



Gold Standard[®]
for the Global Goals

ACTIVITY REQUIREMENT

BLUE CARBON AND FRESHWATER WETLANDS

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RELATED DOCUMENTS [Land Use & Forests Activity Requirements](#)

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CONTACT DETAILS

The Gold Standard Foundation
International Environment House 2
Chemin de Balexert 7-9
1219 Châtelaine
Geneva, Switzerland
Tel: +41 22 788 70 80
Email: help@goldstandard.org

SUMMARY

This document outlines the eligibility requirements for blue carbon and freshwater wetlands activities. It enables eligible activities to undergo design and performance certification, including issuance of Certified Sustainable Development Goal (SDG) Impact Statements and Products such as Gold Standard verified emission reductions/removals (GS-VERs).

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1 | SCOPE, APPLICABILITY AND ENTRY INTO FORCE

1.1 | Scope and Applicability

- 1.1.1 | The Blue Carbon and Freshwater Wetlands Activity Requirements (BC&FW AR) outlines the eligibility requirements for activities to undergo design and performance certification, including issuance of Certified SDG Impact Statements and Products under Gold Standard for the Global Goals (GS4GG).
- 1.1.2 | The eligibility requirements shall be applied in conjunction with the [Principles & Requirements](#) as well as any referenced or associated requirements and procedures. Through conformity to the BC&FW AR and applicable methodologies and product requirements, such as [Greenhouse Gas Emissions Reduction & Sequestration Product Requirements](#), an activity may be issued with GS-VERs and other products, as certified.
- 1.1.3 | If there is any inconsistency, the applicable methodological requirement takes precedence over the requirements outlined in this document, unless otherwise stated.
- 1.1.4 | Stakeholders are encouraged to submit new methodologies if the eligible ecosystem and/or proposed measures are not already covered under an approved GS4GG methodology. For details, refer to the [Procedure for Development, Revision, and Clarification of Methodologies and Methodological Tools](#).

1.2 | Entry into Force

- 1.2.1 | This document enters into force with immediate effect upon its publication.

2 | TERMS AND DEFINITIONS

- 2.1.1 | In addition to the definitions contained in the [GS4GG Glossary](#), the following terms apply in this document:
- a. **Affected stakeholders:** Individuals or entities that are, or are likely to be, positively or negatively affected by the activity. The effects may be physical, social, or economical in nature. The affected stakeholders may be outside the project area and, in some cases, may be a distance beyond its boundary.¹ Examples:
 - Local communities, Indigenous peoples, neighbours, processors, and local businesses, and

¹ Adapted from Forest Stewardship Council, where the term is “affected stakeholder.”

- Organisations authorised or known to act on behalf of people affected (e.g., non-governmental organisations, labour organisations).
- b. **Alllochthonous carbon:** Organic carbon that originates outside the project area and is deposited in the project area. Examples are tidally induced marine input and fluvially transported upstream sediments.
- c. **Autochthonous carbon:** Organic carbon originating within the project area. One example is on-site biomass carbon inputs from mangrove leaf litter.
- d. **Blue carbon ecosystems:** All biologically driven carbon fluxes and storage in marine and coastal ecosystems that are amenable to management.² The following are commonly considered as blue carbon ecosystems: vegetated coastal ecosystems, such as mangroves, salt marshes, and seagrass beds; other ocean and coastal taxa, including rooted or floating macroalgae (e.g., kelp or seaweed), phytoplankton, coral reefs, seafloor sediments, and pelagic fauna.³
- e. **Direct and indirect measurement approach:**
Types of direct measurements:
 - Direct measurement of a variable of interest (e.g., measurement of organic carbon in mangrove sediments).
 - Collection of samples to quantify the variable of interest in a following stage (e.g., collecting sediment cores to quantify SOC in a laboratory).
 - Measurement of proxy data whose correlation with the variable of interest has been proven via direct quantification. Its global applicability is widely adopted; one example is measuring the diameter of a mangrove plant and using this information in a peer-reviewed allometric equation that is developed based on the results of destructive sampling.

An indirect measurement approach refers to the estimation (quantity and/or quality) of a variable of interest (e.g., tree biomass, SOC, methane emissions) via a statistically significant

² Intergovernmental Panel on Climate Change, 2019. [Special Report on the Ocean and Cryosphere in a Changing Climate](#). H. O. Pörtner, D. C. Roberts, V. Masson-Delmotte, P. Zhai, M. Tignor, E. Poloczanska, K. Mintenbeck, A. Alegría, M. Nicolai, A. Okem, J. Petzold, B. Rama, N. M. Weyer (eds.). In press.

