

المجلس العالمي للبصمة الكربونية
GLOBAL CARBON COUNCIL



Standard for Development of Methodologies

V3.0 - 2020

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ACRONYMS

ACRs	Approved Carbon Reductions
CDM	Clean Development mechanism
GCC	Global Carbon Council
GHG	Green House Gases
GHG-SS	GHG Sectoral Scopes
GORD	Gulf Organisation for Research and Development
GWPs	Global Warming Potentials
IPCC	The Intergovernmental Panel on Climate Change
MENA	Middle East and North Africa
UNFCCC	United Nations Framework Convention on Climate Change.

1. Introduction

1. The Global Carbon Council (GCC) Program is the Middle East & North Africa (MENA) region's first voluntary carbon offsetting program and an initiative of Gulf Organisation for Research and Development (GORD). The voluntary greenhouse gas (GHG) offsetting program developed by GCC, referred to as the GCC Program, aims to contribute to a vision of a sustainable and low-carbon world economy. Although the GCC Program receives GHG emission-reduction projects from the entire world, it places special emphasis on low-carbon development in the MENA region, which has been under-represented in carbon markets. The GCC Program helps to catalyze climate action on the ground, while ensuring that project construction and operations cause no net harm to the environment and society and contribute to the United Nations Sustainable Development Goals as per host-country priorities. The GCC Program is comprised of the entire governance structure, system and the documentation framework adopted to achieve these objectives.¹
2. The GCC Program documents stipulate the following:
 - (a) The Project Standard requires that a Project Owner seeking to design a GCC Project Activity shall apply the latest versions of either a GCC approved methodology or methodologies and tools approved under UNFCCC's Clean Development Mechanism; and
 - (b) The Program Process describes process-related requirements for top-down development of and revisions to Baseline and Monitoring Methodologies under the GCC Program.
3. The Standard for Development of Methodologies (this document) establishes rules and requirements for developing a new methodology under the GCC Program, including sections and key components that a methodology shall contain.
4. This document has been developed based on requirements established in section 5 of the Program Manual, which is the overarching program document that links together various GCC documents containing the rules and requirements governing the GCC Program.
5. The Program Definitions document provides definitions of the terms used in this document and shall be referred to while applying this document.²
6. When applying this document, the requirements stipulated in the Program Manual and Program Process shall apply to Project Owners, GCC Verifiers, the GCC Operations Team and the GCC Steering Committee.

2. Purpose

7. The purposes of this document is to provide the GCC requirements and rationale for various sections and elements of baseline and monitoring methodologies

¹ GCC documents are available here: www.globalcarboncouncil.com/resource-centre.html

² In GCC documents, the terms/definitions/acronyms and the first letter of each word in names of regulatory documents are capitalized (e.g., the Project Process).

3. GCC Methodology Development

8. This document describes the elements required to be included while developing a new methodology and also stipulates the requirements for developing each section of the methodology including: GHG sectoral scopes, applicability, the project boundary, the baseline scenario, additionality, emission reductions (including baseline emissions, project emissions and leakage) and monitoring.
9. A GCC baseline and monitoring methodology shall contain mandatory sections and elements as indicated below (sections 3.1 to 3.9).

3.1. GHG Sectoral Scope

10. The GCC Scopes and the GHG Sectoral scopes (GHG-SS) covered by the GCC Program are defined in the GCC Program Framework and in Program Definitions documents.
11. A GCC methodology shall define the relevant GHG-SS as stipulated in section 5 of the GCC Program Framework and stated below.

GHG Sectoral Scope (GHG-SS #)	GHG Sectoral Scope Title
1.	Energy (renewable/non-renewable sources)
2.	Energy distribution
3.	Energy demand
4.	Manufacturing industries
5.	Chemical industry
6.	Construction
7.	Transport
8.	Mining/mineral production
9.	Metal production
10.	Fugitive emissions from fuels (solid, oil and gas)
11.	Fugitive Emissions from production and consumption of halocarbons and sulfur hexafluoride
12.	Solvents use
13.	Waste handling and disposal
14.	Afforestation and Reforestation ³

³ Note that at present under the GCC Program, GHG Sectoral Scope No 14 is not applicable for projects applying for CORSIA-eligible carbon credits.

