

Peatland Action Programme – lessons learned

Anja Byg and Paula Novo,
 The James Hutton Institute

January 2017

Executive summary

In recent years, peatland restoration has attracted increasing attention due to the multiple services and benefits which peatlands provide. In 2012 Scottish Government launched the 'Peatland Action Programme' to promote restoration to land managers. This project used interviews to capture the experiences gained by seven of the eleven Action Officers employed through the initiative between 2012 and 2015.

Key findings

- Motivations for restoration included a mixture of private benefits as well as considerations for societal concerns such as climate change and watershed management, and varied hugely amongst land owners and managers. Good relationships were a key factor and the showcasing of examples of successfully implemented peatland restoration projects was an important tool in overcoming barriers.
- Advantages of the Programme included a simple application procedure, a quick turn-around time for payments, flexibility in the selection of approaches to fit particular circumstances, and advice and assistance from the peatland action officers on the ground, at times building on already established working relationships with land managers.
- The Programme resulted in successful peatland restoration, as well as building expertise amongst Programme officers and contractors. Continuity of funding support was seen as crucial to maintain and expand this knowledge base and to sustain interest and momentum.
- Barriers included cultural preconceptions such as concerns over drainage or resource constraints, and the perceived impacts of peatland restoration such as the creation of large amounts of standing water.
- A key challenge was identified in the short timeframe for the implementation of restoration actions (projects had to be applied for and completed within the same financial year), which limited what could be achieved and created risks of not being able to finish projects on time.

Overall, the Peatland Action Programme was thought to be very successful in promoting peatland restoration, and could serve as a model for future projects. However, a number of open questions remain in relation to the best approaches. While targeting of specific priority areas and coupling restoration funds with management obligations may increase the efficiency of peatland restoration outcomes, they might also reduce the willingness of land owners to take part.

1. Background

Peatlands cover more than 20% of Scotland's land surface (Bruneau and Johnson 2014). In recent years they have attracted increasing attention due to the many benefits society derives from them. These include carbon storage, regulation of water quality and flows, and biodiversity. In addition, peatlands serve as historical archives which can tell us about past climatic conditions as well as past human lives, and they are an important part of Scotland's natural and cultural heritage (Bain et al. 2011). However, it is estimated that the majority of Scotland's peatlands are degraded to some degree (Arzt et al. 2014) due to past land uses such as drainage, tree planting, grazing and peat cutting. Degradation results in the decline or loss of the services that are provided in a natural ecological state. For example, a degraded peatland is a source of carbon emissions rather than a sink that absorbs and stores carbon (Arzt et al. 2014).

This report aims to inform the debate on future policies in relation to climate change, and also related areas of biodiversity and water management by documenting experiences gained with peatland restoration through the Peatland Action Programme.

The Peatland Action Programme

In order to promote restoration, in 2012 Scottish Government launched the 'Peatland Action Programme' which ran until 2015. Scottish Natural Heritage (SNH) was responsible for the implementation of the Programme and did so through recruitment of 'peatland action officers' based in different parts of Scotland. Half were employed directly by SNH, while the rest worked for other organisations (namely Butterfly Conservation, The Crichton Carbon Centre, the Cairngorms National Park, the Tweed Forum, and the Shetland Amenity Trust), but funded through the Peatland Action Programme. The Programme represented the first concerted effort at peatland restoration across Scotland, and resulted in the restoration of 10,315 ha of peatland in the period 2013-2015 through 142 projects¹. Restoration took place in all parts of Scotland, on public land as well as privately owned land and land held by Non-Government Organisations (NGOs). While the Programme has come to an end, peatland restoration continues to be supported through other mechanisms such as the Scottish Rural Development Programme (SRDP).

Scope of report

This report documents the experiences gained by the peatland action officers throughout the course of the Programme and reflects on lessons that can be learned for any future peatland restoration efforts. The report is based on interviews conducted between August and September 2016 with seven peatland action officers (out of a total of eleven). As such, the report is based on a small, qualitative data set. Therefore, it does not seek to provide quantitative estimates of the prevalence of particular attitudes or phenomena either amongst the peatland action officers or the land owners and managers with whom they worked. Instead, it documents the experiences gained from particular instances of restoration and the reflections of those who were charged with implementing the Programme. More details on the methods can be found in Annex 1. Complementary work with land owners and managers is being carried out as part of Scottish Government's Strategic Research Programme, 2016-21.

¹ For more details [see the CXC report by Arzt & McBride \(2016\) on 'Availability and potential uses of data gathered as part of the Peatland Action Project \(2012-2015\) for evaluation of the delivery of ecosystem benefits'](#).