³ [The Blue Carbon Handbook: Blue carbon as a nature-based solution for climate action and sustainable development](#). L. Schindler Murray, B. Milligan et al., 2023. London: High Level Panel for a Sustainable Ocean Economy.

correlation within an accepted error range or threshold. Types of indirect measurements:

- Quantification of the strength and quality of a signal response which is correlated with the quantity of the variable of interest (e.g., measuring the spectral response of a given band of a remote sensing apparatus and correlating the reflectance to a quantity of the desired variable without a form of direct measurement to verify the on-site specific accuracy).
 - Direct application of peer-reviewed publications (calculation approaches, datasets, parameters, and/or models) to estimate the variable of interest on the basis that research results are conservative and applicable to the activity site and management practice (e.g., estimation of the quantity of the desired variable based on a model prediction without a form of direct measurement to verify the on-site specific accuracy).
 - Direct application of default factors relating to the general Tier 1 or 2 method described in the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories to estimate the variable of interest.
- f. **Exclusive economic zone (EEZ)**⁴: An area of the ocean, generally extending 200 nautical miles (370 kilometres) beyond a nation's territorial sea within which a coastal nation has jurisdiction over both living and non-living resources.
- g. **Eligible area**: Part of the project area which meets the applicability conditions of the applied GS4GG-approved methodology. Part of the project area which does not meet the applicability conditions is considered as 'ineligible area'.
- h. **Eutrophic**: A condition of an aquatic ecosystem in which increased nutrient loading leads to progressively increasing amounts of algal growth and biomass accumulation. When the algae die off and decompose, the amount of dissolved oxygen in the water is reduced. In lakes, eutrophication leads to seasonal algal blooms, reduced water clarity, and periodic fish mortality as a consequence of oxygen depletion.⁵

⁴ As defined under the 1982 United Nations Convention on the Law of the Sea.

⁵ [The IPBES assessment report on land degradation and restoration](#): Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 2018. L. Montanarella, R. Scholes, and A. Brainich (eds.). Secretariat of the Intergovernmental Science-Policy Platform on

- i. **Freshwater:** Water that contains < 0.5 parts per thousand of various dissolved salts.⁶
- j. **Freshwater wetland:** A wetland inundated or saturated by freshwater for all or part of the year. (Also see definition of Wetlands.)⁷
- k. **Macroalgae:** Classified into three major groups: (1) brown algae (*Phaeophyceae*), (2) green algae (*Chlorophyta*), and (3) red algae (*Rhodophyta*). As all of the groups contain chlorophyll granules, their characteristic colours are derived from other pigments. Many of the brown algae are referred to as kelp.⁸
- l. **Mangroves:** An association of halophytic trees, shrubs, and other plants growing in brackish to saline tidal waters of tropical and subtropical coastlines. Mangroves have been classified into four major associations of differing structures, corresponding to physical, climatic, and hydrologic features of the environment in which they exist: (1) fringe or coastal, (2) riverine or estuarine, (3) basin, and (4) dwarf, scrub, or chaparro.⁹
- m. **Marine and coastal ecosystems:** Aquatic ecosystems with high levels of salts, including estuaries and coastal areas as well as the open sea and oceans.
- n. **Modelling units (MUs):** Modelling units are distinct parts of the eligible area where carbon stocks can be quantified based on a GS4GG-approved methodology. To meet the precision level for the carbon stocks estimation, MU areas normally have homogeneous characteristics (growth patterns, management treatment, and start date, among other relevant factors) to quantify a certain SDG impact.
- o. **New area:** A project area that is added to an activity after it achieves design certification status.

Biodiversity and Ecosystem Services, Bonn, Germany. 744 pages.
<https://doi.org/10.5281/zenodo.3237392>.

⁶ Intergovernmental Panel on Climate Change, 2014, 2013. Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands. T. Hiraishi, T. Krug, K. Tanabe, N. Srivastava, J. Baasansuren, M. Fukuda, and T. G. Troxler (eds). Published: Switzerland.

⁷ Ibid.

