

GLOBAL
CARBON
CHECK

GLOBAL CARBON
CHECK STANDARD

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I. Scope of Global Carbon Check

- The seven greenhouse gases identified in the Kyoto Protocol.
- Project activities that have been approved under the GCACH Program's methodology development and review process.
- GCACH program with project activities that have been approved under another GHG program.
- Jurisdictional REDD+ programs and nested REDD+ projects. (Planned for Phase 4 at GCACH)
- The size of the project is not restricted, and there is no minimum or maximum land area required. (Currently GCACH does not support Wetland Projects- planned for phase 4)
- Renewable Energy, Energy Efficiency Projects ¹, Carbon Capture projects and water credit. (Planned for phase 3)

Note: Currently ongoing phase - 2

Limitations

- All energy generation and energy efficiency projects that have received government emission trading certificates (e.g. EU ETS certificates) are excluded from GCACH.
- Grid-connected electricity generation activities using hydroelectric power plants will undergo exceptional screening ² if the plant has a capacity greater than 20 MW.
- Renewable projects in countries where the renewable energy target for achieving net-zero emissions has surpassed 60% of grid-connected electricity generation ³ will undergo exceptional screening.
- Activities generating energy using fossil fuels, or involving switching from a higher to a lower carbon content fossil fuel, are excluded.
- Activities involving the replacement of inefficient electric lighting systems with more energy-efficient alternatives, such as CFLs or LEDs, are excluded.

¹ Energy efficiency practices, such as the use of energy-efficient transformers, are excluded. Only the adoption of new technologies, such as HVAC systems, is included.

² Exceptional screening refers to GCACH's internal review process, which assesses the social, environmental, community, and biodiversity impact of projects.

³ For example, India's target for achieving net-zero emissions through renewable energy by 2030 is 500 MW. As of 2023, India's current renewable energy capacity is 174.53 MW, which is less than 60% of its target.

- Only waste gas recovery or electricity generation using waste heat recovery outside of combined cycle (CC) applications, such as organic Rankine cycles (ORC).
- Least Developed Countries (LDCs) are taken into special consideration subject to the limitations .

I.1. Guiding Principles

Materiality: The inventory should focus on emissions that are material in terms of their impact on the environment and society.

Relevance: The greenhouse gas emissions that are included in the inventory should be relevant to the organisational boundaries and the specified time period.

Completeness: The inventory should include all relevant emissions sources and activities, both direct and indirect, that fall within the organisational boundaries and the specified time period.

Consistency: The inventory should be prepared using consistent methodologies, data sources, and emission factors, and should be updated on a regular basis.

Transparency: The inventory should be transparent and clearly documented, with a full disclosure of all assumptions, uncertainties, and limitations.

Accuracy: The inventory should be accurate and based on reliable data sources and appropriate emission factors.

Conservativeness: The inventory should be conservative and err on the side of overestimating emissions in cases where uncertainty exists.

Materiality: The inventory should focus on emissions that are material in terms of their impact on the environment and society.

I.2. Crediting Requirement

- Carbon Token (CT's) are only issued for GHG emission reductions or removals that have been verified.

- Project activities are eligible for immediate crediting of future avoided emissions under specific conditions
 - Project must demonstrate that it has taken an upfront action to permanently avoid future emissions, and that GHG reductions resulting from this action have been verified before any CT's can be issued. (Ex: Low emission Cook Stove). AFOLU projects are excluded.
- Renewal of the crediting period requires reevaluation of the baseline during which it gets verified at a given interval.

Limitations

- GCACH conducts periodic reviews of project risk analyses to ensure consistency and accuracy in the application to calculate non-Permanence Risk. During this review process, a sample of project risk reports are evaluated, and any inconsistencies in the assessment process are identified. The validation/verification bodies are also consulted during this process.
- If any carbon is lost or not reduced, buffer credits are cancelled to compensate for it. It can be due to project failure, overestimation or project inaccuracy.

2. General Standards

- To ensure compliance, projects must adhere to all applicable rules and requirements outlined in this document.
- Projects must apply eligible methodologies as determined by the GCACH Programs, including any associated tools or modules described within the methodology, unless exceptions are mentioned in the methodology or other supporting documents.
- In all cases, projects must use the latest version of the applicable methodology, projects must update to the latest version of the methodology when reassessing the baseline and renewing a crediting period.
- Project activities and implementation must not violate any applicable laws, regardless of enforcement status.
- If a project applies a methodology that allows for the proponent to choose their own model, it must meet the requirements outlined in the program specific methodology requirements document, and be demonstrated to be appropriate for the project circumstances to ensure accurate quantification of GHG emissions reductions or removals.

- If a project applies a methodology that allows for the use of a third-party default factor or standard to determine GHG emission data or establish baseline scenarios, the default factor or standard must meet the requirements set forth in the program specific methodology requirements document.
- Projects that use methodologies from approved GHG programs must conform to any specified capacity limits and other relevant requirements for the application of the methodology and/or tools referenced by the methodology under those programs.

