BioCarbon Water Standard

Sustainable Management and Conservation of Water Resources

BioCarbon Cert®

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www.biocarbonstandard.com

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Acronyms and Abbreviations

BbS	Nature-based Solutions
BWS	BioCarbon Water Standard
HCV	High Conservation Values
IP	Indigenous Peoples
LC	Local communities
SDG	Sustainable Development Goals
TOC	Theory of change
VWC	Verified Water Credits

1 Introduction

Water is an essential resource that requires efficient management to ensure its sustainability. However, it faces serious challenges arising from increasing demand, pollution, climate change, and inefficient management.

A sustained increase in water demand for agriculture, industry, and human consumption has led to the depletion of aquifers and surface water bodies, causing alarming overexploitation of water resources. In many regions, groundwater use exceeds natural recharge rates, and ecological flows necessary for many species have been reduced. Moreover, modifications of rivers and lakes have led to habitat fragmentation and the extinction of aquatic species. On the other hand, growing climate variability has intensified phenomena such as droughts and floods, negatively impacting water availability.

Water scarcity already affects more than 40% of the world's population, and it is projected that by 2030, the gap between water demand and supply will be 40%, generating conflicts, water insecurity, and severe economic disruptions.

According to the United Nations Development Program: "*Today, half of the world's population (i.e., four billion people) faces severe water scarcity for at least one month a year. And about 500 million people face water scarcity year-round. Approximately 4.2 billion lack sanitation, 2.2 billion do not have safe drinking water, and 700 million could be displaced—250 million in Africa alone—due to water scarcity by 2030.*"

In this context, sustainable management and conservation of water resources has become a global priority. Integrated management of water, soil, vegetation cover, and related resources is key to ensuring the sustainability of ecosystems and water resources. This perspective is aligned with the Sustainable Development Goals (SDGs), especially SDG 6 on access to water and sanitation and SDG 13 on climate action.

To address these priorities, it is essential to implement actions such as protecting and restoring watersheds and aquifer recharge areas, adopting efficient water use practices and the efficient use of water sources, and preventing groundwater overexploitation. Similarly, conservation and restoration measures for aquatic ecosystems and vegetative cover, as well as erosion control measures, are required.

The BIOCARBON WATER STANDARD (BWS) represents an innovative strategy that combines technical, financial, and technological elements for the sustainable management and conservation of water resources through projects that ensure quantifiable positive actions on the resource. This is framed within environmental assets as a financial mechanism that ensures their sustainability over time.

This standard sets forth the principles, criteria, and requirements for certifying projects aimed at the sustainable management and conservation of water resources, thereby promoting investment oriented toward its protection.

2 Objectives

The BWS is designed to certify projects that implement activities contributing to the sustainable management and conservation of water resources. This standard seeks to ensure that projects not only have a positive impact on water conservation but also generate environmental, social, and economic benefits.

In this context, the Standard:

(a) determines requirements for certifying conservation and restoration projects of water ecosystems that ensure sustainable water management;

(b) establishes the principles and practices that water conservation project owners must fulfill in order to obtain Verified Water Credits (VWCs) with BIOCARBON;

(c) defines the requirements project owners must consider when implementing activities for the conservation and sustainable management of water resources;

(d) provides criteria to demonstrate that water conservation activities are permanent and quantifiable, ensuring compliance with applicable regulatory frameworks;

(e) offers the necessary conditions to guarantee data quality in the quantification and management of VWCs;

(f) ensures the quality and compliance of applicable requirements for the registration and issuance of VWCs;

(g) recognizes the importance of encouraging VWC generation as an environmental finance mechanism;

(h) reaffirms the overall effectiveness and integrity of the BIOCARBON WATER PROGRAM.

3 Version

This document is the Public Consultation Version, dated March 21, 2025.

This version may be updated periodically, and intended users must ensure they use the latest version of the document, available on the BIOCARBON website[1].

4 Scope

This document constitutes the Standard for the certification and registration of projects involving the sustainable management and conservation of water resources, as well as for the issuance of VWCs. The standard includes guidance for the registration of projects that demonstrate compliance with the requirements set forth in national legal frameworks, as well as with the rules and procedures established by BIOCARBON.

Registration of water resource management and conservation projects is possible only if such projects have been previously certified by an accredited Conformity Assessment Body (CAB) in accordance with the provisions of Section 13 of this document.

In this context, the scope of the BWS is limited to:

(a) projects that include activities related to the sustainable management and conservation of water resources, including efficient water use, protection of water sources, and restoration of natural ecosystems;

(b) projects that use a methodology developed or approved by BIOCARBON applicable to water conservation and sustainable management activities;

(c) projects whose development includes contributions to regional or local water resource management strategies and plans;

(d) activities that contribute to global agreements related to the conservation and sustainable management of water resources.

5 Area of application

The BWS is intended for:

(a) all public and private entities, including individuals, companies, and governments, seeking to register with BIOCARBON a project that aims to meet specific goals related to the sustainable management and conservation of water resources ("project holders" hereinafter);

[1] www.biocarbonstandard.com

(b) independent entities responsible for auditing and certifying projects ("Certification Bodies" hereinafter);

(c) entities responsible for collecting, analyzing, managing, and disseminating information related to water resources, aiming to ensure their sustainable use and informed decision-making;

(d) private companies, governmental bodies, multilateral institutions, and other financial institutions that invest in projects and/or participate in the Water Credit market;

(e) and, in general, all stakeholders related to sustainable water management and conservation projects.

6 Principles

Integrated water resources management is based on equitable, efficient management and sustainable use of water. It recognizes that water is an integral part of the ecosystem, a natural resource, and a social and economic good, where quantity and quality determine how it is used[2].

In line with this approach, project owners and other interested parties must respect the following principles [3]:

Principle 1: Water is a finite and vulnerable resource

Fresh water is a finite and vulnerable resource, essential to sustaining life, development, and the environment.

Principle 2: Participatory approach

Water development and management must be based on a participatory approach, involving users, planners, and policy-makers at all levels.

Principle 3: The role of women

Women play a fundamental role in water supply, management, and protection.

[2] Global Water Partnership (GWP). Available at www.gwp.org
[3] Taken out of de "Dublin-Rio Principles"

Principle 4: social and economic value of water

Water is a public good and has both social and economic value in all its concurrent uses.