⁸ O. Mouritsen, 2013. The Science of Seaweeds: Marine macroalgae benefit people culturally, industrially, nutritionally, and ecologically. *American Scientist*, 101(6), pp. 458.

⁹ J. B. Kauffman and D. C. Donato, 2012. "Protocols for the measurement, monitoring, and reporting of structure, biomass, and carbon stocks in mangrove forests." Center for International Forestry Research. doi: 10.17528/cifor/003749.

- p. **Project area:** A geographically distinct spatial area or areas submitted for certification with clearly defined boundaries managed to a set of explicit long-term management objectives.
- The project area is the sum of all eligible and ineligible areas per Figure 1.
 - Boundaries of the project area shall be clearly defined.
 - The project area is divided into MUs for calculation of the amount of emission removals or another SDG certified impact.
 - An activity may encompass several distinct areas.

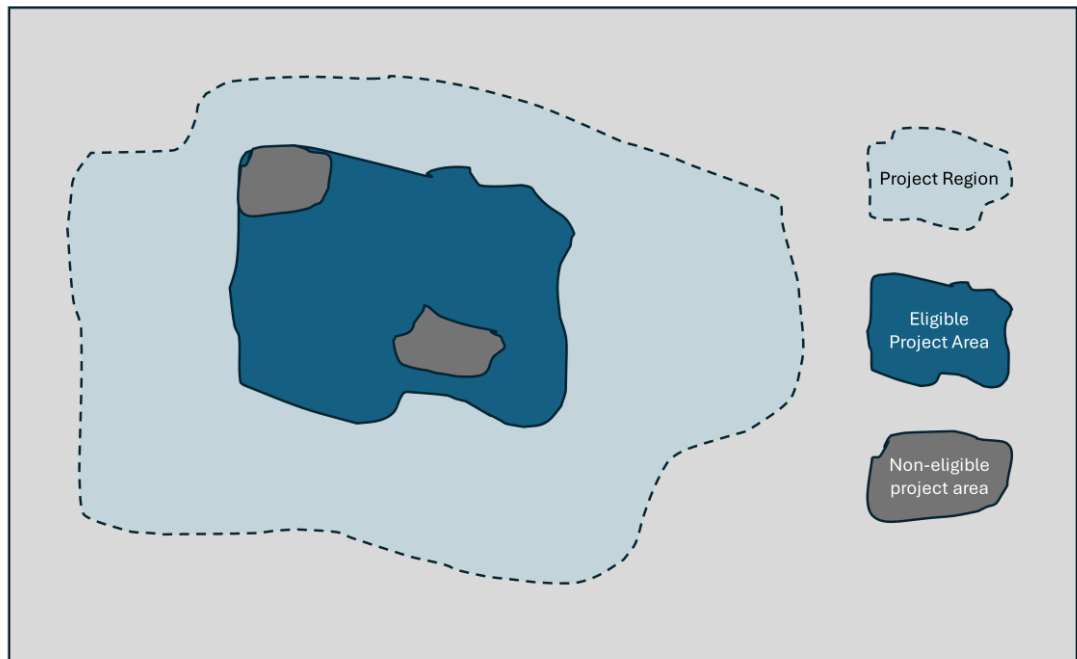


Figure 1: Generic description of project region and eligible and ineligible project areas

- q. **Project region:** A geographically delineated area of wetland (inland or coastal) or ocean where people and the environment are influenced by the activity. A project region may be expanded over time. All project areas are located within the project region, which shall be identified in the project design document and may indicate areas of future project growth.
- r. **Project developer:** One individual or an entity that holds or is applying for certification and is therefore responsible for demonstrating compliance with the requirements on which Gold Standard certification is based. In addition to the definition in the [GS4GG Glossary](#), a project developer could be an individual (e.g., fisheries license holder, landholder), group of individuals (e.g., fisheries cooperatives, other form of associations recognised by local customs and/or host country laws), or entity (e.g., government bodies, privately owned business) that is primarily responsible for

implementing the activities that lead to the generation of the SDG certified impacts.