15.	Agriculture
16.	Carbon Capture and Storage of CO ₂ in Geological Formations ⁴

3.2. Applicability Conditions

12. The methodology shall include applicability conditions that spell out the eligibility criteria that a GHG-reduction project must fulfill to be able to apply the methodology, for preparing a project submission form as part of an application to register a project under the GCC. These conditions include technical, technological, policy, economic and regulatory aspects of the Project Activity that have implications on its eligibility to apply the methodology.
13. The applicability conditions shall be expressed without any ambiguity in order to bring complete clarity in the assessment of eligibility of Project Activity to apply the methodology.

3.3. Project Boundary

14. The project boundary of a GCC Project Activity is defined as the physical delineation and/or geographical area of the GCC Project Activity and the specification of GHGs and sources under the control of the Project Owners that are significant and reasonably attributable to the GCC Project Activity, in accordance with the applied methodology.
15. The methodology shall describe and justify the physical delineation of the project boundary, including the gases and sources included, bearing in mind that it shall encompass all anthropogenic emissions by sources of greenhouse gases under the project and baseline scenarios that are significant and reasonably attributable to the Project Activity.
16. The methodology shall:
 - (a) Explain the physical delineation of the eligible Project Activity by use of a figure or flowchart;
 - (b) Explicitly list all sources and GHGs included in the project boundary and explain whether any sources related to the baseline and/or project emissions have been excluded, and if so justify their exclusion;
 - (c) When defining the emission sources that are included in the project boundary in the baseline and project scenarios, Project Owners shall make conservative assumptions. For example, the magnitude of emission sources omitted in the calculation of project emissions shall be equal to or less than the magnitude of similar emission sources omitted in the calculation of baseline emissions.

⁴ Note that at present under the GCC Program, GHG Sectoral Scope No 16 is not applicable for projects applying for CORSIA-eligible carbon credits.

3.4. Baseline Scenario

17. The baseline scenario is the scenario for the GCC Project Activity that reasonably represents the anthropogenic emissions within the project boundary that would occur in the absence of the GCC Project Activity.
18. Corresponding to the baseline scenario, the baseline of a GCC Project Activity shall be defined based on one of the three baseline approaches as stipulated by paragraph 48(a), 48(b) or 48(c) of *Modalities and Procedures for a clean development mechanism* (Decision 3/CMP.1). The three approaches are:
 - (a) Existing actual or historical emissions, as applicable [48(a)];
 - (b) Emissions from a technology that represents an economically attractive course of action, taking into account barriers to investment [48(b)];
 - (c) The average emissions of similar project activities undertaken in the previous five years, in similar social, economic, environmental and technological circumstances, and whose performance is among the top 20 per cent of their category [48(c)].
19. The methodology shall define which of the three approaches has been applied to determine the baseline of the GCC Project Activity.
20. To avoid the free interpretation of the use of the above approaches to determining baselines, the CDM Guidelines for determining baselines for measure(s)⁵ shall be followed for non-afforestation and reforestation projects, to determine when and under which situations a baseline approach as defined in paragraphs 48(a), 48(b) and 48(c) referred above shall be used.
21. When selecting approach 48(c) above, GCC-approved guideline/standards or approved CDM guidelines/standards may be used for defining benchmarks.⁶

3.5. Project Additionality

22. As per the GCC Project Standard, the additionality of projects shall be demonstrated to ensure that anthropogenic emissions of GHGs are reduced to below those that would have occurred in the absence of the Project Activity.
23. The following approaches to demonstrating additionality are accepted in GCC methodologies.

