

# VOLUNTARY CARBON MARKET STANDARD

## BCR STANDARD

From differentiated responsibility to common  
responsibility

**BIOCARBON** REGISTRY

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## Acronyms and abbreviations

AFOLU	Agriculture, Forestry, and Other Land Use
BCR	BioCarbon Registry
CAB	Conformity Assessment Bodies
CDM	Clean Development Mechanism
CH <sub>4</sub>	Methane
CO <sub>2</sub>	Carbon dioxide
CO <sub>2e</sub>	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 <sub>2</sub> 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 Climate<sup>1</sup>, "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 in five key systems: energy, cities, land use and food, water, and industry. In this way, the path to low-carbon growth includes new opportunities for sustainable and more equitable development.

The IPCC special report (2018)<sup>2</sup> is a report that focuses on ethical considerations and, in particular, the principle of equity. In the same vein, this report recognizes that most of the impacts of global warming and some potential impacts of mitigation actions needed to limit warming to 1.5°C falls disproportionately on the poorest and most vulnerable communities.

The IPCC also suggests that limiting warming to 1.5°C is not impossible, but that it requires 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<sup>3</sup> Emissions Gap Report showed 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."*

To achieve this goal requires societies that strive for the common good, run-on renewable energy, and favors nature-based actions. The transition to this new *"low carbon growth"*

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<sup>1</sup> <http://newclimateeconomy.report/>

<sup>2</sup> 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.

<sup>3</sup> That is part of the inform "United in Science 2020 A multi-organization high-level compilation of the latest climate science information". In: [public.wmo.int/en/resources/united\\_in\\_science](https://public.wmo.int/en/resources/united_in_science)

economy may have begun, but it is clear that the pace of progress is not fast enough. Societies require to enunciate climate-smart solutions at all levels.

In this way, it is assumed that adaptation and mitigation goals can contribute to address climate change, proposing comprehensive strategies that link adaptation and mitigation with social objectives and local, regional and national development. Thus, public and private organizations, companies, and citizens aim at voluntary carbon markets. They voluntarily assume their responsibility for climate change and their commitment to "neutralize" their GHG emissions by offsetting them with 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 economics and with the potential to help curb GHG emissions by building global adaptation and resilience actions.

## 1.2 Objectives

The objectives of this Voluntary Carbon Market 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 and 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 2.0. February 14, 2022.



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 must also apply to the documents cited in this and the other documents that make up this Standard.

### **3 General terms**

The following general terms apply for this Program:

- (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.

### **5 Scope**

This document is a standard for the certification and registration of GHG projects. 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, accredited in accordance with the provisions of section 22 of this document, or by those responsible for conducting first party audits.

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 (from now on VCC) 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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O);
- (b) GHG projects using a methodology developed or accepted by BIOCARBON REGISTRY, applicable to GHG removal activities and REDD+ activities;
- (c) quantifiable GHG emission reductions and removals generated by the implementation of GHG removal activities or REDD+ activities;
- (d) GHG projects using a methodology developed or accepted by BIOCARBON REGISTRY, applicable to activities in the energy, transportation, and waste handling and disposal sectors;
- (e) 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, actions or activities aimed at reducing GHG emissions and/or removals, in the context of voluntary carbon markets. The BCR STANDARD includes other documents<sup>4</sup> that constitute the methodologies for the quantification of GHG emission reductions and removals, defined by sector and/or type of project (See section 8).

## 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;

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<sup>4</sup> Methodological documents or guidance

- (b) any natural or legal person, public or private that seeks to register its GHG project to demonstrate its mitigation results in the context of compliance national climate change targets, established under the CMNUCC, 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 out first party audits;
- (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 principles<sup>5</sup>:

### 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.

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<sup>5</sup> As set out in the ISO 14064-2 Standard

## 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 Methodological Guides, as applicable to GHG projects;
- (b) Clean Development Mechanism 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;
- (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, what describes these documents adheres to the general principles and requirements in this Standard.