2. Findings

2.1 Programme overall

All the interviewees agreed that the Programme was very successful in terms of restoration outcomes and interest from land managers.

I think as a model it was extremely successful. There was a huge amount of positive feedback from everybody I spoke to whether they were SNH, land owners or forestry.

According to the interviewees the only exceptions were a small number of instances where restoration outcomes had not been as expected (due to the experimental nature of many interventions, especially at the beginning of the Programme) or planned restoration work could not be implemented due to, for example, adverse weather conditions. Examples included dam materials or designs not performing as expected and mulch being blown away before new vegetation could establish. Over the course of the Programme the interviewees registered growing interest from land managers to participate. Before the launch of the Programme most restoration projects had been undertaken in the north of Scotland and mainly on land in public ownership or owned/ managed by NGOs. As recognised in the interviews, this meant that both the peatland action officers and contractors hired to implement restoration gained valuable experience and increased their expertise during the Programme. Unique features of the Peatland Action Programme, that interviewees highlighted as key factors for success, were the flexibility in actions and the opportunity for learning through trial and (in some cases) error, as illustrated in the following quote:

We did trial lots of different peatland restoration techniques on forested ground as well which was really interesting. [...] so there was lots of in the field learning. And I think that was a really good approach to take with them, because it was useful for them to get involved. It wasn't just them being told 'this is your standard project here' but actually with peatland action because it was so open to suggestions you could say we are really interested in digging a massive pit in this bog to understand what is going on and to actually get that funded was amazing because everyone could learn from that.

All the interviewees thought that the Programme had come to an end at a crucial point just when momentum and experience had been built and that the termination of the Programme had damaged the trust of land owners who would now be more likely to see the Peatland Action Programme as 'just another funding fad':

There is loads of interest. The minute you say the only funding is through SRDP and we now don't know what's happening with that because of our withdrawal from the EU, then it's like 'oh, okay, so it was just a fad, just a phase'. We spent two years saying 'the government is committed to this. This is gonna be the way forward, and you know, you need to get on board because it's not gonna go away' and then, two years down the line it has. So we are now in the situation where there is loads of interest but no money.

2.2 Recruitment

Recruitment of projects was voluntary, relying on land owners and managers coming forward to indicate their interest in peatland restoration. The interviewees recounted using a number of avenues to increase awareness. This included a series of demonstration videos and other information material, produced by SNH and made available through their

website². Locally, the interviewees held public information meetings, participated in relevant events such as Highland Shows and contacted groups such as Scottish Land & Estates and Deer Management Groups as well as making use of local and social media to raise awareness about the Programme. The interviewees also emphasised the importance of visits to successfully implemented peatland restoration projects to raise awareness and engage land managers. Site visits were identified as an important way to dispel misperceptions about peat restoration and to demonstrate what could be done.

In addition, some of the interviewees reported using pre-existing contacts and pro-actively contacting land owners they thought might be interested and who they knew had peatlands. All of the peatland officers interviewed had previously worked with land owners (either for SNH or other organisations) and they emphasised the importance of personal relationships and trust, built over the course of previous interactions and many years, to engage land owners and managers in peatland restoration. Some of the interviewees not working directly for SNH also indicated that their status as 'independent' advisors had been helpful in building trust with land owners.

Finally, the interviewees emphasised taking a positive approach. While it was important to raise awareness about the currently degraded state of many peatlands, this should not be done in a way that would make the land managers feel guilty about past actions, which had often taken place in response to contemporary policies.

You don't put the blame on them, because often they just followed the rules and followed the funding and that's what they've ended up with. You know we were paying for ditches to be dug till the 70's. You can't blame someone for putting in ditches if they were paid by the metre to put in ditches.

According to the interviewees, taking a positive approach included addressing the particular interest of the individual land manager, whether this be shooting, farming, or environmental.

I suppose you really need to establish what their [the land owners] main, their vested interests are, in terms of their areas of peatland and what they currently manage, how do they manage them, what's the historical management like, what kind of condition are they in, and you can.. it doesn't take too long to kind of establish where they are coming from in terms of what their own priorities are in terms of this land whether it's purely economical or whether they have a, a sort of altruistic view in terms of climate change and climate change adaptation for example.

2.3 Advantages of the Programme

The interviewees highlighted several characteristics of the Programme, which had contributed to its success (section 2.1). These included low cost and hassle to land managers, ease of application procedure, quick reimbursement, flexibility, learning and experimenting opportunities, (semi-)independent advice and quickly visible results.

