Funding Peatland Restoration

Options analysis for optimising public-private funding of peatland restoration, for carbon and other ecosystem functions

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Summary Findings

- Peatland covers 12% of the UK land area, stores in the order of 3 billion tonnes of carbon, and plays a highly significant role in water resource management in upland parts of the UK.
- Most peatland in the UK is in degraded and declining condition, resulting in risk to the full range of functions it serves and resulting in the release of around 23 $MtCO_2e\ yr^{-1}$.
- Peatland restoration therefore represents a major public and private sector opportunity to help address and offset carbon emissions. The Office for National Statistics estimates the potential value of this opportunity to be £45-£51 billion.
- UK Governments are deploying hundreds of millions of pounds into peatland restoration, through schemes such as Nature For Carbon in England, and Peatland Action in Scotland.
- A nascent, but credible and active, private sector is being established under the Peatland Code, launched in 2015 by IUCN.
- Private sector funded peatland restoration is also established for non-carbon functions, most particularly management of water quality and quantity from peatland in water catchments.
- To realise the full potential of these ranges of funding sources, and to match the scale and urgency of peatland restoration, mechanisms will be required to ensure different funding sources are at least additive, and do not compete, block, or cancel each other out.

In this analysis we set out the following five options for managing the costs and benefits of integration, which could be deployed individually or in combination:

1) **Funds delineation** – *using public investment to fund a discrete menu of 'value-added' components of a peatland scheme.*
2) **Carbon trigger funds** – *setting up government funding that only 'triggers' when a certain level of private sector carbon funding is achieved.*
3) **Establishing fund-matching / co-investment as a default principle**
4) **Using a transparent cost-benefit matrix to target public sector funds**
5) **Creating integrated systems for public-private implementation**

1. Introduction

1.1 Peatlands cover around 12% of the UK land area, encompassing both highly productive lowland agricultural land and extensive low-productivity upland landscapes. Peatlands capture over a quarter of our drinking water, play an important role in flood risk mitigation and in the uplands especially attract significant visitor numbers for their landscapes and biodiversity. They are also highly significant stores of carbon, holding in the order of 3 billion tonnes of carbon. But as a result of their predominantly degraded condition (only 22% are in wetted or near-natural state) peatland represent a significant net carbon emissions source. Research by CEH suggests they emit around 23 $MtCO2e\ yr^{-1}$, equivalent to significantly more than half of all UK annual carbon reduction efforts, from all sources.

1.2 The case for restoration of peatland is strong. In addition to the benefits for water quality, flooding and biodiversity, from the perspective of carbon alone the ONS estimates the net benefits of restoring 55% of peatlands to near natural condition would be worth between £45-51 billion. The Committee on Climate Change (2020) estimate that restoring at least 50% of upland peat and 25% of lowland peat would reduce UK peatland emissions by 5 MtCO2e by 2050, whilst food production continues on the most productive land.

1.3 In response to these well-defined needs, Governments around the UK have invested in peatland restoration, with new funding planned under post-Brexit schemes. However, the operation of existing schemes for peatland restoration have been criticised. Under the Common Agricultural Policy, schemes could only pay for capital costs and income foregone, providing limited incentive for adoption by landowners. However, where public schemes have operated, they have tended to outcompete private investment via the Peatland Code, despite the potential to stack payments from both sources to obtain higher payment rates. With increasing demand for climate mitigation projects from the private sector, there is an opportunity to design future public schemes in a way that helps scale-up private markets, providing increased overall investment in restoration.

1.4 This report therefore analyses options for the design of future peatland restoration schemes that could resolve some of the tensions that currently exist between public and private Payment for Ecosystem Service (PES) schemes for peatland restoration, and considers how private schemes for different land uses and habitats might also be better integrated. The work draws on published literature and an expert workshop, held in March 2020.

2. Existing mechanisms for paying for peatland restoration

2.1 UK Governments have responded to peatland restoration opportunities through a range of funding mechanisms for peatland restoration, principally operating in the uplands. Together these represent potentially hundreds of millions of pounds of investment, and include Defra's invested £10M in peatland restoration in 2017-18, and their £640 million Nature For Climate Fund launched in 2020, which focuses on woodland creation but includes peatland restoration in its remit. Scottish Government has funded Peatland Action via Scottish Natural Heritage since 2012, with £20M restoration work planned for 2020/21 and a commitment to invest £250 million over the next ten years, and Welsh Government has funded restoration via a series of LIFE projects. In the future, the ELMS programme in England may provide an additional source of government funds.

