Application of the CCQI methodology for assessing the quality of carbon credits

This document presents results from the application of version 3.0 of a methodology, developed by Oeko-Institut, World Wildlife Fund (WWF-US) and Environmental Defense Fund (EDF), for assessing the quality of carbon credits. The methodology is applied by Oeko-Institut with support by Carbon Limits, Greenhouse Gas Management Institute (GHGMI), INFRAS, Stockholm Environment Institute, and individual carbon market experts. This document evaluates one specific criterion or sub-criterion with respect to a specific carbon crediting program, project type, quantification methodology and/or host country, as specified in the below table. Please note that the CCQI website Site terms and Privacy Policy apply with respect to any use of the information provided in this document. Further information on the project and the methodology can be found here: www.carboncreditquality.org

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Sub-criterion:	**2.2.2: Avoiding indirect overlaps between projects**
Carbon crediting program:	**Gold Standard**
Assessment based on carbon crediting program documents valid as of:	**15 May 2022**
Date of final assessment:	**21 February 2024**
Score:	**See page 2**

Scores

Project type	Score
Commercial afforestation & Establishment of natural forests • in countries where cooking with non-renewable biomass is likely to take place (see Table 1 below) • in countries where cooking with non-renewable biomass is not likely to take place (see Table 1 below)	1 5
Efficient cookstoves	1
Household biodigesters • where emission reductions are claimed from reducing the consumption of non-renewable biomass • where no emission reductions are claimed from reducing the consumption of non-renewable biomass	1 5
Industrial biodigesters fed with livestock manure	5
Landfill gas utilization	5
Solar photovoltaic power	5
Wind power (onshore)	5
Hydropower (dams)	5
Hydropower (run-of-river)	5

Assessment

Relevant scoring methodology provisions

Double issuance can occur indirectly through overlapping claims by different entities involved in mitigation projects. Indirect overlaps between projects can only occur in cases where projects, in calculating their emission reductions or removals, include emissions sources that occur at other sites than where the project is implemented. This risk is only applicable to some project types. The following table provides examples of project types with or without a risk of indirect overlaps:

Project types with potential indirect overlaps between projects	Project types without potential indirect overlaps between projects
• Landfill gas utilization • Renewable electricity generation • Biomass use • Composting	• Landfill gas flaring • Avoidance of N_2O from nitric or adipic acid production • Energy efficiency improvements in thermal on-site applications

For project types for which this risk is not relevant, the score is 5. For other project types, the scoring depends on the carbon crediting programs' procedures to address this risk. The scoring approach for carbon crediting program procedures to avoid indirect overlaps between projects is as follows:

Program requirements	Score
The program only credits those types of projects for which overlaps between projects are very unlikely to occur	5
The program has robust provisions in place that effectively identify and avoid overlaps between projects registered within the program *and* projects registered under other programs (see principles in the methodology)	5
The program has robust provisions in place that effectively avoid overlaps between projects registered *within* the same program	3
The program does not have robust provisions in place to avoid indirect overlaps between projects	1

Information sources considered

1 Gold Standard SDG impact quantification methodologies, available at https://globalgoals.goldstandard.org/400-sdg-impact-quantification/

2 Principles & Requirements Version 1.2 (October 2019), available at https://globalgoals.goldstandard.org/101-par-principles-requirements/

3 GHG emissions reductions & sequestration product requirements, Version 2.9 (April 2021), available at https://globalgoals.goldstandard.org/501-pr-ghg-emissions-reductions-sequestration/.

4 Reduced emissions from cooking and heating: Technologies and practices to displace decentralized thermal energy consumption (TPDDTEC). Version 4.0, available at https://globalgoals.goldstandard.org/407-ee-ics-technologies-and-practices-to-displace-decentrilized-thermal-energy-tpddtec-consumption/.

Relevant carbon crediting program provisions

Provision 1 Source 2, section 4.1.3: "A Project type is automatically eligible for Gold Standard Certification if there are Gold Standard approved Activity Requirements and/or Impact Quantification Methodologies associated with it or it's referenced in the Gold Standard Product Requirements. These are published to the Gold Standard website and shall be followed where provided for a given Project type".

Provision 2 Source 2, section 3.1.1.c: "In order to avoid double counting the Project shall not be included in any other voluntary or compliance standards programme unless approved by Gold Standard (for example through dual certification). Also, if the Project Area overlaps with that of another Gold Standard or other voluntary or compliance standard programme of a similar nature, the project shall demonstrate that there is no double counting of impacts at design and performance certification (for example use of similar technology or practices through which the potential arises for double counting or misestimation of impacts amongst projects)".