The feedback from land managers to the interviewees indicated that they felt it was much easier to apply for the Peatland Action Programme compared to many other grant schemes. It was made even easier by the active help which peatland action officers provided in putting together the proposals:

The feedback was really, really positive. Because firstly the Peatland Action Programme is easy to apply for so it wasn't anything as complicated as the SRDP application, for example. There was this

² <http://www.snh.gov.uk/climate-change/taking-action/carbon-management/peatland-action/peatland-action-videos/>

kind of openness to the scheme where you could come up with a great argument why you needed to do a survey project rather than a restoration project. You know it was a few pages you had to put together for your application and also you had somebody like me who was dedicated to getting those applications in and to support a project from beginning to end.[...] So it was very, very positive.

In addition, the turn-around time for payments was very quick, which meant that land managers were reimbursed for their costs within a few weeks. Some interviewees highlighted this as an important factor in enabling land managers to participate despite often being constrained by their finances. In addition, the work itself was carried out relatively quickly and only had few negative impacts (see section 2.8 below). Another important aspect of the Programme was its flexibility which helped the peatland action officers and land managers to choose the most suitable approaches for each individual site taking into account the causes of degradation, location, biophysical factors and current land use. Again, this was compared to other grant schemes where eligible actions are more restricted. This flexible approach also provided the arena for experimenting and learning from new experiences and approaches. This included for example experimenting with locally available materials such as discarded fishing nets instead of importing expensive materials or adapting techniques used elsewhere, such as mulching, to suit the Scottish environmental conditions.

Some interviewees also highlighted the importance of building on existing relationships with land managers. This was only possible because the peatland action officers were based in the local areas in which they were working and went out to meet with the land managers and owners. According to the interviewees, these personal relationships meant that their advice was perceived as trustworthy.

It was really like starting from scratch, if you like. Often it would be 18 months of building up a sort of relationship with someone to eventually work on an SRDP application. You know, it did take a long time, lots of visits, lots of sitting down, lots of looking at sites and looking at photographs of previously restored sites so they could understand what a site that had ditch blocking on it would actually turn into.

Those interviewees who were employed by one of the partner organisations also highlighted that their status as independent advisors contributed to their credibility in the eyes of the land managers. At the same time, some interviewees also highlighted that it had required time to build relationships with land managers and networks of expertise, especially as the peatland action Programme was the first of its kind and many of the applied restoration approaches had never been tried in Scotland before. However, all interviewees had previously worked with land managers and made use of these established relationships. Finally, some interviewees also highlighted that the success of the Peatland Action Programme was linked to its voluntary nature, which had meant that it was not seen as controversial by land managers.

2.4 Disadvantages of the Programme

Despite evaluating the Peatland Action Programme as successful, the interviewees also highlighted a number of disadvantages of the Programme. The main disadvantage highlighted by the interviewees was the limited time available for implementing funded peatland restoration activities:

I think one of the main restrictions on peatland restoration has been the timing. The problem with the peatland action funding was that we were given money, awarded money from Scottish government midway through the financial year and then we had to spend it by the end of the financial year. And the majority of peatland restoration work that needs to be done over the sort of winter period in

order to avoid the nesting bird period and the shooting season. For many estates that was a very small window of opportunity. It was just too risky for them, because, you know, if adverse weather means that there is gonna be delays in the Programme you could then go into February-March potentially...

In addition, there were not many contractors with the required skills to carry out peatland restoration. This meant that the land managers were competing for the same few contractors to carry out their projects over the same limited time period.

The interviewees also perceived the limited length of the Programme overall as disruptive, with some interviewees noting that the relatively short life time of the Programme meant that momentum and expertise as well as credibility were lost.

You spend all the time building the story and getting the folk thinking ‘maybe it’s not so odd after all’ and then suddenly, whoompf, there is no funding any more and that’s not going to help at all.

Momentum and expertise were especially the case as the current funding model (through SRDP) differs from the Peatland Action Programme and funds a more restricted set of actions compared to what was funded under the Peatland Action Programme³. Some of the interviewees pointed out that the actions funded through SRDP are only appropriate in some contexts and not applicable to peatland restoration across all of Scotland. Some interviewees also highlighted the lack of systematic, scientific monitoring of the effects of the restoration actions as a drawback of the Programme even though some had done some monitoring of their own, through for example visual assessments of changes in vegetation and water levels. Another challenge, if not disadvantage, was the lack of existing experiences with peatland restoration in Scotland. This made it quite challenging for the peatland action officers as well as contractors to advise on different techniques and to be able to predict what would work and what would not. At the beginning of the Peatland Action Programme, SNH had arranged visits to existing restoration projects in England. Nevertheless, some interviewees highlighted that the English experiences had not been directly transferable to Scotland due to the differences in climatic conditions. Accordingly, they emphasised the experimental nature of the first round of the Peatland Action Programme, and that much learning had taken place during the three years that the Programme ran.

