

The Carbon Credit Quality Initiative

Transparent Scores for Carbon Credit Quality

Expanded Scores Launch

31 January 2023



CCQI
Carbon Credit
Quality Initiative

Today's Speakers



John Holler

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



**Pedro Martins
Barata**

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

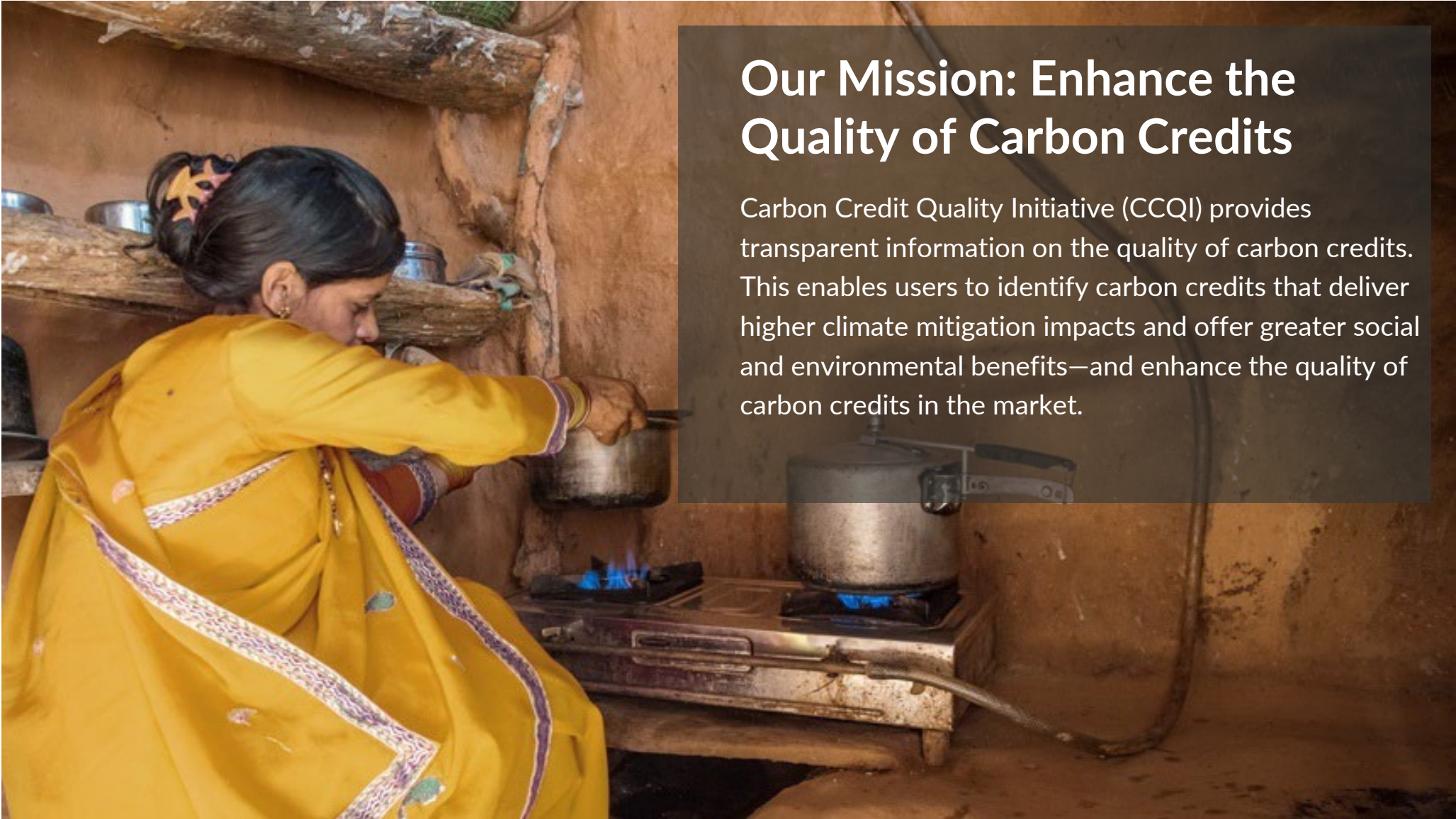
5 Q&A



The background of the slide is an aerial photograph of a lush green forest. Several wind turbines are visible, their long blades extending across the landscape. Overlaid on the right side of the image are several white-outlined hexagons. Some of these hexagons are filled with solid colors: one is orange, one is a dark teal, and one is a lighter teal. The overall aesthetic is clean and modern, with a focus on nature and renewable energy.

About the Carbon Credit Quality Initiative

Pedro Martins Barata, Environmental Defense Fund

A woman wearing a bright yellow sari with a purple and white border is cooking in a rustic kitchen. She is holding a metal pot over a gas stove. The kitchen has mud-colored walls and wooden shelves with various kitchen items. The scene is lit with warm, natural light.

Our Mission: Enhance the Quality of Carbon Credits

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.