Provision 3 Source 4, section 3.1.1: "The project boundary is the physical, geographical sites of the project technologies/practices including the fuel collection and production area. i. Where the baseline fuel is woody biomass (including charcoal), the project boundary also includes the area within which this woody biomass is grown and collected."

Provision 4 Source 4, section 2.2.1.e.: "To avoid double counting or double claiming, the project developer must:

i. clearly communicate its ownership rights and intention of claiming the emission reductions resulting from the project activity to the following parties by contract or clear written assertions in the transaction paperwork: all other project participants; project technology manufacturers; and retailers of the project technology or the renewable fuel in use; and

ii. inform and notify the end users that they cannot claim emission reductions from the project, and

iii. exclude from the project activity, cooking devices included in any other voluntary market or CDM project activity/PoA, and strive not to displace the cooking devices of another CDM or voluntary project/PoA. See data and parameters not monitored, Avoidance of double counting or double claiming with other mitigation actions, for details on this demonstration."

Provision 5 Source 4, section 2.2.1.g.: "Project activities making use of a new solid biomass feedstock in the project situation (e.g. switch to green charcoal or renewable biomass briquettes) must comply with relevant specific requirements for biomass related project activities, as defined in the latest version of the Community Services Activity Requirements. The specific requirements apply to both plantations established for the project activity and/or existing plantations that will supply biomass feedstock."

Assessment outcome

The carbon crediting program´s approach to avoid indirect overlaps between projects is assigned the following scores:

- Commercial afforestation & Establishment of natural forests:

    - in countries where cooking with non-renewable biomass is likely to take place (see Table 1 below): 1
    - in countries where cooking with non-renewable biomass is not likely to take place (see Table 1 below): 5
- Efficient cookstoves: 1
- Establishment of natural forest: 5
- Household biodigesters:
    - Where emission reductions are claimed from reducing the consumption of non-renewable biomass: 1
    - Where no emission reductions are claimed from reducing the consumption of non-renewable biomass: 5
- Industrial biodigesters fed with livestock manure: 5
- Landfill gas utilization: 5
- Solar photovoltaic power: 5
- Wind power (onshore): 5
- Hydropower (dams): 5
- Hydropower (run-of-river): 5

Justification of assessment

Among the project types assessed, the following project types are eligible under GS: commercial afforestation, efficient cookstoves, establishment of natural forest, household biodigesters, industrial biodigesters fed with livestock manure, landfill gas utilization, solar photovoltaic power, and wind power (onshore) (Provision 1).

For six project types (and one additional type under certain circumstances), the relevant quantification methodologies include emissions sources in the calculation of emission reductions that occur at other sites than where the project is implemented; however, there is no known practice by carbon crediting programs to issue carbon credits to other entities for these emission reductions. For this reason, these project types are also assigned a score of 5:

- **Household biodigesters (where no emission reductions are claimed from reducing the consumption of non-renewable biomass):** Under this project type, the manure is commonly generated and used at the same site. Therefore, no other entities may claim emission reductions from reducing emissions from manure management. Some projects claim emission reductions from reducing fossil fuel consumption (and not from reducing the consumption of non-renewable biomass). In this case, it is theoretically possible that carbon credits could be issued to fossil fuel producers for reducing or stopping fossil fuel production. However, there is no known practice by carbon crediting programs to issue carbon credits to these entities for this type of action.
- **Industrial biodigesters fed with livestock manure:** Under this project type, a risk could potentially occur if a landowner received carbon credits for the reduced application of manure in addition to issuing credits for the generation of biogas from the manure. Additionally, double issuance could

occur if credits were issued to consumers utilizing the captured methane. Moreover, given that the biogas generated under the project displaces the fossil fuels, it is theoretically possible that carbon credits could be issued to fossil fuel fired power plants for reducing or stopping their electricity generation or to fossil fuel producers or users for reducing or stopping fossil fuel production or use. However, there is no known practice by carbon crediting programs to issue carbon credits to these entities for these types of actions.