3.5.1. Standardized Positive Lists

24. A GCC Project Activity applying a technology, fuel or feedstock listed under a positive list is deemed automatically additional.
25. Positive lists include the Global Positive List and the Regional Positive List. These lists identify a broad set of abatement activities that are deemed additional. GCC Program can refer the Global and/or Regional Positive Lists in GCC methodologies:

⁵ Guidelines for determining baselines for measure(s)

⁶ For example, the CDM *Guideline for establishing sector specific standardized baselines*.

- (a) **Global Positive List:** This list is provided in CDM Tool 32⁷; and
- (b) **Regional Positive List:** Following limited penetration of a low-carbon technology, fuel or feedstock in a region, the technology/fuel/feedstock may be placed by the GCC Program on a Positive List for specific region. GCC inclusions of technologies/fuels/feedstocks on Regional Positive Lists are based on thorough research and analysis, applying credible sources of information.

3.5.2. Project Specific Demonstration of Additionality

- 26. For Project Activities that are not automatically additional (i.e., they do not fall under a Positive List), the methodology shall indicate specific approaches to determining additionality for each type of project for which the methodology is applicable. Two approaches may be used:
 - (a) Investment analysis of the project as compared to other project alternatives, demonstrating that the project without carbon revenue is not the most economically-attractive alternative; and
 - (b) Barrier analysis of the project, listing barriers (e.g., investment barriers, operational- or maintenance-cost barriers, technological barriers, institutional barriers, the first-of-its-kind barrier, etc.) that would prevent the project from being implemented.
- 27. In absence of methodology-specific additionality approach, appropriate CDM tools/guidelines (and GCC tools/guidelines) referred in the methodology shall be followed to demonstrate project-specific additionality. These include the: additionality tool,⁸ combined tool to identify the baseline scenario and demonstrate additionality,⁹ tool for additionality of small-scale projects,¹⁰ microscale additionality tool¹¹, first-of-its-kind tool,¹² common practice tool,¹³ the investment analysis tool¹⁴, and barrier analysis guideline¹⁵.

3.6. Project Emission Reductions/Removals

- 28. The methodology shall describe the method to be used to calculate baseline and project emissions and leakage, as well as GHG emission reductions/removals for proposed projects.
- 29. For non-afforestation and reforestation projects, the baseline approach shall be selected as per CDM Guidelines for determining baselines for measure(s).

⁷ CDM Methodological tool – Positive list of technologies

⁸ CDM Methodological tool: Tool for the demonstration and assessment of additionality

⁹ CDM Methodological tool: Combined tool to identify the baseline scenario and demonstrate additionality

¹⁰ CDM Methodological tool: Demonstration of additionality of small-scale project activities

¹¹ CDM Methodological tool: Demonstration of additionality of microscale project activities

¹² CDM Methodological tool: Additionality of first-of-its-kind project activities

¹³ CDM Methodological tool: Common practice.

¹⁴ CDM Methodological tool: Investment analysis

¹⁵ Guidelines for objective demonstration and assessment of barriers

30. The methodology shall include methods for determining project emissions and leakage from various GHG sources, as per appropriate approved GCC and CDM methodological tools.

3.7. Baseline and Project Monitoring Methodology

31. The methodology shall describe the monitoring method, management structure for monitoring, the parameters to be monitored (parameters used for calculating baseline, project and leakage emissions as well as emission reductions for proposed projects), data monitoring procedures (measurement, collection, aggregation, quality control, reporting format) and other important monitoring requirements.
32. For each monitored parameter, the methodology shall define whether the parameter value will be fixed ex-ante (prior to registration) or monitored regularly at prescribed intervals by methodology.
33. For each monitored parameter, the methodology shall require Project Owners to define the value assigned to the parameter, frequency of measurement, method of measurement, measurement and instrument calibration requirements and accuracy requirements, data aggregation and reporting procedures.
34. The methodology shall define the default values for baseline, project or leakage parameters allowed for each relevant specific type of Project Activity for which the methodology is applicable, and shall provide references for the values selected, and justification for the representativeness and conservativeness of the default values.