Partner Responsibilities

- The project description must identify any implementation partners and their roles and responsibilities with respect to the project.
- Implementation partners may be responsible for project implementation, management, and monitoring over the project's crediting period.

Eligibility Requirements for AFOLU Projects

- Projects must not convert native ecosystems to generate GHG credits.
- Evidence must be provided in the project description that project areas were not converted to create GHG credits, unless such conversion took place prior to 10 years of the project.
- The project proponent is responsible for demonstrating this, and failure to do so will result in ineligibility.

Eligibility Requirements for Urban Forestry Projects

- Evidence must be provided in the project description that project areas were not converted just to create GHG credits, unless such conversion took place prior to 10 years of the project.
- Project involves the planting of new trees in areas that have not been commercially harvested for primary purposes in the 10-year period leading up to the Project Commencement Date⁴.
- The project proponent is responsible for demonstrating this, and failure to do so will result in ineligibility.

⁴ Note: The stated condition can be overridden if the area is being converted to eradicate the invasive alien species in an urban area.

Project Implementation Requirements

- The project proponent must demonstrate that project activities leading to the intended GHG benefit were implemented during each verification period in accordance with the project design.
- If no new project activities were implemented during a verification period, the project proponent must demonstrate that previously implemented project activities continued during the verification period (e.g., forest patrols or improved agricultural practices of community members).

Baseline Reassessment Requirements

- For IFM, APDD, AUDD, APDD (where the agent is unknown), AUC, APC, and ALM project types, the project proponent must reassess and validate the baseline at the same time as the verification that takes place after 5 years.
- For renewable energy, energy efficiency and carbon capture project types, the project proponent must reassess and validate the baseline at the same time as the verification that takes place after 5 years.
- Depending on how the project's baseline was established. If the baseline used historical management data, it should be compared to published data on current common practice in the project region. If there is a significant difference, the baseline should be updated to reflect current common practice. If the baseline used regional data on common practice, it should be updated to reflect current practices using similar datasets.
- If the project sets its baseline using regional data on common practices (i.e., not specific to the project lands), the project proponent must update the baseline to reflect current practices at each reassessment event. The updates shall use similar datasets (e.g., agricultural census data) as those used to establish the baseline at validation.
- The project description shall be updated at the time of baseline reassessment

Non-Permanence Crediting Requirement

- To ensure the credibility and effectiveness of projects, it is crucial to address the risk of non-permanence. Projects must prepare a non-permanence risk report using the Non-Permanence Risk Template, which should be validated at the time of project validation.
- Non-Permanence risk reports should be developed for projects under AFOLU specific programs.

- Projects with tree harvesting or WRC must demonstrate that the permanence of their carbon stock is maintained through government- or professional forester-approved forest management plans, and the maximum quantity of GHG emission reductions that may be sought is limited.
- Projects shall perform non-permanence risk analysis at every verification event and may be eligible for the release of buffer credits if they demonstrate longevity, sustainability, and risk mitigation.

Note: Buffer credits cannot be traded, and will be stored in buffer stock by GCACH during the time of issuance.

Buffer Stock Account Requirements

- If a project experiences a reversal due to a catastrophic event, (Example: such as a natural disaster, war, or other major crisis), the project proponent may not claim credits for any increased sequestration until the losses resulting from the reversal have been recovered.
- If the project reversal is due to non-catastrophic factors, (Example: such as poor management or over-harvesting), the project proponent may not claim any further credits for the project or any other projects until the deficit resulting from the reversal is remedied.
- The remaining balance of buffer credits is cancelled at the end of project crediting period.
- The flat rate of 20% is applied to the buffer pool credits and 15% of credits are released from the buffer pool during each regular crediting cycle.

Loss event reporting

- Project Proponents or stakeholder can reach out to GCACH to notify the loss event , with specific detail including the Loss effect date and the monitoring report to quantify the loss occurred.

2.1. Project Documentation

To complete the project validation process, project proponents must provide a project description outlining the project's GHG emission reduction or removal activities. Similarly, to complete the project verification process, project proponents must provide a monitoring report describing the data and information related to the monitoring of GHG emission reductions or removals.

Requirements

Project Description

- The project proponent must use the latest version of a program specific Project Description Template.
- The project proponent must adhere to all instructional text within the template.
- All information in the project description must be available for review by GCACH and VVB.
- This protection is subject to the GCACH document Registration and Issuance Process, where it can be demonstrated that such information is commercially sensitive.
- The validation/verification body must confirm that any information designated by the project proponent as commercially sensitive adheres to the Program definition of commercially sensitive information.
- Information in the project description related to determining the baseline scenario, demonstrating additionality, and estimating and monitoring GHG emission reductions and removals should not be considered commercially sensitive and must be included in the public versions of the project description.