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

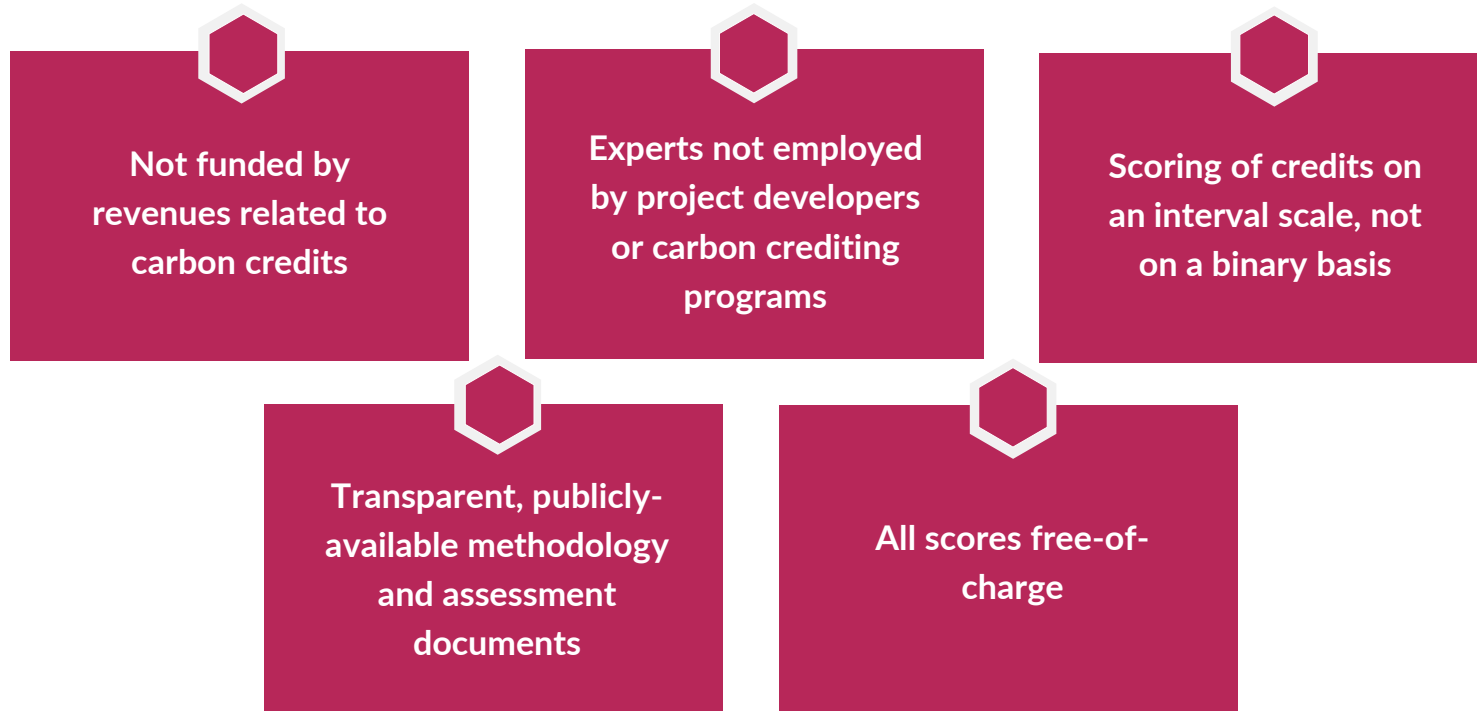
How?

- ▶ Independent, user-friendly scorings to assess the quality of carbon credits

For whom?

- ▶ Countries, companies, investors, and individuals

What makes this initiative unique?



CCQI Project Team



















What does CCQI assess?

