

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 <u>Site terms and Privacy Policy</u> 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: <u>www.carboncreditquality.org</u>

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Sub-criterion:	2.2.2: Avoiding indirect overlaps between projects
Carbon crediting program:	CDM
Assessment based on carbon crediting program documents valid as of:	15 May 2022
Date of final assessment:	12 September 2023
Score:	See page 2



Scores

Project type	Score
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
Leak repair in natural gas transmission and distribution systems	5
Recovery of associated gas from oil fields	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	Landfill gas flaring	
 Renewable electricity generation 	 Avoidance of N₂O from nitric or adipic acid 	
Biomass use	production	
 Composting 	 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 <i>and</i> projects registered under other programs (see principles in the methodology)	
The program has robust provisions in place that effectively avoid overlaps between projects registered within the same program	
The program does not have robust provisions in place to avoid indirect overlaps between projects	

Information sources considered

- 1 CDM Website Methodologies, available at https://cdm.unfccc.int/methodologies/index.html
- 2 Decision 17/CP.7 Modalities and procedures for a clean development mechanism, as defined in Article 12 of the Kyoto Protocol, available at https://unfccc.int/documents/2518
- 3 Small-scale methodology methane recovery in agricultural activities at household/small farm level, version 04.0, available at https://cdm.unfccc.int/UserManagement/FileStorage/C20ZPHVWXA9G46R7MEUNSJOFY11 K3L.



Relevant carbon crediting program provisions

Assessment outcome

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

- 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 nonrenewable biomass: 5
- Industrial biodigesters fed with livestock manure: 5
- Landfill gas utilization: 5
- Leak repair in natural gas transmission and distribution systems: 5
- Recovery of associated gas from oil fields: 5
- Solar photovoltaic power: 5
- Wind power (onshore): 5
- Hydropower (dams): 5
- Hydropower (run-of-river): 5

Justification of assessment

All of the nine project types assessed are eligible under the CDM.

For two out of the nine project types, the relevant quantification methodologies do not include emission sources in the calculation of emission reductions that occur at other sites than where the project is implemented. For this reason, these project types are assigned a score of 5:

Establishment of natural forest: Under this project type, the risk of indirect overlaps is low, except for overlaps with jurisdictional REDD+ activities which are not yet addressed under the scoring methodology. Any extraction of biomass that is extracted from the project area and used under other projects 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). Moreover, projects to establish natural forest typically do not include any significant emission sources outside the project site in the calculation of emission reductions. Any such emissions,



such as from fertilization production or transportation, are relatively small and therefore considered immaterial.

Leak repair in natural gas transmission and distribution systems: Under this project type, a
system is implemented to inspect, measure and repair leaks of above ground components of
natural gas transmission and distribution systems. These activities occur at the site of the
mitigation activity. No emission reductions are claimed from avoiding any downstream or
upstream emissions.

For five out of the nine 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.
- Recovery of associated gas from oil fields: Under this project type, gas from oil fields is recovered
 and utilized, thereby displacing the use of fossil fuels elsewhere. That way, it is assumed that gas
 can be used that would have been flared otherwise, thus using less fossil energy elsewhere.



Theoretically, it is conceivable that the consumers of the recovered gas could claim the same emission reductions for *using* gas that is not being flared. Moreover, given that the recovery and use of associated gas displaces the use of other fossil fuels, it is theoretically possible that carbon credits could be issued to fossil fuel users or producers for reducing or stopping fossil fuel use or production. 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) and 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 one out of the nine 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.
- 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.

The program provisions thus matter for the latter two project types.

The CDM does not have any general provisions to avoid indirect overlaps between projects. In the case of cookstove projects as well as household biodigesters (where emission reductions are claimed from reducing the consumption of non-renewable biomass), the main risk is that other entities may claim carbon credits from the enhancements of carbon stored on the relevant land areas. Improved forest management or avoided deforestation is not eligible under the CDM (Source 2). However, it is still possible that a CDM afforestation and reforestation activity would claim more carbon credits because less fuel wood is used under a cookstove or household biodigester project. In this case, both projects would claim the same emission reductions. Therefore, in the case of efficient cookstove as well as household biodigester projects a score of 1 is assigned.



Annex: Amendments to previous assessment sheet versions

The following table describes the main substantive changes implemented in comparison to the assessment from 31 January 2023.

Topic	Rationale
Scores	Scores have been amended to accommodate the following new project types: hydropower (dams) and hydropower (run-of-river).