report for both. However, they shall issue the validation and verification declarations separately.

Projects applying for registration in BIOCARBON REGISTRY may not be registered in any other registry systems. However, projects registered in other GHG programs may apply for registration under the BCR STANDARD, as long as they comply with the conditions established by this standard.

28 Public Information

The information in the registry system of BIOCARBON REGISTRY is public, except for the data that is classified as reserved by law.

29 Transition plan

GHG Project Holders have a three-month transition period for using the updated version, starting from its publication.

This applies also for documents referenced in this Standard (methodologies, guidelines, and tools) as well as other resources that make up the BCR Program.

ANNEX A. GLOSSARY OF TERMS⁴⁰

Accreditation

third-party attestation related to a conformity assessment body conveying formal demonstration of its competence to carry out specific conformity assessment tasks.

[SOURCE: ISO/IEC 17000:2004, 5.6]; [ISO/IEC 17011:2017(en), 3.1]

Adaptation to Climate Change (Climate change adaptation)

process of adjustment to actual or expected climate and its effects.

Note 1 to entry: In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities.

Note 2 to entry: In some natural systems, human intervention can facilitate adjustment to expected climate and its effects.

[SOURCE: ISO 14090:2019, 3.1]

Adaptive Capacity

ability of systems, institutions, humans, and other organisms to adjust to potential damage, to take advantage of opportunities, or to respond to consequences.

[SOURCE: Intergovernmental Panel on Climate Change, IPCC Fifth Assessment Report: Climate Change 2014 (AR5)]; [ISO 14080:2018(en), 3.1.3.5.]

Adaptive Management

process of iteratively planning, implementing and modifying strategies for managing resources in the face of uncertainty and change.

Note 1 to entry: Adaptive management involves adjusting approaches in response to observations of their effects and changes in the system brought on by resulting feedback effects and other variables.

[SOURCE: IPCC, 2014, ISO 14090:2019(en), 3.3]

⁴⁰ Some terms and definitions not found in this glossary are contained in the Standard's methodological documents

Additionality

Is the effect of the GHG Project activity to reduce anthropogenic GHG emissions below the level that would have occurred in the absence of the GHG Project activity.

In the AFOLU sector, other than REDD+ projects, additionality is the effect of the project activity to increase actual net GHG removals by sinks above the sum of the changes in carbon stocks in the carbon pools within the project boundary that would have occurred in the absence of project activity.

Source: Adapted from Glossary CDM terms. Version 10.0

Agricultural Lands

Agricultural territories are those lands dedicated mainly to the production of food, fiber, and other industrial raw materials, whether they are useful or not for cultivation, grazing, rotation, rest, or as fallow. It includes areas devoted to permanent and temporary crops, pasture areas, and different agricultural zones, where livestock can also share it and agriculture.

Agriculture, Forestry and Other Land Use (“AFOLU”)

The sector comprises of greenhouse gas emission reductions or removals attributable to project activities in the agriculture, forestry, and other land uses sectors.

Agroforestry Culture

Areas occupied by arrangements or combinations of crops of different species, with others of herbaceous, shrub, or tree habits, where the main characteristic of the coverage is that the increase in detail does not imply the subdivision into pure units because these shares the same area, alternated by furrows or rows of trees with crops or trees with grasses.

Attestation

issue of a statement, based on a decision, that fulfilment of specified requirements has been demonstrated.

Note 1 to entry: The resulting statement, referred to in this document as a “statement of conformity”, is intended to convey the assurance that the specified requirements have been fulfilled. Such an assurance does not, of itself, provide contractual or other legal guarantees.

Note 2 to entry: First-party attestation and third-party attestation are distinguished by the term’s declaration, certification and accreditation, but there is no corresponding term applicable to second-party attestation.

[SOURCE:ISO/IEC 17000:2020(en), 7.3]

Baseline Scenario

For a project activity (in sectors other than AFOLU), the scenario for the GHG mitigation project that reasonably represents the anthropogenic emissions by sources of GHGs that would occur in the absence of the GHG mitigation project activity.

For an AFOLU project, the scenario for the GHG Project that reasonably represents the sum of the changes in carbon stocks in the carbon pools within the project boundary that would occur in the absence of the GHG Project.

Source: Adapted from Glossary CDM terms. Version 10.0

Carbon Dioxide Equivalent (CO₂e)

unit for comparing the radiative forcing of a GHG to that of carbon dioxide.