Monitoring Report

- The project proponent must use an latest version of monitoring report template available on the GCACH website, as appropriate, and must adhere to all instructional text within the template.
- The monitoring period should be a separate time period that does not overlap with previous monitoring periods. Projects will not be eligible for GHG emission reduction and removal credits generated in previous monitoring periods.
- Projects with a risk of reversal or loss event must not have gaps between monitoring periods.
- The monitoring report must specify the number of GHG emission reductions or removals generated in each calendar year of the monitoring period.
- The monitoring report must be verified before submission to GCACH.

2.2. Project Design

The GCACH program allows for different approaches to project design.

Single Activity Installation - Projects can be designed as a single installation of an activity, meaning that the project will only have one Methodology implemented in the project.

Multiple Project Activities - Projects can include multiple project activities where the methodology applied to the project allows more than one project activity and/or where projects apply more than one methodology.

Grouped Projects - Projects can be structured as grouped projects, allowing for the expansion of a project activity following project validation.

Requirements

- Each project activity shall be specified separately in the project description, referencing the relevant methodology, where more than one methodology has been applied to a project with multiple project activities.
- All criteria and procedures set out in the applied methodologies in relation to applicability conditions, demonstration of additionality, determination of baseline scenario and GHG emission reduction and removal quantification shall be applied separately to each project activity.
- Where projects are required to undertake non-permanence risk assessment and buffer withholding determination, this shall be done separately for each project activity.
- Projects that include multiple project activities shall conform with the respective project requirements of each included category.
- For each activity covered by a different methodology, the geographic extent of the area to which the methodology is applied shall be clearly delineated.

Multiple Project Activities Instance

- Projects can either be grouped or non-grouped and may include multiple project activity instances.
- Non-grouped or grouped projects cannot have additional project activity instances added after initial validation.
- For projects with multiple project activity instances, the baseline determination and additionality demonstration should be combined, meaning that they should be assessed together rather than individually (Ex: Multiple windmills can be assessed in combination instead of single).

Requirement

- When a project includes multiple project activity instances from multiple project activities, each instance from each project activity should be assessed.
- The project proponent can include all project activity instances within the same state region of another instance of the same project activity and with the same project proponent in a singular project.

Grouped Projects

- For grouped projects, it is necessary to clearly specify the geographic areas where project activity instances can take place, using geodetic polygons.

Note: Only geographic areas with initial project activity instances can be included in the project, unless it can be demonstrated that the same baseline scenario and additionality are applicable to areas without initial activity.

- The initial project activity instances include those that are described in the project validation and can also include planned instances. If a grouped project includes multiple project activities, the project description should indicate which activities can occur in each geographic area.
- For each designated geographic area, the baseline scenario and additionality should be determined according to the project methodology. If it is not possible to determine a single baseline scenario for a project activity across the entire geographic area, the area should be redefined or divided.

Requirements

Eligibility criteria should be provided for each combination of project activity and geographic area specified in the project description. The eligibility criteria should ensure that new project activity instances meet the applicability conditions set out in the project methodology, use the specified technologies or measures, apply those technologies or measures consistently, are subject to the baseline scenario, and have characteristics consistent with the initial instances (e.g., financial, technical, or size/scale parameters).

New Instance Requirements

- They must take place within one of the designated geographic areas specified in the project description.

- They must comply with at least one complete set of eligibility criteria for the inclusion of new project activity instances. Partial compliance with multiple sets of criteria will not be accepted.
- They must be included in the monitoring report, with comprehensive technical, financial, geographic, and other relevant information that demonstrates conformity with the applicable eligibility criteria and enables evidence gathering by the validation/verification body.
- They must be included in an updated project description, with updated project location information, which will be validated at the time of verification against the applicable eligibility criteria.
- They must have evidence of project ownership for each project activity instance held by the project proponent from the respective start date of each project activity instance (i.e., the date on which the project activity instance began reducing or removing GHG emissions).
- They must have a start date that is the same as or later than the grouped project start date.
- They are only eligible for crediting from the start of the verification period in which they were added to the grouped project.
- They must not be or have been enrolled in other projects under GCACH.
- Non-permanence risk analysis must be conducted for each geographic area specified in the project description, and if risks only apply to a portion of a geographic area, that area must be further divided to determine a total risk rating for each section.

Project Description for Grouped Projects

A grouped project shall be described in a single project description, which shall contain the following (in addition to the content required for non-grouped projects):

- A delineation of the geographic area(s) within which all project activity instances shall occur. Such area(s) shall be specified by geodetic polygons
- One or more determinations of the baseline for the project activity in accordance with the requirements of the methodology applied to the project and regions included for grouped projects.
- One or more demonstrations of additionality for the project activity in accordance with the requirements of the methodology applied to the project. Additionality can be similar for all the projects in the group.
- One or more sets of eligibility criteria for the inclusion of new project activity instances at subsequent verification events.

