

Pealand restoration on Armadale Farm in the Flow Country involves blocking drains with plugs of peat to retain water across the area. This reduces peat run off and erosion, and encourages the recovery of sphagnum moss and other plant regeneration

Carbon benefits to flow from UNESCO designation

In June 2024, Scotland gained its sixth UNESCO World Heritage site: the Flow Country in north-east Scotland which is considered the most outstanding example of a blanket bog ecosystem in the world. Such a prestigious international accolade will help to bring economic benefits to the region through tourism, but it is also hoped that the World Heritage 'brand' will attract the big investors in the carbon market as landowners across the region are encouraged to help to restore degraded peatland and sequester carbon.

To take full advantage of the potential of carbon funds, peatlands will have to be restored at scale and this is the aim of the Flow Country Green Finance Initiative (FCGFI), which has been established by The Flow Country Partnership – previously the Peatlands Partnership – which brings together stakeholders across the region from crofters, farmers, and landowners to local businesses, residents and local government to "grow the resilience of the Flow Country and its people".

Graham Neville, Head of Operations North – NatureScot, explained the importance of the UNESCO designation for the Flow Country: "This shines the spotlight firmly on the importance of blanket bog for its natural habitat and contribution to biodiversity, but also to its carbon storage potential. Scotland holds 30 per cent of the world's blanket bog, which in the Flow Country stores 400 million tonnes of carbon. However, the ability of these peatlands to store carbon is only possible if the bogs are kept in a healthy condition and, of the 187,000 hectares within the World Heritage Site, 65,000ha is in some way degraded. So, the focus of our work is bringing that 65,000ha of peatland back to functioning health to improve biodiversity and increase carbon sequestration.

"We hope that the World Heritage Site designation acts as a catalyst to drive an increase in peatland restoration uptake and to use the World Heritage brand to achieve a higher price for carbon credits from this region. This will not only help landowners to restore peatland and derive an income but revenues will also be used to invest in the communities within the region."

The FCGFI has been developed to support landowners undertaking peatland restoration by providing management support for each project, from scoping and planning, applying for Peatland ACTION funds, contractor tendering and managing cashflow for the projects – taking the admin out of the whole process.

The FCGFI is currently running two pilot projects to test its management model but within the next five years it aims to support up to 25 peatland restoration projects and to market these as an aggregated carbon credit scheme to attract larger investors in the carbon market.

Graham said: "If we are going to attract large-scale investors we need to be operating at scale, not marketing small individual carbon sequestration projects. We know that there's big sums of money from investors now aligning into the natural capital markets but, while they're not flowing yet, we need to aggregate our packages of restoration across the Flow Country to access these potentially high-ticket, multi-million-pound investments.

"However, first we need to establish a track record so the two pilot projects, which combined cover nearly 1,300 hectares, will help us demonstrate our high-quality project delivery."

Kirsty Mackay, Peatland Restoration Officer for the Flow Country Partnership, has been involved with the two pilots and said the success of the venture will be in blending both public and private finance: "The Flow Country Green Finance Initiative was established through a grant provided by FIRNS – the Facility for Investment Ready Nature Scotland – with the aim of scaling up peatland restoration in the region by blending public and private finance. We have public funding through Peatland ACTION grants for delivering peatland restoration, and from the private sector we have the Peatland Code process, where you can sell carbon credits, but we are also looking at wider sources of private funding, such as philanthropic or Environmental, Social and Governance investment.

Kirsty added: "In addition to managing the restoration projects on behalf of landowners we've also been developing the Peatland Code side of things: getting the projects registered on the UK Land Carbon Registry, carrying out the Peatland Code work for the first validation and ultimately engaging with buyers on their behalf. As these are long-term projects we will also be involved in the management of the monitoring and maintenance for the peatlands, so the FCGFI really does share all the risks."

The two pilots under way involve peatland restoration on a hill farm and on a farming and sporting estate. On the hill farm, 880ha of land is being restored by blocking and reprofiling artificial drains using peat dams, with some gully blocking with peat surface bunds and hagg reprofiling – this is taking place in two phases and will be completed by November 2025. On the estate, the 410ha restoration project involves blocking and reprofiling artificial drains using peat dams, with a significant portion of gully blocking with peat (or peat mineral) surface bunds, some hagg reprofiling and micro-erosion repair. This will be completed in February 2025.

Joyce Campbell is involved in the first pilot at her 2,300ha hill farm at Armadale, near Bettyhill on the north coast. She was interested in being involved in the project so she could build on the 160ha of peatland restoration work she had been able to undertake in early 2024. This was funded by SSE Renewables, which was developing windfarm on nearby land which was a former forestry plantation. She said: "I had initially been hesitant about getting involved in peatland restoration until I spoke to a very early adopter of this process and witnessed their positive results.

"I wanted to do my bit for climate change and to future proof my business so I'm grateful for the support I have got from FCGFI to enable two more phases of peatland restoration to be undertaken on this land which is SSSI designated."

The restoration involves blocking 210km of drains across 880ha of peatland that were created in the 1960-70s. A peat plug is taken from surrounding area, and placed into the drain to create a dam and the steep sides of the old drain are flattened off. This creates a system of small pools behind each dam which retains more water in the environment, reducing run off and erosion, and encourages recovery of sphagnum moss and other plant regeneration.

Joyce added: "The FCGFI has taken over the management of the whole project from organising the initial peatland surveys and planning, overseeing the contractors and any snagging work, as well as verifying the work required under The Peatland Code. The FCGFI consults with me at every stage, and I like the fact they are using local contractors – John Mackay Limited – so they are supporting the local economy, and, in small communities like ours, that's pretty important."



Hill farmer Joyce Campbell is enjoying seeing life come back to the peatland: bog cotton. Insert: golden plover

While the two pilot projects are under way, the FCGFI team is also building a financial model which will examine the best type of contract that provides a fair income for the landowner while enabling the FCGFI to cover its own costs

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Kirsty added: "The idea is that over time, our scale approach will also accrue profits through this process that would then be used for the Flow Country Partnership's charitable aims, for example, to fund community benefit projects."

The team is working on developing a pilot common grazing project to show how the FCGFI could work for this type of landholding, as Kirsty explained: "In the case of peatland restoration on common grazing, the landowner can't do anything without having the common grazing shareholders on board, and likewise, the common grazing shareholders can't really do anything peatland or carbon finance wise without the landowner because they have the rights to the carbon, so that has to be a collaborative process for it to work

"There are a lot of common grazings in the Flow country with degraded peatland so it's quite exciting as it could unlock quite a lot of peatland restoration potential. This would be a good way to make more carbon funding potentially accessible to a wider range of land holdings – not just landowners, but the shareholders as well."

The increase in peatland restoration projects will also be a benefit for local contractors and the Partnership also aims to build capacity through skills development and training to encourage more contractors to get into the sector.

Beyond peatland and carbon credits, the new UNESCO World Heritage Site is also a potential marketing opportunity for local businesses and estates to use the Flow Country brand to promote their own services and products from the region.

Graham added: "Our focus now is on developing a pipeline of peatland restoration projects to create scale and to mobilise the big carbon finance investors.

"We've got a five-year programme where we are aiming to create 25 restoration projects for our portfolio and that should give us the scale to attract many hundreds of thousands, if not millions, of carbon credits from large-scale investors.

"The FCGFI enables smaller landowners to restore peatland but also to be part of a much larger aggregated portfolio of carbon sequestration that can attract larger carbon investors, so if landowners in the region are interested in restoring peatland on their land and taking advantage of the FCGFI offer, we'd like to hear from them."



Local contractors are benefitting from the peatland restoration work