3. Measuring, monitoring and improving our knowledge

Surprisingly, we do not accurately know how deep much of the peat is across Scotland. Peatland ACTION is asking all grant recipients to measure peat depths across their sites to help build up a more accurate picture of the peatland resource.

In collaboration with the Scottish **Environmental Protection Agency** (SEPA) we have an extensive hydrological monitoring network to measure water tables in response to rainfall events.

Continued monitoring programmes will assess the effectiveness of restoration techniques in a range of settings. Collectively, these actions will help inform management and restoration efforts in the future.





Some bogs are several metres deep. A peat core is extracted from Blawhorn Moss. Lothian.

4. Getting in touch

We want to build on our restoration efforts to create a healthier peatland

Please visit our web pages for more information: www.nature.scot/peatlandaction

email: peatlandaction@nature.scot

landscape for people and nature. Therefore, we and our partners are organising a number of peatland **Demonstration Events** across the country and we have produced a number of best practice peatland restoration videos: www.nature.scot/ peatlandactionvideos The Scottish Rural Development Programme (SRDP) also offers funding to restore and manage peatland habitats: www.ruralpayments.org A Peatland ACTION demonstration event. To contact the Peatland ACTION team with details of any potential projects, please nature.scot/PeatlandACTION

Scottish Natural Heritage Dualchas Nàdair na h-Alba

Peatland Scotland's Peatlands Ath-stèidheachadh talamh mònach na h-Alba

What do peatlands do for us?

- Helping us to reduce the effects
 of climate change by storing almost
 25x as much carbon as the rest
 of all vegetation in the UK. This
 is equivalent to over 140 years of
 greenhouse gas emissions from
 Scotland!
- Internationally important habitats, home to rare plants, invertebrates and birds.
- A regulator of water flow and quality, therefore important in flood management, fisheries and drinking water supplies.
- Places of employment many upland peatland areas produce store lambs which are sold on for fattening in the lowlands.
- A place for recreation hillwalking, deer stalking and grouse shooting.
- Culturally significant landscapes and valuable archives of our past.
- A natural defence against wildfire, the high water table reducing risk and slowing spread.
- Of benefit to those managing grouse for sporting interests since peatlands in good condition provide an abundance of invertebrates on which grouse feed.

With an appreciation of carbon storage and wider benefits of healthy peatlands, the Scottish Government has set ambitious targets for peatland restoration, asking Scottish Natural Heritage to deliver the project, known simply as Peatland ACTION, contributing to the objectives of Scotland's National Peatland Plan. (www.nature.scot/peatlandaction)

1. Scotland's peatlands are in poor condition

Over a fifth of Scotland's land area is made up of peat soils. They cover vast tracts of the northern and western highlands and islands, parts of the Central Belt, and large swathes of Galloway and the Borders. Many peatlands are within a short distance of our towns and cities.



Erosion in upland blanket bog, Grampian.

There are two main types of peatland:

Blanket bog covers 23% of our land area. It forms in cool, oceanic climates on gently sloping ground with poor drainage. Found throughout the uplands, but rare globally, Scotland holds a significant proportion of the European and World resource. Blanket peat is also our largest terrestrial carbon store, holding around 1.6 billion tonnes of carbon.

Raised Bog is mostly found in the lowlands, where they appear as domes of peat growing to 10 metres or more in height. They are solely rain water fed, with a waterlogged, acidic surface lacking in nutrients.



Forestry plantations covering half of Carnwath Moss, a lowland raised bog, Larnark.

Both types of peatland have been damaged by past and present management. It is estimated that more than 80% of Scotland's peatland is in poor condition and could therefore benefit from restoration of some kind.

It is an increasing priority to restore our bogs, since research has shown that climate change could further restrict the area over which new peat can be formed in the future, with degraded sites being particularly vulnerable.

One of the most important features of successful peatland restoration is having in place a restoration chain of action:

- knowledge of what needs to be done:
- 2. practical expertise to carry out the restoration work;
- 3. a willing landowner/manager;
- 4. sufficient resources to undertake the work;
- the know-how to secure resources; and
- 6. the commitment and support to maintain the benefits.

2. What is Peatland ACTION doing to help?

Peatland ACTION is primarily about delivering on-the-ground peatland restoration across Scotland.

Since the project began in 2013, thousands of hectares of peatland have benefitted directly from physical restoration funded by Peatland ACTION.

Project sites have ranged from exposed upland blanket peat, forest to bog conversion, and lowland bogs close to urban areas and farmland.

Each setting has required different restoration techniques and presented unique challenges, but ultimately achieved what we set out to deliver.



Blocking old drainage ditches to raise water levels on lowland raised bog, Flanders Moss, central Scotland.

We are committed to working with land managers, contractors, advisors and the public to raise awareness of the short and long term benefits from restoring peatlands, as well as the wider benefits to water quality, farming practices, carbon storage, flood alleviation, and biodiversity.