- A description of the central GHG information system and controls associated with the project and its monitoring.

2.3. Ownership

Proponents of projects or programs must provide evidence demonstrating that they possess the legal authority to manage and operate project or program activities.

Requirements:

The project description must be accompanied by one or more types of evidence proving project ownership granted to the project proponent(s) or program ownership granted to the jurisdictional proponent(s), as applicable. The types of evidence accepted are:

- Project ownership granted by a competent authority through statute, regulation, or decree.
- Project ownership granted through law.
- Project ownership granted through statutory, property, or contractual rights in the plant, equipment, or process that generates GHG emission reductions and/or removals (where the project proponent has not been divested of such project ownership).
- Project ownership granted through statutory, property, or contractual rights in the land, vegetation, or conservational or management process that generates GHG emission reductions and/or removals (where the project proponent has not been divested of such project ownership).
- An enforceable and irrevocable agreement with the holder of the statutory, property, or contractual right in the plant, equipment, or process that generates GHG emission reductions and/or removals, which vests project ownership in the project proponent.
- An enforceable and irrevocable agreement with the holder of the statutory, property, or contractual right in the land, vegetation, or conservational or management process that generates GHG emission reductions or removals, which vests project ownership in the project proponent.
- Project ownership resulting from the implementation or enforcement of laws, statutes, or regulatory frameworks that require or incentivize activities generating GHG emission reductions or removals.

2.4. Project Start Date

The project start date indicates when a project began generating GHG emission reductions or removals for non-AFOLU projects, and when activities leading to GHG emission reductions or removals were implemented for AFOLU projects.

Requirements

Non-AFOLU Projects

- Projects with a start date prior to 31st December 2011 are not approved under GCACH programs unless described in rules specified under the program of GCACH.
- Projects initiated from 1st January 2012 are approved under GCACH programs, carbon credits will only be issued based on the operations and practices performed after 1st January 2018 ⁵.

AFOLU Projects

- AFOLU Projects with a start date prior to 31st December 2011 are not approved under GCACH programs unless described in rules specified under the program of GCACH.
- Projects initiated from 1st January 2012 are approved under GCACH programs, carbon credits will only be issued based on the operations and practices performed from 1st January 2016.

Urban Forestry Projects

- UF Projects with a start date prior to 31st December 2015 are not approved under GCACH programs unless described in rules specified under the GCACH program.
 - Projects initiated from 1st January 2016 are approved under GCACH programs, carbon credits will only be issued based on the operations and practices performed from 1st January 2018.

⁵ For say, if the wind project was commissioned on February 2012, then the project is approved under GCACH program, but the project is only eligible for credits generated due to carbon removal or reduction from year (2018-current year)

2.5. Project Crediting Period

The concept of the project crediting period refers to the duration for which GHG emission reductions or removals generated by a project are eligible for issuance of credits. To ensure that changes to the project's baseline scenario and regulatory surplus are considered during the lifetime of the project, the project crediting period must be renewed periodically. The following are the requirements for project crediting period length:

General

The project crediting period will be five years (renewable up to two times for 10 years). The project can be renewed once at the 11th year (for up to 20 years)

For AFOLU Projects

The project crediting period will be five years (renewable up to five times for 20 years). The project can be renewed once at the 21st year (for up to 40 years).

For Urban Forestry Projects

The project crediting period will be three years (renewable up to five times for 15 years). The project can be renewed once at 16th year (for up to 30 years).

Project Renewal Requirements

The renewal of the project crediting period under the GCACH programs follows certain guidelines, which are as follows:

- When renewing the project crediting period, a full reassessment of additionality is not necessary, unless otherwise specified in the methodology. However, regulatory surplus must be demonstrated according to the specific program rules, and the project description must be updated accordingly.
- New baseline scenario must be determined when renewing the project crediting period, as follows:
 - The new baseline scenario's validity must be assessed, taking into account new national and/or sectoral policies and circumstances that could impact its validity.

- If the original baseline scenario is no longer valid, the current baseline scenario must be established in accordance with the specific program rules in GCACH.
- The project description, which should contain updated information regarding the baseline, estimated GHG emission reductions or removals, and monitoring plan, must be submitted for validation. The updates should be based on the latest approved version of the methodology or its replacement.
- If the project fails to meet the requirements of the latest approved version of the methodology or its replacement, the project proponent should select another applicable approved methodology, apply a methodology deviation, or the project will not be eligible for renewal. The deviation must be consistent with the principles, requirements, and objectives to ensure integrity of the project.
- The updated project description should be validated according to the specific program rules under GCACH, and the project should be validated against the current scope of the specific programs under GCACH.
- The validation report should be issued within two years after the end of the previous project crediting period.
- The validation report's issuance date should not be more than one year prior to the current crediting period's end.

Note: If a project crediting period is not renewed within these timelines, the project will become ineligible for further crediting.