All methodological documents developed by BIOCARBON REGISTRY and approved by the BIOCARBON REGISTRY Technical Committee are available on [www.biocarbonregistry.com](http://www.biocarbonregistry.com).

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

## 10 General requirements

To certify GHG projects with BCR STANDARD, GHG project holders shall comply with the requirements describes below.

### 10.1 Project types

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

The GHG projects include activities in the energy, transport, waste and AFOLU sectors.

Projects in the AFOLU sector may include GHG removal activities and REDD+ activities. The energy sector activities comprise the 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, the waste sector includes the handling and final disposal of solid or liquid, industrial, household, or mixed waste.

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<sup>6</sup> 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>

#### 10.1.1 GHG removal activities

They are GHG mitigation actions in the AFOLU sector, based on 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 oil palm crops and other crops, as long as they are growing in areas other than natural forest or natural vegetation cover other than forest<sup>7</sup>.

NOTE: The areas at the geographical boundaries of the project do not correspond to the category of forest (according to the national forest definitions for the Clean Development Mechanism), nor to natural vegetation cover other than wood at the start of project activities, nor five years before the project start date.

#### 10.1.2 REDD+ activities

These are GHG projects that implement activities 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, which includes the generation of energy with non-conventional sources of renewable energy, particularly those of renewable energies such as solar, wind, biomass, and hydraulic power, defined as well:

**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 that unconventional source of renewable energy is 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.

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

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 is the relationship between the energy used and the total energy used in any energy chain process, within the framework of sustainable development and respecting 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

Treatment and final disposal of the solid or liquid, industrial, household, or mixed waste generates GHG emissions. BIOCARBON REGISTRY can register waste handling and disposal projects that are GHG emission reduction projects focused on utilizing waste or eliminating GHG emissions.

This type of Project holders shall apply the methodologies classified on sector 13 of the Clean Development Mechanism (CDM): Waste handling and disposal.

Project proponents may classify as renewable energy or energy efficiency, some projects that include waste handling and disposal components. For this Standard's purposes, those methodologies that the latest version of the guidance for the certification and registration of Non-Conventional and Renewable Energy Sources (NCRE) do not consider and contain both waste and energy components 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 Mechanism<sup>8</sup>.

## 10.4 Start date

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

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<sup>8</sup> Information available in [https://cdm.unfccc.int/methodologies/documentation/meth\\_booklet.pdf](https://cdm.unfccc.int/methodologies/documentation/meth_booklet.pdf)



Project owners can only certify and register, with the BCR STANDARD, projects whose start date is defined within the five (5)<sup>9</sup> years prior to the start of validation<sup>10</sup>.

## 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

Considerations of additionality and details on the demonstration of additionality are in BCR methodological documents. In general terms, the following applies.

For the activities for which BCR has prepared methodological documents, the description in these documents must be applied. For projects in the energy and waste sectors, the use of the Clean Development Mechanism tool is required. Methodological tool. Tool for the demonstration and assessment of additionality (am-tool-01-v7.o.o.pdf)<sup>11</sup>.

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

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

<sup>10</sup> Validation begins once a commercial agreement has been signed with the CAB or with the first party auditor.

<sup>11</sup> Available in <https://cdm.unfccc.int/methodologies/PAmethodologies/tools/am-tool-01-v7.o.o.pdf>

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 shall<sup>12</sup>:

- (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 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"*.

Considering this definition and based on the importance of linking mitigation with adaptation, jointly with efforts to reduce GHG emissions, GHG project holders must 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 must carry out actions related to climate change adaptation, demonstrating that these are derived from the GHG project activities.

According so, the Project holder demonstrates that:

- (a) considers 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;

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<sup>12</sup> Adapted from ISO 14001. Environmental management systems. Requirements with orientation for their application.

