The Carbon Credit Quality Initiative

Transparent Scores for Carbon Credit Quality

Expanded Scores Launch

31 January 2023
Today’s Speakers

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Senior Program Officer, Climate Cooperation and Sustainable Fuels
World Wildlife Fund, US

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Associate Vice President, Carbon Markets and Private Sector Decarbonization
Environmental Defense Fund

Dr. Lambert Schneider
Research Coordinator for International Climate Policy
Oeko-Institut
Agenda

1. About CCQI
2. Our Approach
3. Key Findings
4. Next Steps
5. Q&A
About the Carbon Credit Quality Initiative

Pedro Martins Barata, Environmental Defense Fund
Carbon Credit Quality Initiative (CCQI) provides transparent information on the quality of carbon credits. This enables users to identify carbon credits that deliver higher climate mitigation impacts and offer greater social and environmental benefits—and enhance the quality of carbon credits in the market.

Our Mission: Enhance the Quality of Carbon Credits
## What is the Carbon Credit Quality Initiative?

| **Why?** |  ▶ Carbon markets are facing a resurgence  
            ▶ Mixed quality of carbon credits currently transacted  
            ▶ Buyers face reputational risks if emissions reductions are not credible |
|----------|----------------------------------------------------------------------------------------------------------------------------------|
| **What?** |  ▶ Enhance the integrity of carbon credits  
            ▶ Encourage carbon crediting programs, project developers and other market participants to pursue the highest standards |
| **How?** |  ▶ Independent, user-friendly scorings to assess the quality of carbon credits |
| **For whom?** |  ▶ Countries, companies, investors, and individuals |
What makes this initiative unique?

1. Not funded by revenues related to carbon credits
2. Experts not employed by project developers or carbon crediting programs
3. Scoring of credits on an interval scale, not on a binary basis
4. Transparent, publicly-available methodology and assessment documents
5. All scores free-of-charge

CCQI Project Team
What does CCQI assess?

CCQI publishes scores for *carbon credit types*, as defined by their underlying features:

- Type of project (e.g., landfill gas utilization)
- Carbon crediting program (e.g., Verified Carbon Standard)
- Quantification methodology (e.g., CDM ACM0001)
- Host country...and more

CCQI does not release or endorse scores for individual projects, but...

- Our assessment method is public and can be applied to individual projects
## Current Scope of Assessments

<table>
<thead>
<tr>
<th>Carbon Crediting Programs</th>
<th>Project Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Credit Quality Initiative</td>
<td></td>
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<tr>
<td>[Images of various organizations]</td>
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</tbody>
</table>

### Carbon Crediting Programs
- American Carbon Registry
- Gold Standard
- Verified Carbon Standard
- Climate Action Reserve
- Climate, Community & Biodiversity Standards
- SD ViSta

### Project Types
- Establishment of Natural Forests
- Landfill Gas Utilization
- Efficient Cookstoves
- Gas pipeline leak repair
- Solar Photovoltaic
- Wind Power (onshore)
- Household Biodigesters
- Industrial Biodigesters
- Recovery of Oil Field Gas

### Complementary Standards
- 23 Quantification Methodologies
- 10 Host Country NDCs
- Pre + Post Paris Vintages
Our Assessments

Our aim: 82% of the market*

*Based on 2019-2022 issuance volumes
How can CCQI’s scores be used?

Our scores represent the expected quality for a type of carbon credit. Additional due diligence on individual projects is encouraged.

