

## PRACTICE ABSTRACT

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In WATERAGRI we have the ambition of creating an impact on European and National level policy from our research findings. While the project does not focus on assessing policies, the scientific findings will allow understanding some of the effects that certain policies may have or may need to have. The project results shall support the European Union and its Member States in providing them with evidence-based data, information and knowledge on water and nutrient management at the farm and catchment level scale across the Boreal, Continental and Pannonian climate zones.

The multi-actor team does so by providing evince-based case examples of pollution reduction through efficient technological water and nutrient management options in agriculture that are adapted to local needs. The effectiveness of these measures is assessed through both technical and sustainability assessments. These can directly feed into Member States' CAP Strategic Plans and their Farm Sustainability Tool for nutrient management.

In addition, the consortium members assess climate change adaptation potential of the diverse set of technical measures and modelling scenarios as well as their impact on ecosystem. The results can directly link to the Circular Economy Action Plan (CEAP) and provide evidence for the critical elements of a regulatory framework for certifying carbon removals in agriculture. As such, the team assessed the effects of climate change on carbon dioxide exchange of south Swedish temperate peatlands, which were either unmanaged or subject to water level regulation. The results showed that all managed and unmanaged systems under future climate scenarios could serve as carbon dioxide sinks throughout the experimental period. Under the current climate scenario, water level management had a negative effect on the carbon dioxide sink function, and it had almost no effect under RCP 2.6. Therefore, the researchers conclude that water level management is necessary for RCP 8.5, beneficial for RCP 4.5 and unimportant for RCP 2.6 and the current climate (Salami et al., 2021).