- (b) improves conditions for the conservation of biodiversity and its ecosystemic 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) implements activities that generate sustainable and low-carbon productive landscapes;
- (d) proposes restoration processes in areas of specific environmental importance;
- (e) designs and implements adaptation strategies based on an ecosystemic approach;
- (f) strengthens 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 mechanism 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*"<sup>13</sup>.

As a good practice, the project holders should use national or local values and data when 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 available<sup>14</sup>. When using default values, to follow the conservative principle, traditional values of settings should be used<sup>15</sup>, for example, by the use of the lower limit of the range of data as long as it corresponds to the most conservative assumption<sup>16</sup>.

Finally, if reference 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 projects<sup>17</sup>.

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

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<sup>13</sup> ISO 14064-2:2019(en)

<sup>14</sup> 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\\_guid16\\_v01.pdf](https://cdm.unfccc.int/Reference/Guidclarif/meth/meth_guid16_v01.pdf)

<sup>15</sup> 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).

<sup>16</sup> The conservative principle shall be ensured by the appropriate choice of parameters affecting the project's GHG emissions, removals, sinks and reservoirs.

<sup>17</sup> Contained in the methodological documents, developed by sector or Project type.

national reference scenario. If that's so, 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

GHG project holders shall establish a baseline or reference scenario, meaning the situation representing the GHG emissions that would occur in the absence of a GHG project, they comply with the methodology applicable to the GHG emission reductions or removal activities.

Definition of the reference scenario shall follow the provisions contained in the BIOCARBON REGISTRY methodological documents and the other methodologies applicable to projects, in their most recent version 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;
- (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 this

Standard. 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) VCCs issued for projects in the energy, transport and waste sectors expire 3 years after the quantification of reductions period of the project.
- (b) VCC issued for a project in the AFOLU sector expires 5 years after its issuance.

#### 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 are the ownership of verified carbon credits (VCC) and, when applicable, the rights to benefit from the sale of credits or other payments or interests received from GHG emissions reductions or removals. That is, carbon rights are the right to benefit from GHG emission reductions or removals. In this sense, GHG project holders shall demonstrate full legal ownership of the VCCs.

Carbon rights shall demonstrate transparency and, if necessary, with evidence of a process based on full, prior, and informed consent.

In particular, when the Project develops activities within territories of ethnic groups or traditional local communities, both its members, individuals, and environmental authorities shall ensure respect for their rights, to observe and develop the procedures provided for in the law.

Consequently, in cases where the project holder is a natural or legal person other than the local ethnic groups or traditional communities, in the first instance, the project holder must request a certification from the corresponding authority to determine whether or not there are Ethnic Communities in the area of the project over which the Fundamental Right to Prior Consultation must 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 must 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 must 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 uncertainty about the results.

Finally, and taking into consideration the above, risk assessment and management must be adequate, accurate and objective.

### 13.1 Reversal risk management

The GHG project holder must 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 15% of the total quantified GHG emission reductions or removals for each verified period.

This reserve guarantees the replacement of lost credits by occurs events that require the replacement of credits placed in the market. BIOCARBON REGISTRY periodically reviews this percentage and, if necessary, adjust it.

The 15% discount on Verified Carbon Credits in each verification period is held in a reserve account for the project to which they belong.



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 cancel the related amount from the registration system and issue a withdrawal statement, which will be sent to the project holder.

Verified Carbon Credits placed in the 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 assuring all the necessary previsions, the 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 must carry out an environmental assessment, analyzing the probable effects on biodiversity and ecosystems within the limits of the project. The analysis must 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.

## **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.

## **16 Stakeholders' consultation**

Holders of GHG projects should carry out a stakeholder consultation before validation, report on project 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 the relevance of their comments was 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](mailto:info@biocarbonregistry.com)), and to the project holder the documentation related to the project under validation. The request must 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 take into account 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 the information related to the stakeholder comments and include a conclusion on this in the validation report.

## **17 Sustainable Development Goals**

GHG project shall be encouraging to climate action, based on sustainable development and the common benefit. To this end, GHG project holders shall assess the contribution of the GHG project 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 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.