7 General terms

The following general terms apply for this Standard:

(a) "Shall" is used to indicate that the requirement shall be met;

(b) "Should" is used to suggest that, among several possibilities, a course of action recommended as particularly appropriate;

(c) "May" is used to indicate that it is permitted.

8 Normative references

The following documents are referenced in such a way that part or all of their content constitutes requirements of the BIOCARBON WATER PROGRAM. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

The following references are indispensable for the application of the BWS:

(a) multilateral agendas related to the sustainable management and conservation of water resources, including UN General Assembly Resolution A/RES/71/222 – International Decade for Action "Water for Sustainable Development" (2018–2028). United Nations (2016)[4];

(b) national policies and action plans related to water resource use and management, ensuring its efficient use, the protection of aquatic ecosystems, and equitable access for present and future generations;

(c) current legislation establishing standards and guidelines for the sustainable management and conservation of water resources;

(d) ISO 46001:2019. Water management – Requirements and guidelines for efficient use, or its subsequent updates;

[4] https://docs.un.org/en/A/RES/71/222

(e) ISO 14046:2024. Water footprint – Principles, requirements, and guidelines, or its subsequent updates;

(f) the most recent version of the BWS;

(g) methodological documents and/or BioCarbon guides and tools, as well as other documents relevant to projects for sustainable management and conservation of water resources.

9 Eligible activities

This standard applies to activities involving the sustainable management and conservation of water resources, related to reducing the water footprint. Project activities consist of actions that involve restoring, managing, or protecting the ecosystem. These actions are not mutually exclusive. In this sense, protection activities may require restoration and/or management work.

Project activities shall be guided by the following practices:

(a) optimizing the use of water stored in surface and underground sources for agricultural and livestock production, with the goal of minimizing the impact on the quantity of available water resources;

(b) improving the efficiency of the use of rainwater retained in the soil and directly used for agricultural and livestock production, such as crops and pastures;

(c) reducing water pollution generated by agricultural and livestock activities, thus reducing the amount of water needed to dilute pollutants to environmentally acceptable levels.

9.1 Activities for sustainable management

9.1.1 Efficient use

Efficient use practices reduce the dependence on water availability, improving agroecosystem sustainability, decreasing pressure on water sources, and contributing to long-term water security. Such practices include:

(a) Technological irritation (e.g., drip or sprinkler irrigation) to optimize water consumption;

(b) Rainwater harvesting and storage, implementing systems to collect and store water for use during dry periods;

(c) Soil management to improve its water retention capacity, through practices such as incorporating organic matter and minimal tillage;

(d) Regenerative livestock practices, including rotational grazing management;

(e) Selection of crops and forages adapted to conditions of lower water availability.

9.1.2 Optimization of water use

This category involves practices for optimizing water use in agroecosystems, focusing on maximizing the use of "green water" (water stored in the soil from rainfall) and reducing dependence on artificial irrigation.

By optimizing green water use, the need for irrigation is reduced, the agroecosystem's resilience to climate variability is improved, and agricultural and livestock production becomes more sustainable and less dependent on external water sources. These practices include:

(a) Soil conservation, such as constructing terraces to reduce erosion and improve water retention;

(b) Management of natural vegetative cover, which protects the soil from evaporation, improves soil structure, and fosters biodiversity conservation;

(c) Agroforestry, integrating trees and crops in the same system, thus aiding water capture and retention in the soil, providing shade, and reducing erosion;

(d) Crop rotation, improving soil structure, promoting water infiltration, and optimizing nutrient use, thereby contributing to greater sustainability of the production system;

(e) Livestock aqueducts to reduce water consumption and contamination of surface water sources;

(f) Installation of water reservoirs to decrease demand on water sources;

(g) Soil management practices to maximize water infiltration and retention in the soil profile.

These practices not only strengthen the agroecosystem's ability to face droughts and extreme weather events but also foster an integrated approach to water and soil management, essential for long-term water and food security.

9.1.3 Reduction of contaminants

To improve water quality and promote more sustainable agricultural production, practices may focus on pollutant reduction and the responsible management of water resources. Main activities include:

(a) Reducing the use of synthetic fertilizers and pesticides, via balanced fertilization[5] models, use of controlled-release fertilizers (which minimize nutrient leaching), and controlled application of pesticides[6];

(b) Using bio-inputs as sustainable alternatives to synthetic products. Their use promotes soil health and reduces water contamination[7];

(c) Wastewater treatment, preventing pollution of rivers and aquifers. This can include filtration and sedimentation systems, treatment plants with biodigesters, and reuse of treated water (for agricultural irrigation or industrial processes);

(d) Implementation of vegetative barriers and artificial wetlands[8], as natural infrastructure that helps filter contaminants before they reach water bodies;

(e) Efficient management of manure and other organic residues generated by agricultural production. This can involve composting, using biodigesters, and controlled storage or application of manure[9].

By implementing these activities, water pollution is significantly reduced in watersheds, promoting more sustainable and resilient production systems. Moreover, these practices not only protect the environment but also enhance the efficiency of agricultural resources and the health of aquatic ecosystems.

9.1.4 Soil improvement techniques

Soil improvement optimizes water infiltration, increases organic matter, and ensures long-term fertility. These techniques help reduce erosion, improve soil structure, and increase water storage capacity, contributing to agroecosystem sustainability and resilience to climate variability.

[5] Based on the analysis of the soil, only the necessary amount of nutrients can be applied
[6] Using methods such as localized spraying or biological control to reduce their environmental impact
[7] They also provide other benefits. For example, they improve soil fertility through biofertilizers that fix nitrogen or solubilize phosphorus
[8] Designed with aquatic plants and micro-organisms that break down pollutants, they improve the quality of water before it is discharged into rivers or lakes
[9] Avoiding its accumulation in areas close to water bodies and its application in appropriate doses as a natural fertilizer.

Techniques for improving infiltration and organic matter content encourage water infiltration, prevent soil degradation, and reduce surface runoff. These include implementing agricultural and soil conservation practices such as:

(a) contour design, which is the arrangement of crops and farming practices along the natural lines of the land, thereby reducing water velocity, preventing erosion and facilitating infiltration;

(b) infiltration trenches, which are shallow channels designed to capture and retain rainwater, allowing it to gradually infiltrate into the ground and contribute to groundwater recharge;

(c) cultivation terraces, with stepped surfaces on slopes that reduce erosion, improve water retention and optimize land use on sloping terrain;

(d) infiltration crescents, which are crescent-shaped structures built in arid and semi-arid soils to capture runoff water and improve moisture in the root zone of crops;

(e) addition of organic matter, incorporating plant residues, manure, and compost into the soil to improve its structure, increase water retention capacity, and stimulate microbial activity, thus improving nutrient availability.

