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Methodology Development Outline

An overview of the methodology development process under the Puro Standard

Introduction

Carbon removals certified under the Puro Standard are credited based on a set of methodologies for different methods of CO₂ Removal. Methodologies are normative documents specifying the rules and procedures that CO₂ Removal Suppliers need to follow and comply with. All CO₂ Removal projects of the same type must comply with the Methodology for that specific carbon removal method.

All currently available, upcoming and discontinued methodologies are available under <https://puro.earth/methodologies/>

Definition

Methodology is defined in the [General Rules of Puro Standard](#) (version 3.0, page 3): Methodology provides procedures to verify the compliance of CO₂ Removal activity with the Removal Method. Methodology provides sound CO₂ Removal quantification Methodology specific to each Removal Method. It specifies the activity boundaries, detailed calculation formulas and the proof needed of the activity performance. A Methodology may be revised, and the latest valid version must be used when issuing new certificates. List of valid Methodologies is available in Puro.earth website.

Structure

Each methodology is comprised of several parts covering the various aspects of the removal and crediting process, such as eligibility requirements and monitoring, reporting and validation procedures. A high-level overview of the structure of a methodology document at Puro.earth can be summarized as follows:

- Introduction and CO₂ removal method overview
- General principles of verifiable CO₂ Removals in Puro Standard
- Point of creation of the CO₂ Removal Certificate (CORC)
- Eligibility requirements and verification
- Environmental & Social Safeguards
- Assessment of life cycle greenhouse gas emissions
- Calculation methodology for the quantification of CO₂ Removal

The detailed structure of each methodology at Puro.earth is different, which reflects the different complexity and maturity of various carbon removal methods. Each methodology follows the principles and general requirements set out in [Puro Standard General Rules](#).

Development principles

Although Puro Standard methodologies are intended as practical guides for CO₂ Removal Suppliers to follow, they have a solid scientific foundation. The development of methodologies into the Puro Standard takes place in an open manner with an expert working group, public consultation, and review by an independent external Advisory Board. The guiding principles of this process are

1. **Transparency**, which fosters trust, helps markets operate effectively, and builds assurance for the buyers and sellers of CORCs (certified carbon removals).
2. **Robust evidence** of carbon removals with requirements for field measurements rather than relying only on estimates from simulated processes.
3. **Monitoring, reporting and verification (MRV)** requirements for projects detailing requirements for reporting. Each project monitors and reports the performance (CO₂ removal volumes) and submits it annually for third-party verification.
4. **Refinement of methodologies over time**, which ensures that the methodologies are always based on the best available science. The methodologies are to be seen as living documents which mature in pace with the scientific knowledgebase surrounding the subject.

Process outline

The methodologies are developed with a working group of key individuals and scientific experts, and at least two project proponents looking to operationalize the approach. In practice, the working group criticizes and discusses specific areas of the removal method to form a consensus on areas of scientific uncertainty w.r.t measurement and quantification as well as any key environmental or reversibility concerns. In parallel with the development process, which generally takes around six months, the methodology draft is also independently reviewed by the independent external [Advisory Board](#) to ensure that the key concerns and uncertainties have been addressed and the approach is ready to be operationalized.

Once complete, the draft methodology is shared publicly for feedback and critique following the [Stakeholder Engagement Requirements](#). Much of the feedback has usually come from scientists and other sophisticated actors wishing to make sure any critical details have not been missed, which has proven very useful in the past. As part of this process, a presentation or a webinar about the methodology will also be organised, targeted at informing the public on what's going on.

According to [Puro Standard General Rules](#) (rule 1.3, page 2) all new methodologies require a final approval from the Advisory Board before they can be operationalized, and the same applies to any major revisions to existing methodologies.

Reviews

Puro Standard Methodologies are revised as necessary. A review is made when significant changes have occurred in, for example regulation, technologies, carbon accounting, or the scientific knowledgebase. Generally, the methodologies have been reviewed every two years up until now.

Fees

There are no fees associated with methodology development under the Puro Standard. Working group participants are not compensated for their work.