In order to demonstrate compliance with this requirement, project holders must demonstrate, with definition of relevant criteria and indicators, the contribution of the project to the Sustainable Development Goals, applicable to the project activities proposed by the project holder.

In this regard, project holders must use the Tool for the determination of contributions to the Sustainable Development Goals (SDGs) of Greenhouse Gas projects (GHG projects in this standard). This tool, developed by BioCarbon Registry, is available at <https://biocarbonregistry.com/en/ods/>.

## 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 70<sup>18</sup> 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.21<sup>19</sup>, the project holder should promote and respect the following safeguards:

- (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 taking into account 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 decision<sup>20</sup>;
- (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 decision<sup>21</sup> are not used for the conversion of natural forests, but are instead used to

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<sup>18</sup> 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/07a01.pdf#page=12>

<sup>19</sup> <https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10a03.pdf>

<sup>20</sup> Decision 1/COP.16

<sup>21</sup> Ibid, p. 29

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 countries are responsible for interpreting their scope, according to their own national context. Consequently, the REDD+ project holder must demonstrate compliance with the aforementioned REDD+ safeguards, considering the national context and including the definition of indicators for monitoring, reporting and verification.

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 must 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.

## 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)<sup>22</sup> 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 define additional actions on social and environmental components and show that they have confirmed a model of criteria and indicators to follow up and verify compliance.

The GHG project, which aims at reaching one of these categories, shall comply with the conditions defined for each of the four components that constitute the additional benefits (biodiversity conservation, benefits on communities and gender equity). The categories and conditions required to obtain a class are in section 19.1.

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<sup>22</sup> Climate Change 2007: Working Group III: Mitigation of Climate Change

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 holder of the GHG project demonstrates that:

- (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 Targets<sup>23</sup> for Biodiversity;
- (c) demonstrates which High Conservation Values (HCV) are in the project area<sup>24</sup>;
- (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 List<sup>25</sup>) 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 Benefits related to the community

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

The holder of the GHG project demonstrates 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;

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<sup>23</sup> <https://www.cbd.int/aichi-targets/>

<sup>24</sup> Based on criteria defined by the High Conservation Value (HCV) network. <https://hcvnetwork.org/>

<sup>25</sup> <https://www.iucnredlist.org/>

- (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;
- (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."*<sup>26</sup>

Also, according to López (2017)<sup>27</sup>, "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 demonstrates 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.

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<sup>26</sup> <http://www.fao.org/family-farming/detail/es/c/335922/>

<sup>27</sup> Salvaguardas y Género - Documento de Recomendaciones. Diana López Consultora de Género para el Programa ONU REDD Colombia. Marzo de 2017.