(f) organic fertilization, using natural amendments such as compost, vermicompost, and biofertilizers to enhance soil fertility without disturbing its ecological balance.

9.2 Conservation activities

Conservation activities include protecting and restoring water ecosystems and vegetative cover. This involves actions to ensure the availability and quality of water, prevent soil erosion, and maintain biodiversity. Conservation of these ecosystems encompasses the activities described below.

9.2.1 Conservation and restoration of water ecosystems

The conservation and restoration of water ecosystems are directly related to water conservation, climate change mitigation, and the sustainability of agricultural activities. Combining restoration with sustainable agricultural practices and resource protection ensures the continuity of ecosystem services and the resilience of landscapes and vegetation cover in the face of current environmental challenges.

9.2.1.1 Restoration of wetlands and degraded basins

Wetlands and basins play a crucial role in regulating the water cycle, retaining sediments, and conserving biodiversity. Restoration activities can include:

(a) removal of artificial barriers that alter water flow;

(b) reforestation and revegetation with native species to stabilize soil and improve infiltration;

(c) reestablishment of the hydrological regime in wetlands, which involves restoring or rehabilitating a wetland;

(d) implementation of artificial wetlands to improve water quality.

9.2.1.2 Protection of water sources and aquatic ecosystems

The protection of water sources, rivers and streams to ensure their ecological functionality and prevent their pollution. To this end, the following activities can be carried out:

(a) preventing agricultural and livestock activities in water protection zones;

(b) implementing monitoring systems to track water quality;

(c) promoting activities that guarantee responsible use of water resources.

9.2.1.3 Conservation of vegetation buffer strips in water bodies

Vegetation "buffer strips" along river and stream banks are key for filtering pollutants, reducing erosion, and regulating water temperature. Conservation and establishment of such areas may include:

(a) protection and restoration of natural vegetation in these zones;

(b) compliance with current regulations on the minimum width of protection buffers, based on hydrological and ecological criteria;

(c) implementation of live fences and vegetative barriers in agricultural areas near water sources.

9.2.1.4 Soil management to prevent erosion and improve infiltration

Soil can be protected against erosion by applying practices that promote stability and water retention. These include:

(a) revegetation with native species and natural vegetation cover;

(b) managing vegetative cover in agricultural areas to reduce surface runoff;

(c) establishing tree barriers or agroforestry systems, especially in areas with water deficits, to improve microclimatic conditions and conserve soil moisture.

9.2.2 Conservation and restoration of vegetative cover

Activities for water resource conservation are closely tied to Nature-based Solutions (NbS), which enhance landscape and habitat features, increase functional connectivity, or simultaneously provide these functions in the ecosystem while contributing to biodiversity conservation.

9.2.2.1 Conservation of natural cover

Conserving forests and natural covers is essential for water regulation and the provision of ecosystem services. Protection activities include:

(a) landscape management tools (mini-corridors or connection strips, enclosures, living fences, enrichment);

(b) rehabilitation of forest cover, restoring degraded areas with tree vegetation, aiming to recover the forest's structure and function without necessarily reaching the original state prior to degradation;

(c) monitoring and prevention of deforestation;

(d) implementation of sustainable forest management plans in productive areas;

(e) conservation of strategic ecosystems, with High Conservation Values (HCVs) related to water resources.

9.2.2.2 Afforestation and revegetation

Afforestation is the planting of trees in areas that were not previously forested.

Revegetation is the process of restoring or reintroducing vegetation in an area that has been degraded, altered, or destroyed due to natural factors or human activities such as deforestation, mining, construction, or fires. Its main purpose is to recover ecological balance, improve soil quality, prevent erosion, and promote biodiversity.

These activities can include:

(a) creating new forest ecosystems in degraded lands;

(b) converting pastures/grasslands to natural vegetative cover;

(c) seed sowing, planting native trees and shrubs;

(d) control of invasive species and implementation of techniques to improve soil and water conditions.

9.2.2.3 Reforestation and landscape management tools

Reforestation is the process of repopulating areas that have lost their forest cover due to natural causes (fires, pests, weather events) or human activities (deforestation, urbanization, agriculture, livestock).

Landscape Management Tools (LMTs) are landscape elements that form or improve habitat, increase functional connectivity, or simultaneously fulfill these functions while contributing to biodiversity conservation.

These activities may include:

(a) forest plantations with native species, restoring forest cover and its ecological functions;

(b) landscape management tools (LMTs) that improve ecological connectivity and ecosystem services;

(c) establishment of forest systems (pure or combined) to stabilize soils and reduce the impact of erosive phenomena.

9.2.2.4 Rehabilitation of forest cover in productive areas

These are activities aimed at restoring and recovering tree vegetation in productive areas, promoting ecological recovery without compromising their use in agriculture, livestock, or forestry. Rather than returning these areas to their original state, strategies are implemented to integrate vegetation with productive activities, optimizing both environmental conservation and economic yield.

These activities include:

(a) silvopastoral systems, which optimize agricultural production while protecting soil and water resources;

(b) assisted regeneration, which fosters landscape diversification and improves soil quality and water retention;

(c) crops with sustainable production models, enhancing ecosystem structure and function in agricultural landscapes;

(d) agroforestry systems that integrate trees and crops to optimize land use.

10 General requirements

Within the framework of this Standard, project owners must comply with the following requirements.

10.1 Project location

Activities for the sustainable management and conservation of water resources, as defined in Section 9 (above), can be located in any country, provided that the project is designed in compliance with this Standard and aims to obtain Water Credits.

The project location must be clearly defined to ensure accuracy in the project description and to comply with applicable regulations and certification standards. This is important for several reasons:

(a) Precision in project description

The location allows the establishment of geographical, environmental, and socio-economic characteristics of the project. Detailed information should include:

(i) geographic coordinates (latitude and longitude);

(ii) hydrographic region of basin;

(iii) type of ecosystem (forests, wetlands, agricultural areas, etc.);

(iv) land use and cover, as well as prior activities in the project area.

