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:	**VCS**
Assessment based on carbon crediting program documents valid as of:	**15 May 2022**
Date of final assessment:	**02 July 2024**
Score:	**See page 2**

Scores

Project type	Score
Avoided Planned Deforestation	1
Avoided Unplanned Deforestation	1
Commercial afforestation, establishment of natural forests and improved forest management	
• 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
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 • 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 VCS Standard v4.1 (April 2021), available at https://verra.org/wp-content/uploads/2021/04/VCS-Standard_v4.1.pdf

2 VCS Methodology for Installation of High Efficiency Firewood Cookstoves Version 1.0 (September 2020), available at https://verra.org/methodology/methodology-for-installation-of-high-efficiency-firewood-cookstoves/

3 VCS Issuance Deed of Representation v4.1, available at https://verra.org/project/vcs-program/rules-and-requirements/.

Relevant carbon crediting program provisions

Provision 1 Source 3, section 2.2.3: "I hold full and exclusive legal and equitable title and rights to all and any Reductions generated by the Project for which I am eligible to request VCU issuance during the Verification Period free and clear of all encumbrances".

Assessment outcome

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

- Avoided planned deforestation, avoided unplanned deforestation, Commercial afforestation, establishment of natural forests, and improved forest management:
    - in countries where cooking with non-renewable biomass is likely to take place: 1
    - in countries where cooking with non-renewable biomass is not likely to take place: 5
- Efficient cookstoves: 1
- 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

Justification of assessment

All of the project types assessed are eligible under the VCS.

For one project type, 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, this project type is assigned a score of 5:

- **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 seven 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 five project types, the relevant quantification methodologies do not include any significant emission sources in the calculation of emission reductions that occur at other sites than where the project is implemented. Any such emissions, such as from fertilization production or transportation, are relatively small and therefore considered immaterial. However, there is a risk that another carbon market project might claim the same emission reductions if the methodology applied by that other project includes emission reductions occurring on other sites. This applies to the following project types:

- **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 happen if at the same time an owner of a forestry 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 happen if an owner of a forestry project implemented on these land areas receives credits from enhanced forest stocks achieved as a result of the biodigester project.
- **Avoided planned deforestation, avoided unplanned deforestation, commercial afforestation, establishment of natural forests, improved forest management:** 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 five project types, the scoring therefore depends on the carbon crediting program's provisions to address the risk of indirect overlaps.

The VCS *Issuance Deed of Representation* requires project owners to legally stipulate that they hold "full and exclusive legal and equitable title and rights to [ERs] … free and clear of all encumbrances" (Provision 1). This could open project owners to legal liability if they claim indirect emission reductions that are also being claimed by another project (under VCS or another program). However, this provision is more of a backstop, rather than a rule preventing this form of double issuance. Moreover,

no provisions could be identified in the relevant methodologies to avoid the risks of indirect overlaps as described above. For these reasons we assess that these provisions cannot be considered to robustly avoid indirect overlaps between projects. Hence, a score of 1 applies, with the exception of some forestry 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 (avoided planned deforestation, avoided unplanned deforestation, commercial afforestation, establishment of natural forest and improved forest management). 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 21 February 2024.

Topic	Rationale
Addition of new project types	Scores and justification have been amended to accommodate the following new project types: avoided planned deforestation, avoided unplanned deforestation.