**Buyers**

Due diligence to understand potential risks associated with different types of carbon credits

**Carbon Crediting Programs**

Identify opportunities to improve a program’s rules

**Project Developers**

Inform how to design a project to avoid specific risks, and how to choose programs and methodologies with higher quality assurance
Tools & Resources

- Interactive scoring tool
- Downloadable Excel scoring tool
- Full methodology
- Assessment sheets

Visit us at
www.carboncreditquality.org
Our Approach to Scoring Carbon Credit Quality

Lambert Schneider, Oeko-Institut
# Seven Quality Objectives

<table>
<thead>
<tr>
<th>Quality Objectives</th>
<th>Robust Determination of GHG Emissions Impact</th>
<th>Avoiding Double Counting</th>
<th>Addressing Non-Permanence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Facilitating Transition towards Net Zero Emissions</td>
<td>Strong Institutional Arrangements and Processes</td>
<td>Environmental and Social Impacts</td>
</tr>
</tbody>
</table>

Carbon Credit Quality Initiative
Our Scoring Approach

Confidence or likelihood that the assessment subject meets the criterion or quality objective:

- Very High: 5
- High: 4
- Moderate: 3
- Low: 2
- Very Low: 1
# Example of How Scores Are Built

<table>
<thead>
<tr>
<th>Quality Objective</th>
<th>Criteria</th>
<th>Sub-Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Robust Determination of the GHG Emissions Impact</strong></td>
<td><strong>4</strong> Additionality</td>
<td><strong>5</strong> Legal requirements</td>
</tr>
<tr>
<td></td>
<td><strong>N/A</strong> Vulnerability</td>
<td><strong>4</strong> Financial attractiveness</td>
</tr>
<tr>
<td></td>
<td><strong>3</strong> Robust Quantification</td>
<td><strong>2</strong> Prior consideration</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>N/A</strong> Barriers</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>N/A</strong> Vulnerability</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>3</strong> Robust methodology</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>3</strong> Program principles</td>
</tr>
</tbody>
</table>
Questions we set out to answer

1. What is the quality of credits currently available in the market?

2. What are the differences between project types?

3. How differently or similarly do programs score?

4. What can buyers do with this information?
Quality objective 1: Robust determination of GHG emission impact

Additionality and Quantification

Max Score A GS Regular
Max Score A ACR
Max Score Q CAR or ACR
Max Score Q CAR
Max Score Q CDM
Max Score A GS Regular
Max Score A GS Regular
Max Score A GS Regular
Max Score A GS Regular

A = Additionality
Q= Quantification

Note: This slides has been updated compared to the version presented online on 31 January 2023. This revised slide shows only MAX scores in cases where the results significantly differ among methodologies and carbon crediting programs.
Do Carbon Credits Make a Difference Financially?

The contribution of carbon credits to financial attractiveness strongly varies among project types.
## Criterion 1.3.2: Robustness of quantification methodologies

### Counting Carbon: Methodologies Deep-dive

<table>
<thead>
<tr>
<th>Project</th>
<th>Risk of overestimation</th>
<th>Potential for underestimation</th>
<th>Overall conclusion</th>
</tr>
</thead>
</table>
| AM0009 v7 | - Neglecting fugitive emissions  
- Lack of provisions limiting gas-lift-gas production | - Assumption that recovered gas replaces methane  
- Neglecting emissions from venting and methane slip from baseline  
- Upstream emissions not considered in baseline  
- Requirement to account recovered gas as project emissions | High likelihood of conservativeness |
| ABM v1 | - Fraction of non-renewable biomass  
- Omission of several sources  
- Methane leakage inappropriately considered | - Upstream emissions not considered in baseline | Emission reductions very likely to be (significantly) overestimated |
| GS | | | |
| Landfill Project v2 | - Oxidation factor lower than observed in literature  
- Risk of perverse incentives | - Neglecting emissions for displacement of fossil fuel use | Emission reductions likely accurate but associated with significant uncertainty |

### Risk of overestimation
- Neglecting fugitive emissions
- Lack of provisions limiting gas-lift-gas production

### Potential for underestimation
- Assumption that recovered gas replaces methane
- Neglecting emissions from venting and methane slip from baseline
- Upstream emissions not considered in baseline
- Requirement to account recovered gas as project emissions

### Overall conclusion
High likelihood of conservativeness
### Criterion 1.3.2: Robustness of quantification methodologies

