

Additionality of Global Biochar C-Sink Credits - Global Biochar C-Sink (2024), Version b3.0

This document describes the pathway how to assess additionality on level of the C-sink methodology and is valid for the following methodology:
Global Biochar C-Sink

Initial situation

In the "Guidelines for the Certification of Biochar-Based Carbon Sinks Version b3.0 of 25th January 2024" (i.e. the "Global Biochar C-Sink"), the topic of additionality is addressed in several chapters. CSI hereby publishes a clear summary of the requirements for demonstration of additionality at project level. It refers to the Global C-Sink Guidelines.

Baseline for the additionality test

The baseline for this additionality test shall always be the "business as usual" scenario, in which no biochar is produced or applied in a carbon preserving way.

The required additionality test on project level follows a 3 step approach:

Additionality test

1. Assessment of regulatory requirements for biochar production and application as a removal technology

To assess whether biochar production and carbon preserving application is already required in the country where the supplier operates, all relevant permits and regulations for the supplier need to be checked. A project is only additional, if no legally binding requirements for the production and carbon-preserving application of biochar can be identified.

2. Additional Carbon Removal

For removal projects, the generation of carbon sinks is an inherent part of the services provided, and thus is additional. Unlike carbon reduction projects, which reduce something (the emission of greenhouse gases), the essence of a removal project is that it explicitly creates a C-sink. It removes emissions from the atmosphere to mitigate the effects of climate change. The fact that most biochar projects have additional benefits (e.g. fertilization, climate change adaptation) is a pleasant aspect of these projects and a contribution to SDGs but should not distract from the fundamental nature of these projects: The generation of the carbon sink is a service that should be remunerated. In the "business as usual" scenario, no biochar is produced or applied in a carbon preserving way. However, a project must ensure that it is removing more emissions than those that are created through its operation process. The accurate representation of the climate impact of each C-sink is ensured by the basic structure of the calculation methodology and the requirement to fully offset all emissions from the process (Global Biochar C-sink standard chapter 4.2 and 4.3).

Additional safety is achieved by considering the C-sink efficiency of the transformation process: The C-sink efficiency of a pyrolysis facility is a measure of the part of biomass-carbon that is preserved by a technical transformation process as a potential C-sink. Therefore, the producer commits to publish the C-sink efficiency of the production facility annually is required as per Global C-sink standard chapter 8.1. It makes the clear objective of transforming a growing proportion of biomass carbon into carbon sinks transparent.

3. Biomass Feedstock Additionality

Biochar C-sinks must be additional to natural C-sinks that could or would have been realized with the same biomass feedstock in the absence of the biochar C-sink solution. Therefore, the baseline needs to be assessed thoroughly regarding natural C-sinks that could have been realized. It is required to demonstrate that the C-sink potential of the project is superior by demonstrating compliance of the feedstock sourcing with the safety measures given in the Global Biochar C-sink standard chapter 5.3.