## 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.

*Figure 1. Requirements of the Orchid category*



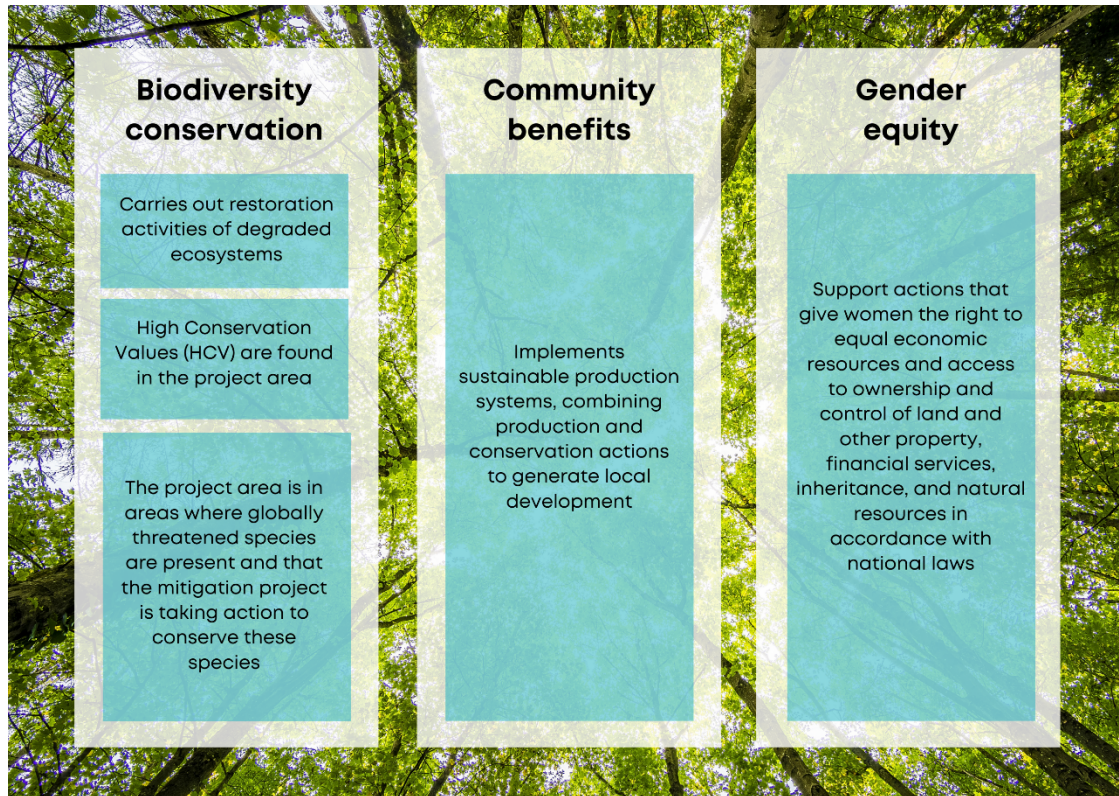
Source: BIOCARBON REGISTRY, 2022.

### 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)<sup>28</sup>. Figure 2 shows the requirements to obtain the Wax Palm Category.

*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 globally<sup>29</sup>. It is also one of the birds that fly at the highest

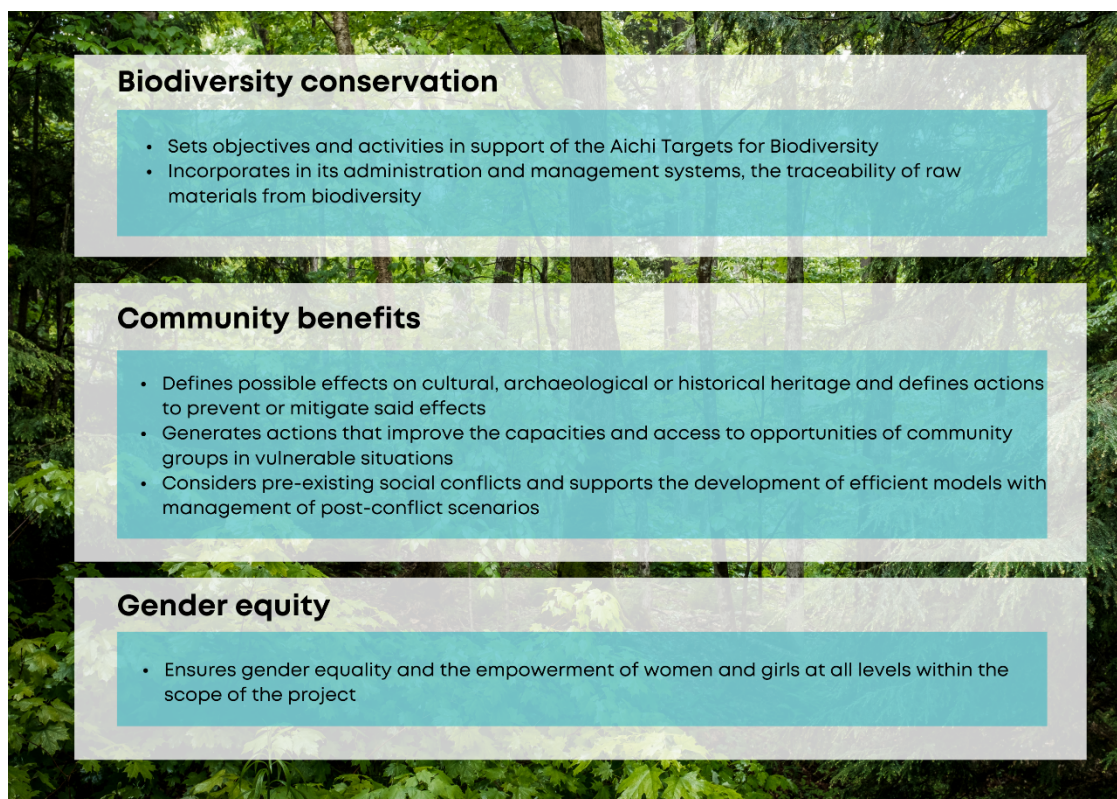
<sup>28</sup> Ministerio de Ambiente y Desarrollo Sostenible. 2015. Plan de conservación, manejo y uso sostenible de la palma de cera del Quindío (*Ceroxylon quindiuense*), Árbol Nacional de Colombia. Textos: Bernal R., G. Galeano, M. J. Sanín. Ministerio de Ambiente y Desarrollo Sostenible - Universidad 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\\_conservaci%C3%B3n\\_manejo\\_y\\_uso\\_sostenible\\_de\\_la\\_palma\\_de\\_cera\\_del\\_Quind%C3%ADo.pdf](https://www.minambiente.gov.co/images/BosquesBiodiversidadYServiciosEcosistemicos/pdf/Programas-para-la-gestion-de-fauna-y-flora/Plan_de_conservaci%C3%B3n_manejo_y_uso_sostenible_de_la_palma_de_cera_del_Quind%C3%ADo.pdf)

