Reducing greenhouse gas (GHG) emissions is the primary goal in fighting global warming. However, to achieve net zero carbon dioxide (CO₂) or GHG emissions, we will need to deploy carbon dioxide removal (CDR) to counterbalance residual emissions, as laid out in the latest Intergovernmental Panel on Climate Change (IPCC) report.

The IPCC defines CDR as a set of “anthropogenic activities removing CO₂ from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products.” Given their potential to create ‘negative emissions’, scaling these activities has gained significant traction among scientists and policymakers seeking to reduce the stock of atmospheric CO₂.

Achieving net zero and, further, net negative emissions requires building public trust, creating new policies, and scaling up multiple CDR methods. To stand at least a 50% chance of limiting global warming to 1.5°C with no or limited overshoot, realistic pathways project the need for 20–660 gigatons net negative CO₂ emissions until 2100, meaning gross CDR deployment will likely need to be even higher.

CDR methods vary significantly in terms of how CO₂ is extracted from the atmosphere, where the carbon is stored, and for how long. They also vary in terms of resource requirements, and other positive and negative effects they create beyond the climate benefit they deliver.

**Overview of CDR methods**

Generally, carbon stored in terrestrial reservoirs and living biomass (short-cycle removal methods) is more vulnerable and exhibits shorter storage durations than carbon stored in geological reservoirs (long-cycle removal methods). However, large-scale increases of carbon removals via both method groups will be necessary to limit global warming to 1.5°C or 2°C.
Why high-quality certification for CDR matters

To ensure environmental and consumer protection, stakeholders need to measure, validate, and certify carbon removals. Presently, there is a lack of common rules and standards on accounting, monitoring, reporting and verification (MRV), and the definition of carbon removals. Creating an effective certification framework can ensure that only high-quality and reliable CDR is credited. This is a first step toward helping the EU and other jurisdictions recognise and reward CDR without hampering decarbonisation, thereby aiding in the scale-up of carbon removals.

Certification as the foundation for strengthening CDR in EU climate policy

The European Commission has recognised the need to develop a set of standards for certifying carbon removals and encourages the use of innovative solutions to capture, recycle and store CO₂ by farmers, foresters and industries. The Certification Framework for Carbon Removals (CRCF) will provide the first regulatory framework to monitor, report, verify and certify activities which remove CO₂ from the atmosphere in the EU. Highlights of the CRCF proposal include:

• Voluntary regulatory framework for certifying carbon removals in the EU according to quality criteria for carbon removal activities to ensure carbon removal benefit and sustainability.

• Categorisation of removal methods into three categories: permanent carbon storage, carbon farming and carbon storage in products.

• All information on the certified removals to be made publicly available and traceable.

What’s next in the EU Certification Process?

The European Commission has proposed a regulation that requires co-adorption from the European Parliament and Council, and will be accompanied by a technical expert group to develop the certification methodologies. The Commission will further create delegate and implementing acts to clarify operational aspects of the regulation.

Bibliography


For further information, visit www.carbongap.org www.bellona.org www.catf.us/europe