2.5 Motivations for restoration

Some people wanted to look after the landscape so that was one motivation, definitely. Some people thought it would benefit their activities for example making the land safer for livestock to walk across.

The interviewees highlighted differences amongst landowners with regard to their motivations to participate in restoration. For some land owners the main motivations were environmental and a sense of stewardship; a desire to hand over the land in a better or similar condition. Other land owners were mainly motivated by more tangible benefits such as improved access to the land for people, livestock and vehicles (as a result of measures such as blocking ditches, making slopes shallower, re-vegetating, etc.), reduced mortality amongst livestock and grouse chicks (by blocking ditches into which the animals might otherwise fall) and improved water quality and the positive impact this was expected to have on fisheries (mainly salmon and trout). Another private benefit seen by some was to reduce the need

³ The main action available under SRDP for peatland restoration is ditch blocking. For a detailed description of the actions eligible under SRDP see ‘upland options’ and ‘bog options’ at <https://www.ruralpayments.org/publicsite/futures/topics/all-schemes/agri-environment-climate-scheme/management-options-and-capital-items/#32416>.

for controlled burning to keep areas open or to as a way of providing a readily available water source to control to keep fires under control. Controlled burning was mainly relevant for landowners who managed peatland areas for shooting.

In addition to these anticipated private benefits, some land owners were also motivated by wider public benefits such as carbon storage, water catchment management and flood reduction. However, according to the interviewees, these wider public benefits were usually not enough in themselves to motivate land owners to take action. One interviewee highlighted that peatland restoration offered land owners an opportunity to participate in broader catchment discussions. The interviewees also recounted examples of individual land owners with other motivations such as promoting other business activities, such as tourism and food branding (e.g. being able to sell their meat as 'low CO2 meat') or to maintain a good public image in general. In some cases, land owners saw potential for future carbon payments. Finally, interviewees reported that some land owners saw peatland restoration as an opportunity to prepare for and, if possible, avoid future regulations concerning peatland management (e.g. in the form of prescribed reductions of deer or livestock numbers).

2.6 Experienced benefits from restoration

While it has only been a few years since the first peatland restoration projects were undertaken, all the interviewed peatland officers emphasised the speed with which positive results had already become visible. A large part was due to repairing the visible impacts of peat degradation, such as peat hags and erosion, and increasing the water levels. Additional benefits corresponded largely to the anticipated benefits mentioned in section 2.5: loss of lambs was reduced (as dangerous ditches were blocked) and the survival rates of grouse chicks was improved as re-wetted areas provided more plentiful food in the form of insects, water quality and colour were improved, access conditions were improved, bird (e.g. golden plover and dunlin) and butterfly species recolonised areas from which they had been absent, flooding in nearby fields reduced. The types of benefits and the time it took before they appeared depended on the restoration measures taken, with some methods producing quicker and more immediately visible results than others.

2.7 Barriers to restoration and reasons for not restoring

Although interviewees reported that the response to the Peatland Action Programme had been more positive than expected and the uptake increased over the course of the Programme, they also reported a number of barriers which prevented land owners from restoring peatlands. These barriers differed depending on the type of land use and owner.

Interviewees reported a challenge with perceptions about the impacts of restoration. Often this was linked to fears that restoration would create large areas of standing water and that the machinery used to implement restoration would create a lot of damage.

I think a lot of land owners and land managers have a misconception that by restoring peatland you are just going to create a complete boggy, marshy horror habitat you know with lots of standing water but it's very localised and I think that was something that came out that it has changed people's views and mind sets when it comes to these kinds of things because they can appreciate, they have seen things on the ground for themselves and they know that by blocking a drain it's only going to localise the effects, it's not going to be a widespread rewetting project.

Interestingly, some interviewees recounted that worries about the impact on water levels in some cases meant that people living nearby were worried that restoration would increase flooding in surrounding areas, while others feared

that it would on the contrary lead to a lack of water. As illustrated in the above quote, visits to successfully restored peatlands were seen as important to change some of these perceptions.