- **Landfill gas utilization:** Under this project type, the owner of the landfill gas project may receive carbon credits for generating electricity with the captured gas or for selling the gas, thereby displacing the use of fossil fuels at other sites. An indirect overlap leading to double issuance could theoretically occur if the user of the electricity or the gas claims the emission reductions from *using* the electricity or gas as an end consumer while carbon credits are also issued for capturing and utilizing the gas at the supply side. Moreover, given that landfill gas utilization displaces the fossil fuels, it is theoretically possible that carbon credits could be issued to fossil fuel fired power plants for reducing or stopping their electricity generation or to fossil fuel producers or users for reducing or stopping fossil fuel production or use. However, there is no known practice by carbon crediting programs to issue carbon credits to these entities for these types of actions.

- **Solar photovoltaic power, wind power (onshore), hydropower (dams), hydropower (run-of-river):** Under these project types, credits are issued for installing renewable energy power plants that produce renewable electricity and replace more GHG intensive electricity generation in the grid. It is theoretically possible that carbon credits could be issued to entities that purchase and use green electricity, to fossil fuel fired power plants for reducing or stopping their electricity generation or to fossil fuel producers for reducing or stopping fossil fuel production. However, there is no known practice by carbon crediting programs to issue carbon credits to these entities for these types of actions.

For three project types (and one additional type under certain circumstances), the relevant quantification methodologies include emissions sources in the calculation of emission reductions that occur at other sites than where the project is implemented and, at the same time, there is a material risk that these emission reductions may also be issued carbon credits under a different project and therefore claimed by other entities. For this reason, the scoring of these project types depends on the carbon crediting program's provisions to address the risk of indirect overlaps:

- **Efficient cookstoves**: Under this project type, the owner of a cookstove project receives credits for reducing woody biomass consumption, which results in maintaining or increasing carbon stocks on the relevant land areas. An indirect overlap could, for example, happen if at the same time an owner of an improved forest management project implemented on these land areas receives credits from enhanced forest stocks achieved as a result of the cookstove project. Gold Standard allows claiming carbon credits from both cookstove projects and afforestation projects (Provision 5). Any potential indirect overlaps of cookstove projects with forestry projects are not addressed.

- **Household biodigesters (where emission reductions are claimed from reducing the consumption of non-renewable biomass):** Under this project type, some projects claim emission reductions from reducing the consumption of non-renewable biomass. Similar to efficient cookstoves, this results in maintaining or increasing carbon stocks on the relevant land areas. An indirect overlap could, for example, happen if an owner of an improved forest management project implemented on these land areas receives credits from enhanced forest stocks achieved as a result of the biodigester project. Gold Standard applies its own methodology (Source 4). The project boundary

includes the area within which the woody biomass is grown and collected (Provision 3). Gold Standard requires project developers to communicatee to all other project participants as well as retailers of the renewable fuel in use its intention of claiming emission reductions resulting from the project activity (Provision 4). Furthermore, cooking devices included in other voluntary market activities need to be excluded from the project activities, thus preventing double counting with other crediting programmes. However, as for efficient cookstove projects, any indirect overlaps with forestry projects are not addressed.

- **Commercial afforestation and Establishment of natural forests:** Indirect overlaps could occur in various ways. First, indirect overlaps could occur with jurisdictional REDD+ activities. However, such overlaps are not yet addressed under the CCQI scoring methodology and are therefore not considered in this assessment. Second, indirect overlaps could occur with projects that claim emission reductions or removals from enhancing the use of biomass from the respective land areas. These projects may use the biomass in different ways: as fuel, such as projects using biomass for power generation; as feedstock, such as projects using biomass instead of fossil fuels to produce plastics, or to store the carbon, such as biomass energy carbon capture and storage (BECCS) or the storage of carbon in woody building materials. This risk applies to all forestry project types, with the exception of establishment of natural forest where biomass may not be extracted for commercial purposes. However, any extraction of biomass from the project area would imply a decline in the amount of biomass stored in the land area, and thus be deducted from future issuances (or accounted for under non-permanence provisions). This form of overlap would thus not lead to double issuance. Third, indirect overlaps could occur with projects that reduce the use of non-renewable biomass, such as efficient cookstove projects or household biodigester projects. If such projects are implemented in proximity to the land areas of the forestry project, both projects may claim the emission reductions or removal from the same enhancement or preservation of carbon stocks. This risk applies to all forestry project types.

For these project types, the scoring therefore depends on the carbon crediting program's provisions to address the risk of indirect overlaps.

The Gold Standard has requirements in place for preventing potential overlaps within the Gold Standard as well as with other programs (Provision 2). However, the provisions only refer to the case of an overlap of the project area in which it needs to be demonstrated and verified that no double counting occurred. There might be other ways of overlaps, such as overlaps in upstream and downstream emissions sources, which are not addressed under the Gold Standard's requirements. These provisions are therefore not deemed sufficient to meet the conditions of a score of 5.

