

Application of the Oeko-Institut/WWF-US/ EDF 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

Criterion:	1.2 Vulnerability
Project type:	Household biodigesters
Date of final assessment:	31 January 2023
Score:	Assessment of market functioning: The market for household biodigester projects is deemed to be functioning for all assessed programs.

Contact

info@oeko.de
www.oeko.de

Head Office Freiburg

P. O. Box 17 71
 79017 Freiburg

Street address

Merzhauser Straße 173
 79100 Freiburg
 Phone +49 761 45295-0

Office Berlin

Borkumstraße 2
 13189 Berlin
 Phone +49 30 405085-0

Office Darmstadt

Rheinstraße 95
 64295 Darmstadt
 Phone +49 6151 8191-0

Assessment

Relevant scoring methodology provisions

In market situations where the supply of carbon credits from already registered and implemented projects considerably exceeds the current and expected future demand for carbon credits, the purchase of carbon credits does not necessarily trigger further emission reductions. The methodology therefore evaluates for carbon credits in collapsed markets whether the projects would continue to reduce GHG emissions even without carbon credit revenues, or whether they are at risk of discontinuing GHG abatement without these revenues. In the latter case, they are classified as vulnerable projects. The methodology employs a stepwise approach for assessing the vulnerability of the respective project type or individual project:

- Step 1: Evaluate whether the relevant market of the carbon credit can be characterized as collapsed (see methodology for further details). Note that currently, this situation only applies to the CDM.
- Step 2: Identify potential continuation and discontinuation scenarios. If applied on the project type level a representative sample of projects can be assessed.
- Step 3: Evaluate how applicable legal requirements affect the feasibility of the scenarios identified in step 2. Apply this step to both continuation and discontinuation scenarios. Remove scenarios that could not be pursued due to applicable laws and regulations. This step may be applied at project or project type level in the context of a specific host country or at the level of the carbon crediting program (see methodology for further details).
- Step 4: Assess financial benefits and costs and rank the remaining scenarios in order of their financial attractiveness by performing a cost-benefit analysis of each scenario. The financial attractiveness of a project depends on whether its income exceeds the operational expenditure in the absence of carbon credits. Only OPEX and benefits are therefore considered in the analysis. Exclude costs and benefits that occur under all scenarios in a uniform manner.
- Step 5: Assess whether any of the scenarios faces non-financial barriers that exclude it from being the course of action. For conducting the barrier assessment, the same approach described in section 1.1.4 is applied using an expert judgement. Remove all scenarios that face non-financial barriers and are scored at 5 or 4 from further consideration.
- Step 6: Determine the most likely project scenario. The highest ranked remaining scenario is the likely course of action. If this is a continuation scenario, the project is deemed to have a low vulnerability to discontinue GHG abatement (score of 1). If the scenario is a discontinuation scenario, and it is either the only remaining scenario or any other scenarios are financially significantly less attractive, then the vulnerability is deemed to be high (score of 5). In other instances, e.g. where a continuation and discontinuation scenario may be equally plausible, no clear conclusion can be drawn on vulnerability (score of 3).

Degree of Vulnerability	Score
High Vulnerability	5
Vulnerability not conclusive	3
Low Vulnerability	1

Information sources considered

- 1 Donofrio, S., Maguire, P., Zwick, S. and Merry, W. (2020). *Voluntary Carbon and the Post-Pandemic Recovery*. Ecosystem Marketplace.
<https://www.ecosystemmarketplace.com/carbon-markets>
- 2 Cames, M., Harthan, R. O., Fussler, J., Lazarus, M., Lee, C. M., Erickson, P. and Spalding-Fecher, R. (2016). *How Additional Is the Clean Development Mechanism? Analysis of the Application of Current Tools and Proposed Alternatives*. CLIMA.B.3/SERI2013/0026r. Prepared for DG Clima by Oko-Institut, INFRAS, Stockholm Environment Institute (SEI), Berlin. https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf

Assessment outcome

The carbon credit market for household biodigester projects is deemed functioning for all carbon crediting programs.

Justification of assessment

Per the guidance in the methodology, the CDM market has generally collapsed. This is confirmed by prices of well below 1 EUR per CER over a period of several years. In the case of household biodigester projects, however, buyers are typically willing to pay higher prices due to the sustainable development benefits of these project types. Household device projects have seen significant price increases over the last years and consistently achieve prices that are above those of other project types. The carbon credit market for household biodigester projects is therefore deemed as functioning for all carbon crediting programs.