<sup>29</sup> 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](https://www.minambiente.gov.co/images/BosquesBiodiversidadYServiciosEcosistemicos/pdf/Programas-para-la-gestion-de-fauna-y-flora/4023_100909_prog_conserv_condor.pdf)



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), threats to the population include habitat loss and secondary poisoning<sup>30</sup>. Figure 3 shows the requirements for the Andean Condor category.

*Figure 3. Requirements of the Andean Condor*



Source: BIOCARBON REGISTRY, 2022.

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<sup>30</sup> <https://birdscolumbia.com/>

## 20 Grouped projects

Projects may be developed as grouped projects. 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 sectors) is allowed after the validation of the project. That is, projects can expand without the need for a new validation of the project description. These projects shall comply with the conditions for bundling described below.

### 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 causes and 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 (initial<sup>31</sup> and additional) instances of the project are developed and define the criteria for the addition of new cases;
- (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.

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<sup>31</sup> The initial instances are those included in the project description during validation.

## 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

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.

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.

In cases in which the GHG project holder intends to use the Verified Carbon Credits (VCC) in his name, that is, he develops mitigation actions to offset his own emissions, the project holder can present a GHG Declaration that results from an internal audit process (first part), as long as it complies with all the provisions of the ISO 19011: 2018<sup>32</sup> and the other aspects intended in this Standard for validation and verification that apply.

The start of the validation process should take place in the moments established in Section 10.4 of this document. Verifications can be annual but shall be carried out every three years at most.

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;

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<sup>32</sup>. ISO 19011:2018 (en). Guidelines for auditing management systems. In: <https://www.iso.org/obp/ui#iso:std:iso:19011:ed-3:vi:en>

- (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 (or who acts as the first party auditor)<sup>33</sup> 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.

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<sup>33</sup> Hereafter, when reference is made to the CAB, if applicable and omitted, this also includes the first party auditor.