(b) Regulatory compliance and Project ownership

Certification requires the project to comply with environmental and land use regulations applicable in the jurisdiction where it is implemented. Hence, the project location must allow verification that:

(i) the project has the relevant permits and complies with local, national, and international regulations;

(ii) it does not overlap with areas subject to use and management restrictions, ensuring management aligned with current legislation;

(iii) Exists documentation to demonstrate ownership or legal rights to implement the project within the project boundaries.

10.2 Project scale

This Standard does not set a minimum project scale or a minimum area for its implementation. Accordingly, projects can be designed flexibly, adapting to different geographical conditions and intervention sizes, from small local initiatives to large-scale programs.

10.3 Start date

Project holders shall define the project's start date and end date (duration), as well as monitoring periods and other relevant dates and steps for project development.

The start date of the project is understood as the moment when implementation of the sustainable management and conservation activities for water resources begins. From this start date onward, all results achieved through project activities must be quantified, including the estimation of Verified Water Credits (VWCs). These results should reflect the impact of the implemented actions and serve as a basis for monitoring and verifying project performance during monitoring periods.

10.4 Retroactivity

Retroactivity refers to the period before the project's certification, in which the sustainable management and conservation activities for water resources can be recognized and considered for VWC generation. This means that, provided the criteria set forth by this standard are met, projects can obtain recognition for water benefits generated before their certification—provided their impact and compliance with the Standard's requirements are demonstrated.

Retroactivity may be considered in two ways:

(a) Project start date. The project holder shall establish a baseline that indicates the initial state of the ecosystem before project activities began; or,

(b) One year after the project start date. During this period, additionality can still be demonstrated by establishing a baseline showing that the sustainable management and conservation results would not have occurred without the project's implementation or development.

In either case, the baseline must be established using field measurements, official data, and/or satellite imagery.

Project owners may certify and register sustainable management and conservation projects with up to 3 years of retroactivity from the project's date of registration in the BIOCARBON registry.

10.5 Project duration and quantification periods

Within the scope of project activities, Water Credits can be quantified for at least ten (10) years. This period can be extended for another ten (10) years, provided the reasons, objectives, and expected results for such an extension are justified. The project shall still meet the additionality requirement; hence, the project holder shall re-evaluate baseline conditions and other requirements set by BIOCARBON.

10.6 Geographic boundaries of the project

The project area is defined as the geographic area where sustainable management and conservation activities for water resources are implemented. This area is delimited by the project's geographic boundaries, which may be determined by ecological, hydrological, administrative, or land-use planning criteria. Within this area, interventions aimed at improving the availability, quality, and regulation of water will be carried out, contributing to the project's objectives.

Project boundaries shall be represented in a Geographic Information System (GIS). Appropriate GIS methodologies must be used. For example, geographic information must be handled in accordance with the quality standards of ISO 19111:2019(en)[10], which defines the conceptual scheme for describing coordinate referencing and minimum data needed to determine coordinate reference systems, as well as additional descriptive information in the metadata of a coordinate reference system.

Project holders shall analyze land cover and usage within the project boundaries, and identify ecosystems present in the area. Since the project boundaries may include various covers with different ecological functions, the distribution and extent of the ecosystems in the project area will depend on the proportion of different cover types, reflecting the diversity and role they play in water resource dynamics.

10.6.1 Management units

Projects can be developed at different scales, depending on the size and characteristics of the management unit where the project activities are carried out. Management units may be considered at the micro-basin, basin, or sub-basin level.

Through the conservation, restoration, and/or protection of areas in ecosystems that are highly important for water resources, Project holders shall improve the availability, quality, and regulation of water, adapting to diverse territorial conditions and needs.

[10] https://www.iso.org/obp/ui#iso:std:iso:19111:ed-3:v1:en

10.7 Baseline identification

The baseline corresponds to the initial condition of water resources and associated ecosystems before the project's implementation. Identifying this baseline is a requirement for evaluating the project's results by comparing the baseline scenario (without the project) to the with-project scenario.

To identify the baseline, the project holder shall follow the following steps:

Step 1. Delimit the project area

(i) Define the project's geographic boundaries, based on the management unit, ecosystems, and land uses.

Step 2. Conduct a hydrological and environmental characterization

(i) Evaluate current conditions of water bodies (rivers, lakes, wetlands, aquifers);

(ii) Analyze the quality and quantity of available water;

(iii) Identify precipitation patterns, runoff, and aquifer recharge.

Step 3. Analyze land cover and usage within the project boundaries

(i) Map land cover types in the project area;

(ii) Assess the presence of strategic ecosystems (e.g., riparian forests, wetlands, high mountain ecosystems).

Step 4. Evaluate degradation and pressures on water resources

(i) Identify threats such as deforestation, erosion, pollution, and land-use changes;

(ii) Analyze historical trends of water resource degradation or improvement.

Step 5. Establish baseline indicators

(i) Define quantifiable parameters (e.g., flow, water quality, infiltration, erosion rates);

(ii) Select monitoring and quantification methodologies.

Step 6. Review historical information and existing data

(i) Use hydrological monitoring records and prior studies in the project area;

(ii) Incorporate official data from environmental, academic, or governmental institutions.

Step 7. Define the reference scenario

(i) Projecting the evolution of water resources in the absence of the project.

(ii) Compare with the future scenario expected after implementing conservation and restoration activities.

10.8 Risk assessment and management

Project holders shall use appropriate methods to evaluate potential risks (direct or indirect), including financial, anthropogenic, and climatic factors that could affect the project's viability and success. They shall also develop and implement risk mitigation measures, ensuring these measures are dynamic and adjustable in response to evolving conditions in the environment, in line with an "adaptive management" approach.

Adaptive management is a structured decision-making process that accounts for influential variables and reduces uncertainty in outcomes. It enables decision-making optimization, improves project efficiency, and strengthens long-term sustainability. Accordingly, the project holder shall:

This approach optimizes decision-making, improves the efficiency of the project and strengthens its long-term sustainability. In this sense, the project holder shall:

(a) Continuously monitor project conditions and surrounding environment;

(b) Identify early signs of possible threats or deviations from objectives;

(c) Adjust strategies and actions based on new information, ensuring the project's resilience;

(d) Involve stakeholders in risk assessment and response.

