

Renaturalisation of the raised bog in Sous-Martel-Dernier



Near-natural raised bogs are important habitats for dragonflies and amphibians. Photo: myclimate

Thanks to the climate protection project, another raised bog in Sous-Martel-Dernier can be renaturalised, which means less greenhouse gas is released into the atmosphere. Climate protection is not the only advantage arising from rewetting however, since biodiversity, the water table and tourism are also set to benefit, as is the local construction industry.

In their natural state, moors have enormous carbon storage potential. Globally, moors store 30 per cent of soil carbon, despite the fact that they cover only three per cent of the world's surface. In the past, many of Switzerland's moors were dried out using drainage ditches so that people could use the land for agriculture or harvest peat. Although they have been protected since the Rothenthurm Initiative in 1987, two thirds of the country's moors, which number over 500, are still in their drained state due to a lack of money. As a result, CO₂ continually passes into the atmosphere. Only rewetting guarantees that a drained moor is restored as a long-term store of CO₂.

The upland moor in Sous-Martel-Dernier is one of the largest areas of natural moorland in Switzerland. The moor in Sous-Martel-Dernier in the canton of Neuchâtel – a moorland of national importance – will be rewetted in 2023. The climate protection project closed the funding gap and was therefore of key importance for this renaturalisation project, which was conducted by the canton of Neuchâtel. The project is co-financed by federal contributions and by Pro Natura Neuchatel.

Project type:

Land Use and Forestry

Project location:

Neuchâtel, Switzerland

Project status:

In operation, credits available

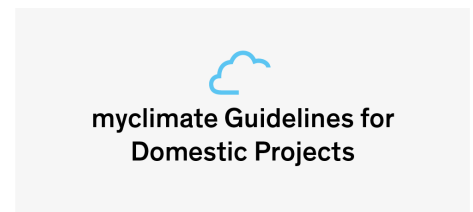
Annual CO₂ reduction:

18 t CO₂e

Situation without project

Drained moorland releases CO₂ into the atmosphere

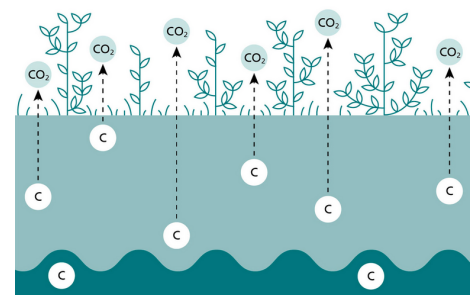
Project standard



Partner



Impressions



Drained moorlands release CO₂. Infographic: Lena Gubler, Swiss Federal Institute for Forest, Snow and Landscape Research/Raffinerie

Intact moorland for long-term carbon storage

On drained moorland, oxygen penetrates into the soil and converts the bound carbon in the peat soil into CO₂, which then escapes into the atmosphere. To rewet moorland, the drainage ditches must be closed off structurally. As soon as the moor returns to its natural intact state, the high water level inhibits the decomposition of the organic material in which large amounts of CO₂ are permanently stored. The climate protection project is made possible thanks to a new methodology used by the Swiss Federal Research Institute WSL, which estimates the amount of CO₂ emissions that are avoided as a result of rewetting. According to this approach, the top 50 cm of renaturalised moorland will bind the emissions of 925 tonnes of CO₂ per hectare over the next 50 to 100 years.

Multiple benefits

It's not for nothing that moors are protected areas. They are hotspots of biodiversity, since intact moorland provides habitats for rare or even endangered animal and plant species. Renaturalisation also improves flood protection, prevents water pollution, and improves the micro-climate and the landscape. Moorlands provide people with recreational space too, while the funds for the upkeep of the moor mostly flow into regional businesses.

This project contributes to 3 SDGs:

Find out how myclimate reports these SDGs in our FAQ.

These SDGs have been approved by myclimate:



A renaturalised bog improves flood protection and water pollution control.



Renatured bogs are large carbon reservoirs.



1 hectare will be rewetted and provide a valuable habitat for rare animal and plant species.



The sundew is a typical bog plant. Photo: myclimate



Garden tiger moth. Natural moors are both CO₂ sinks and hotspots of biodiversity. Photo: Swiss Federal Institute for Forest, Snow and Landscape Research