- s. **Project start date:** The earliest date when physical implementation of the activity starts on ground. For example, for an activity that involves mangrove restoration, the start date is the date when the first trees were planted.
- t. **Restoration:** Process that involves human interventions to assist with the recovery of an ecosystem that has been degraded, damaged, or destroyed.¹⁰
- u. **Seaweed farming:** The practice of cultivating and harvesting seaweed (or kelp).
- v. **Wetlands:** Lands that are transitional between terrestrial and aquatic ecosystems, where the water table is usually at or near the surface or the land is covered by shallow water and one or more of the following attributes is present:¹¹
 - At least periodically, the land supports predominantly plants typically occurring in wetlands.
 - The substrate is predominantly undrained and water-saturated soil.
 - The substrate is non-soil and saturated with water or covered by shallow water at some time during the growing season of each year.

3 | ELIGIBILITY REQUIREMENTS

3.1 | Eligible Activities

3.1.1 | Activities that result in (1) removal of CO₂ from the atmosphere or (2) reduction or avoidance of CH₄ emissions are eligible.

Activities that result in reduction or avoidance of CO₂ emissions are not eligible.

¹⁰ G. D. Gann, T. McDonald, B. Walder, J. Aronson, C. R. Nelson, J. Jonson, J. G. Hallett, C. Eisenberg, M. R. Guariguata, J. Liu, F. Hua, C. Echeverría, E. Gonzales, N. Shaw, K. Decler, and K. W. Dixon. 2019. International principles and standards for the practice of ecological restoration. Second edition. *Restoration Ecology*, 27(S1), S1-S46. <https://doi.org/10.1111/rec.13035>.

¹¹ Federal Geographic Data Committee. 2013. [Classification of Wetlands and Deepwater Habitats of the United States](#). FGDC-STD-004-2013. Second Edition. Wetlands Subcommittee, Federal Geographic Data Committee and U.S. Fish and Wildlife Service, Washington, D.C.

3.1.2 | The activity shall lead to a permanent increase of carbon stocks, i.e., biomass and or autochthonous carbon in one of the eligible ecosystems listed in Table 1.

Table 1. List of eligible and ineligible coastal and freshwater wetlands ecosystems

Eligible Ecosystem	Ineligible Ecosystem
Coastal ecosystem	
c.1 Mangroves c.2 Seagrass meadows c.3 Tidal marshes c.4 Macroalgae ¹² c.5 Seafloor sediments	a. Mud flats b. Coral reefs (artificial coral reefs are eligible ; refer to 3.1.3 (f)) c. Oyster reefs d. Phytoplankton e. Marine fauna (e.g., fish)
Freshwater wetlands ecosystem	
f.1 Inland wetlands (including both wetlands with mineral and organic soils; including peatlands) f.2 Sediments of lakes, dams, and rivers f.3 Phycoremediation f.4 Addition of biochar	Reduction of methane emissions from wetlands used for agriculture. Rice paddies are not eligible under BC&FW AR but are part of agricultural activities.

3.1.3 | Eligible activities in coastal ecosystems may also involve the following measures:

- a. Reintroduction of native vegetation through reseeding or replanting.
- b. Natural regeneration of native vegetation by improving management practices (e.g., removing invasive species, improving tidal channels).
- c. Creation, restoration, and/or management of hydrological conditions, such as removing tidal barriers, improving hydrological connectivity, and restoring tidal flow in wetland.

¹² Inclusion is subject to clarifying questions related to carbon fluxes, the permanence and quantities of carbon sequestered, and the proportion of the carbon that can be managed at a national or local scale.

- d. Improvement of water quality (e.g., reducing nutrient loads) to allow recovery of degraded ecosystems (e.g., expansion of seagrass meadows).
- e. Alteration of salinity concentrations.
- f. Introduction of artificial reefs that enhance carbon stocks in the surrounding seafloor sediments.
- g. Sustainable fisheries management (only if it has a direct impact on the eligible activities in **Table 1**).
- h. Activities that involve establishing new seaweed (or kelp) farms, resulting in the permanent storage of organic carbon in ocean sediments.

3.1.4 | Eligible activities in freshwater wetlands ecosystems shall result in the permanent increase of biomass and or autochthonous carbon by implementing measures that include at least one of the following:

- a. Revegetation of wetlands through reseeding or replanting.
- b. Natural regeneration of native vegetation in wetlands by improving management practices (e.g., removing invasive weeds and plants, reinstating natural hydrological flows, preventing disturbance from livestock).
- c. Rewetting of previously drained wetlands, such as peatlands and wetlands, with mineral soils.
- d. Restoration of eutrophic lakes and rivers.