This requirement is complemented by the BIOCARBON Sustainable Development Safeguards (SDS) tool[11]. Risk assessment and management must be adequate, accurate, and objective.

[11] https://biocarbonstandard.com/en/tools/

10.9 Additionality

Project holders shall demonstrate that the results achieved from implementing sustainable management and conservation activities for water resources are attributable exclusively to the project and would not have occurred without it.

Additionality shall be demonstrated through a qualitative and quantitative evaluation, based on measurable and verifiable variables clearly showing that the generated impacts are directly due to the project. The following should be carried out:

(a) Analysis of the baseline (without project): Assess the historical trend and future projection of water resources and associated ecosystems without the project's intervention.

(b) Comparison with the with-project scenario: Quantify improvements in water quantity and quality, ecological restoration, and other benefits generated by the project's activities.

To demonstrate additionality, project holders shall use scientific methodologies and verifiable data, such as hydrological monitoring tools, impact modeling, field measurements, and pre-existing data from official sources.

They shall also consider contextual and external factors (e.g., public policies, local initiatives, or natural trends) that could have produced similar changes without the project's intervention.

Proving additionality is a requirement for project certification, ensuring that the VWCs issued represent real and verifiable benefits for water resources and ecosystems.

10.10 Quantification of Verified Water Credits

Project holders shall describe the outcomes of sustainable water management and conservation using appropriate variables and applying quantification techniques that measure, in quantitative terms, the impact of the implemented activities.

VWCs shall be quantified by applying the methodology relevant to the specific project activities. This process includes:

(a) Selection of the appropriate methodology. Each project activity shall meet the eligibility criteria defined in the standard, and the conditions of applicability of the methodology;

(b) Measurement of key variables. The methodologies set out the hydrological and environmental indicators to be monitored, e.g. improvement in water availability and quality, reduction in erosion or increase in infiltration;

(c) Use of scientific tools and models. Field measurement methods, hydrological modelling and data analysis shall be employed to ensure accuracy in estimating project results;

(d) Monitoring and verification. The quantification of VWCs should be supported by a monitoring system to confirm results over time.

Compliance with these requirements ensures that generated VWCs are traceable, verifiable, and represent real benefits in water conservation and sustainable management.

10.11 Stakeholder consultation and participation

Project holders shall prioritize social sustainability. Therefore, engaging with stakeholders is essential to designing and implementing sustainable water management and conservation activities.

BIOCARBON recognizes local communities (LC) and Indigenous Peoples (IP) as critical stakeholders and important "stewards" of nature and natural resources. Project holders shall acknowledge the capacities of LCs and IP, not only in water conservation but also in managing the assets and services of ecosystems.

They shall thus maintain ongoing interaction and communication with these communities and stakeholders, incorporating varied perspectives on water resources. This should occur in all phases of project design and implementation.

Accordingly, project holders shall identify stakeholders and develop plans to facilitate their participation and inclusion. They shall also implement suitable mechanisms for information sharing and stakeholder consultations.

Additionally, they shall demonstrate that the project contributes positively to the socio-economic component, insofar as:

(a) identifies and strengthens social and community participation mechanisms (stakeholder consultations) at local and regional levels;

(b) implements sustainable production systems, combining production and conservation actions for local economic development;

(c) considers pre-existing social conflicts and supports the development of efficient models to manage post-conflict scenarios;

(d) generates short- and long-term benefits for members of LCs and/or IP in the project area;

(f) the activities under the project produce a net average increase in the incomes of local producers (if applicable).

One useful tool for identifying, measuring, and monitoring these contributions as positive change factors is the Theory of Change (TOC). This methodology structures a logical framework describing cause-effect relationships between implemented activities and expected impacts on sustainable water management and conservation.

TOC proceeds through a logical sequence identifying conditions and key factors required to achieve the desired impact. It specifies inputs, activities, immediate and final outcomes, forming a clear path to change.

Using quantifiable variables, TOC can effectively describe connections between management and conservation measures, their effects, and the results, allowing:

(a) quantification of short-term impacts through measurable indicators;

(b) evaluation of strategy effectiveness and adjustments based on evidence;

(c) provide a solid basis for decision-making and result verification under this Standard.

The use of the Theory of Change facilitates transparency and traceability of the project, ensuring that the activities implemented generate real and verifiable benefits for the water resource, ecosystems and populations living in the project area.

10.12 Compliance with laws, regulations, and other normative frameworks

The project holder shall demonstrate that the project complies with national and international legislation, as well as other policy and regulatory frameworks applicable to activities within the project boundary. This includes environmental, land use, water use, ecosystem conservation, local community rights and any other relevant legal instruments.

Legal compliance also encompasses laws related to the protection of Human Rights and the rights of Indigenous Peoples, in line with international standards such as the UN Declaration on the Rights of Indigenous Peoples and the ILO Indigenous and Tribal Peoples Convention, 1989 (No. 169).

Legal compliance shall be properly documented and up-to-date, ensuring that all project actions are undertaken within the framework of current law and in accordance with the principles of legality, environmental responsibility, and sustainability.

Hence, project holders shall establish a documented procedure (Document Management System) for continuously identifying and monitoring all relevant legislation and regulations, demonstrating periodic reviews to ensure compliance.

Consequently, project holders must maintain an up-to-date list of all legislative requirements applicable to their conservation activities.

10.13 Sustainable Development Goals (SDGs)

Project holders shall ensure that their sustainable water management and conservation activities align with at least three Sustainable Development Goals (SDGs). They shall clearly specify how and to what extent each activity contributes to these selected SDGs, establishing measurable indicators to evaluate their impact.

This alignment must be reflected in the project's design, implementation, and monitoring, ensuring coherence with global sustainability objectives and strengthening contributions to water security, environmental resilience, and community development.

In consequence, project holders shall assess the project's contribution to these SDGs, and thus to the 2030 Agenda for Sustainable Development, adopted by all UN member states in 2015.

To demonstrate compliance with this requirement, the project owner must show—through relevant criteria and indicators—that the initiative's SDG contribution is applicable to the project activities.

The 17 SDGs include fundamental rights as well as measures to improve well-being and quality of life, such as food security, healthy living, education, gender equality, access to water and energy, economic growth, sustainable ecosystems management, and peaceful societies.

