

Peatland restoration



Background

An estate in the north of Scotland undertook a variety of measures to restore an area of peatland in order to reduce carbon loss, increase carbon sequestration, enhance peatland ecosystem functions and make the site more resilient to climate change with advice from a specialist Peatland Action advisor.

There was an area of degraded peatland, with a number of issues including:



This peatland restoration project was funded mainly from NatureScots Peatland ACTION fund, with financial and in-kind contributions from the estate.

Approach

Peatland habitat was restored by:

Blocking and re-profiling ditches.

Re-profiling, stabilising and re-vegetating areas of bare or badly eroded peat.

Removing non-native conifers.



Cost and benefits

The financial cost of the peatland restoration project was supported using the NatureScot Peatland ACTION fund, with financial and in-kind contributions from the estate.

The carbon emissions reduction of the project has been calculated using the methodology developed for the Peatland Code and the Peatland Code Emissions Calculator. The valuation of the reduction in carbon emissions (in tonnes of CO₂ equivalents) can be either based on the non-traded price of carbon (i.e the shadow price of carbon that is used in government project), or the traded price of carbon, which is currently much lower.

Below shows the costs and benefits on a per ha bases, based on an assumed project duration of 50 years and no leakage (increased emissions on the Estate as a result of displacement of land management activities due to the restoration).

Peatland restoration delivers additional natural capital benefits in terms of reducing soil erosion and run off, improving water quality and contributes to reducing downstream flood risk.

Table with cost and benefits – Peatland restoration

Annual Marginal Costs	Per Hectare (£)
Restoration costs amortized over 50 years at 4%	33.65
Fees amortized over 50 years at 4%	1.68
Total	35.33
Annual Marginal Benefits	
Using non-traded price	150.72
Using traded price	12.51
Total using non-traded price	150.72
Total using traded price	12.51
Annual Marginal Cost: Benefit (non-traded)	115.38
Annual Marginal Cost: Benefit (traded)	-22.83

Challenges

There is insufficient data available to measure and value other material impacts in terms of: water quality regulation; soil quality and erosion regulation; and wild species diversity, nor other benefits relating to livestock production, wild food (game), flood regulation, recreation and education.

More information

NatureScot Peatland Action: <https://www.nature.scot/climate-change/nature-based-solutions/peatland-action-project>

Peatland Action – Fund – How to apply <https://www.nature.scot/climate-change/nature-based-solutions/peatland-action/peatland-action-fund-how-apply>

Peatland restoration <https://soils.environment.gov.scot/resources/peatland-restoration/>