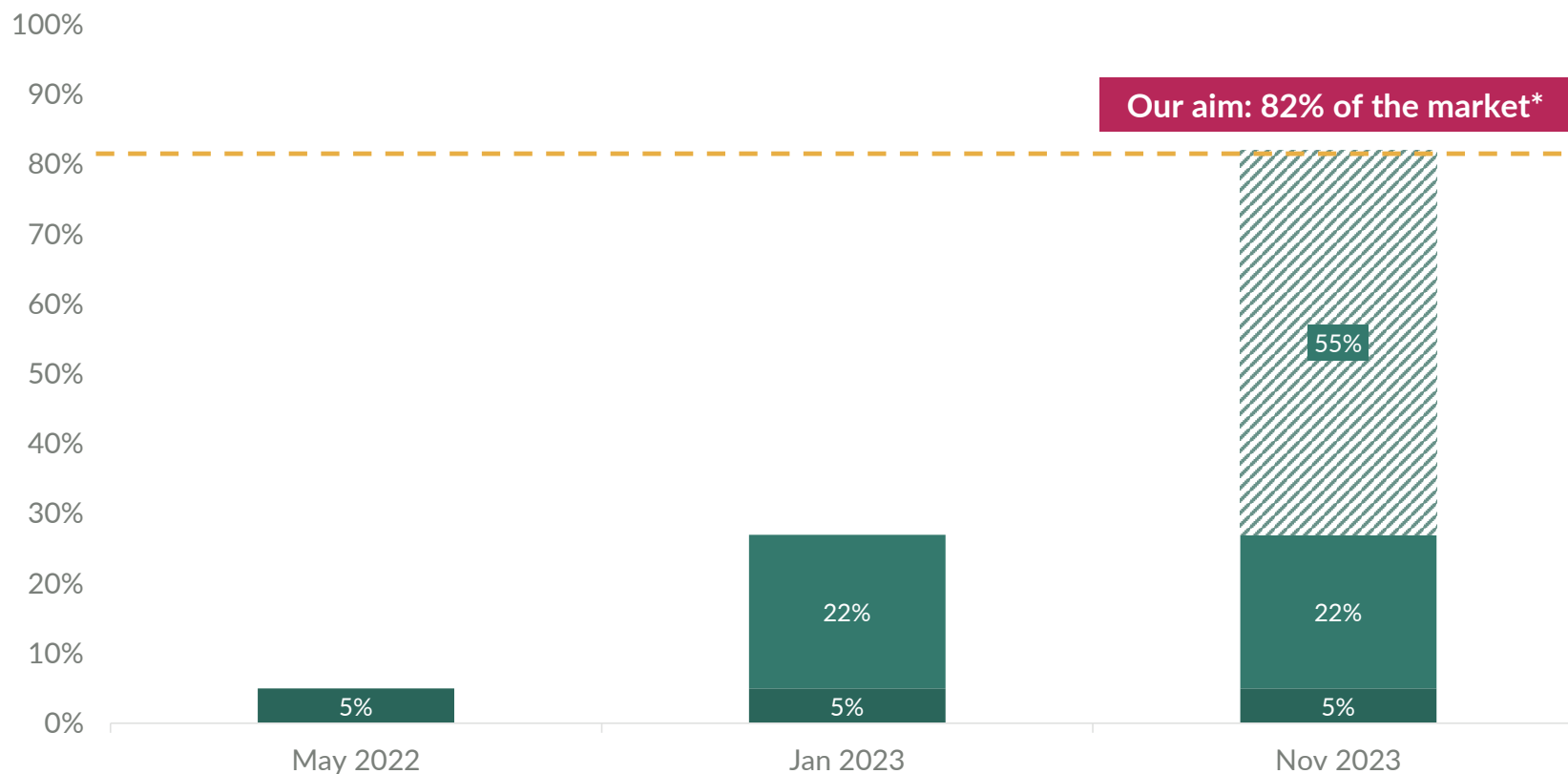
- ▶ **CCQI publishes scores for *carbon credit types*, as defined by their underlying features:**
 - Type of project (e.g., landfill gas utilization)
 - Carbon crediting program (e.g., Verified Carbon Standard)
 - Quantification methodology (e.g., CDM ACM0001)
 - Host country...and more

- ▶ **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

Carbon Crediting Programs		Project Types		
    		 <p>Establishment of Natural Forests</p>	 <p>Landfill Gas Utilization</p>	 <p>Efficient Cookstoves</p>
Complementary Standards	23 Quantification Methodologies	 <p>Gas pipeline leak repair</p>	 <p>Solar Photovoltaic</p>	 <p>Wind Power (onshore)</p>
 <p>Climate, Community & Biodiversity Standards</p>	10 Host Country NDCs	 <p>Household Biodigesters</p>	 <p>Industrial Biodigesters</p>	 <p>Recovery of Oil Field Gas</p>
	Pre + Post Paris Vintages			

