

Carbon Farming Towards EU Climate Neutrality: Insights from the MARVIC and Credible Projects

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To bolster its commitment to achieving climate neutrality by 2050, the EU focuses on innovative approaches that encompass not only reductions in greenhouse gas emissions but also the scaling up of carbon removal activities. Given the growing interest in carbon farming for sequestering carbon through soil and woody biomass, the development of credible business models and robust monitoring, reporting, and verification (MRV) systems is crucial. Our study contributes to this area by designing and testing a reliable MRV framework (MARVIC) and building a European network for carbon farming (CREDIBLE).

The MARVIC project, funded under the Soil Mission to support the Carbon Removal Certification Framework, is dedicated to creating a framework for designing harmonized, yet context-specific MRV systems applicable to diverse land uses such as arable land, grasslands, agroforestry/woody crops, and managed peatlands. This project explores the integration of various components like benchmark sites, sampling schemes, data layers, farm data, remote sensing, and modeling to establish comprehensive monitoring systems and operational processing chains. Additionally, it investigates different options for meeting the QU.A.L.I.T.Y criteria.

Meanwhile, the CREDIBLE project aims to shape EU carbon farming by engaging stakeholders to collaboratively address 11 current challenges to the diffusion of carbon farming. Our role in leading a focus group within this project is to utilize experiences from coordinators of existing long-term monitoring sites (LTMs) and data users including MRV developers. The goal is to develop guidelines and considerations for setting up and managing LTMs, ensuring the findability, accessibility, interoperability, and reusability of soil carbon data and connected experimental data for MRV systems.

At the Symposium, we will present insights into the role of LTMs in carbon farming, along with the challenges and opportunities for their use in MRV systems, drawing from the MARVIC and CREDIBLE projects.