Some barriers were linked to the aims and objectives of land owners. In some cases, land owners were not interested in, or did not have the resources necessary, to pursue any objectives which were not directly related to their main activity or which did not have any direct, financial gain. There were also examples of land owners who were holding off with peatland restoration for now, because they were hoping that in the future there would be opportunities to tap into carbon offsetting money through peatland restoration. One interviewee had also encountered climate scepticism as a barrier which prevented some land owners from engaging in peatland restoration. Another perceived barrier was the largely invisible nature of carbon sequestration as one of the benefits of restoration which made it more difficult to ‘demonstrate’ this benefit to land managers.

For farmers, the tradition of draining land could be a powerful deterrent. Blocking ditches and making areas of farmland more wet went against what they saw as the right way of managing the land. One interviewee also recounted that some farmers were reluctant to restore peatlands because they feared it would lead to an increase in Bog Asphodel. When eaten by livestock this plant can cause kidney problems and a skin condition which means that the skin blisters and gets damaged when exposed to the sun⁴. The risk of losing part of their single farm payment as a result of peatland restoration was another deterrent for some farmers. The same was true in cases where peatland restoration involved the removal of trees, and where this could potentially lead to a reduction in the value of the land. Some interviewees had also found that tree removal could pose a barrier due to the positive associations and attachment, which many people have in relation to trees.

There were Scots Pine trees on the bog that had been identified as the problem. So it was agreed that we would cut some of these Scots Pine trees, and [the owner] was very unhappy about that. [The owner] felt they were beautiful and we shouldn't be cutting down trees..., which a lot of people obviously have that view, you know, that we should be planting trees, not removing them.

Interviewees also recounted that resource constraints represented another important barrier, especially for farmers and smaller estates. Even though the turn-around time for reimbursements was short, some land owners could not participate because of financial or staff constraints.

Other barriers mentioned by some interviewees were linked to issues of land ownership. This was for example the case where a potential restoration site was divided amongst different, individual owners or held as commons. This sometimes made it difficult and time consuming to get agreement from all owners/users before restoration could be carried out. In these cases, the peatland action officers needed to spend time trying to forge agreements between different owners. This was made more tricky where ownership also involved absentee landowners who were more difficult to get in touch with and often had little interest and awareness of any peatlands on their land.

[There was a] site that was owned by two different land owners. It took about 18 months to get access to the southern half of that site. [...] The landowner... SNH had struggled to contact them for years. They didn't live locally, they were absent land owners [...] and they didn't really care, they were just like 'oh, okay, go ahead and do it'. So that's the kind of..., they were very detached from the site, they weren't.... I think it was probably just a piece of land that they happened to own.

⁴ See e.g. [http://www.wildflowerfinder.org.uk/Flowers/A/Asphodel\(Bog\)/Asphodel\(Bog\).htm](http://www.wildflowerfinder.org.uk/Flowers/A/Asphodel(Bog)/Asphodel(Bog).htm), and http://farmnw.co.uk/news/saut_disease_are_you_affected_and_looking_for_answers

Interviewees also mentioned that some land owners felt that peatland restoration involved too much hassle or saw it as too risky, given the limited time window coupled with the risk of adverse weather and the limited number of experienced contractors, which could delay the implementation of promised restoration activities (see section 2.4.

2.8 Negative impacts of restoration

According to the interviewees the majority of land managers who had participated in the Programme were satisfied with the outcomes. However, interviewees also reported a few cases where the outcomes had not met expectations. In most of these cases this was due to the largely experimental nature of especially the first round of peatland restoration projects. Even though the peatland action officers had conducted site visits to English peatland restoration projects, techniques needed to be adapted to the characteristics of Scotland and to individual settings. Examples of less successful restoration or initial set-backs included instances where mulch which had been used to cover exposed areas of peat blew away before new vegetation could take hold or materials were eroded away. In other areas, bog slides or bursts occurred. In some cases, the restoration did not have any decidedly negative outcomes but simply did not produce the expected outcomes. Again, interviewees linked this mainly to the untested nature of the employed techniques. The interviewees also provided a few examples of other causes of less successful projects, such as changes in staff during the course of projects or lack of interested volunteers in some areas (in cases where the restoration depended on volunteer work). In a few cases, there had been other negative outcomes such as the visual impact of tree removal or cases of vandalism which were linked to the increased accessibility of these sites as a consequence of restoration and installing structures such as board walks.