[SOURCE: ISO 14064-2:2019(en), 3.1.15.]

Carbon credit

Measurable and tradable unit, accounted for a GHG Project. When verified and listed in the registry system of BIOCARBON REGISTRY, it is called a Verified Carbon Credit ("VCC"). It is equivalent to one metric ton of carbon dioxide equivalent.

Carbon Fraction

For the AFOLU sector projects, this describes the ratio between tons of carbon dioxide equivalent to one ton of dry biomass.

Certification

third-party attestation related to an object of conformity assessment, with the exception of accreditation.

[SOURCE: ISO/IEC 17000:2020(en), 7.6.]

Certification Body

third-party conformity assessment body operating certification schemes.

Note 1 to entry: A certification body can be non-governmental or governmental (with or without regulatory authority).

[SOURCE: ISO/IEC 17065:2012(en), 3.12]

Certification Criteria

set of standards, rules, or properties to which an asset must conform in order to be certified to a certain level.

Note 1 to entry: Certification criteria are defined by a certification policy. Certification criteria can be specified as a set of certification properties that must be met.

[SOURCE ISO/IEC/IEEE 24765:2017(en), 3.526]

Certification Scheme

conformity assessment system related to management systems to which the same specified requirements, specific rules and procedures apply.

[SOURCE: ISO/IEC 17021-1:2015(en), 3.15]

Claim

information declared by the client.

Note 1 to entry: The claim is the object of conformity assessment by validation/verification.

Note 2 to entry: The claim can represent a situation at a point in time or could cover a period of time.

Note 3 to entry: The claim should be clearly identifiable and capable of consistent evaluation or measurement against specified requirements by a validation body/verification body.

Note 4 to entry: The claim can be provided in the form of a report, a statement, a declaration, a project plan, or consolidated data.

[SOURCE: ISO/IEC 17029:2019(en), 3.1]

Clean Development Mechanism ("CDM")

Article 12 of the Kyoto Protocol defines the clean development mechanism: *"The purpose of the clean development mechanism is to assist Parties¹ not included in Annex I in achieving sustainable development and in contributing to the ultimate objective of the Convention, and to assist Parties included in Annex I in achieving compliance with their quantified emission limitation and reduction commitments under Article 3".*

Clean Development Mechanism ("CDM") Projects

They are a type of GHG Project that includes GHG emission reduction or removal activities eligible for the Kyoto Protocol's Clean Development Mechanism ("CDM").

Co-benefits

A policy or measure aimed at one objective could have positive effects on other purposes, regardless of the net impact on overall social welfare. Co-benefits are often subject to uncertainty and depend, among other factors, on local circumstances and implementation practices. Co-benefits are the same named as secondary benefits.

Conformity Assessment

demonstration that specified requirements are fulfilled.

Note 1 to entry: The process of conformity assessment as described in the functional approach in Annex A can have a negative outcome, i.e., demonstrating that the specified requirements are not fulfilled.

Note 2 to entry: Conformity assessment includes activities defined elsewhere in this document, such as but not limited to testing, inspection, validation, verification, certification, and accreditation.

Note 3 to entry: Conformity assessment is explained in Annex A as a series of functions. Activities contributing to any of these functions can be described as conformity assessment activities.

Note 4 to entry: This document does not include a definition of “conformity”. “Conformity” does not feature in the definition of “conformity assessment”. Nor does this document address the concept of compliance.

[SOURCE: ISO/IEC 17000:2020(en), 4.1]

Conformity Assessment Body (“CAB”)

body that performs conformity assessment activities and that can be the object of accreditation.

Note 1 to entry: Whenever the term “conformity assessment body” is used in the text, it applies to both the applicant and accredited conformity assessment bodies, unless otherwise specified.

[SOURCE: ISO/IEC 17000:2004, 2.5, modified — The words “and that can be the object of accreditation” have been added to the definition and the Note to entry has been added; ISO/IEC 17011:2017(en), 3.4]

Content of carbon dioxide (CO₂)

ratio of the volume of carbon dioxide to the total volume of dry gaseous products in which it is present.

Note 1 to entry: The carbon dioxide content is expressed as a percentage volume fraction.