2.6. Project Location

Projects are classified based on their estimated annual greenhouse gas (GHG) emission reductions or removals, and different materiality thresholds apply to projects of different sizes.

The project location must be specified to accurately describe project characteristics and demonstrate compliance with other requirements, such as project ownership and regulatory compliance.

Requirements

The project location must be specified in the project description as follows:

- For non-AFOLU projects with a single project activity instance, the project location must be specified by a single geodetic coordinate.

- For projects with multiple project activity instances, the project location must be specified as follows:
 - A geodetic coordinate must be provided for each instance and provided in a KML file, or
 - For projects with a large number of project activity instances (e.g., cookstoves, Urban Tree Planting Methodology), at least one geodetic coordinate must be provided, along with geodetic polygons to delineate the project's geographic area(s) provided in a KML file, and sufficient additional geographic information (with respect to the location of the instances) to enable evidence gathering by the validation/verification body.
- For grouped projects, the project location must be specified using geodetic polygons to delineate the project's geographic area(s) provided in a KML file, along with sufficient additional geographic information (with respect to the location of the instances) to enable evidence gathering by the validation/verification body.
- The project area should be clearly defined in order to ensure accurate monitoring, reporting, and verification of GHG emission reductions and removals.
- The project location should be described in detail, including the name of the project area, maps of the project zone, and a KML file with geodetic polygons.
- The KML file should exclude non-eligible areas and areas not part of the project area, as defined by the applied methodology.
- The total size of the project zone and details of ownership should also be included. The project area should not overlap with the project area of another AFOLU project under GCACH.
- The project proponent should have control over the entire project area, with documentary evidence establishing project ownership. For non-grouped projects, the entire project area should be under the control of the project proponent at the time of validation, or come under the control of the project proponent by the first verification event.
- If less than 80% of the total proposed area of the project is under current control at validation, it should be demonstrated that the result of the additionality test is applicable to the project area at the time of validation and to the entire project area to come under control in the future. The monitoring plan should be designed to be flexible enough to deal with changes in the size of the project.

2.7. Project Boundary

The project boundary encompasses all relevant GHG sources, sinks, and reservoirs, as defined by the applicable methodology, for both the project and baseline scenarios. It is important to identify and assess these components using appropriate diagrams and analysis.

Requirements

- The project must provide a clear description of the project boundary, and identify and assess all relevant GHG sources, sinks, and reservoirs according to the methodology used. The project must also provide a justification for excluding any relevant GHG sources, sinks, or reservoirs.

2.8. Baseline Scenario

The baseline scenario is a critical reference point used to measure the GHG emissions reduction achieved by the project. It is crucial to ensure that the baseline scenario is accurately determined to make a reliable comparison between the GHG emissions under the baseline scenario and those reduced or removed by the project activity.

- To determine the baseline scenario, the project must follow the methodology applied to the project and justify the choice of the baseline scenario.
- Additionally, the project must demonstrate the equivalence in type and level of activity of products or services provided by the project and the baseline scenario, and any significant differences between the project and the baseline scenario must be explained.
- The development of the baseline scenario requires the project to select appropriate assumptions, values, and procedures that help ensure that net GHG emission reductions and removals are not overestimated. This helps to ensure the reliability and accuracy of the GHG emissions reduction estimates, which are essential for the success of the project.

2.9. Additionality

A project activity can only be considered additional if it leads to greenhouse gas (GHG) emission reductions or removals beyond what would have happened in a

business-as-usual scenario, and if the activity would not have occurred without the incentives provided by carbon markets.

Additionality is a crucial factor for GHG credits, including CT's, as it ensures that they represent a genuine reduction of GHG emissions and a net environmental benefit, making them eligible for offsetting emissions.

Requirements

- The project must demonstrate regulatory surplus during validation and each crediting period renewal. Regulatory surplus means that the project activities are not required by any law, statute, or regulatory framework, unless it is a systematically enforced law or regulatory framework for non-Annex I countries under the United Nations Framework Convention on Climate Change (UNFCCC).
- Additionality must be demonstrated and assessed in accordance with the methodology applied to the project. However, there are some exceptions:
 - If a module uses an activity method that deems a project activity additional, the project proponent does not need to follow the additionality requirements in the methodology. Instead, the project can demonstrate that it meets the applicability conditions and any other criteria of the activity method.

Note: This only applies to modules. If a methodology contains an activity method for additionality, the additionality procedures cannot be used in combination with a different methodology.

- If the applied methodology uses an activity method or other simplified procedure for demonstrating additionality and was developed under an program, the project proponent must demonstrate to the validation/verification body that the simplified procedure is appropriate for the project, taking into account the project's characteristics and the context in which the activity takes place. If this cannot be demonstrated, an appropriate additionality assessment method must be used instead.

Example: If a project is developed in the United States and applies a Clean Development Mechanism (CDM) methodology that uses a simplified procedure for demonstrating additionality, the project proponent must show that the simplified procedure is appropriate for the project, given

that it was originally developed for application in a developing country context.