3.1.5 | Eligible activities may involve technological or bioengineering approaches to enhance carbon sequestration by wetlands. Such approaches may include the following:

- a. Addition of biochar to wetland sediments.
- b. Phycoremediation in eutrophic lakes and rivers.

3.1.6 | Eligible activities may involve restoration of wetlands in areas that were previously wetlands.

3.1.7 | For the activities listed as “ineligible” in Table 1, stakeholders may seek exemption with appropriate justification outlining the circumstances and requirements under which those activities may be considered as eligible, by contacting Gold Standard Secretariat at standards@goldstandard.org.

3.2 | Applicability Requirements

3.2.1 | **Geographic locations:** The BC&FW AR doesn’t have any geographic limitations. Refer to applicable methodology(ies) for geographic applicability limitations, if any.

3.2.2 | **Removal of native mangroves:** The eligible area shall not have been cleared of native mangrove ecosystems at activity start date or at any time in the 10 years prior to activity start date.

- a. If the eligible area has undergone deforestation or degradation in the last 10 years before the project start date, eligibility of the activity shall be determined according to the impact methodology applied.

- b. If the deforestation or degradation of the mangroves happened in the last 10 years, the project developer shall provide evidence that the removal of mangrove ecosystems has not taken place with an intention of implementing activities to generate emission reduction or removal units for carbon financing under any international, regional, national, subnational or sector-wide greenhouse gas (GHG) crediting scheme.

3.2.3 | **Food security:** The activity shall not lead to decreased food availability for local communities.

3.2.4 | **Hydrology:** Activities that alter the hydrological connectivity of the project area with adjacent areas shall not lead to significant GHG emissions (>5% emission reductions/removals expected over the entire crediting period) outside the project area.

3.2.5 | **Natural ecosystems:** The activity shall not lead to the disturbance of intact natural ecosystems. For example, introduction of seaweed farms shall not displace natural seaweed ecosystems or benthic fauna found in sediments below the farms.

3.2.6 | **Secured Titles**

All project developers shall provide the following information and evidence:

- a. Name and contact details.
- b. Each entity's legal registration number and documentation by the governing jurisdiction proving that the entity is in good standing.

For the duration of the entire crediting period, the project developer shall:

- i. own the CO₂ user rights¹³ or carbon sequestration rights for the project area, and
- ii. hold an uncontested legal land title for the project area, including any case where CO₂ is sequestered outside of the host country's EEZ, and
- iii. own the rights for harvested products (e.g., seaweed, mangrove timber) for the project area, and
- iv. hold all necessary permits to implement the activity (planting permits, infrastructure permits, harvesting permits, etc.).

3.2.7 | Project developers that do not meet all of the requirements of Section 3.2.6 shall endorse the proposed activity through an agreement that aligns with the duration of the crediting period.

¹³ CO₂ user rights grant the titleholder any benefit that could be generated from the certification of the carbon sequestration or greenhouse gas reduction by the activity. For activities, the holder of the CO₂ user rights is usually the owner of the land or water body, where the activity takes place—except when such rights have been expressly transmitted to another person or entity by the land owner or when an authority act, decision, order, or regulation assigns such rights to a different person than the land owner.

3.2.8 | Depending on the ownership arrangement and management structure of the activity, the project developer shall comply with the requirement for Scenario 1 or 2, as applicable.

- a. **Scenario 1: If the project developer acts on behalf of project participants**, each participant shall sign an agreement with the project developer which confirms that:
 - i. the project participant has passed CO₂ user rights¹⁴ to the project developer, and
 - ii. the project participant holds all necessary rights to implement the activity (e.g., rights to harvest), and
 - iii. the legal land title or similar entitlement¹⁵ for the land or part of the ocean on which the activity is implemented is uncontested.
- b. **Scenario 2: If the project developer is the sole owner**, it shall provide evidence that:
 - i. it holds the CO₂ user rights¹⁶ and the rights for any other Certified SDG Impact Statement or Product associated with the activity, and
 - ii. it holds all necessary rights to implement the activity (e.g., rights to harvest), and
 - iii. the legal land title or similar entitlement for the blue carbon or freshwater wetland area in which the activity is implemented is uncontested.

3.2.9 | The project developer shall inform the authorities of all project participants with respect to:

- a. instructing the Gold Standard, and
- b. requesting or communicating the addition or edits of project participants, and

¹⁴ CO₂ user rights grant the titleholder any benefit that could be generated from the certification of the carbon sequestration or greenhouse gas reduction by the activity.