[SOURCE: ISO 22968:2010(en), 3.4.1]

Crops and planted trees

Those correspond to the coverage occupied by spatial arrangements where crops coexist with tree plantations for all types of production (wood, firewood, fruit trees, resins.); where the main characteristic of the coverage is that the increase in detail does not imply the subdivision into pure units, because these shares the area, alternated by furrows or rows of trees with crops.

Data Quality

degree to which the characteristics of data satisfy stated and implied needs when used under specified conditions.

[SOURCE: ISO/IEC 25012:2008, definition 4.3]

Forest (Natural Forest)

“Forest” is a minimum area of land of 0.05-1.0 hectares with tree crown cover (or equivalent stocking level) of more than 10-30 per cent with trees with the potential to reach a minimum height of 2-5 meters at maturity in situ. A forest may consist either of closed forest formations where trees of various stores and undergrowth cover a high proportion of the ground or open forest. Young natural stands and all plantations which have yet to reach a crown density of 10-30 per cent or tree height of 2-5 meters are included under forest, as are areas normally forming part of the forest area which are temporarily unstocked as a result of human intervention such as harvesting or natural causes, but which are expected to revert to forest.⁴¹

Forestry Plantation

Areas of arboreal vegetation that are managed for commercial purposes (e.g. wood production) or for environmental benefits (such as erosion control or habitat restoration). These plantations are established through human intervention usually through planting or seeding, they are distinct from natural forests that develop without human intervention.

⁴¹ The Marrakech Accord. CP7/D11. <https://unfccc.int/sites/default/files/resource/docs/cop7/13a01.pdf>. The project holder shall use the definition that applies.

Greenhouse gas (“GHG”)

gaseous constituent of the atmosphere, both natural and anthropogenic, that absorbs and emits radiation at specific wavelengths within the spectrum of infrared radiation emitted by the Earth’s surface, the atmosphere and clouds.

Note 1 to entry: GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF₆).

Note 2 to entry: Criteria may specify other radiative forcing constituents.

[SOURCE: ISO 14064-3:2019(en), 3.1.1.]

Greenhouse gas emission (“GHG emission”)

release of a GHG into the atmosphere.

[SOURCE: ISO 14064-3:2019(en), 3.3.2.]

Greenhouse gas emission factor (“GHG Emission Factor”)

coefficient relating GHG activity data with GHG emissions or GHG removals.

[SOURCE: ISO 14064-3:2019(en), 3.1.3]

Greenhouse gas emission reduction (“GHG Emissions Reduction”)

quantified decrease in GHG emissions between a baseline scenario and the GHG Project.

[SOURCE: ISO 14064-3:2019(en), 3.4.8.]

Greenhouse gas inventory (“GHG Inventory”)

list of GHG sources, GHG sinks and GHG reservoirs and their quantified GHG emissions and GHG removals.

Note 1 to entry: An inventory is established to cover a defined period of time.

[SOURCE: ISO 14064-3:2019(en), 3.4.4.]

Greenhouse Gas Mitigation

According to the Intergovernmental Panel on Climate Change (“IPCC”), mitigation is a human-made intervention to reduce the sources or enhance the sinks of greenhouse gases defined as natural or human-made carbon reservoirs, reducing the amount of CO₂ in the atmosphere.

Greenhouse Gas Mitigation Results (“GHG Mitigation Results”)

These are quantifiable GHG emissions reductions and removals generated by the implementation of a GHG Project.

Greenhouse gas reservoir (GHG reservoir)

component, other than the atmosphere, that has the capability to accumulate GHGs, and to store and release them.

Note 1 to entry: The total mass of carbon contained in a GHG reservoir at a specified point in time could be referred to as the carbon stock of the reservoir.

Note 2 to entry: A GHG reservoir can transfer GHGs to another GHG reservoir.

Note 3 to entry: The collection of a GHG from a GHG source before it enters the atmosphere and storage of the collected GHG in a GHG reservoir could be referred to as GHG capture and GHG storage.

[SOURCE: ISO 14064-3:2019(en), 3.3.5.]

GHG project (Greenhouse gas project)

activity or activities that alter the conditions of a GHG baseline and which cause GHG emission reductions or GHG removal enhancements.

[SOURCE: ISO 14064-3:2019(en), 3.4.1.]

Greenhouse gas project proponent (Project holder)

individual or organization that has overall control and responsibility for a GHG Project.

[SOURCE: ISO 14064-2:2019(en), 3.3.2.]