For instance, a project holder shall determine whether the initiative helps[12]:

(a) reduce the proportion of individuals (men, women, children) of all ages living in poverty in all its dimensions according to national definitions;

[12] Variables based on the 2030 Agenda

(b) ensure that all men and women, particularly the poor and vulnerable, have equal rights to economic resources and access to basic services;

(c) improve agricultural productivity and incomes of small-scale food producers, especially women, Indigenous Peoples, family farmers, livestock herders, and fishers;

(d) ensure sustainability of food production systems and adopt resilient agricultural practices that increase productivity and output, contribute to ecosystem maintenance, and strengthen adaptive capacity;

(e) achieve universal health coverage, including financial risk protection and access to quality essential healthcare services, as well as safe, effective, affordable, and quality medicines and vaccines for all;

(f) reduce the number of deaths and illnesses caused by hazardous chemicals and air, water, and soil pollution and contamination;

(g) ensure women's full and effective participation and equal leadership opportunities at all levels of decision-making in political, economic, and public life;

(h) give women equal rights to economic resources, as well as to financial services and natural resources;

(i) supporting the efficient use of water resources and ensuring the sustainability of freshwater abstraction and supply to address water scarcity;

(j) guarantee full and productive employment and decent work for all women and men, including young people and persons with disabilities, as well as equal pay for work of equal value;

(k) protect labour rights and promote a safe and secure working environment for all workers, including migrant workers, in particular women migrant workers and those in precarious employment;

(l) promoting inclusive and sustainable industrialization and significantly increasing the contribution of industry to employment and gross domestic product, in accordance with national circumstances.

As mentioned above, it is mandatory to determine criteria and indicators for each project/activity and to carry out ongoing monitoring to demonstrate compliance with the selected SDGs.

10.14 Sustainable Development Safeguards (SDS)

Projects shall comply with the SDS tool[13], ensuring the identification and management of potential risks associated with environmental and socio-economic safeguards that may arise during the implementation of sustainable management and conservation of water resources.

The project holder shall demonstrate the adoption of preventive and mitigation measures specific to each identified risk, ensuring the project is conducted sustainably, with a focus on minimizing negative impacts and promoting long-term environmental and social benefits.

The SDS tool provides requirements and rules for project holders to assess risks related to:

(a) Land use: Resource Efficiency and Pollution Prevention and Management;

(b) Water;

(c) Biodiversity and ecosystems;

(d) Climate Change;

(e) Labor and Working Conditions;

(f) Gender equality and women empowerment;

(g) Land acquisition, Restrictions on Land Use, Displacement, and Involuntary Resettlement;

(h) Indigenous Peoples and Cultural Heritage;

(i) Community and Health and safety;

(j) Corruption; and

(k) Economic Impact.

10.15 Climate change adaptation

Water resources and climate change are interrelated challenges that demand urgent attention and decisive action. Water scarcity not only exacerbates climate change

[13] https://biocarbonstandard.com/en/tools/

impacts—by limiting ecosystems and communities' capacity to adapt—but is also a direct consequence of them (e.g., changes in precipitation, glacial melt, extreme events).

At the same time, water stress caused by climate change upsets ecosystem balance, affecting their capacity to regulate water availability, quality, and distribution. Reduced flow, aquifer depletion, and alterations to hydrological cycles undermine ecological functionality, threatening the survival of countless species and reducing water supply for human communities and ecosystems.

Accordingly, sustainable water management and conservation are fundamental strategies for addressing climate change, as they support water cycle regulation, improve resource availability and quality, and lessen the impacts of extreme events like droughts and floods. Moreover, they safeguard the balance of aquatic and terrestrial ecosystems, encouraging their capacity to capture, store, and filter water, thereby strengthening territorial resilience and adaptation to changing climatic conditions.

In line with the above, project owners must develop a Climate Change Adaptation Plan directly linked to project activities. This plan should follow a structured process that includes strategic planning, assessment of potential climate impacts on water resources, and the identification of adaptation strategies that enhance ecosystem and community resilience.

Therefore, project holders should:

(a) identify possible scenarios of climate change risks and climate variability, based on relevant information;

(b) identify the likely changes in land cover and land use due to these climate change scenarios;

(c) determine whether actual or potential climatological changes will have an impact on the well-being of IP and LC and/or the conservation status of the water resource;

(d) assessing the contribution of project activities to climate change adaptation.

10.16 Ownership and rights to Verified Water Credits (VWCs)

Ownership and rights over the VWCs are determined by the agreements and regulations established within the framework of the project and the applicable rules. These rights define who can generate, hold, transfer and trade the credits, ensuring transparency and traceability in their management.

Ownership and rights over VWCs shall be clearly defined and managed in accordance with applicable requirements, ensuring that the environmental benefits derived from its generation are legitimate, verifiable and sustainable in the long term.

Some key aspects of the ownership and rights of VWCs include ownership of VWCs, transfer and marketing rights, registration and tracking. As well as limitations and responsibilities.

10.16.1 VWC ownership

Corresponds to the entity or project holder that has implemented the sustainable management and water resource conservation activities that led to the generation of the credits.

In projects with multiple participants (communities, organizations, governments), ownership may be shared or subject to specific agreements.

10.16.2 Transfer and marketing rights

VWCs may be transferred, sold, or utilized by third parties, according to the terms set forth by the standard and any contracts among involved parties.

Trade shall comply with certification and registry requirements to ensure validity and prevent double counting.

10.16.3 Registry and follow up

Credits shll be recorded in a registry system that ensures their traceability and prevents double counting, related to duplicate claims and other requirements.

10.16.4 Limitations and liabilities

The use of VWCs may be subject to regulatory restrictions or voluntary agreements defining their use and application.

The project holder shall guarantee the permanence of the water benefits associated with the credits, complying with the commitments made in the project certification.

11 Monitoring plan

Project holders shall describe the procedures for carrying out monitoring activities, including quality control of measurements and quantification of VWCs attributable to project activities.

The monitoring plan shall be properly structured, in line with:

(a) national circumstances and local context;

(b) good monitoring practices, appropriate for the follow-up and control of the project activities;

(c) procedures to ensure data quality.

The project holder may determine the periodicity of monitoring, considering the follow-up of project activities and the application of quantification methods[14]. However, monitoring periods shall never exceed three (3) years or be shorter than one (1) year.

The project holder shall implement the monitoring plan approved during the certification process. Carrying out the approved monitoring plan (and justifying any modifications to increase data accuracy or completeness) is required for certification. Any modifications aimed at improving accuracy or completeness of information must be justified and presented to the certification body.