#### Counting Carbon: Methodologies Must Improve

<table>
<thead>
<tr>
<th>Emission reductions are/have a...</th>
<th>CCQI Score</th>
<th>Number of methodologies per score category</th>
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<tbody>
<tr>
<td>Very likely conservative (90% probability)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Likely conservative (67% probability)</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Approximately accurate with low uncertainty (10%)</td>
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<td></td>
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<tr>
<td>OR</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Low degree of overestimation (up to 10%)</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Approximately accurate with medium uncertainty (up to 50%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Medium degree of overestimation (up to 30%)</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Approximately accurate with large uncertainty (more than 50%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>High degree of overestimation (more than 30%)</td>
<td>1</td>
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</tbody>
</table>

Many methodologies either overestimate emissions reductions, or there is large uncertainty.

Note: The methodologies TPDDTEC and AMB encompass two different approaches which result in two different scores. The graph includes the respective lower ones.
## Criterion 1.3.2: Robustness of quantification methodologies

### Counting Carbon: Methodologies Must Improve

#### Overview of scores for methodologies assessed to date

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<tbody>
<tr>
<td><strong>ACR</strong></td>
<td>A/R Methodology</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CAR</strong></td>
<td>Forest Protocol</td>
<td>U.S. Livestock</td>
<td>U.S. Landfill</td>
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<tr>
<td><strong>CDM</strong></td>
<td>AMS-II.G</td>
<td>AR-ACM0003</td>
<td>AMS-I.C</td>
<td>ACM0010</td>
<td>ACM0001</td>
<td>AM0023</td>
<td>ACM0009</td>
<td>ACM0002</td>
<td>ACM0002</td>
</tr>
<tr>
<td><strong>GS</strong></td>
<td>TPDDTEC</td>
<td>A/R Methodology</td>
<td>TPDDTEC</td>
<td>AMB</td>
<td>GS-ACM0010</td>
<td></td>
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**CCQI Scores**

- 5
- 4
- 3
- 2
- 1
Indicator 3.2.1.1: Time horizon for monitoring reversals

**Required Minimum Periods for Addressing Reversals**

- **4** Climate Action Reserve*
- **2** Gold Standard*
- **2** American Carbon Registry
- **1** Verified Carbon Standard*

* Depending on crediting period, methodology and/or credit vintage
Complementary standards boost scores for programs’ environmental and social safeguards
What Do These Results Mean?

- There is a real problem
  - Credit types have different strengths and weaknesses – but none do everything well
  - Good performance in one area cannot make up for bad performance in another
  - Likelihood of overestimating climate impact unacceptably high
  - Quality differs considerably among project types and programs

- It’s possible to do better
  - Crediting programs can fix most weaknesses identified in these assessments
  - Picking the best approaches from each program would significantly improve quality
  - Crediting programs can learn from each other
What Can Buyers Do With This Information?

- Identify credit types with comparatively lower integrity risks
- Understand and manage specific risks of credit types
  - Use scores in your project-level due diligence to identify high risk areas
  - Individual projects may outperform our scores in some areas
- Which credits types to buy may depend on your priorities and how you use them
  - Are you looking to support projects that align with your values?
  - Are you looking to claim emissions reductions or financial contributions?
  - How do you communicate about the use of the credits?
Next Steps

John Holler, World Wildlife Fund, US
What’s next for CCQI?

- Maximize market coverage

- Assess 4 new project types:
  - Hydropower
  - Project-based REDD+
  - Improved forest management
  - Commercial afforestation
What’s next for CCQI?

- Simplified project type profiles for actionable due diligence
- Regular insights on our blog
- Data visualizations

We want to hear from you:

- What do you want to see from CCQI?
- How do we make this more accessible?
- What questions do you have?
Questions?
Thank you!

Website: www.carboncreditquality.org

Contact: carboncreditqualityinitiative@gmail.com