Greenhouse gas programme (GHG Program)

voluntary or mandatory international, national or subnational system or scheme that registers, accounts or manages GHG emissions, GHG removals, GHG emission reductions or GHG removal enhancements outside the organization or GHG Project.

[SOURCE: ISO 14064-2:2019(en), 3.3.4.]

Greenhouse gas removal

withdrawal of a GHG from the atmosphere by GHG sinks.

[SOURCE: ISO 14064-1:2018(en), 3.1.6]

Greenhouse gas removal activities

These are GHG mitigation actions, in the AFOLU sector, based on agricultural and forestry activities such as silvopastoral systems (grasses and planted trees), agroforestry systems (agroforestry crops), commercial plantations (forest plantations), and other landscape management tools. Oil palm crops are a GHG mitigation action if palms grow and occupied areas other than natural forest or natural vegetation cover other than forest.⁴²

GHG removal forestry activities can also include actions leading to the restoration of degraded ecosystems, such as (a) ecological restoration, (b) ecological rehabilitation, and (c) ecological recovery.

Greenhouse gas statement

factual and objective declaration that provides the subject matter for the verification or validation.

Note 1 to entry: The GHG statement could be presented at a point in time or could cover a period of time.

Note 2 to entry: The GHG statement provided by the responsible party should be clearly identifiable, capable of consistent evaluation or measurement against suitable criteria by a verifier or validator.

Note 3 to entry: The GHG statement could be provided in a GHG report, GHG Project plan or CFP study report. "CFP study report" is defined in ISO 14067:2018, 3.1.1.5.

[SOURCE: ISO 14064-3:2019(en), 3.4.3]

Grouped Project

Grouped projects are those projects in which the addition of new areas (in the case of projects in the AFOLU sector) and instances (in the other industries) is allowed after the GHG Project's validation. That is, projects that can expand without the need for a new validation of the project description. These projects shall comply with the grouping conditions defined by BIOCARBON REGISTRY.

⁴² The names in parentheses correspond to the definitions contained in CORINE Land Cover.

Intended User

individual or organization identified by those reporting GHG-related information as being the one who relies on that information to make decisions.

Note 1 to entry: The intended user can be the client, the responsible party, GHG program administrators, regulators, the financial community or other affected interested parties, such as local communities, government departments or non-governmental organizations.

[SOURCE: ISO 14064-2:2019(en), 3.3.1]

Landscape Management Tools (« LMT »)

Landscape management tools are landscape elements that constitute or enhance habitat, increase functional connectivity, or simultaneously fulfill these functions for native biodiversity. Landscape management tools may include biological and conservation corridors and living fences.

Leakages

Those are the potential emissions that would occur outside the project boundaries due to the GHG Project activities. Leakage means the net change in anthropogenic emissions by sources of greenhouse gases (GHG) that occurs outside the project boundary and are measurable and attributable to the project activity.

Level of assurance

degree of confidence in the GHG statement.

Note 1 to entry: Assurance is provided on historical information.

[SOURCE: ISO 14064-3:2019(en), 3.6.5]

Materiality (Relative Importance)

concept that individual or the aggregation of errors, omissions and misrepresentations could affect the greenhouse gas assertion and could influence the intended users' decisions.

Note 1 to entry: The concept of materiality is used when designing the validation or verification and sampling plans to determine the type of substantive processes used to minimize risk that the validator or verifier will not detect a material discrepancy (detection risk).

Note 2 to entry: The concept of materiality is used to identify information that, if omitted or misstated, would significantly misrepresent a GHG assertion to intended users, thereby

influencing their conclusions. Acceptable materiality is determined by the validator, verifier or GHG program based on the agreed level of assurance.

[SOURCE: ISO 14064-3:2006, definition 2.29]; ISO 14066:2011(en), 3.4.11.

Oil palm crop

According to the definition of CORINE Land Cover, the palm crop is the cover composed of oil palm (*Elaeis guineensis* Jacq.), a perennial plant with a solitary trunk and pinnate leaves belonging to the Arecaceae family, which can reach heights of up to 12 m. This category includes other species of oil palms.

Planted trees and grasses

The coverage is occupied by spatial arrangements where pastures, destined for livestock, grow together with tree plantations destined for all types of production (wood, firewood, fruit trees, resins, and others.). It is the so-called silvopastoral system. This coverage's main characteristic is that the increase in detail does not imply the subdivision into pure units because these shares the same area alternating by furrows or rows of trees with pastures.