2.2 Private sector demand for peatland restoration comes from both carbon and wider ecosystem interests. Demand for climate mitigation benefits comes via the UK's relatively nascent but operational regional carbon market for peatlands, operated under the Peatland Code, developed by IUCN and launched in 2015.

The water catchment interests of water companies (colouration, sedimentation, and water resource management) have provided funds for peatland restoration in the uplands, for some time (e.g. Yorkshire Water and Moors For the Future work in the Pennines, and Southwest Water's Upstream Thinking programme). Wider emerging markets for ecosystem functions derived from peatland restoration may include: natural flood management, place-making for recreation, and Biodiversity Offsetting markets arising from 'Net Gain' legislation. Some or all of these markets may be mediated in multifunctional landscape marketplaces, such as Landscape Enterprise Networks (LENs).

2.3 Public and private sector schemes currently interact in a number of ways. For example, Government sets the regulatory framework within which carbon markets can develop and operate; captures and defines ' good practice' in policy guidance; and sets the legal framework within which projects (selling ecosystem services), investors (buying services) and intermediaries (aggregating supply and demand, and brokering deals between buyers and sellers) can operate.

3. The opportunity for blending public and private funds for peatland restoration

3.1 While current funding sources and action are taking place on an unprecedented scale, they only scratch the surface of the opportunity and need for restoration. A range of market conditions would help in scaling up action, and these are summarised in **Box 1** (right).

However, perhaps the single most pressing opportunity at the moment is to better integrate public and private sources of funding for peatland restoration. The twin opportunity here is to increase the level of funding available for individual restoration projects, and to increase the number and area of projects over which restoration becomes economically viable.

3.2 The particular focus of this report is on matching public and private sources of carbon related funding. However, there are emerging markets, both public and private,

Box 1. Market conditions required for scaling-up markets for peatland restoration:

1. Efficient management systems
   - Credible and accredited outcomes (Peatland Code)
   - Efficient mechanisms for making transactions
   - Organisational capacity and join-up within and between delivery, audit, and regulatory functions
2. Scale and timing of returns
   - Viability of individual schemes. Note variable costs and variable potential for income of different peatland schemes, depending on practical site factors and baseline of habitat degradation (for carbon, more degraded sites have greater potential for reduction of carbon emissions and therefore income potential)
   - Alignment and consistency of funds from a range of sources (public, private, carbon and non-carbon).
   - Availability of appropriate funds through key project stages: planning, capital stages, ongoing maintenance
3. Confidence
   - Long term credibility and backing of carbon credits required for offset customers
   - Regular supply of work required for developing delivery capacity by contractors

for a wider range of ecosystem services that are clearly shown to arise from peatland restoration.

In our linked report on 'Integrating Natural Capital Schemes' we show the strong potential for synergy between carbon markets and markets for wider, multifunctional outcomes such as those developed by Landscape Enterprise Networks (LENs). The finding there that carbon markets may provide a significant source of co-investment into multifunctional marketplaces, which in return might provide additional 'customers' for carbon funded schemes, applies also in the case of funding for peatland restoration.

In both instances this creates two wider societal benefits:

- Increased funding for sustainable land management practices.
- Market drivers for land management design and practice that is explicitly multifunctional in nature.

3.3 In the case of carbon-specific public-private funding, there are a range of benefits, but also drawbacks or complications associated with integration. Some of these are set out in the **Table**, below. The balance of these may inform the desirability of blending funds. Or – perhaps more pragmatically in many instances – it may simply inform how the process of blending is managed.