Based on executing the monitoring plan and quantifying VWCs, the certification body will determine whether VWCs have been obtained in a precise, relevant, and transparent manner.

12 Certification process

Project holder shall ensure compliance with eligibility criteria and the requirements established in Section 9 of this Standard as a prerequisite for carrying out the certification process, which shall be conducted by an independent, duly accredited certification body.

Certification bodies are responsible for auditing and certifying projects to assess compliance with the criteria and requirements set by this Standard, as well as with the methodologies and other BIOCARBON Tools comprising the Water Program, when applicable.

A certification audit shall include:

(a) the geographic project boundaries;

(b) the start date of sustainable water management and conservation activities;

(c) the project's specific activities related to water management and conservation;

[14] Described in the methodologies of BIOCARBON

(d) the additionality analysis;

(e) consistency with applicable legislation;

(f) stakeholders' consultation;

(g) Sustainable Development Safeguards (SDS)

(h) appropriate use of concepts and procedures required to quantify VWCs;

(i) the project baseline;

(j) compliance with SDG contributions and;

(k) the monitoring plan.

In summary, the certification body is responsible for verifying the comprehensive fulfillment of requirements established for project certification, and for confirming that the project holder has demonstrated effective performance of management and conservation activities during monitoring periods. If such compliance is verified, the body must issue a certification statement or declaration that formally supports the results of its evaluation.

13 Certification Bodies

Certification bodies shall demonstrate the following:

(a) the accreditation scope includes conformity assessment activities related to water resources;

(b) maintains a sufficient number of professionals, who demonstrate the ethical conduct necessary to perform all the functions required to conduct certification audits;

(c) the auditors in charge are experienced in the evaluation of sustainable water management and conservation strategies;

(d) at least one member of the audit team demonstrates competence in the scope of water resources management and conservation projects, based on previous experience;

(e) counts on auditors with the necessary skills to assess the selection and use of the applicable methodologies and to interpret the results of project activities;

(f) is in place documented internal procedures for the performance of its functions, in particular, procedures for the allocation of responsibilities within the organization;

(g) is competent to perform the functions specified in the applicable legislation and in the provisions described in this Standard.;

(h) ensures the necessary practice and knowledge of environmental issues and ensures quality in conformity assessment;

(i) the audit team is knowledgeable about monitoring and sustainable water resource management and conservation activities.;

(j) has in place procedures for the handling of complaints, appeals and disputes.

Furthermore, certification bodies shall operate independently, reliably, non-discriminatorily, and transparently, respecting applicable legislation and meeting, among others, these requirements:

(a) having a documented structure that protects integrity, with provisions ensuring impartiality in their operations;

(b) arranging for suitable measures to protect the confidentiality of information from project owners;

(c) demonstrating no real or potential conflict of interest, potential or real, with the project holders who have contracted them for certification audits;

(d) provide BIOCARBON with the information received from the project holders upon request. Information classified as confidential shall not be disclosed without the written consent of the provider, unless required by applicable law. Information used to determine additionality as defined in this Standard is not considered confidential.

14 Review and issuance of VWCs

Once the certification is complete and the certification statement is issued, Biocarbon's technical committee will review the information and formally issue a "Verified Water Credits Issuance Statement." VWCs will only be issued if the project has previously been certified under the guidelines, standards, and procedures established in this Standard and the BIOCARBON WATER PROGRAM.

15 Registry platform

BIOCARBON has a public registry platform allowing projects to be registered and assigning a unique serial number to each VWC. Registry entries are linked to a Blockchain system ensuring the security, traceability, and transparency of VWCs issued by BIOCARBON. Only account holders, or those authorized by them, can request the registration of projects. To register a project with BIOCARBON, project holders shall provide the following documentation (or other documents if required):

(a) information about the project and the project holder;

(b) authorization to register the project and use the registry platform;

(c) Project Document (PD);

(d) the monitoring plan.

Information in the registry platform of BIOCARBON (www.globalcarbontrace.io) will be public, except that which is legally classified or reserved, in accordance with applicable national legislation.

ANNEX A. GLOSSARY OF TERMS

Accreditation

related to a certification body conveying formal demonstration of its competence to carry out specific conformity assessment tasks.

[SOURCE: ISO/IEC 17000:2004, 5.6].

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.

Note 1 to entry: Coping capacity is defined as the ability of people, organizations, and systems, using available skills, resources, and opportunities, to address, manage, and overcome adverse conditions.

[SOURCE: ISO 14090:2019, 3.2, modified — Note 1 to entry has been added.]

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]

Audit

process for obtaining relevant information about an object of conformity assessment and evaluating it objectively to determine the extent to which specified requirements are fulfilled.

Note 1 to entry: The specified requirements are defined prior to performing an audit so that the relevant information can be obtained.

Note 2 to entry: Examples of objects for an audit are management systems, processes, products and services.

Note 3 to entry: For accreditation purposes, the audit process is called "assessment".

[SOURCE:ISO/IEC 17000:2020(en), 6.4]

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]

Basin

A basin is a geographic area drained by a watercourse. The concept applies to units ranging from farmland traversed by a stream (micro-watershed) to large river or lake basins. [15]

[15] FAO (2009). ¿Por qué invertir en ordenación de cuencas hidrográficas? Disponible en https://www.fao.org/4/a1295s/a1295s01.pdf

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]

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]

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]

Declaration

attestation document issued by anybody other than an independent third-party certification body.

Note 1 to entry: This definition differs from the definition of declaration in ISO/IEC 17000.

Note 2 to entry: "Body" includes any individual.

[SOURCE: ISO 22222:2005(en), 3.8]

Ecosystem

A dynamic complex of communities of living organisms (plants, animals, and microorganisms) and their physical environment, interacting as a functional unit.[16]

Ecosystem services

benefit people obtain from ecosystems

Note 1 to entry: These are generally distinguished into provisioning, regulating, supporting and cultural services. Ecosystem services include the provisioning of goods (e.g. food, fuel, raw materials, fiber), regulating services (e.g. climate regulation, disease control), and non-material benefits (cultural services) (e.g. spiritual or aesthetic benefits). The supporting services are necessary for the production of all other ecosystem services (e.g. soil formation, nutrient cycling, water cycling) and are also referred to as "ecosystem functions".