Our Assessments



Our aim: 82% of the market*

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

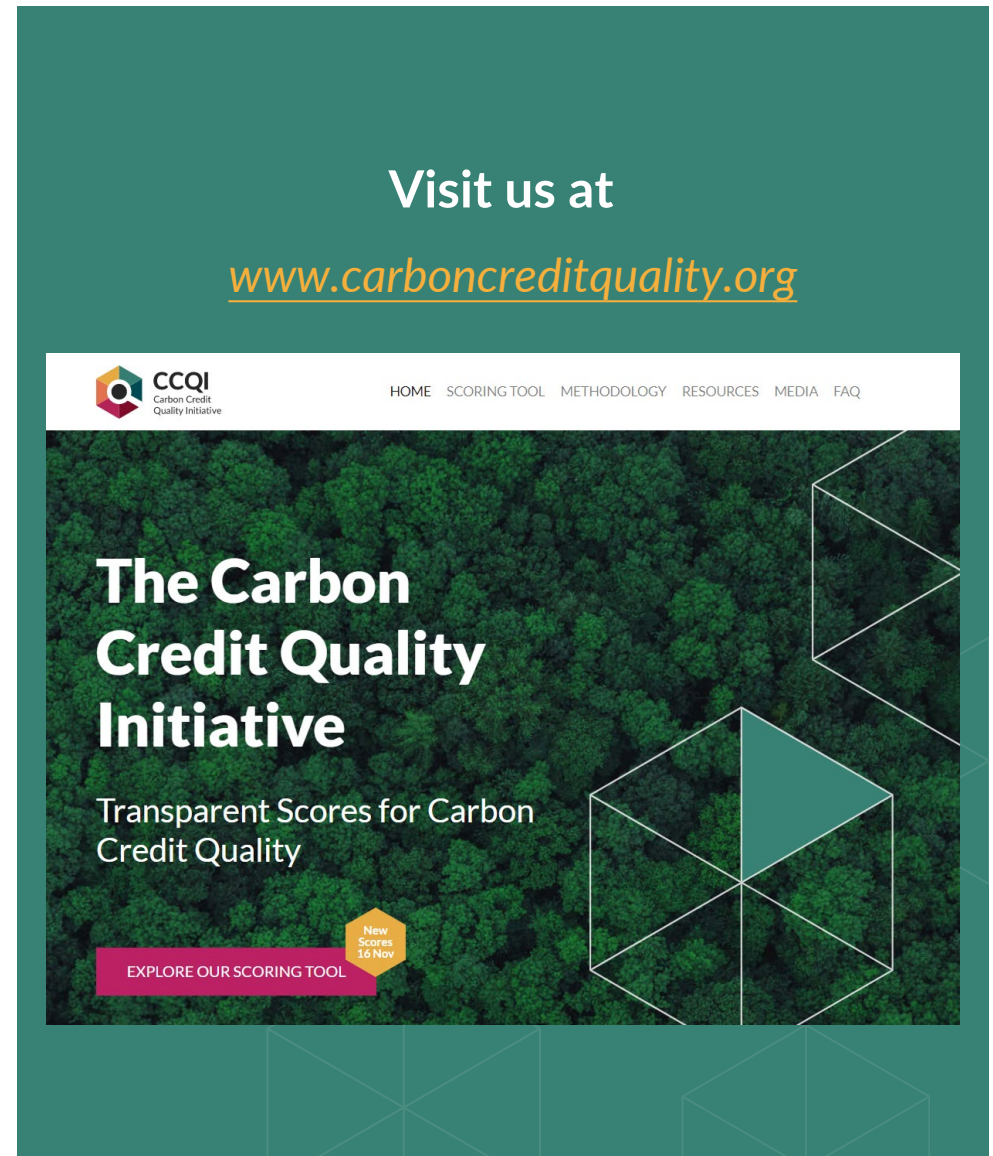
Project Developers

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

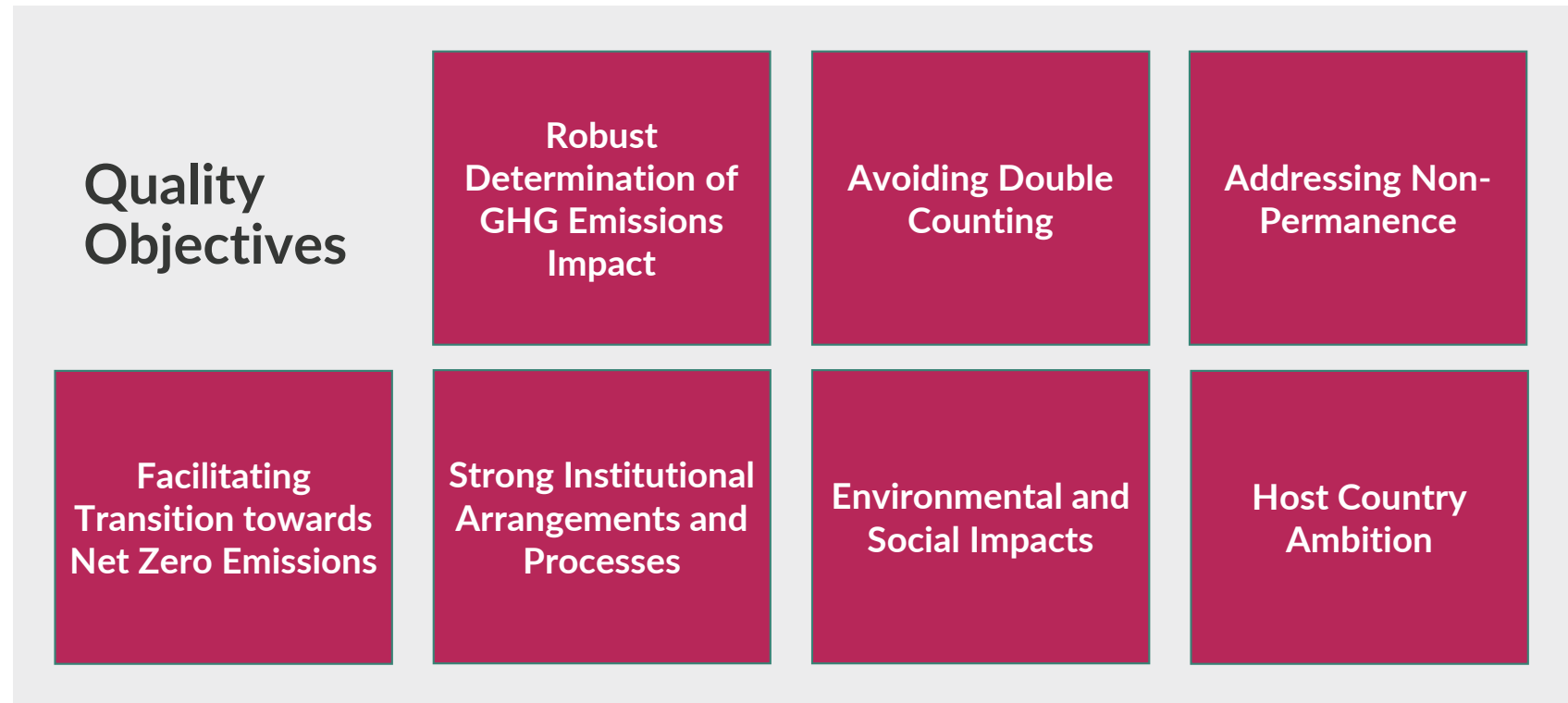


The background of the slide is an aerial photograph of a lush green forest. Several wind turbines are visible, their towers and blades extending across the landscape. Overlaid on the right side of the image are several white-outlined hexagons. Some of these hexagons are partially filled with solid colors: one is filled with a dark teal color, another with a lighter teal, and a third with a bright orange. The overall aesthetic is clean and modern, with a focus on nature and renewable energy.

