# The MYR Project (2018-21): Climate smart management practices on Norwegian organic soils

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Cultivated organic soils account for $\sim$7% of Norway's agricultural land area, and they are estimated to be a significant source of greenhouse gas (GHG) emissions. The project 'Climate smart management practices on Norwegian organic soils' (MYR), commissioned by the Research Council of Norway (decision no. 281109), aims to evaluate GHG (e.g. carbon dioxide, methane and nitrous oxide) emissions and impacts on biomass productivity from three land use types (cultivated, abandoned and restored) on organic soils. At the cultivated sites, impacts of drainage depth and management intensity will be measured. We established experimental sites in Norway covering a broad range of climate and management regimes, which will produce observational data in high spatiotemporal resolution during 2019-2021. Using state-of-the-art modelling techniques, MYR aims to predict the potential GHG mitigation under different scenarios. Four models (BASGRA, DNDC, Coup and ECOSSE) will be further developed according to the soil properties, and then used independently in simulating biogeochemical processes and biomass dynamics in the different land uses. Robust parameterization schemes for each model will be based in the observational data from the project for both soil and crop combinations. Eventually, a multi-model ensemble prediction will be carried out to provide scenario analyses by 2030 and 2050. By integrating experimental results and modelling, the project aims at generating useful information for recommendations on environment-friendly use of Norwegian peatlands.