2.9 Awareness of peatland states, restoration and importance

It was broadly thought that the Programme had contributed to increased awareness about peatlands amongst land owners and managers. This was for example in relation to peat formation processes and the timescales required for peat to form as well as in relation to peatland restoration. However, their evaluations of land managers' existing levels of awareness differed. Some interviewees thought that most land managers had a good sense of the current state of their peatlands, while others felt that it was difficult for land managers to evaluate the state of peatlands. These differences might relate to different time scales of degradation: where degradation is relatively recent and has produced very visible effects such as peat hags, it is more easily noticeable for those working the land compared to more subtle and historic changes such as shifts in vegetation due to drainage installed several generations ago. Comments were also made on the influence of land ownership patterns with absentee owners of large land holdings less likely to have a detailed knowledge of the state of individual peatland areas compared to owners of smaller areas who live locally.

Nearly all interviewees had found that there were common apprehensions about peatland restoration at the beginning of the Programme. This was both in relation to the process as well as the outcomes of peatland restoration. Many land owners feared that heavy machinery used for restoration work would cause damage and that successful peatland restoration would lead to large amounts of standing water on their land. As a consequence most interviewees emphasised awareness raising as an important part of their role, particularly through personal conversations as well as site visits and demonstrations. They saw awareness as a main prerequisite for successful peatland restoration and conservation. In addition to the work done through the Programme, recent flooding events and media attention on flooding in general helped to increase people's awareness of the importance of peatlands.

2.10 Comparison with other options for peatland restoration

While the Peatland Action Programme itself has come to an end, Scottish Government continues to support peatland restoration through the SRDP. However, the interviewees felt that compared to the Peatland Action Programme, the

scope for peatland restoration through SRDP is more limited because of restrictions on the techniques that can be supported: ditch blocking and dams are the primary measures in SRDP of direct relevance for peatland restoration. According to the interviewees ditch blocking is an important measure to improve peatlands in some settings, while other measures, currently not covered by the SRDP, are needed in other situations.

But then SRDP was very limited in what it would fund. It was just ditch blocking you know your standard peat dams and plastic piling. Whereas you know bare peat restoration that couldn't be funded through SRDP, so all that was being funded by the Peatland Action.

The interviewees largely agreed that one of the advantages of the Peatland Action Programme was that it allowed sufficient flexibility to choose the measures most suitable for each specific site. In this respect, the interviewees highlighted their own role in offering advice on suitable methods, and to find the materials and skills needed for implementation. As other funding options such as SRDP are not specifically aimed at peatland restoration, this also means that peatland measures may be implemented as part of a larger package of other measures. While this may increase uptake, some of the interviewees worried that this type of activity may be less effective, and result in 'token restoration' without having any real impacts. However, SRDP and other agri-environmental schemes do give the opportunity to couple restoration activities with supporting management obligations (see section 2.11, below). This was seen as one way to augment and maintain the benefits, especially if restoration measures and management changes could be coordinated. Some also thought that SRDP and other agri-environmental schemes could be used to reward land managers for maintaining peatlands in good conditions, something which the Peatland Action Programme was not designed to do. One of the interviewees was currently investigating the opportunities to obtain funding for further peatland restoration and management from private companies under the IUCN Peatland Code as part of Corporate Social Responsibility initiatives which seek to offset carbon emissions⁵. This would on the one hand offer land owners with actual payments and not just reimbursement for restoration costs, but would also entail long term (50 or 100 years) management obligations.

One of the advantages of the Programme emphasised by interviewees was the relative ease of the application and speed of financial reimbursement. They contrasted this with application procedures for the SRDP and other agri-environmental schemes which they felt were more complicated, potentially preventing some land managers from applying for these other schemes.

2.11 Management obligations

In contrast to agri-environmental schemes, receiving a Programme grant did not require land owners to change any of their land management practices; although some interviewees reported that they had given advice on how management could be changed to support the implementation. On the one hand, some interviewees thought that the lack of management obligations made it easier to recruit land owners, and that introducing requirements would put people off. They saw the voluntary nature of the Peatland Action Programme as one of its strength and attractions.

On the other hand, some interviewees also thought that if there are no obligations to adjust management practices this could potentially limit the effectiveness of peatland restoration. The two views were not necessarily contradictory, and with some of the same interviewees mentioning both aspects.

I think that would obviously put some landowners off. Especially... as...in an ever changing kind of climate with predictions and everything else going on people don't know what they are going to do

⁵ <http://www.iucn-uk-peatlandprogramme.org/peatland-code>

with their land in ten years and may not want to sign up to some sort of restrictive thing. But obviously from the conservation point of view there would obviously be some benefit to saying ‘you must put twenty sheep on this area, but no more’ or whatever it might be. But also that incurs further costs.