Permanence

It is the longevity of a carbon deposit and its stability, considering the handling and altering the environment where it occurs.

Quantification Periods

The quantification period for reductions attributable to GHG Project is the period during which the project operator quantifies the GHG emission reductions or removals achieved by the project in comparison to the baseline or reference scenario.

To determine the start of the quantification period, project holders shall select a date that is later than or equal to when the project generates the first GHG emission reductions or removals.

The Quantification periods shall not exceed the operational period of the project.

REDD+

An international mitigation mechanism framed in the decisions of the CMNUCC, whose objective is to reduce and remove GHG emissions through the implementation of activities to reduce emissions from deforestation, forest degradation, and other forestry activities.

REDD+ Activities

These are GHG mitigation actions that lead to the removal or reduction of GHG emissions from deforestation and degradation of natural forests, namely:

- (a) Reducing emissions from deforestation;
- (b) Reducing emissions from forest degradation;
- (c) Conservation of forest carbon stocks;
- (d) Sustainable management of forest; and
- (e) Enhancement of forest carbon stocks

Register (Registry)

list issued by a certification body, an authority or another registration organization, for certificate holders or persons meeting predetermined criteria.

Note 1 to entry: A register can be publicly available or for in-house purposes.

[SOURCE: ISO/IEC TS 17027:2014(en), 2.65]

Renewal of Quantification Period

The formal acceptance of the renewal of the quantification period of a registered BCR project, validated by a CAB, so as the allowed continued verification, certification and issuance of VCC in the new quantification period.

The renewal of quantification period requires a reassessment of the baseline scenario, based both on current regulations and on the provisions of the BCR Standard.

Responsible Party

person or persons responsible for the provision of the GHG statement and the supporting GHG information.

Note 1 to entry: The responsible party can be either individuals or representatives of an organization or project and can be the party who engages the verifier or validator.

[SOURCE: ISO 14064-1:2018(en), 3.4.3.]

Restoration

According to the Society for Ecological Restoration (SER), ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged or destroyed.⁴³

Risk

effect of uncertainty.

Note 1 to entry: An effect is a deviation from the expected – positive or negative.

Note 2 to entry: Uncertainty is the state, even partial, of deficiency of information related to, understanding or knowledge of, an event, its consequence and likelihood.

Note 3 to entry: Risk is often characterized by reference to potential events (as defined in ISO Guide 73:2009, 3.5.1.3) and consequences (as defined in ISO Guide 73:2009, 3.6.1.3), or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood (as defined in ISO Guide 73:2009, 3.6.1.1) of occurrence.

[SOURCE: ISO 9000:2015, 3.7.9, modified — Notes to entry 5 and 6 have been deleted]; [ISO 19011:2018(en), 3.19]

Source, Sink, or Reservoir of Related GHG

The source, sink, or reservoir of GHGs, includes energy or material flows into, out of, or within the project.

Stakeholder (Interested Party)

person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity.

Note 1 to entry: To “perceive itself to be affected” means the perception has been made known to the organization.

Note 2 to entry: The terms “interested party” and “stakeholder” are used interchangeably.

[SOURCE: ISO 14001:2015, 3.1.6, modified — The admitted term “stakeholder” and Note 2 to entry have been added; ISO 14006:2020(en), 3.1.7.].

⁴³ <https://www.ser.org/>

Start Date

The start date for GHG Project is when activities that result in actual reductions/removals of GHG emissions begin. That is when the implementation, construction, or real action of a GHG Project begins.

For GHG Projects, based on GHG removal forestry activities and oil palm cultivation, this starting date corresponds to the time on which site preparation, the establishment of planting/cultivation, the commencement of restoration activities, or other actions related to the start of project activities begins.

For REDD+ projects, the start date is when the activities proposed by the project to demonstrate reduced emissions from deforestation and forest degradation begin. The start of forest management strategies, including forest resource conservation plans, can be considered the beginning of concrete actions to reduce deforestation.

For GHG Projects in the energy and transport sectors, the same start date rules are defined by the Clean Development Mechanism.

GHG Project Holders may only certify and register, in BIOCARBON REGISTRY, projects whose start date is within five (5) years before the validation. The validation starts once signed a commercial agreement with the CAB.

