Digital Decarbonization Tools in Agricultural Finance: The DecarbFarm Case Study

Katrina Muizniece
Researcher and Lecturer, Latvia University of Life Sciences and Technology, Latvia

Inga Grinfelde
Latvia University of Life Sciences and Technology, Latvia
Lietuvos Inženierijos Kolegija, Higher Education Institution, Lithuania

Jovita Pilecka-Ulcugaceva
Latvia University of Life Sciences and Technology, Latvia

Abstract:

Achieving the European Union's Net Zero target by 2050, as mandated by Climate Law and Paris Agreement, requires decarbonization across all sectors, including agriculture. Digital decarbonization decision support tools, such as DecarbFarm, can support farm-level decarbonization. Financial institutions as key stakeholders in agriculture financing, play significant role in driving decarbonization within their credit portfolios. Therefore, it is essential to consider financial institutions' needs during the development of agricultural decarbonization decision support tools to ensure inclusion of the necessary features. This study assessed the perceived usefulness of the DecarbFarm tool among Latvian credit institutions and identified features required for effective agricultural customer assessment. Data were collected through a structured survey disseminated to all Latvian credit institutions. Results indicate that credit institutions value GHG calculations, decarbonization plans, climate risk evaluation, and biodiversity assessment for agricultural customers now and over the next five years. In addition, the respondent institutions have confirmed the need for a digital tool to ensure different aspect evaluation for their agricultural customers. Furthermore, the Latvian credit institutions have highlighted additional aspects the digital tools should entail, to simplify their internal evaluation processes. The findings validate the current development trajectory of the DecarbFarm and provide actionable input for prioritizing future feature development.

Keywords:

Agricultural decarbonization, greenhouse gas emissions, decision support tool, agricultural finance, decarbonization planning.