¹⁵ Similar entitlement exists when (1) a person or entity has been using the land or ocean of the project as its owner for the period of time that the applicable law requires for persons or entity to acquire property by its use and (2) neighbours or neighbouring community agrees that the land or ocean has been used for such time by the person or entity claiming it.

¹⁶ CO₂ user rights grant the titleholder any benefit that could be generated from the certification of the carbon sequestration or greenhouse gas reduction by the activity. For blue carbon and freshwater wetland activities, the holder of the CO₂ user rights usually owns the land or owns a permit or license to undertake activities on the ocean, where the activity takes place—except when such rights have been expressly transmitted to another person or entity by the land owner or when an authority act, decision, order, or regulation assigns such rights to a different person than the land owner.

- c. receiving all information from the Gold Standard Secretariat on matters related to the activity.

3.2.10 | To comply with Section 3.2.9.a, at minimum, the agreement shall include:

- a. contact details of the project participants, and
- b. legal registration number and documentation by the governing jurisdiction that proves that the entity is in good standing (in case of an organisation), and
- c. contact details of the land or coastal area or wetlands owner (if differing), and
- d. length of lease contract (if applicable), and
- e. roles and responsibilities for the person or entity to implement the activity (e.g., maintaining fishing rights).

3.3 | Design Change Certification

3.3.1 | New area addition certification shall follow design change rules.

3.3.2 | For new areas proposed for inclusion, the crediting period end date shall be the same as for the previously design-certified project.

3.3.3 | Project developer shall consult with Gold Standard before removing a certified area and/or reducing the size of a certified area in order to assess the materiality of the changes.

4 | ELIGIBILITY PRINCIPLES AND REQUIREMENTS

4.1.1 | This section describes additional requirements and/or deviations from the [Principles & Requirements](#). The eligible activity seeking GS4GG certification shall meet these additional requirements.

PRINCIPLE 1: CONTRIBUTION TO CLIMATE SECURITY AND SUSTAINABLE DEVELOPMENT

4.1.2 | Coastal areas and freshwater wetlands are susceptible to the impacts of climate change (e.g., increased drought events, rising sea levels) and therefore put at risk the livelihoods, health, and food security of local communities in the project area. Hence, preserving and increasing adaptive capacity of the project area and region should be an integral element of every project design. The project developer should do the following:

- a. Identify the current and predicted variability in climate and weather resulting from climate change impacts for the project region and specifically for the project area; data on projected climate change scenarios may be sourced from peer-reviewed sources and/or official sources and/or studies conducted by internationally reputed organisations (e.g., IPCC, World Bank, World Wide Fund for Nature).
- b. Consider the projected sea level rise risk in the region of the coastal blue carbon activity to determine its likely impact on specific project areas.

- 4.1.3 | The project developer shall conduct a risk assessment for potential adverse impacts and their magnitude during the entire crediting period of the activity. The risk assessment shall be conducted based on current and predicted climate and weather variability due to climate change and shall follow a participatory, multi-stakeholder process with project participants.
- 4.1.4 | The project developer shall implement adaptation measures appropriate to the context and need of the respective activity. The selected adaptation measure shall aim at
- a. reducing risks for the livelihoods of participants, and
 - b. sustaining and improving over time the productivity of participating communities, in particular local farming and fishing communities.
- 4.1.5 | Adaptation measures may include the following.
- a. Coastal ecosystems:
 - i. Measures to reduce coastal erosion and tidal flooding.
 - ii. Practices that enhance the productivity of local fisheries.
 - iii. Practices that build resilience to climate-related disasters and natural hazards.
 - iv. Diversification of livelihoods, e.g., through enhanced fish nurseries and identification of other income streams such as ecotourism.
 - b. Freshwater wetlands ecosystems:
 - i. Practices that increase the water security for agriculture and drought resilience due to increased water holding capacity.
 - ii. Measures to protect farmers and local communities from flooding.