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;
- (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) Design a 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 and 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 (or who acts as the first party auditor) 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, 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<sup>34</sup> 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%;

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<sup>34</sup> Or the first part auditor

- (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

Unless required in cases where the project holder intends to use Verified Carbon Credits (VCCs) in its own name, GHG projects must undertake validation and verification processes, by an independent third party, to ensure that they apply GHG emission reduction or removal quantification methodologies that 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 ISO 14064-3 or those that adjust and update them.

## **24 Certification and Registration of Verified Carbon Credits (VCC)**

Once the CAB has completed the validation process, it shall submit the validation statement. The result of the certification process, by BIOCARBON REGISTRY, is a formal written statement issued by the standard (GHG program) administrator.

Verification process completed, CAB shall submit the verification statement, ensuring that, during a specified period, the GHG project has achieved the GHG performance. That means GHG emissions, GHG emission reductions, and GHG emissions removal increases, as declared by the project holder.

The registry includes the issuance of Verified Carbon Credits from a validated and verified project.

Carbon credits will only be issued if they have been previously verified, by carrying out the validation and subsequent verification process, in accordance with the guidelines established for this purpose by the ISO 14064-3, or the one that adjusts or updates them, as well as with the definitions of the BCR STANDARD.

The conformity assessment body shall carry out the verification under the provisions of the BIOCARBON REGISTRY Validation and Verification Manual. The Verification Statement shall include a justification of the conformity of the GHG project's validation, ensuring that it complies with BIOCARBON REGISTRY regulations and the applicable national regulations.

## 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 "BIOCARBON REGISTRY Project Cycle."<sup>35</sup>

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

When the project start date is earlier than described in section 9.4 of this document, the start date that meets the criteria of the program or standard from which the project originates shall be valid. However, for subsequent verifications, the issuance of VCCs will be done according to the rules of the BCR STANDARD.

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<sup>35</sup> BIOCARBON REGISTRY. 2022. Project Cycle. Version 4.0. February 11, 2022. Bogotá, Colombia. 17 p. <http://www.biocarbonregistry.com>

The conformity assessment body (or the first party auditor) shall carry out the verification in accordance with the BCR Validation and Verification Manual and 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 accounting

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<sub>2e</sub>, in the following scenarios:

- (a) a ton of CO<sub>2e</sub> is counted more than once to demonstrate compliance with the same GHG mitigation goal;
- (b) one ton of CO<sub>2e</sub> is counted to demonstrate compliance with more than one GHG mitigation goal;
- (c) a ton of CO<sub>2e</sub> is used more than once to obtain remuneration, benefits, or incentives;
- (d) one ton of CO<sub>2e</sub> 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.

## 27 Registry platform

BIOCARBON REGISTRY has a public registry that allows for the certification and assignment of a unique serial of verified 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.

The registration of the project in the registry platform may be requested when the validation process has been carried out, or before. Registration can be requested once the validation process has concluded. The project holder can carry out the validation and the first verification of the Project simultaneously. In this case, the CAB shall issue a single validation and verification report. However, they shall issue their respective declarations separately, meaning validation and verification.

Projects applying for registration in BIOCARBON REGISTRY may not be registered in any other registry system. Therefore, 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 one classified as reserved by law.

## **29 Transition plan**

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



This document also complies with the documents referenced in this and other materials that make up this Standard.

## ANNEX A. GLOSSARY OF TERMS<sup>36</sup>

### **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]

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<sup>36</sup> Some terms and definitions not found in this glossary are contained in the Program'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 either greenhouse gas emissions 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 (CO<sub>2</sub>e)**

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, those are the tons of carbon per 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 Parties 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**

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 (CO<sub>2</sub>)**

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]

Other definition: The carbon content refers to the carbon content's weight to the total weight of the fuel molecule. All fossil fuels are composed chemically of links between carbon and hydrogen molecules mainly. During combustion, these bonds are broken, therefore, generating CO<sub>2</sub> and water molecules principally. Hence, there is a direct relationship between the carbon content and the amount of CO<sub>2</sub> emitted by combustion, and the carbon fraction is the way to quantify it.