However, they also emphasised that it was not always necessary to change management practices. Requirements would therefore need to be tailored to particular sites, depending on the causes of degradation and the current land use. Even in cases where management practices would need to be changed; these could sometimes be relatively easy and cheap, such as moving the position of feeding stations or access routes. However, in other cases more controversial and potentially costly management changes might be needed such as for example reducing the number of deer or sheep.

Some interviewees thought that land owners were becoming more willing to consider changes in their management practices, even though nothing much had changed so far. According to them, many land managers were worried that general regulations would be introduced. As reflected in section 2.5, in some cases this was a motivation for voluntary changes as a means of avoiding (more severe) regulation.

2.12 Targeting

Under the Peatland Action Programme restoration was not targeted to particular priority areas or criteria. This was linked to the voluntary nature of the Programme and the emphasis on working with land owners who were interested (see section 2.2. on the ways in which the interviewees sought to recruit land owners). Most interviewees thought that this was the right approach to take, at least for the time being. They highlighted that the voluntary approach had meant that peatland restoration was seen as uncontroversial. Furthermore, they thought that there was no need for targeting as long as there were still willing land owners who wanted to participate on their own accord.

To the interviewees the relationship with the landowners was the key to successful restoration, and they thought that refusing land owners who wanted to restore peatlands because they did not fit particular priority criteria would send the wrong message and make it harder to engage them at later stages. In addition, having to convince specific and potentially more reluctant land owners would be much more difficult to achieve. Working initially with willing land owners could also create a momentum for peatland restoration which could later on make it easier to convince the less willing ones.

I kind of think that we are still at a stage where there are lots of easy wins out there, so I think we still need to be just working to whatever opportunities come up. The minute you start targeting areas you then start really much longer negotiations because half the land owners will not be interested and you just kind of go round in circles and you might end up just delivering two projects in that catchment. I think the more you just worked with opportunities, the more people generally see that ‘oh, actually, that’s a good thing’. We still have to be changing minds drastically and I think the more work is seen to be happening.., just more people will start to understand what it’s all about and more people will kind of get involved in it.

Another argument against a more targeted approach was that this would mean pre-selecting a small number of ecosystem services or benefits to focus on. This could make it harder to convince land owners if the particular service or benefit did not seem important to them. An example given by interviewees was carbon storage which was not that important to most land owners, and which could even act as a deterrent in the case of climate sceptics. The interviewees thought that focusing on the whole range of services and benefits produced by peatland restoration would make restoration more resilient to changes in priorities, both politically and in society.

On the other hand, some interviewees thought that a more targeted approach would be more efficient in terms of delivering certain services such as carbon storage. They also highlighted that most of the willing land owners were interested in the environment and that it was therefore not very likely that the most damaged peatlands were found on their properties. In addition, the lack of targeting also meant that most peatland restoration took place on publicly owned land or in the hands of charities, with a lesser share under private or communal ownership.

A few interviewees had already employed a more targeted strategy, proactively identifying areas where they thought that peatland restoration would deliver most benefits (e.g. in terms of carbon) or was most needed (e.g. based on their knowledge of particular problem areas such as water or past land uses such as commercial peat cutting). Some also highlighted that targeting could be done on a pragmatic level, for example by consulting forestry plans to see when trees on peatlands were due to be felled or when people submitted applications for wind farms. They also suggested that targeting could be applied only to publicly owned/managed sites while private ones could continue to be based on the voluntary principle.

2.13 Potential improvements

While all interviewees were positive about the Programme as a whole, they also saw potential for future improvements. The main challenge with the Programme had been the limited time available for the implementation of restoration within the annual funding cycle. This prevented some land owners from participating because they saw it as too risky, and also meant that restoration techniques which need to be implemented over longer time scales could not be applied. In addition, several interviewees highlighted that more systematic monitoring would have been required to be able to accurately evaluate the biophysical outcomes of restoration. In order to remove further barriers to restoration, some interviewees suggested that it would have been beneficial to provide more practical assistance with the actual restoration, to have more peatland action officers on the ground, to involve local communities to a larger degree and to have had more training for the peatland action officers to enable them to provide better assistance.

In addition to such practical considerations, some interviewees also pointed to structural improvements, such as better coordination between different policies such as peatland restoration and climate change on the one hand and agriculture and forestry on the other so that peatland restoration did not mean that land owners risked having other types of grants reduced or that policies pulled in seemingly opposite directions. In addition, according to the interviewees better coordination could help to align required management changes under other grant schemes with restoration. One interviewee suggested expanding the Programme model to cover other areas currently governed by other grant and subsidy schemes. Some interviewees also felt that it would be beneficial to reward land managers for keeping peatlands in good conditions and not just being able to fund restoration of peatlands which had already been degraded.