Our Approach to Scoring Carbon Credit Quality

Lambert Schneider, Oeko-Institut

Seven Quality Objectives



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

Quality Objective	Criteria	Sub-Criteria		
<p style="text-align: center;">3</p> <p style="text-align: center;">Robust Determination of the GHG Emissions Impact</p>	<p style="text-align: center;">4 Additionality</p> <p style="text-align: center;">N/A Vulnerability</p> <p style="text-align: center;">3 Robust Quantification</p>	<p style="text-align: center;">5 Legal requirements</p> <p style="text-align: center;">N/A Barriers</p> <p style="text-align: center;">3 Robust methodology</p>	<p style="text-align: center;">4 Financial attractiveness</p> <p style="text-align: center;">N/A Vulnerability</p> <p style="text-align: center;">3 Program principles</p>	<p style="text-align: center;">2 Prior consideration</p>

The background is an aerial photograph of a wind farm situated in a lush green forest. Several wind turbines are visible, with their long blades extending across the landscape. The image is overlaid with several white-outlined hexagons. Some of these hexagons are partially filled with colors: one is filled with a dark teal, another with a lighter teal, and a third with a yellow-orange. The overall aesthetic is clean and modern, typical of a professional report or presentation.

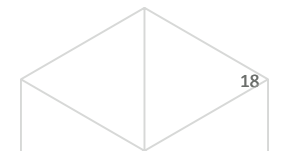
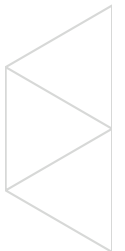
Key Findings

