



Acid sulfate soils, why would Norway be the exception?

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The occurrence of acid sulfate soils (ASS) in Norway on any scale is unknown. There are only a few documented occurrences of ASS in Norway in relation to drained lake sediments and peat. The Norwegian Environment Agency acknowledges that our neighbouring countries suffer with the consequences of these soils, but do not accept or wish to map their presence in Norway.

ASS are recognised and commonly classified as belonging to Gleysols, Histosols or Stagnosols. On mapped agricultural land in Norway (preliminary numbers - ~50% of Norwegian agricultural land has been mapped), Gleysols occur on over 5% of the mapped area, Histosols (3%) and Stagnosols (22%). In Norway, there are many areas where fine-grained sediments potentially occur not least below the so-called 'marine limit' (ML), the highest level of the sea following the Ice Age. Taking the soil classification into consideration, the potential area for ASS occurrences in Norway is approximately 116 000 km².

In 2019, a pilot project will start in Alta – Arctic Norway. The Alta- and Tverrelva area has been chosen as a pilot area for several reasons: 1) detailed Quaternary mapping and soil mapping exists in the area, 2) Alta is a regional centre with agricultural activity, 3) the Alta river is recognised as an important salmon river and 4) soil mapping shows locally extensive areas of Stagnosols and Gleysols. This knowledge is required to develop a Norwegian methodology that enables predictions and estimates of occurrence to be made for other areas, which then can be applied to a more regional scale along the Norwegian coastal landscape.