In the case of efficient cookstove projects, the Gold Standard allows claiming carbon credits from both cookstove projects and afforestation projects (Provision 5). Any potential indirect overlaps of cookstove projects with forestry projects are not addressed. Therefore, a score of 1 is assigned for efficient cookstove projects.

In the case of household biodigesters where emission reductions are claimed from reducing the consumption of non-renewable biomass, Gold Standard applies its own methodology (Source 4). The project boundary includes the area within which the woody biomass is grown and collected (Provision 3). Gold Standard requires project developers to communicatee to all other project participants as well as retailers of the renewable fuel in use its intention of claiming emission reductions resulting from the project activity (Provision 4). Furthermore, cooking devices included in other voluntary market activities need to be excluded from the project activities, thus preventing double counting with other crediting programmes. However, as for efficient cookstove projects, any indirect overlaps with forestry projects are not addressed. Therefore, a score of 1 is assigned to household biodigester

projects where the where emission reductions are claimed from reducing the consumption of non-renewable biomass.

In the case of commercial afforestation and establishment of natural forests, the GS Methodology for Afforestation/Reforestation (A/R) GHGs Emission Reduction & Sequestration does not include additional provision on double counting. Hence, a score of 1 applies, with the exception of some projects for which a further differentiation is made as explained below.

For forestry projects, overlap risks only apply in countries where non-renewable biomass is used for cooking. Where this is not the case, the risk of overlaps is deemed to be low. This is especially relevant for projects that take place in industrialized countries where cooking with non-renewable biomass is highly uncommon. Scoring is hence further differentiated by host country to reflect these circumstances. To identify countries where cooking with non-renewable biomass is likely to take place, we – as a proxy – assessed project databases of ACR, CAR, CDM, GS and VCS for cookstove and biodigester projects. For countries, where we identified cookstove and biodigester projects we assess that cooking with non-renewable biomass is likely to take place (for biodigester projects we did not consider projects where the use of biogas for cooking replaces fossil fuels). Hence, for these countries a risk of overlapping claims is deemed relevant and a score of 1 is assigned to forestry projects (commercial afforestation, establishment of natural forest). For forestry projects in other countries, we deem the risk to be not relevant and assign a score of 5.

The results of the assessments of the project databases of ACR, CAR, CDM, GS and VCS are presented in Table 1.

Table 1 Countries with efficient cookstove and/or household biodigester projects

Country		Country	
AGO	Yes	LSO	Yes
BGD	Yes	LBR	Yes
BEN	Yes	MDG	Yes
BOL	Yes	MWI	Yes
BRA	Yes	MLI	Yes
BFA	Yes	MEX	Yes
BDI	Yes	MOZ	Yes
KHM	Yes	MMR	Yes
CMR	Yes	NAM	Yes
TCD	Yes	NPL	Yes
CHN	Yes	NIC	Yes
COL	Yes	NGA	Yes
COM	Yes	PNG	Yes
COD	Yes	PAK	Yes
CIV	Yes	PER	Yes
DOM	Yes	RWA	Yes
SLV	Yes	SEN	Yes
ERI	Yes	SLE	Yes
ETH	Yes	SOM	Yes
FJI	Yes	ZAF	Yes
GHA	Yes	SDN	Yes
GTM	Yes	TZA	Yes
GIN	Yes	THA	Yes
GNB	Yes	TGO	Yes
HTI	Yes	UGA	Yes
HND	Yes	VUT	Yes
IND	Yes	VNM	Yes
KEN	Yes	ZMB	Yes
LAO	Yes	ZWE	Yes

Annex: Summary of changes from previous assessment sheet versions

The following table describes the main substantive changes implemented in comparison to the assessment from 12 September 2023.

Topic	Rationale
Addition of new project types	Scores and justification have been amended to accommodate the following new project type: commercial afforestation.
Score change for the project type establishment of natural forest	The assessment was updated to integrate further overlapping risks identified during assessing the new project type commercial afforestation that also apply to the previously assessed project type establishment of natural forests.
Overview of countries with carbon market projects implementing efficient cookstoves or household biodigesters	A new table was added that provides an overview of countries with carbon market projects implementing efficient cookstoves or household biodigesters. The data in the table is used to identify whether risks of overlapping claims for forestry projects are relevant for the respective country.