2.10. Quantification

- To issue CTs, GHG emission reductions and removals must be quantified according to the applied methodology(s) and converted to metric tonnes of CO₂ equivalent (CO₂e).
- The net GHG emission reductions and removals generated by the project, including leakage, must be estimated for each relevant GHG source, sink, and/or reservoir, as well as the baseline scenarios.
- All GHG emission reductions and removals must be converted to CO₂e using 100-year global warming potential (GWP) values from the IPCC Fifth Assessment Report (AR5)⁶.
- To minimise the displacement of land use activities outside the project area, leakage management zones should be included in AFOLU projects. These zones can be established by addressing socio-economic factors that drive land use change or by maintaining the production of goods and services within the project proponent's control.
- Additionally, leakage can be mitigated through sustainable practices such as agricultural intensification, agroforestry, and ecotourism.
- Projects must account for leakage and document the evaluation in the appropriate section of the project description and monitoring report. Market leakage assessments must follow the requirements of the applied methodology. The use of optional default leakage deductions is allowed under certain circumstances.
- All projects must monitor and calculate leakage in accordance with the applied methodology and deduct it from the total GHG emission reductions and/or removals of the project.
- The number of GHG credits issued to projects is determined by subtracting the buffer credits from the net GHG emission reductions or removals.

2.11. Monitoring

To determine the net GHG benefit of project activities, it is necessary to monitor their impacts on relevant emission sources, sinks, and reservoirs, following the applied methodology(s). The following requirements must be met:

⁶ IPCC. 2013. *Fifth Assessment Report*. <https://www.ipcc.ch/report/ar5/wg1/>

Data and Parameters

- Data and parameters used to quantify GHG emission reductions and/or removals must follow the methodology and be provided accordingly.
- Quality management procedures must be established and applied to manage data and information.
- Procedures to account for uncertainty in data and parameters must also be applied as required by the methodology.

Monitoring Plan

- The project proponent must establish a GHG information system to obtain, record, compile, and analyze data and information relevant to quantifying and reporting GHG emissions and/or removals, including leakage, and the baseline scenario.
- A monitoring plan for the project, including roles and responsibilities, must be established.
- If measurement and monitoring equipment is used, the project proponent must ensure that the equipment is calibrated according to its specifications and/or relevant national or international standards.

2.12. Sustainable Development Impact

The project proponent is accountable for showcasing how project activities, including any additional implemented actions, align with sustainable development goals as defined by the United Nations Sustainable Development Goals (SDGs). This alignment is verified through the 'Sustainable Development Verified Action Process' using the SDG contribution report template, which is subsequently validated by a VVB (Verified Verification Body).

Requirements

- The proponent must demonstrate that the project contributes to at least three SDGs by the end of the first monitoring period and in each subsequent monitoring period.

2.13. Safeguard

Project proponents must ensure that project activities do not have any adverse impact on the natural environment or local communities.

Requirements

- Identify and address any potential negative environmental and socio-economic impacts of project activities and engage with local stakeholders throughout the project development and implementation processes.
- The project proponent should identify any potential negative environmental and socio-economic impacts and take necessary steps to mitigate them.
 - To demonstrate social and environmental benefits beyond GHG emission reductions or removals, additional certification standards may be applied.
- The project proponent should conduct a local stakeholder consultation before validation to inform the project design and encourage stakeholder participation.
 - Ongoing communication mechanisms with local stakeholders should be established to enable them to raise concerns about potential negative impacts during project implementation.
 - The project proponent should consider all stakeholder input and update the project design as necessary or provide justification if no update is appropriate.
- The project proponent must conduct a thorough assessment of local stakeholders impacted by the project, identifying any legal or customary tenure/access rights to territories and resources, including collective and conflicting rights, held by local stakeholders.
 - The project description should include information on local stakeholders at the start of the project, including social, economic, and cultural diversity within local stakeholder groups and the differences and interactions between the groups.
 - Additionally, the project proponent must identify natural and human-induced risks to local stakeholder well-being expected during the project lifetime and outline measures to mitigate these risks.
- The project should be designed and implemented to avoid trade-offs with food security, land loss, loss of yields, and climate change adaptation, and manage the identified risks to local stakeholders.
 - The project management teams should have expertise and prior experience implementing land management and carbon projects with community engagement at the project scale.

- The project proponent should avoid negative impacts of project implementation and mitigate impacts when unavoidable.
- To communicate and consult with local stakeholders, the project proponent must take appropriate measures, communicate project design and implementation, including monitoring results, and the risks, costs, and benefits the project may bring to local stakeholders.
 - Additionally, all relevant laws and regulations covering workers' rights in the host country must be communicated. Finally, the project proponent must recognize, respect, and support local stakeholders' property rights and take measures to help secure these rights where feasible.
- The project shall not encroach on private, stakeholder or government property or relocate people off their lands without consent.