### **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.<sup>37</sup>

### **Forestry plantation**

They are covers constituted by plantations of arboreal vegetation, made by the man's direct intervention with forest management aims. In this process, forest stands start by planting and when applicable seeding during the forestation or reforestation process to produce wood (commercial plantations) or environmental goods and services (protective plantations).

### **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 (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>).

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.]

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<sup>37</sup> The Marrakech Accord. CP.7/D.11. <https://unfccc.int/sites/default/files/resource/docs/cop7/13a01.pdf>. The project holder shall use the definition that applies.



**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, 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 CO<sub>2</sub> in the atmosphere.

**Greenhouse gas 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.<sup>38</sup>

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.

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<sup>38</sup> The names in parentheses correspond to the definitions contained in CORINE Land Cover.

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.

### **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 is 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 when the project operator quantifies the GHG emission reductions or removals measured against the baseline or reference scenario to apply to the GHG Program to issue Verified Carbon Credits (VCC).

The date selected by the project holders as the start of the quantification period shall be later than or equal to when the GHG project generates the first GHG emission reductions or removals. Quantification periods shall not exceed the operational period of the project.

**REDD+**

It is an international mitigation mechanism framed in the decisions of the CMNUCC, whose objective is to reduce emissions and remove GHGs 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 National Plan for Ecological Restoration (MADS, 2015)<sup>39</sup>, restoration is an interdisciplinary strategy, which articulates scientific knowledge to respond to management processes and ecosystem management to the needs of restoring degraded ecosystems and prevent future damage.

The restoration includes interventions such as (a) ecological restoration, (b) environmental rehabilitation, and (c) environmental recovery.

Ecological restoration consists of restoring the degraded ecosystem to a condition like the pre-disturbance ecosystem concerning its composition, structure, and functioning. Besides, the resulting ecosystem shall be a self-sustaining system and shall guarantee species conservation, the ecosystem in general, and most of its goods and services.

Ecological rehabilitation aims to bring the degraded system to a system similar or not to the pre-disturbance system, which shall be self-sustaining, preserve some species, and provide some eco-systemic services.

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<sup>39</sup> Ministerio de Ambiente y Desarrollo Sostenible. 2015. Plan Nacional de Restauración: restauración ecológica, rehabilitación y recuperación de áreas disturbadas. Bogotá, D.C.: Colombia. 92 p.

Ecological recovery aims to recover some eco-systemic services of social interest. Generally, the resulting ecosystems are not self-sustaining and do not resemble the pre-disturbance system.

### **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**

It is a source, sink, or reservoir of GHGs. It 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.].

### **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. It may be, for example, the start of forest management strategies as also when applicable to forest resource conservation plans. In other words, 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 this Program, 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**

VCCs issued for projects in the energy, transport and waste sectors expire 3 years after the quantification of reductions period of the project.

In all cases, 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

Voluntary Carbon 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	<p>Actualized version</p> <p>To conform to a single standard, the following documents are unified:</p> <p>PROCLIMA. 2021. STANDARD FOR THE VOLUNTARY CARBON MARKET. From differentiated responsibility to common responsibility. Version 1.0. January 7, 2021. Bogotá, Colombia. 59 p.</p> <p>PROCLIMA. 2021. Certification and Registration Program for GHG Mitigation Initiatives and Other Greenhouse Gas Projects. PROCLIMA PROGRAM Responsibility &amp; Quality. Document for public consultation. May 13, 2021. Bogotá, Colombia. 77 p</p> <p>Name changes of the document.</p> <p>Copyright change into BioCarbon Registry.</p> <p>Climate change adaptation section.</p> <p>Changes in the co-benefit requirements.</p> <p>Addition of section on reversal risk.</p> <p>Renewal of quantification period.</p> <p>Validity of the Verified Carbon Credit.</p> <p>Sections on double counting and transition plan.</p> <p>Minor editorial changes.</p>