DK2: Meadow Aastrup Kaer – multifunctional land use and carbon sínks in peat soils **VIA University College**

BlueTransition



How to make my region climate resilient

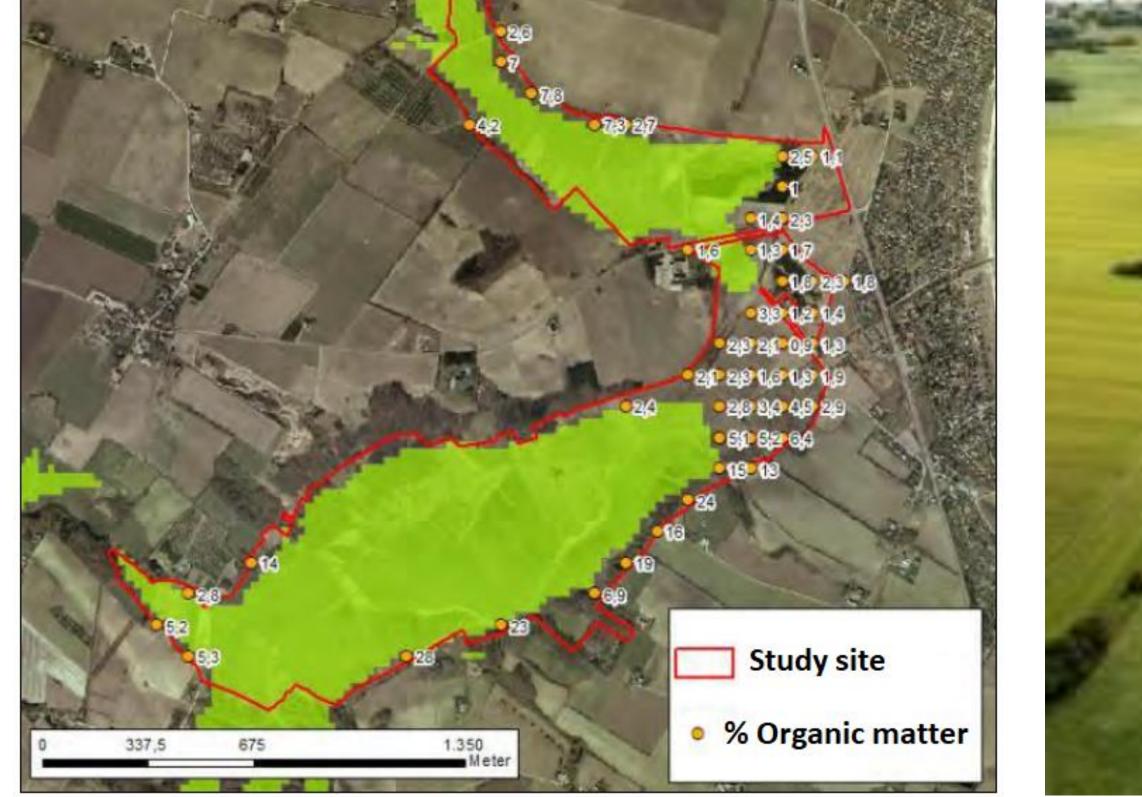
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Pilot summary

- Examine the optimal water level for capturing CO2 emissions in peat soils.
- Adapting to climate change while expanding nature and increasing recreational areas. ${}^{\bullet}$
- Investigating land use aiming at hampering decomposition of peat souls without compromising the possibility of i.e. grazing, \bullet since it is important for nature conversation and farmers. Land use should take into account multi-functionality.
- Measure and model the soil structures on a large-scale and detailed to provide recommendations for rewetting of peat soils. ${\color{black}\bullet}$
- Establishing a toolbox for geophysical investigation of peat soils.







Activities

- tTEM mapping of soil structures to provide detailed structural input for the hydrogeological modelling.
- Surface NMR and logging NMR measurements to investigate the peat hydrological properties.
- Drilling and samping for geological modelling and conceptual understanding.
- Groundwater modelling of effect of rewetting.
- Modelling of land-use scenarios, including future climate changes.
- Rewetting of farm lands, and destruction of current drainage channels.
- Investigating and implementation of water buffer zone for extreme rain events to avoud damage of infrastructure when the rivers over-flows.
- Establishment of gras-lands.



Governance

- A close collaboration is being established with the Nature Agency and Hedensted Municipality, with a view to utilizing the geophysical examinations etc. for optimal natural restoration and retention of CO2 in the project area.
- In a collaboration with the Nature Agency, Hedensted Municipality and other stakeholders within rewetting of peatland, it is described how geophysical studies can generally be used to increase the nature quality and CO2 retention in peatlands.
- Academia will be involved to establish the geophysical toolbox for peat mapping.

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