

Research Project

GHG emissions from peatlands under different land use

Third-party funded project

Project title GHG emissions from peatlands under different land use

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Department

Project start 01.11.2013

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Status Completed

Peatlands are characterized by high greenhouse gas (GHG) fluxes. Natural peatlands accumulated carbon over thousands of years, but may emit CH₄. The drainage and use of peatlands turn them into a hotspot of CO₂ and N₂O emissions. Rewetting of drained peatlands offers the possibility to reduce considerably the greenhouse gas emissions. This potential was recently accepted by the introduction of the new eligible article 3.4 activity "Wetland Drainage and Rewetting" under the Kyoto protocol. Switzerland can now decide to account for Wetland Drainage and Rewetting. The goal of this project is i) to improve the emissions factors of organic soils under different land use for climate reporting under UNFCCC, ii) to evaluate the potential of Wetland Drainage and Rewetting in Switzerland and iii) to develop climate smart management option for agriculture use of organic soils. Therefore, greenhouse gases (CO₂, CH₄ and N₂O) from peatlands will be measured under different land-use for three years. In addition, master variables driving emissions such as water level, soil moisture, soil temperature, photosynthetic radiation and vegetation will be monitored.

Keywords GHG, peatlands, drainage, rewetting

Financed by

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| 983580 | Alewell, Christine | Leifeld, Jens, Dr. | ART Reckenholz | 03.01.2012 | 03.01.2012 |