3. Conclusions and way forward

The interviews with peatland action officers suggest that the Programme overall was considered highly successful and exceeded the expectations of those involved in its implementation. They highlighted its flexibility, ease of access to the funds and the existing trust relationships built over time as key factors. The fact that officers were based locally and were, in some cases, independent also facilitated land owners' engagement. The Programme resulted in significant benefits in terms of peatland restoration as well as building expertise amongst Programme officers and contractors. With the Peatland Action Programme having come to an end, peatland restoration is at the moment relying on SRDP funds. However, interviewees thought that this was not an adequate replacement as not all types of restoration can be funded through SRDP, and the measures which can be funded are not applicable to all settings. In this regard, the interviewees found that the Programme ended at a crucial time leading to a loss of momentum, experience and trust. A

longer time frame was therefore highlighted as crucial for the implementation of the actual restoration, longer term planning and to maintain credibility and trust. In addition, interactions with other policies, such as agricultural subsidies and afforestation policies need to be taken into account to build synergies and reduce the burden on public budgets and avoid that different policies pull in different directions. The results also suggest that even though land owners were not necessarily motivated by financial incentives, restoration depends on some kind of support.

Looking to the future, the experiences gained during the Peatland Action Programme also suggest that setting targets and management obligations has both benefits and challenges. On the one hand, they may lead to more effective restoration but on the other, they may miss some restoration opportunities and disengage potentially interested land managers. While in the longer term, targeting and establishing management obligations may be needed to achieve restoration goals, the experience suggests that this might not be practical or desirable during the early stages. The results also pointed out that more monitoring of results would help to create a better evidence base and understanding of the effects.

Finally, the experiences from the Peatland Action Programme could be used to inform the design of other environmental schemes. The factors which helped to make the Programme a success, such as flexibility, ease of access to funds, and use of trusted on the ground advisors, are equally relevant for many other types of publicly funded environmental schemes.

4. Acknowledgements

We would like to thank the peatland action officers who took the time to answer our questions and thereby provided the information which has gone into this report.

5. References

Arzt, R., Donnelly, D., Andersen, R., Mitchell, R., Chapman, S., Smith, J., Smith, P., Cummins, R., Balana, B., Cuthbert, A., 2014. Managing and restoring blanket bog to benefit biodiversity and carbon balance - a scoping study., In Scottish Natural Heritage Commissioned Report.

Bain, C.G., Bonn, A., Stoneman, R., Chapman, S., Coupar, A., Evans, M., Gearey, B., Howat, M., Joosten, H., Keenleyside, C., Labadz, J., Lindsay, R., Littlewood, N., Lunt, P., Miller, C.J., Moxey, A., Orr, H., Reed, M., Smith, P., Swales, V., Thompson, D.B.A., Thompson, P.S., Van de Noort, R., Wilson, J.D., Worrall, F., 2011. IUCN UK Commission of Inquiry on Peatlands, p. 109. IUCN UK Peatland Programme, Edinburgh.

Bruneau, P., Johnson, S.M., 2014. Scotland's peatland - definitions & information resources, In Commissioned Report. p. 62. Scottish Natural Heritage.

Appendix 1: Methods

The data on which this report is based was gathered using semi-structured interviews with peatland action officers. Contact details for all peatland action officers were obtained from SNH. All peatland action officers were in the first instance contacted by email, to inform them about the research and ask whether they would be willing to participate in an interview. For those who did not reply, reminders were sent out a few weeks later. Out of the eleven peatland action officers, nine replied and were willing to participate in an interview. For two of those it was not possible to find a suitable date for conducting an interview within the time frame of the project. The remaining seven were interviewed over the phones (6 people) or in person (1). Of the seven interviewees, three were employed directly by SNH, while four were based in other organisations.

Interviews were audio-recorded and notes were taken at the same time.

The interviews were semi-structured meaning that common topics were explored in all the interviews while allowing the interviewers the freedom to add appropriate follow-up questions as the interviews unfolded. When new topics emerged during interviews, these were then added to the topic list. The following major topics were covered in the interviews:

- Means of recruiting land managers/owners
- Types of land managers/owners and peatlands
- Motivations for taking part in the Programme
- Barriers and reasons for not taking part
- Experiences and outcomes of restoration
- Challenges and improvements

Interviews' notes were transcribed by the research team and imported into qualitative data analysis software (Nvivo). They were coded in relation to the topics as well as topics which emerged from carefully going over the interviews afterwards. Quotes are provided throughout the text to provide illustrations of some of the points in the interviewees own words.