Policy Brief No7

Carbon Farming for Carbon Removals

What is the challenge?

Carbon farming is a whole farm approach that aims to optimise carbon capture, through a range of practices, from the atmosphere to plant material and soil. Many farming techniques that support carbon farming (such as regenerative agriculture, conservation agriculture, agroforestry) exist, but are not practiced on a large scale in the EU. The land sector is currently a significant net emitter of CO_2, however due to its unique characteristics it has the potential to absorb large amounts of carbon and is key for reaching a climate-neutral agricultural sector and economy. For instance, the implementation of conservation agriculture practices in the EU can lead to carbon sequestration of approximately 137 Mt per year. In addition, organic carbon is essential for healthy soil and crop production.

To encourage the agricultural sector to deliver on climate action and contribute to the European Green Deal, it is necessary to create direct incentives for the adoption of climate-friendly practices through carbon farming, as currently, there is not yet a targeted policy tool (it is under development[28]) to significantly incentivise the increase and protection of carbon sinks for land managers.

Policy Recommendations

EU Level:

- Accelerate the development of tailored certification methodologies for the different types of carbon removal activities based on the QU.A.L.ITY criteria set out in Carbon Removal Certification Framework, CRCF) (Regulation COM (2022) 2022/0394(COD)).
- Support the work of the Carbon Removal Expert Group on the voluntary certification of carbon removals, that began in March 2023, and request an assessment of whether there is a functional EU **carbon farming tool** that accurately measures the impact of carbon sequestration that can be developed.
- Continue to develop the **standardisation of monitoring, reporting and verification methodologies** to provide a clear and reliable framework for carbon farming.
- Develop baseline soil testing that measures the carbon “sink” status of the current production system, so that a net carbon assessment can be computed that reflects carbon sequestered to date resulting from historical production processes.
- Explore the option of verifying carbon farming through secure, private digital ledgers.
- Continue to promote carbon farming practices through the CAP, for instance through 'good agricultural and environmental conditions’ (GAEC) standards, ‘eco-schemes’ and rural development agri-environmental and climate measures, and other EU policies.
- The recommendations of the Carbon Removal Expert Group on the voluntary certification of carbon removals support the development, in the medium to long term, of an EU-wide carbon farming system, with supporting tools, that is based on best practices and integrates carbon farming credits that **allows farmers to get paid for adopting climate-friendly carbon farming practices**.
- Develop a range of **financial incentives** on a national and EU level that support the adoption of and transition to agricultural techniques that promote carbon farming including conservation agriculture practices (See Policy Brief “Adoption of Conservation Agriculture to increase the content of Organic Carbon in the European Soils), permaculture, regenerative agriculture and agroforestry. It is important that farmers are **supported in the first years** of their transition as there can be a yield dip in the first years of adoption.
- Continue to support R&D processes (like EJP SOIL) that attempt to **accurately measure the impacts** and life cycle of various carbon sequestration techniques.

[28] https://climate.ec.europa.eu/eu-action/sustainable-carbon-cycles/carbon-farming_en

- Develop **education and extension processes** that provide information to farmers on the long term environmental and economic benefits of using various carbon farming techniques.

Member state Level:

- In Italy, a public register of voluntary carbon credits in the agroforestry sector is about to be established; on 4 April 2023, the Senate Budget Commission in fact approved amendment 45.6 to bill 564 (Conversion into law of the decree-law containing urgent provisions for the implementation of the PNRR, as well as for the implementation of cohesion policies and of the CAP) which will set up the register at the Council for agricultural research and analysis of the agricultural economy (CREA). The measure - attributable to the implementation of the National Forestry Strategy - should allow for the coordination, accounting and monitoring at a central level of all those afforestation, reforestation and sustainable agricultural-forestry management activities that look at a new economic model linked to the absorption of atmospheric carbon in the soils.
- Mission booster is a special program in autumn 2022 with a focus on supporting the contribution of small and medium-sized enterprises (SMEs) to future solutions to the green challenges. The mission booster program specifically aims to support the creation of companies' innovative knowledge base for future solutions within capture and storage or use of CO_2.

Expected Impacts

- **Improved farm incomes:** Diversifying farm income streams through payments for sequestering carbon in their soils can improve farms' financial sustainability.
- **Enhanced resilience to climate change:** Higher carbon stocks in soils can support crop production while also providing protection to droughts and floods.
- **Increased carbon sequestration:** Providing payments for the implementation of carbon farming can incentivise farmers across the EU to adopt these practices and increase the carbon stock in their soils.
- **Enhanced biodiversity and soil health:** Increased carbon stock in soils can improve the overall soil health by improving soil fertility and water retention.
- **Positive environmental externalities:** The expansion of sustainable agricultural practices will support improvements in local environments.

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