3.8. Remaining Lifetime of Baseline Equipment

35. The methodology applicable to retrofit or replacement projects shall require determining the remaining lifetime of the baseline equipment.
36. The GCC will only issue carbon credits for such projects for the period equivalent to the remaining lifetime of the baseline equipment and the project crediting period (fix crediting period of maximum 10 years), whichever is shorter.

3.9. Global Warming Potentials

37. The methodology shall use the global warming potentials (GWPs) as stipulated in paragraph 28 of the Project Standard to calculate GHG emission reductions or net anthropogenic GHG removals achieved by GCC Project Activities.

4. General Rules for Projects When Applying GCC Methodologies

38. Unless otherwise specified in an applicable methodology or tool, IPCC default values shall be used only when country- or project-specific data are documented to be either: (i) not available; and/or, (ii) not reliable or of not sufficient quality based on evidence-based judgment of Project Owner or GCC Verifier.

39. When applying methodologies or tools that require determination of parameter(s) for calculating baseline and project emissions but do not prescribe procedures for determining those parameters, the same data sources (e.g., IPCC values, national values) and calculation and/or measurement procedures for each parameter (e.g., calculation of annual average flow rate, hourly measurements) shall be applied for both baseline- and project-emissions calculations. For example, if a calculated emission factor based on measured data is used for calculating emissions in the baseline, a calculated emission factor shall also be used for determining project emissions, unless otherwise specified in the applied methodology or tool. If it is not possible to use same data sources, the conservativeness of emission reductions shall be the basis for selection of data sources.
40. Values of monitored or default parameters that are applied in the calculation of baseline emissions, project emissions and leakage shall be documented. If more than one value is found to be appropriate, the most conservative value among the appropriate values shall be used.
41. To demonstrate that appropriate and conservative values have been utilized, Project Owners shall transparently list and describe the sources of all values used (e.g., peer-reviewed literature, test results, official reports/ statistics).
42. Original sources shall be referenced using a standard referencing method, rather than quoting secondary publications that refer to original sources.
43. When more than one source is used to aggregate data to derive a value, the sources used shall be clearly indicated.
44. Project Owners shall justify why the values selected and their sources are appropriate, applicable, and conservative.

Document History

Version	Date	Comment
V 3.0	17/08/2020	<ul style="list-style-type: none"> ▪ Revised version released on approval by the Steering Committee as per the GCC Program Process; ▪ Revised version contains the following changes: <ul style="list-style-type: none"> ○ Change of name from Global Carbon Trust (GCT) to Global Carbon Council (GCC); ○ Change of name of document from “Standard on Key Project Requirements and Methodology Development” to “Standard for Development of Methodologies.” ○ Considered and addressed comments raised by the Steering Committee: <ul style="list-style-type: none"> ➢ during physical meeting (SCM 01, dated 29 Oct 2019, Doha Qatar); and ➢ electronic consultations EC01-Round 03 (08.08.2020-16.08.2020). ▪ Feedback from the Technical Advisory Board (TAB) of ICAO on GCC submissions for approval under CORSIA¹⁶.
V 2.0	25/06/2019	<ul style="list-style-type: none"> ▪ Revised version released for approval by the GCC Steering Committee. ▪ This version contains details and information to be provided, consequent to the latest worldwide developments (e.g., CORSIA EUC).
v1.0	01/11/2016	<ul style="list-style-type: none"> ▪ Initial version released for approval by the GCC Steering Committee under GCC Program Version 1

¹⁶See ICAO recommendation for conditional approval of GCC at https://www.icao.int/environmental-protection/CORSIA/Documents/TAB/Excerpt_TAB_Report_Jan_2020_final.pdf

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