PRINCIPLE 2: SAFEGUARDING PRINCIPLES AND REQUIREMENTS

- 4.1.6 | The project developer shall conduct a safeguarding principles assessment following the [Safeguarding Principles & Requirements](#) and [Land Use & Forests Risks & Capacities Guideline](#) assessed for the project area, taking into account likely issues in the context of the project region.
- 4.1.7 | The proposed activity that sequesters carbon in ocean sediments shall ensure that no negative environmental impacts occur to benthic fauna and flora and shall avoid the creation of oxygen-depleted zones.
- 4.1.8 | The proposed activity, such as restoration of mangrove and tidal marshes, shall assess the impacts of projected future sea level rise risk in the project area and determine the potential for expanding the project area inland to account for wetland migration, inundation, and erosion that may cause degradation to the initial project area.
- 4.1.9 | Seaweed farms shall ensure that natural ecosystems are not adversely impacted by the following:

- a. Nutrient removal by cultivated seaweed that results in concentrations which fall below that required for natural primary productivity in the project area and therefore affects phytoplankton communities.
- b. Alterations to local hydrodynamic movements, which may lead to impacts on the carrying capacity of a water body through reducing water exchange necessary for maintaining levels of nutrients required for growth of primary producers.
- c. Significant changes to coastal hydrology.
- d. Pollution related to artificial substrates that are used to cultivate seaweed (e.g., synthetic polymer ropes).
- e. Reduction of the genetic diversity of local species through use of genetically modified organisms (which shall not be used).

4.1.10 | A proposed inland wetland activity shall not cause an adverse impact on the water rights of local landholders and communities or on water quality.

PRINCIPLE 3: STAKEHOLDER INCLUSIVITY

4.1.11 | The stakeholder consultation shall be conducted prior to the project start date. The project developer shall refer to the [Stakeholder Consultation and Engagement Requirements](#) for further details.

PRINCIPLE 4: DEMONSTRATION OF REAL OUTCOMES

4.1.12 | All activities shall undergo preliminary review, project design certification, and performance certification, per the [Principles & Requirements](#).

4.1.13 | For mangrove reforestation activity, the crediting period shall be a minimum of 30 years and a maximum of 50 years unless otherwise stated in the applicable [GS4GG-approved Methodology](#). The project developer shall select the crediting period based on the characteristics of the activity.

4.1.14 | For all other blue carbon and freshwater wetland activities, the crediting period shall be defined at the impact quantification methodology level.

4.1.15 | The crediting period starts with either the project start date or three years prior to the date of project design certification, whichever occurs later.

4.1.16 | The eligible activity can seek GS4GG certification by applying through any of the following certification options:

- a. Standalone project certification as detailed in the [Principles & Requirements](#).
- b. Programme of activities certification as detailed in the [Programme of Activity Requirements](#).

4.1.17 | All activities shall seek crediting period renewal every fifth year, following the applied [GS4GG-approved methodology](#) and referenced requirements.

- 4.1.18 | A project may request retroactive issuance of certified impact statements and/or products. The maximum period for retroactive issuance is three years, which starts on either the project start date or three years prior to the date of project design certification, whichever occurs later.
- 4.1.19 | New areas added to retroactive projects shall follow the requirements for retroactive issuance, per the [Principles & Requirements](#), [GHG Emissions Reductions & Sequestration Product Requirements](#), and the requirements stated in Section 4.1.18 | of this document.

PRINCIPLE 5: FINANCIAL ADDITIONALITY AND ONGOING FINANCIAL NEED

- 4.1.20 | The activity shall not be mandatory by any law or regulation. However, if they are mandatory, the project developer shall demonstrate that these laws or regulations are systematically not enforced. For high-income countries, all legal requirements shall be deemed to be enforced. For countries other than high-income countries, legal requirements shall only be deemed to be unenforced based on authoritative and up-to-date information of non-enforcement that is relevant and applicable to the mitigation activity.
- 4.1.21 | The activity shall apply one of the following options to demonstrate additionality:
- a. Option 1 – Latest version of approved Clean Development Mechanism Tools/A6.4 tools:
 - i. [Guidelines for the establishment of sector specific standardised baselines](#), or
 - ii. [Combined tool to identify the baseline scenario and demonstrate additionality](#), or
 - iii. [Guideline on the assessment of investment analysis](#) and [Guidelines for objective demonstration and assessment of barriers](#), or
 - iv. Applicable A6.4 Standard for Additionality demonstration as soon when it is available.
 - b. Option 2 – Positive list: A micro-project or small-scale project located in least-developed countries (LDC) or Small Island Developing States (SIDS) are deemed additional.