Lambert Schneider, Oeko-Institut

Key Findings

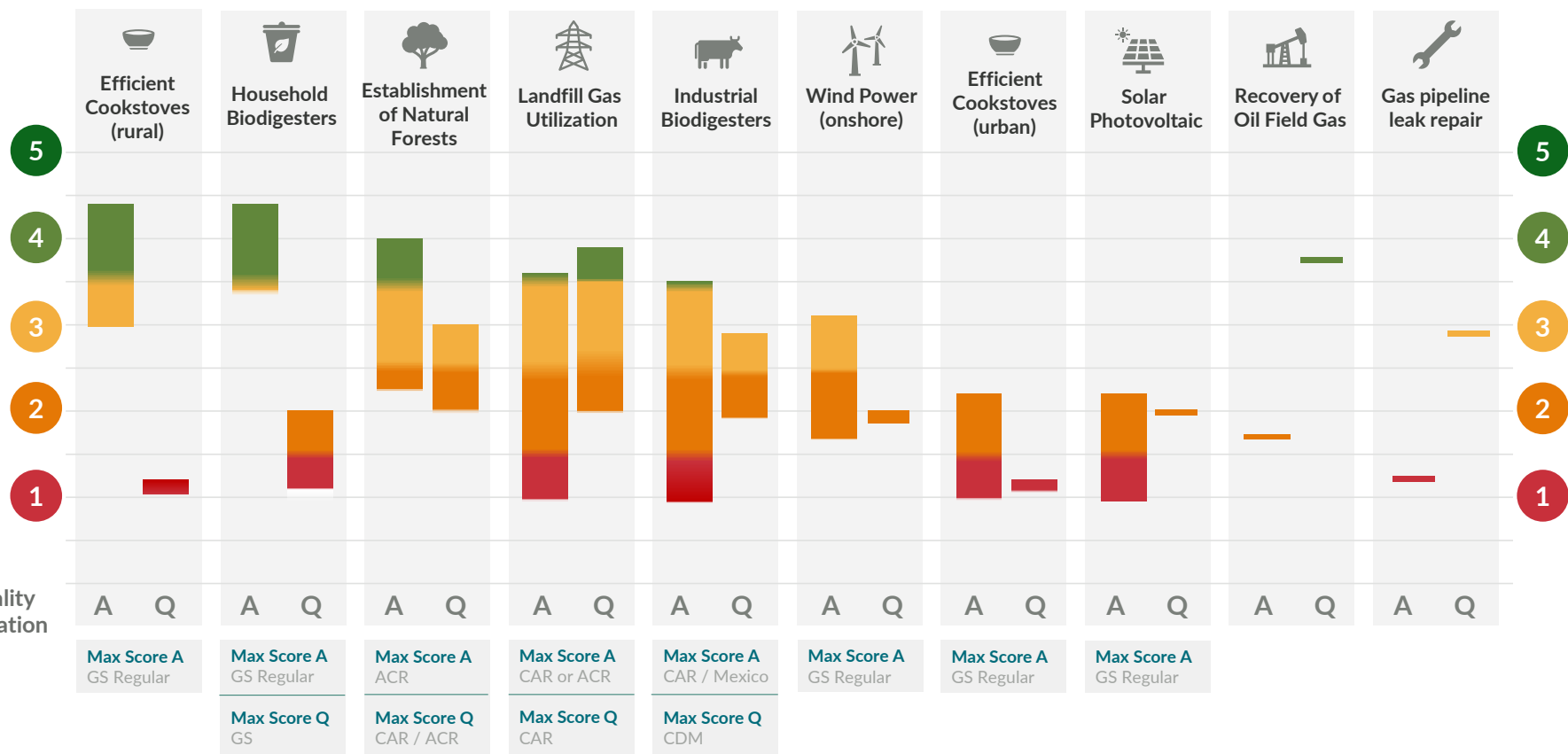
Questions we set out to answer

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

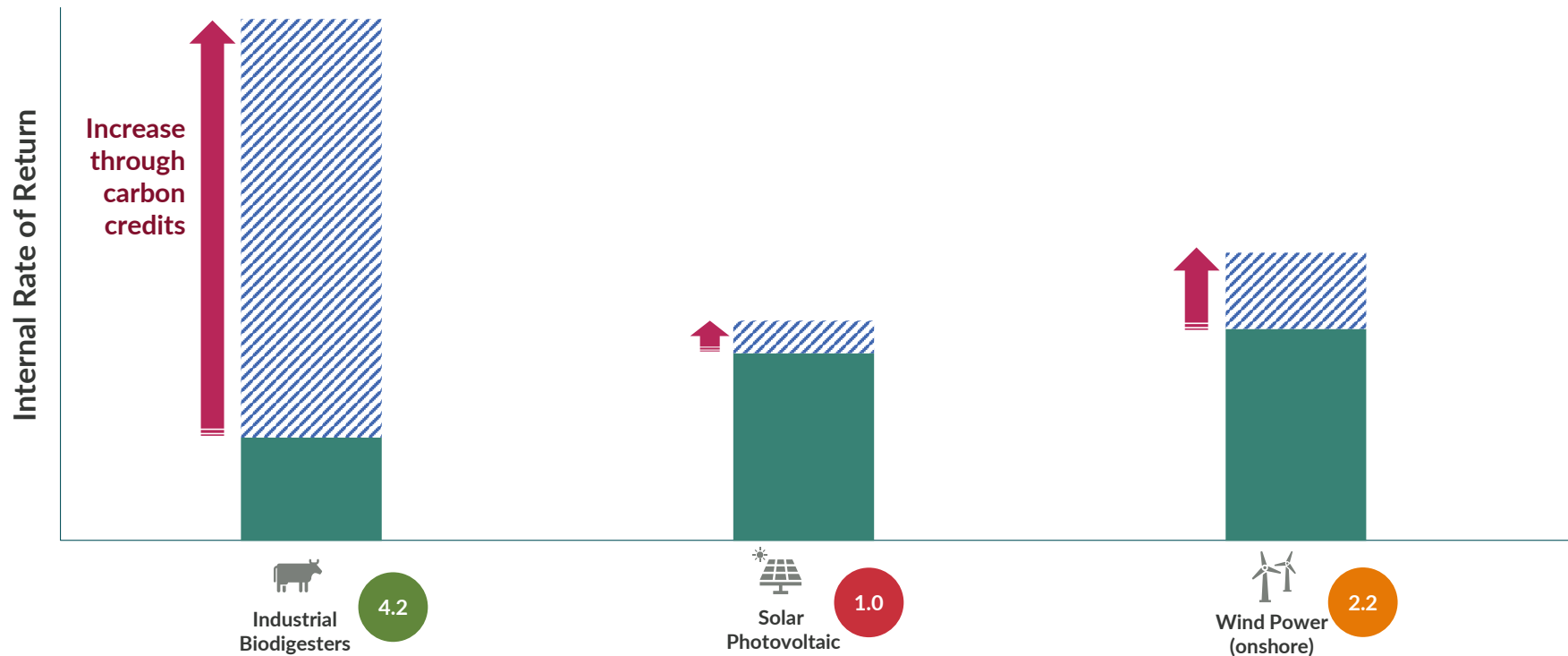


A = Additionality
Q = Quantification

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.

Criterion 1.1: Additionality

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

4

AM0009 v7 CDM
Recovery of Oil Field Gas

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

1 2

ABM v1 GS
Household Biogas

Risk of overestimation

- Fraction of non-renewable biomass
- Omission of several sources
- Methane leakage inappropriately considered

Potential for underestimation

- Upstream emissions not considered in baseline

Overall conclusion
Emission reductions very likely to be (significantly) overestimated

3

Landfill Project v2 ACR
Landfill Gas Utilization

Risk of overestimation

- Oxidation factor lower than observed in literature
- Risk of perverse incentives

