

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

Sub-criterion:	1.3.2 Robustness of the quantification methodologies applied to determine emission reductions or removals
Project type:	Industrial biodigesters fed with livestock manure
Quantification methodology:	CAR Mexico Livestock Protocol – Version 2.0
Assessment based on carbon crediting program documents valid as of:	15 May 2022
Date of final assessment:	31 January 2023
Score:	3

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

The methodology assesses the robustness of the quantification methodologies applied by the carbon crediting program to determine emission reductions or removals. The assessment of the quantification methodologies considers the degree of conservativeness in the light of the uncertainty of the emission reductions or removals. The assessment is based on the likelihood that the emission reductions or removals are under-estimated, estimated accurately, or over-estimated, as follows (see further details in the methodology):

Assessment outcome	Score
It is very likely (i.e., a probability of more than 90%) that the emission reductions or removals are underestimated, taking into account the uncertainty in quantifying the emission reductions or removals	5
It is likely (i.e., a probability of more than 66%) that the emission reductions or removals are underestimated, taking into account the uncertainty in quantifying the emission reductions or removals	4
OR The emission reductions or removals are likely to be estimated accurately (i.e., there is about the same probability that they are underestimated or overestimated) and uncertainty in the estimates of the emission reductions or removals is low (i.e., up to $\pm 10\%$)	
The emission reductions or removals are likely to be estimated accurately (i.e., there is about the same probability that they are underestimated or overestimated) but there is medium to high uncertainty (i.e., $\pm 10\text{-}50\%$) in the estimates of the emission reductions or removals	3
OR It is likely (i.e., a probability of more than 66%) or very likely (i.e., a probability of more than 90%) that the emission reductions or removals are overestimated, taking into account the uncertainty in quantifying the emission reductions or removals, but the degree of overestimation is likely to be low (i.e., up to $\pm 10\%$)	
The emission reductions or removals are likely to be estimated accurately (i.e., there is about the same probability that they are underestimated or overestimated) but there is very high uncertainty (i.e., larger than $\pm 50\%$) in the estimates of the emission reductions or removals	2
OR It is likely (i.e., a probability of more than 66%) or very likely (i.e., a probability of more than 90%) that the emission reductions or removals are overestimated, taking into account the uncertainty in quantifying the emission reductions or removals, and the degree of overestimation is likely to be medium ($\pm 10\text{-}30\%$)	
It is likely (i.e., a probability of more than 66%) or very likely (i.e., a probability of more than 90%) that the emission reductions or removals are overestimated, taking into account the uncertainty in quantifying the emission reductions or removals, and the degree of overestimation is likely to be large (i.e., larger than $\pm 30\%$)	1

Information sources considered

- 1 Assessment of CAR: U.S. Livestock Project Protocol – Version 4.0

Assessment outcome

The quantification methodology is assigned a score of 3.

Justification of assessment

The protocol for Mexico is largely analogous to the US protocol (Source 1). The main differences between the two protocols are the default values related to manure production per livestock category and the maximum methane potential. For the US, the values related to the amount of manure production per livestock may be less uncertain, as in the US this data is differentiated by states, whereas in Mexico it refers to the prevalent temperature. In addition, the US protocol optionally allows to consider the actual mass of the livestock, whereas the Mexico protocol provides only default values. However, these differences are considered to be relatively minor and are not assessed to significantly change the overall conservativeness and uncertainty of the methodology. Therefore, we assign the same score as derived for the US protocol.