Note 2 to entry: Ecosystem services are sometimes called "environmental services" or "ecological services".

[SOURCE: ISO 14008:2019(en), 3.2.11]

[16] Millennium Ecosystem Assessment, 2005

Enclosures

Areas enclosed by fencing and designated for conservation purposes. In some cases, intensive restoration and establishment of vegetation cover will be carried out. In others, depending on the degree of degradation and pressure on the resource, minimal measures may be sufficient. Useful plant species can be used for this purpose, as long as their extraction and management does not have a negative impact on the ecosystem. For example, timber species can be used if they are planted on the periphery. In such cases, the management approach is similar to an enrichment system (if there is an existing vegetation cover) or a mini-corridor if starting from pasture.

Fenced areas

Installation of live fences to isolate conservation areas, restoration or recovery areas, water springs, or other systems, preventing impacts from livestock and people. Fencing forests is the most efficient way to keep animals out of forest fragments. Trampling, consumption of seedlings and seeds, and soil compaction are some of the most frequent effects in water spring areas.

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.[17]

Habitat

place or type of site where an organism or population naturally occurs.

[SOURCE: CBD, Art.2]; ISO 14055-1:2017(en), 3.1.6.

[17] The Marrakech Accord. CP7/D11. https://unfccc.int/sites/default/files/resource/docs/cop7/13a01.pdf. The biodiversity initiative holder shall use the definition that applies.

Indigenous Peoples (IPs)

Are inheritors and practitioners of unique cultures and ways of relating to peoples and the environment. They have retained social, cultural, economic and political characteristics that are distinct from those of the dominant societies in which they live.

[SOURCE: Indigenous Peoples at the United Nations]

Mini-corridors or connection buffer strips

Small corridors or buffer strips that connect natural areas through productive areas. They are also established along the banks of creeks and rivers. These differ from larger corridors in their limited size and function in smaller areas.

Nature-based solutions

The International Union for Conservation of Nature (UICN) defines nature-based solutions as "actions to protect, sustainably manage, and restore natural or modified ecosystems that address societal challenges effectively and adaptively, while simultaneously providing benefits for human well-being and biodiversity."

Project area

Defined as the geographic area where sustainable water management and conservation activities are implemented. This area is bounded by the project's geographic limits, which may be determined by ecological, hydrological, administrative, or land-use planning criteria.

Project holder

It is the natural or legal person, public or private, responsible for the formulation, implementation, monitoring and documentation of a water resources management and conservation project.

Registry

List issued by a certification body, an authority, or another registration organization for certificate holders or for individuals who meet predetermined criteria.

Note 1 to entry: A registry may be available to the public or for internal purposes.

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

Requirement

Need or expectation that is stated, generally implied, or obligatory.

Note 1 to entry: "Generally implied" means that it is a customary or common practice for the organization and interested parties that the need or expectation under consideration is implied.

Note 2 to entry: A specified requirement is one that is stated, for example, in documented information.

[SOURCE: ISO/IEC Directives Part 1, 2019, Annex L, Appendix 2, 3.3]

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

Species

Species are groups of individuals or natural populations that actually or potentially interbreed and are reproductively isolated from other similar groups by their physiological characteristics (producing incompatibility between parents or sterility of hybrids, or both).

Sustainable development

development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Note 1 to entry: Sustainable development is about integrating the broader expectations of society as a whole of a high quality of life, health and prosperity with environmental justice and maintaining Earth's capacity to support life in all its diversity. These social,

economic and environmental goals are interdependent and should be mutually reinforcing.

[SOURCE: ISO 26000:2010, 2.23]

Sustainability

state of a system, including economic, social and environmental aspects, in which the needs of the present are met without compromising the ability of future generations to meet their own needs.

Note 1 to entry: In the ISO 34101 series "sustainability" is referred to as an objective rather than a requirement.

[SOURCE: ISO 34101-1:2019(en), 3.51]

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.]

Stakeholder engagement

activity undertaken to create opportunities for dialogue between an organization and one or more of its stakeholders, with the aim of providing an informed basis for the organization's decisions

[SOURCE: ISO 26000:2010(en), 2.21]

Transparency

openness about decisions and activities that affect society, the economy and the environment, and willingness to communicate these in a clear, accurate, timely, honest and complete manner

Note 1 to entry: Transparency can be the result of processes, procedures, methods, data sources and assumptions used by the local government that ensure appropriate information is made available to customers/citizens and other interested parties.

[SOURCE: ISO 26000:2010, 2.24, modified — The note to entry has been added.]; ISO 18091:2019(en), 3.7.

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]

Verified Water Credits

Verified Water Credits (VWCs) are standardized, certified, and registered units representing measurable, additional, verifiable, and permanent improvements in sustainable water management and conservation, generated by implementing projects in compliance with the BioCarbon Water Standard (BWS).

Each VWC corresponds to a quantified benefit derived from specific activities, such as increased water availability, improved water quality, optimized water use, or restoration of water ecosystems. Credits are issued on Biocarbon's registry platform (www.globalcarbontrace.com), ensuring uniqueness, information integrity, and avoidance of double counting.

Water footprint

metric(s) that quantifies the potential environmental impacts related to water

Note 1 to entry: If water related potential environmental impacts have not been comprehensively assessed, then the term "water footprint" can only be applied with a qualifier. A qualifier is one or several additional words used in conjunction with the term "water footprint" to describe the impact category/categories studied in the water footprint assessment, e.g. "water scarcity footprint", "water eutrophication footprint", "non-comprehensive water footprint".

[SOURCE: ISO 14046:2014, 3.3.1]

Water use

amount of water used

Note 1 to entry: The amount of water used can be described and quantified by one or more business activity indicator(s) (3.1.12.1), for example m3 of water/kg of product; liters/person supplied; m3 of water/ guestroom.

Note 2 to entry: “Used” in this context means the gross amount required in the course of the business activity (3.1.12), including the amounts of both new drinking water (3.2.2.1) and reclaimed water (3.2.2.3).

Note 3 to entry: In ISO 245263 the portion of water use that is neither returned to a water source after being withdrawn nor available for reclamation is called "water consumption". Consumption occurs, for example, when water is lost into the atmosphere through evaporation or incorporated into a product or plant (such as a corn stalk) and is no longer available for reclamation.

[SOURCE: ISO 24513:219, 3.4.2]

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