2.14. Project Description or Method Change

In some cases, projects may need to deviate from the procedures outlined in their approved methodology if alternative methods are more efficient and will still achieve the same level of accuracy, or if the deviation is more conservative. However, any deviations must be carefully considered and documented to ensure that the project's environmental and social integrity is not compromised.

Requirements

- The deviation must be consistent with the principles, requirements, and objectives and must be approved by GCACH to validate project integrity before implementation.
- Deviations must be documented and explained in detail, including the potential impacts on the project's environmental and social benefits.
- GCACH may request additional information or revisions to the deviation proposal before granting approval.

Projects may need to modify their validated project description in response to changing circumstances that arise after the project has been validated. In such cases, any deviation from the validated project description must be thoroughly documented and assessed by a validation/verification body during the next project verification.

Requirements

- Any deviation from the project description in the GCACH Project Document must be approved by GCACH before implementation.
- Deviations must be documented and explained in detail, including the potential impacts on the project's environmental and social benefits.
- GCACH may request additional information or revisions to the deviation proposal before granting approval.
- Deviations that result in significant changes to the project's scope, objectives, or expected outcomes may require a new Project Document to be submitted to GCACH.

2.15. Allowable Time frame for Projects to Apply Revised or Inactive Methodologies

A methodology exceptional period is a time frame during which projects can continue to use a methodology, module, or tool that has been revised, excluded, or become inactive. The deadline for the exceptional period corresponds to the issuance of the validation report (for registration and crediting period renewal) or the verification report (for baseline reassessment).

To be eligible for an exceptional period, projects must have completed validation and requested listing on the GCACH Registry when the prevailing methodology version became inactive, or a methodology was excluded from any specific program under GCACH.

Projects that have already been validated can continue to use the methodology version under which they were validated until the next validation, baseline reassessment, or crediting period renewal, unless otherwise specified in the revised methodology.

The exceptional periods for completing validation are as follows:

- If a methodology is revised, project proponents may use the prevailing methodology version for up to six months from the approval of the new version.
- If a methodology of an approved GHG program is newly excluded from the specific program under GCACH and replaced by a new methodology, project proponents may use the previously accepted methodology of the approved GHG program for up to six months from the approval of the new methodology.
- If a previously approved methodology becomes inactive, project proponents may use the methodology version for up to six months from the date it becomes inactive.

Note: GCACH reserves the right to set different exceptional periods.

2.16. Label

- The CT label is used to indicate that a specific CT has fulfilled the requirements and is approved for use in a particular market.
- CT's can be labeled as such if they are from a period that falls entirely within the time frame of a qualifying certification or approval.
- Qualifying certification or approval can be used as evidence of meeting relevant program requirements in project descriptions and monitoring reports.
- CT labels do not signify ownership of the benefits or outcomes generated by the project to meet the requirements of any other standard or criteria.

2.17. Record

- Project proponents must maintain relevant project documents and records for at least two years after the end of the crediting period in a secure and retrievable manner.
- During validation, the project proponent must provide the validation/verification body with the project description, evidence of project ownership, and any requested supporting information and data necessary to support statements and data in the project description and evidence of project ownership.
- During verification, the project proponent must provide the validation/verification body with the project description, validation report, monitoring report applicable to the monitoring period, and any requested supporting information and data necessary to support statements and data in the monitoring report.

3. Digital Monitoring, Reporting and Verification (DMRV)

The primary objective of DMRV is to enhance transparency and credibility in carbon projects by mitigating costs associated with carbon projects, thereby making small and micro-scale carbon projects more financially viable. DMRV adoption also aims

to eliminate or reduce leakages in the carbon project lifecycle, ultimately improving the credibility and quality of carbon credits.

For any method incorporating DMRV, it should address the following sections, if applicable:

- The method⁷ employed should be common practice, with publicly available resources, facilitating easier adoption by other project proponents, developers, and Verification and Validation Bodies (VVBs) during development, project description, monitoring reports, and verification and validation reports.
- The DMRV method, specific to any program under GCACH or methodology, should majorly incorporate common practice, applicable, and reflective of the required outcomes. If it introduces a novel approach, it must be designed to be universally applicable, considering project dynamics and technologies across all relevant regions and zones.
- If the methodology developer or project proponent introduces project-specific or methodology-specific technologies not in common practice, they must demonstrate:
 - The accuracy and applicability of the method by comparing it with ground truth data.
 - Applicability in regions where the methodology is relevant.
 - Support through a scientific paper or journal published on a renowned platform.

Objective and Purpose

- Provide the overarching goal of Method to establish a comprehensive framework for digital monitoring, reporting, and verification of the project.
- Clarify the methodology's purpose in promoting transparency, accuracy, and credibility in carbon offset initiatives.

Scope and Applicability

- Clearly define the method's scope, detailing its application for baseline, data parameter gathering, etc.
- Specify whether it applies globally or is tailored to specific regions or methodologies.