Transparent and prudent

Establishing a baseline transparently and prudently means that assumptions are explicit, and decisions are informed. In the case of uncertainties about the values of variables and parameters, establishing a baseline is considered prudent if the resulting baseline projection does not lead to an overestimation of the emission reductions attributable to a GHG Project (in case of doubt, use the values that generate a lower baseline projection).

Uncertainty

parameter associated with the result of quantification that characterizes the dispersion of the values that could be reasonably attributed to the quantified amount.

Note 1 to entry: Uncertainty information typically specifies quantitative estimates of the likely dispersion of values and a qualitative description of the likely causes of the dispersion.

[SOURCE: ISO 14064-1:2018(en), 3.2.13]

Validation

process for evaluating the reasonableness of the assumptions, limitations and methods that support a statement about the outcome of future activities.

[SOURCE: ISO 14064-2:2019(en), 3.4.3]

Validation body

body that performs validation.

Note 1 to entry: A validation body can be an organization, or part of an organization.

[SOURCE: ISO/IEC 17029:2019, 3.4, modified — Note 2 to entry has been added.]; [ISO 14065:2020(en), 3.3.26]

Validity of mitigation results

It is the calendar year for which a GHG project obtains and measures its results.

Validity of verified carbon credits

Verified carbon credits (VCC) that are issued for projects in the energy, transport, and waste sectors have a validity period of three years after the quantification of the project's reduction period. After this period, the VCC will expire and cannot be used or traded. A VCC issued for a project in the AFOLU sector expires 5 years after its issuance.

Verification

systematic, independent and documented process for the evaluation of a greenhouse gas assertion against agreed verification criteria.

Note 1 to entry: In some cases, such as in first-party verifications, independence can be demonstrated by the freedom from responsibility for the development of GHG data and information.

[SOURCE: ISO 14064-3:2006, definition 2.36].

Verification body

body that performs verification.

Note 1 to entry: A verification body can be an organization, or part of an organization.

[SOURCE: ISO/IEC 17029:2019, 3.5, modified — Note 2 to entry has been added.]; [ISO 14065:2020(en), 3.3.27]

Verification / validation opinion

formal written declaration to the intended user that provides confidence on the GHG statement in the responsible party's GHG report and confirms conformity with the criteria.

[SOURCE: ISO 14064-3:2019(en), 3.6.18.]

Vulnerability

propensity or predisposition to be adversely affected.

Note 1 to entry: Vulnerability encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.

Note 2 to entry: Vulnerability is the degree to which an ecological, social and economic system is susceptible to, or unable to cope with, adverse climate change impacts, including climate variability and extremes.

[SOURCE: ISO 14090:2019, 3.15, modified — Note 2 to entry has been added.]; [ISO/TS 14092:2020(en)]

Document history

Document Type

Standard. GHG Program. Regulatory document.

Version	Date	Document Nature
Version 1.0	January 7, 2021	Voluntary Carbon Market Standard First version
Version 2.0	February 14, 2022	Actualized version To conform to a single standard, the following documents are unified: PROCLIMA. 2021. STANDARD FOR THE VOLUNTARY CARBON MARKET. From differentiated responsibility to common responsibility. Version 1.0. January 7, 2021. Bogotá, Colombia. 59 p. PROCLIMA. 2021. Certification and Registration Program for GHG Mitigation Initiatives and Other Greenhouse Gas Projects. PROCLIMA PROGRAM Responsibility & Quality. Document for public consultation. May 13, 2021. Bogotá, Colombia. 77 p Name changes of the document. Copyright change into BioCarbon Registry. Climate change adaptation section. Changes in the co-benefit requirements. Addition of section on reversal risk. Renewal of quantification period. Validity of the Verified Carbon Credit. Sections on double counting and transition plan. Minor editorial changes.
Version 2.1	September 21, 2021	Actualized version Scope Verification periods Other GHG Programs Minor editorial changes
Version 3.0	March 7, 2023	Language section updated BCR General Reserve Account included Public comments updated No Net Harm Environmental and Social Safeguards (NNH). The project holder shall demonstrate that the project activities do not cause any net-harm. Eliminated the internal audit process (first-party), as long as it complies with all the provisions of the ISO 19011: 2018 Auditors training
Version 3.1	July 25, 2023	Updated, including references to required BCR and CDM Tools Additionality section adjusted Minor editorial changes