Potential for underestimation

- Neglecting emissions for displacement of fossil fuel use

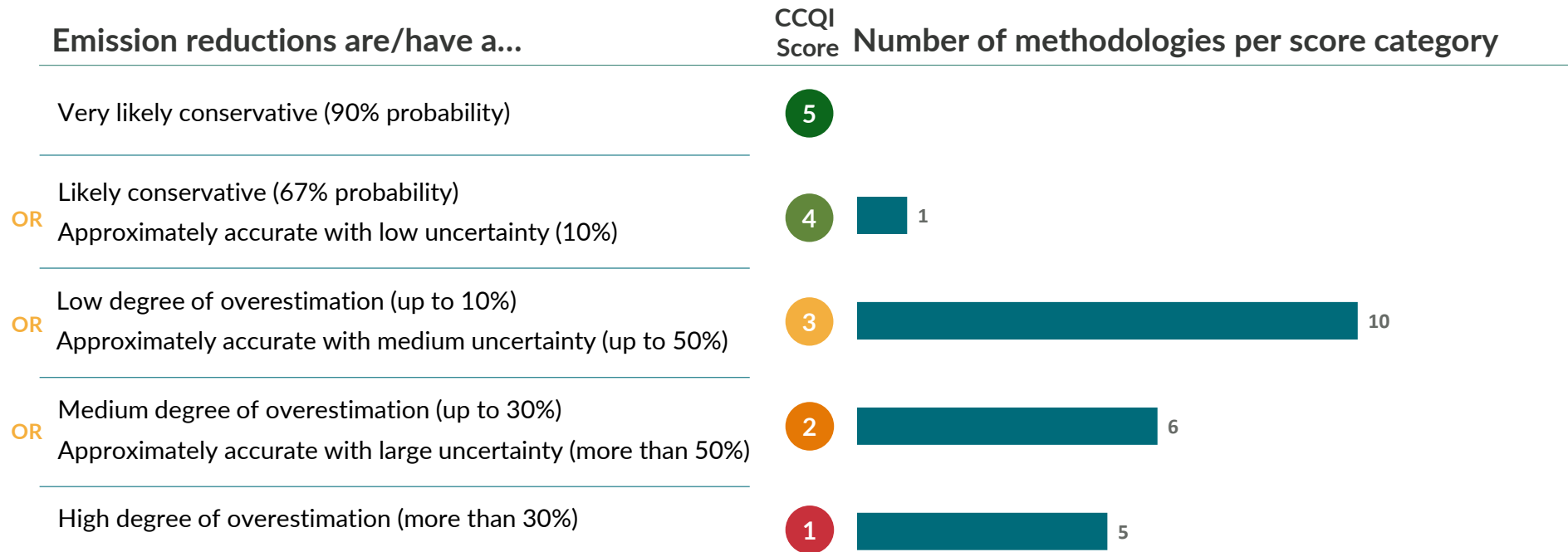
Element with unknown impact

- Estimation of emissions from any pre-project devices

Overall conclusion
Emission reductions likely accurate but associated with significant uncertainty

Criterion 1.3.2: Robustness of quantification methodologies

Counting Carbon: Methodologies Must Improve












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

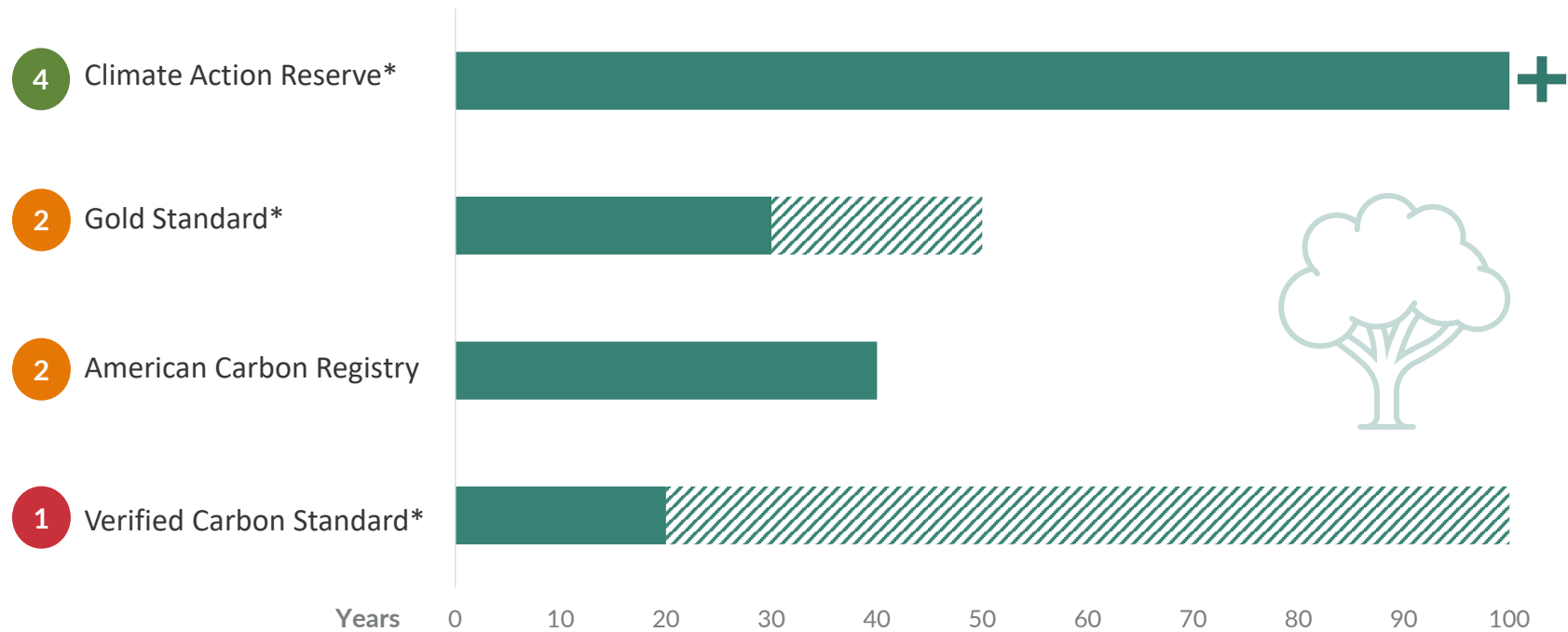
Overview of scores for methodologies assessed to date