⁷A "Method" encompasses any technology, automated pipeline, process, tools, or other components brought together to create a cohesive system.

Definitions and Terminology

- Provide a comprehensive glossary of terms related to the method used.

Data Collection and Monitoring

- Offer standardized protocols for real-time digital monitoring of carbon emissions and offset projects.
- Define data collection methodologies, including the use of sensor technologies, IoT devices, and other digital tools.
- Address data quality assurance, security, and privacy concerns.

Reporting Requirements

- Mandate standardized reporting formats, including comprehensive data.
- Specify reporting frequency and channels.
- Include provisions for clear communication of uncertainties and assumptions in reported data.

Verification Methodologies

- Specify detailed criteria for independent third-party verification, including accreditation requirements for verification bodies.
- Outline methodologies for assessing the accuracy of reported data, project performance, and overall environmental impact.
- Incorporate the use of digital technologies in the verification process.

4. Validation and Verification Standards

Validation is an independent assessment of a project to determine if it meets the GCACH rules. Verification is a periodic, ex-post assessment of GHG emission reductions and removals achieved during the monitoring period.

Requirements

- Validation and verification should be conducted in accordance with ISO 14064-3 and ISO 14065 and must adhere to additional requirements specified in the specific program guide.

- A reasonable sample of data and information should be selected for validation/verification to meet the materiality requirements of the project.
- Validation/verification bodies must meet the eligibility criteria specified by GCACH to validate and verify GHG emission reductions or removals achieved by the project.
- The same validation/verification body conduct both validation and verification processes, and validation may occur before or at the same time as the first verification.

Process Requirements

- The level of assurance shall be reasonable for both validation and verification with respect to material errors, omissions, and misrepresentations.
- The objective of validation or verification shall be in conformance with the specific program rules and the methodology applied to the project.
- The threshold for materiality with respect to errors, omissions, and misrepresentations shall be five percent for Micro, Small and Medium projects and one percent for Large projects.
- If the project does not fully comply with the methodology, the validation/verification body shall determine whether it represents a methodology deviation or a methodology revision.
- If the project applies a revision to an approved GHG program methodology, the validation/verification body shall determine if material changes have occurred to the underlying methodology that affect the integrity of the methodology revision.
- If the project does not meet the criteria for validation or verification, the validation/verification body shall produce a negative validation conclusion and provide the validation or verification report and project description or monitoring report to GCACH.
- Non-Permanence risk analysis and market leakage evaluations shall be assessed by the validation/verification body in accordance with the specific program rules under GCACH.

Reporting Requirements

- Describes the validation process, findings, and resolutions, and conclusions reached by the validation/verification body.
- Describes the verification process, findings, and resolutions, and conclusions reached by the validation/verification body.
- Should use the GCACH Validation and Verification Report Template.

- Should adhere to all instructional text within the template.
- Should be accompanied by a validation representation using the GCACH Validation Deed of Representation Template.
- For projects with monitoring reports divided into time period:
 - Separate CT's issuance records should be issued in accordance with time periods as set out in the GCACH Program document Registration and Issuance Process.

Statement Requirements

The validation report shall contain a validation statement and the verification report shall contain a verification statement.

- The statements shall describe the level of assurance of the validation or verification.
- The statements shall describe the objectives, scope, and criteria of the validation or verification.
- The statements shall indicate whether the data and information supporting the GHG assertion were hypothetical, projected, and/or historical in nature.
- The statements shall include the validation/verification body's conclusion on the GHG assertion, including any qualifications or limitations.
- The verification statement shall state the version number of the non-permanence risk report or market leakage evaluation documentation upon which the statement is based.
- The verification statement shall indicate the volume of GHG emission reductions or removals that have been verified during the monitoring period.
- For AFOLU projects, the verification statement shall also include the non-permanence risk rating, leakage emissions, and the number of GHG emission reductions or removals eligible to be issued as CT's.

Grouped Project Requirements

- New project activity instances must be validated based on the information provided in the monitoring report and assessed against the applicable eligibility criteria.
 - The validation/verification body should specify which instances meet the eligibility criteria for inclusion in the project. This validation can be included in the verification report or in a separate validation report.
- In cases where it is unreasonable to assess each initial or new instance individually due to the number of project activity instances, the

validation/verification body should document and explain the sampling methods used for validation.

- These sampling methods must be statistically sound. The number of instances eligible for monitoring and generation of CT's must be proportional to the percentage of sampled instances found to be in compliance by the validation/verification body.
- The verification report for grouped projects must document and explain the sampling methods used by the validation/verification body to verify the GHG emission reductions or removals generated by the project.
 - These methods must also be statistically sound. Any changes required in the sampling method(s) as a result of the verification findings must be documented.

Record Requirements

- Project proponents must maintain relevant project documents and records for at least two years after the end of the crediting period in a secure and retrievable manner.