5 | REQUIREMENTS FOR PROJECTS

- 5.1.1 | In addition to following the Principles & Requirements, the project developer shall follow the process outlined below.
- 5.1.2 | All activities shall follow Annex A, Uncertainty for Land Use & Forests Parameters in the [Land Use & Forest Activity Requirements](#), to assess uncertainty or any other recent guidance on uncertainty assessment under GS4GG that is applicable to blue carbon and freshwater wetlands activities.
- 5.1.3 | All activities shall complete the Risk & Capacities Assessment Guidelines as applicable for blue carbon and freshwater wetland activities.

5.1.4 | All activities shall submit geographic information system (GIS) vector layers for the items outlined in Table 2.

Table 2. GIS vector layers required to be submitted

GIS Layers	Preliminary Review	Design Review
a. Project region, project area, and eligible areas	Yes	Yes
b. If the project region is away from the coast, the layer shall also include land, along with the distance in nautical miles	Yes	Yes
c. EEZ, in the case of blue carbon activities	Yes	Yes
d. Individual MUs	If available	Yes
e. Marine protected areas	If available	Yes
f. Biodiversity and conservation areas	If available	Yes
g. Areas controlled as exclusive zones for fishing or aquaculture	If available	Yes
h. Places where affected stakeholders are situated (may mark key places)	If available	Yes
i. Sites with special cultural, ecological, economic, religious, or spiritual significance	If available	Yes
j. Places where Indigenous people and local communities are situated	If available	Yes
k. Places where Indigenous people and local communities have legal rights or sites with special cultural, ecological, economic, religious, or spiritual significance	If available	Yes

5.1.5 | A minimum 20% compliance buffer shall be applicable to all blue carbon and freshwater wetlands activities, if not specifically mentioned in the impact methodology. The requirement is similar to the Land Use and Forests Specific

Requirements in the [GHG Emissions Reductions & Sequestration Product Requirements – Gold Standard for the Global Goals](#).

6 | REQUIREMENTS FOR METHODOLOGIES

- 6.1.1 | Blue carbon and freshwater wetlands methodologies that include an SOC pool within the project boundary may apply any of the following approaches to quantify SOC, in the preferential order below:
- a. Take on-site measurements to directly document baseline and project SOC stock levels.
 - b. Use peer-reviewed publications to quantify baseline and project SOC stock levels.
 - c. Apply default factors to quantify SOC changes relating to the general methodology described in the IPCC Guidelines for National Greenhouse Gas Inventories (IPCC 2019) using Tier 2 approach whenever possible.

The project developer may refer to the examples in the [Soil Organic Carbon Framework Methodology](#).

- 6.1.2 | Autochthonous carbon may be included in the carbon accounting for SOC. However, deductions shall be made for allochthonous carbon where SOC accumulates on the activity site due to sedimentation. The deduction shall be based on a percentage of the carbon stock that is derived from allochthonous carbon and may be derived from published values, field collected data, default values, and modelling. In the case of modelling, results shall be validated against direct measurements. The model shall be accepted by the scientific community and may be evidenced through peer-reviewed journal publications and repeated application in different and appropriate wetland ecosystems.
- 6.1.3 | Impact quantification methodologies shall detail the sampling protocols and/or other approaches to quantify autochthonous and allochthonous carbon (as applicable). Scientific literature, such as the Coastal Blue Carbon Methods for Assessing Carbon Stocks and Emission Factors in Mangroves, Tidal Salt Marshes, and Seagrass Meadows published by the Blue Carbon Initiative,¹⁷ may be used as a guideline to develop such an approach.

¹⁷ J. Howard, S. Hoyt, K. Isensee E. Pidgeon, and M. Telszewski (eds.). 2014. Coastal Blue Carbon: Methods for Assessing Carbon Stocks and Emissions Factors in Mangroves, Tidal Salt Marshes, and Seagrass Meadows. Conservation International, Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific, and Cultural Organization, International Union for Conservation of Nature. Arlington, Virginia: United States.
<https://www.unep.org/resources/publication/coastal-blue-carbon-methods-assessing-carbon-stocks-and-emissions-factors>

6.1.4 | To reduce uncertainties in measurement, project developers are encouraged to explore innovative monitoring approaches, such as remote sensing and sonar technologies, during the development of blue carbon and freshwater methodologies.

DOCUMENT HISTORY

Version	Date	Description
1.0	22/08/2024	First version