Origin	 Efficient Cookstoves (rural)	 Establishment of Natural Forests	 Household Biogas	 Industrial Biogas	 Landfill Gas Utilization	 Gas pipeline leak repair	 Recovery of Oil Field Gas	 Solar Photovoltaic	 Wind Power (onshore)
ACR		A/R Methodology			Landfill Project				
CAR		Forest Protocol		U.S. Livestock Mexico Livestock	U.S. Landfill				
CDM	AMS-II.G	AR_ACM0003	AMS-I.C AMS-I.E	ACM0010 AMS-III.D	ACM0001 AMS-III.G	AM0023	AM0009	ACM0002 AMS-I.D	ACM0002 AMS-I.D
GS	TPDDTEC	A/R Methodology	TPDDTEC AMB	GS-ACM0010					



Indicator 3.2.1.1: Time horizon for monitoring reversals

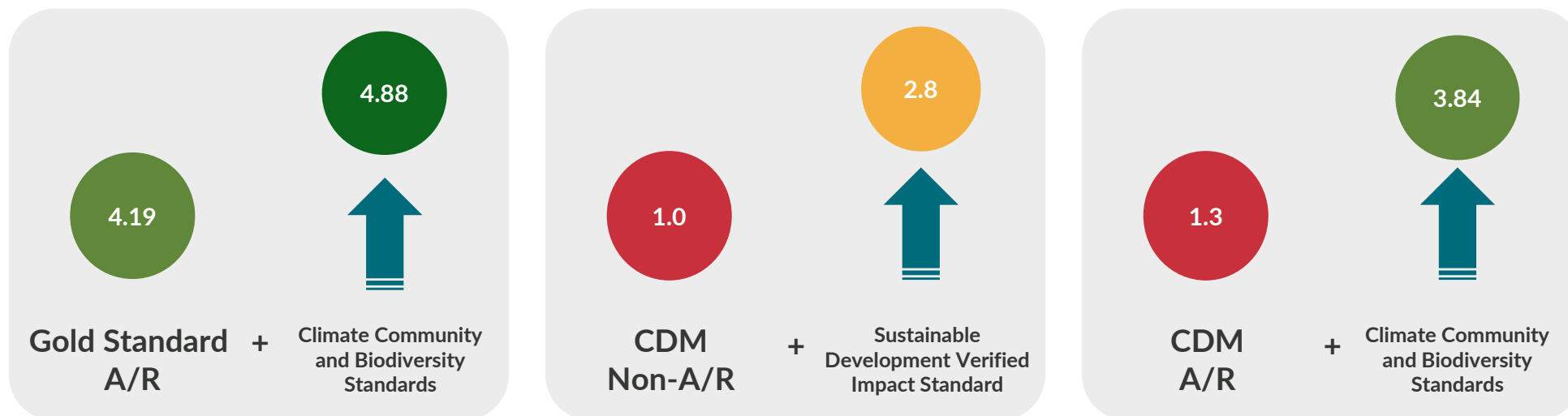
Required Minimum Periods for Addressing Reversals



* Depending on crediting period, methodology and/or credit vintage

Criterion 6.1: Program's environmental and social safeguards

Environmental and Social Safeguards



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 area
 - 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?

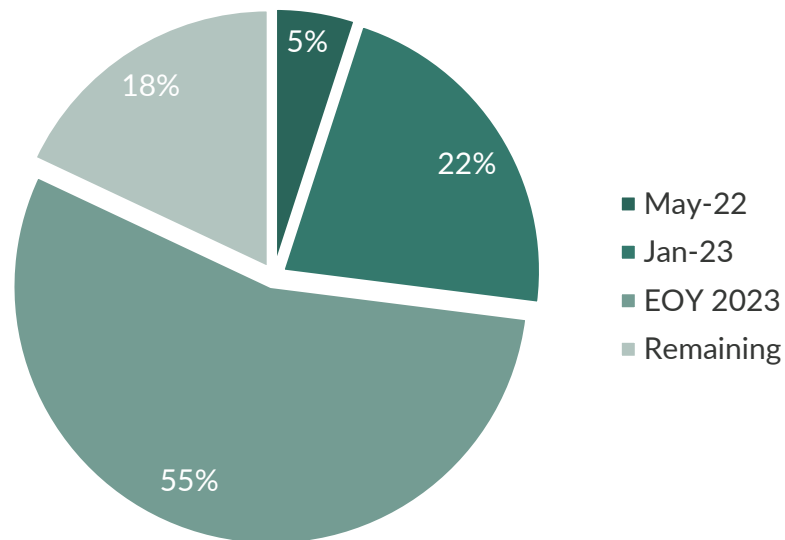
An aerial photograph of a wind farm situated in a lush, green forested landscape. The wind turbines are visible, with their long blades extending across the terrain. The image is overlaid with several white-outlined hexagons. Some of these hexagons are partially filled with solid colors: one with a teal color, one with a darker teal, and one with a yellow-orange color. The overall scene suggests a focus on sustainable energy and environmental conservation.

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



CCQI
Carbon Credit
Quality Initiative