

Peatland restoration in Iceland

how to speed up establishment of peatland vegetation in disturbed areas following restoration?



Ágústa Helgadóttir, Sunna Áskelsdóttir & Ölvir Styrmisson
Soil Conservation Service of Iceland
agusta@land.is

Intro and objectives

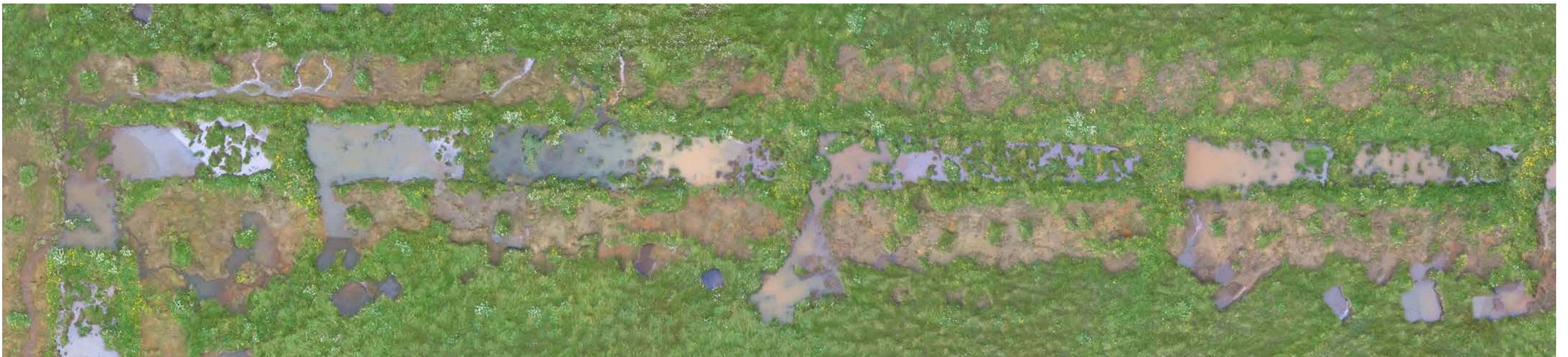
When carrying out peatland restoration, considerable disturbance on the vegetation cover often follows when the soil is moved. How quickly and what combination of vegetation covers these wounds varies greatly.

A comparative study was set up at drained peatlands in Sogn (S-Iceland) and at Ytri-Hraundalur (W-Iceland) to test three methods to speed up the establishment of peatland vegetation at the margins that were disturbed

following restoration (implemented in 2019).

The treatments where:

- i) transporting **turfs** with peatland vegetation,
- ii) spreading **green hay** from local peatland vegetation
- iii) sowing annual **grass seeds** to facilitate the establishment of local vegetation.

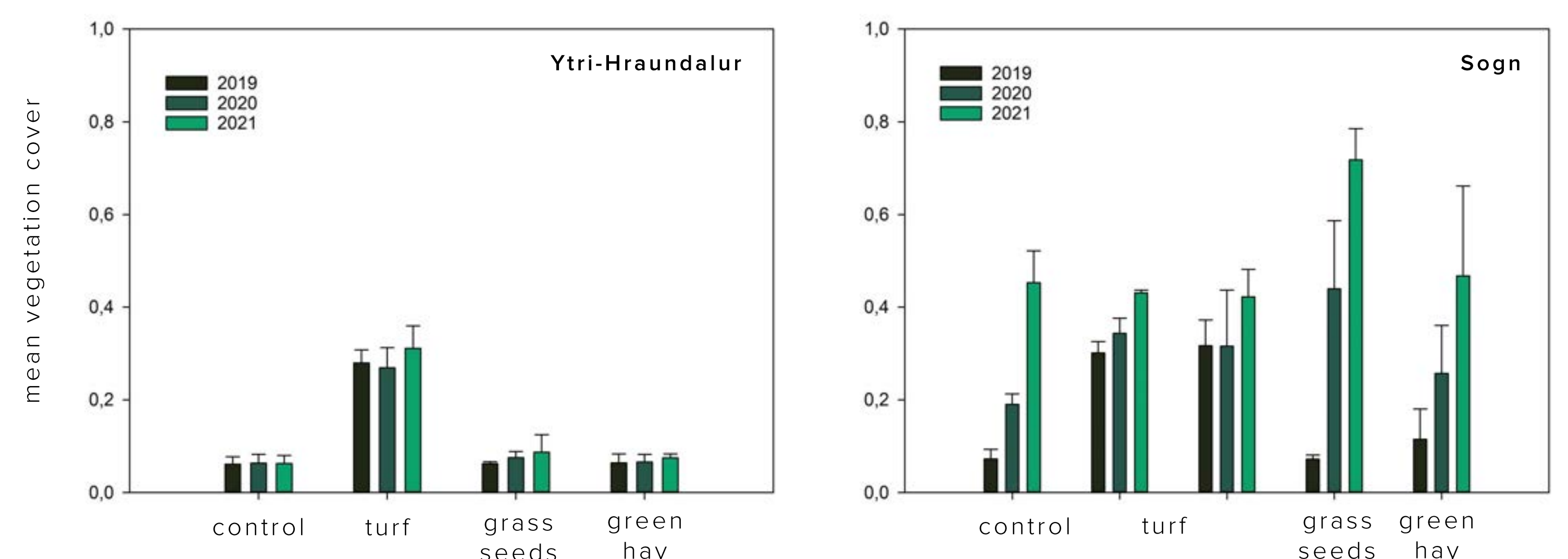


Drone image of restored peatland in Sogn S-Iceland, June 2021



Methods

- The disturbance state of the margins was measured in 2019, the vegetation and surface measurements were then repeated in 2020 and 2021.
- Vegetation cover was recorded along 50 m transects accordingly by five coverage categories; 0-10%, 11-33%, 34-66%, 67-90% and 91-100%, to obtain information on how the disturbed margins would revegetate.



Preliminary results indicate that good workmanship during restoration actions, successful raising of water table and slowing down surface water flow facilitates the establishment of peatland vegetation in the disturbed margins and there is a difference between the three methods how they speed up the establishment of peatland vegetation.