

Resolving the peatland restoration conundrum

Mapping different stakeholder interests

What are peatlands?

- Peatlands are **wet ecosystems** with a peat deposit
- Peat is dead, partly decomposed organic material that has accumulated in the place where it has been formed under waterlogged conditions. It grows at a rate of 1 mm per year
- Although they cover only 3% of the total earth's land surface, they store more carbon than any terrestrial ecosystem, making them the **unsung heroes of climate change**

Why restore peatlands?

- For centuries long, peatlands have been drained. **Drained peatlands** emit greenhouse gases. This exacerbates the climate crisis. Emissions from degraded peatlands represent 4-5% of the total global anthropogenic GHG emissions
- Other reasons for restoration: flood mitigation, improvement of water quality, protecting rare and endangered plants and animal species, reversing erosion (landslides)
- How? Restoring peatlands means **rewetting** them

Why this research?

- Despite several (legal) instruments in place, peatlands keep degrading at an alarming rate
- This thesis aims to identify the gaps in and contradictions between these instruments to arrive at policy recommendations to remedy shortcomings and upscale successful restoration projects
- **Holistic approach:** also incorporating socio-economic factors

A first crucial step is mapping the different interests at stake and the different legal regimes that are triggered

Windfarms are often built on peatlands. However, the construction of roads and turbines is **damaging**, and the resulting emissions can negate the benefits of green energy

In order to retain the carbon in the soil, peatlands need to be **wet**. This entails that certain land uses are no longer possible

What entails **good land management**? For many, a drained peatland is a sign of good management and rewetting a threat to the quality of the land. **Peer-learning** and **education** can help altering these ideas

Peat is still extracted for fuel, whisky production, but mainly to use as **horticultural medium**. Some of these economic activities bear **cultural significance**, complicating their phase-out

A large part of drained peatlands worldwide is used for **agriculture**. In the EU: 25% of all peatlands. They are primarily used for animal husbandry

Photo: degraded blanket bog on Yell, Shetland

- Peatland restoration intersects with many **different legal regimes**, including climate, energy, agriculture, biodiversity and planning, with potential for both synergies and conflicts
- Harmful (extractive) activities on peatlands can sometimes be **rooted in tradition**, further complicating their phase-out
- Sometimes degraded peatland is not recognised as such, and landowners can still consider themselves "environmental stewards" (although not always)
- Peatland restoration often requires a **change in mindset**, as peatlands have often been considered "wastelands"

next steps

Identifying parameters that ensure a holistic approach, taking the different perspectives/issues into consideration

Analysis of relevant international and European instruments

Two national case studies:

- 1) Belgium
- 2) Scotland

Policy recommendations