Table: Benefits and costs of carbon funds integration in peatland schemes

Benefits	
1. Avoiding conflict	Schemes will naturally seek to draw in as many sources of funds as possible. By integrating – or at least aligning – sources in a systematic manner, the potential for conflict (either in terms of process or objectives) is reduced.
2. Catalysing new funds	Depending on how funds are deployed, the presence of a potential 'match fund' is likely in some cases to release other sources of private, or philanthropic funds.
3. Spreading and extending funds	Where funds are integrated, rather than in competition – there is more likely to be an additive effect, providing more funds for more projects, and for extended projects.
4. Economies of scale	Where added funds result in larger projects, or projects with more activities built in, then there are likely to be practical economies of scale, reducing the unit cost of carbon delivery.
5. Regional alignment of public funds	Depending on the source of private sector funds, where public funds are integrated with private finance there can be opportunities to align with regional economic development and regeneration needs.
Costs	
1. Potential flight of funds from more economically challenging sites	Where there is an obligation for public funds to be matched – or linked – to private funds, then sites or projects with merit for public benefit but with little or no private sector interest or value may be left unfunded.
2. Inflation of costs – as a result of increasing demand	There may be a simple increase in costs charged for peatland schemes as a result of increased availability of funds (demand).
3. Government co-invests in work that would have happened in any case	Especially where government funds are used as a match, there is a natural risk that private sources will 'back off' in order to pass over costs.
4. Contravening additionality requirements	Where public funds render private carbon funds superfluous or 'less than critical' to a peatland project, then those private funds may become ineligible for carbon credits (see **Box 2** below on additionality).

3.4 There are a number of potential areas of conflict between unintegrated public and private funds and markets. These include:

- 'Cancelling-out', where public funds outcompete private funds that would otherwise have enabled the market to deliver the public good. For example, this happened when the Woodland Carbon Guarantee offered higher prices than were available via the Woodland Carbon Code, leading to the potential for a reduction in private funding supporting woodland creation via the Code.
  It is important to note that where private funds are cancelled out, they do not tend to be redeployed elsewhere in the environment. More usually in business if there is an avoided cost – for example because government is now funding a sustainability activity, or the activity has become non-viable – then it is simply treated as a cost saving; the money comes off the table.
- Uncertainty over future public schemes as the UK develops and trials post-Brexit policy over a relatively long time-frame has the potential to freeze the market, with potential sellers withholding projects until they know whether they will get a better price under existing private schemes versus future public schemes.
- A lack of integration between public and private schemes can also lead to unrealistic carbon prices for the market (as happened with the Woodland Carbon Guarantee) and lead to lasting damage to the market if sellers believe these prices may be offered again by Government at some future date.

Box 2. Additionality

- Additionality refers to a requirement that a payment for a particular landscape outcome is essential to its delivery. It ensures that something that is being paid for 'wouldn't have happened anyway'.
- Additionality rules are especially important for landscape outcomes in which the purchaser has no direct technical interest, but instead is buying an offset against the impact of their separate trading activities. Carbon offsets are a case in point, but this also applies to other 'fungible' products, such as biodiversity offsets. In both cases there is a theoretical 'moral hazard' on both sides of the offset transaction that money changes hands without any additional action taking place on the ground.
- The two key tests applying to carbon projects are:
  1) A minimum contribution of carbon finance to the work carried out (currently 15% under the Peatland Code), and
  2) Evidence that carbon finance is instrumental to the project going ahead.
- In the case of carbon outcomes being delivered as part of public-private funded peatland restoration scheme, the issue arises when the level of public funds (and/or private funds for other outcomes such as water catchment protection) call the need for private carbon finance into question. The key question is 'would restoration have happened anyway, even without the private carbon money?'

4. Options for managing the costs and benefits of integration

Here we set out five strategies or mechanisms for managing the costs and benefits of integration. Several of these may work best in combination:

4.1 Funds delineation – *using public investment to fund a discrete menu of 'value-added' components of a peatland scheme.*

There is an extent to which a practical peatland restoration scheme can be broken down into components, or items – as would for example be reflected in a specification to a contractor. The concept here is to have the facility to break out and use public funds for scheme components that are ancillary to core carbon delivery, and for which there is a clear public benefit justification. Designed-in and delivered from the start, these would ideally be spatially defined and discrete within a site. Examples might be: public access infrastructure, habitat features, such as pools, or species reintroduction, or more technically challenging activities that would not otherwise be funded – such as clough woodland planting or rhododendron clearance.

- **Strengths.** This approach creates clear 'lines of sight' between sources of funding and outcomes, helping the Government to justify the public benefits of its funding, potentially avoiding inefficient conflict or competition between public and private funds, and helping to address additionality questions for private carbon finance.
  By increasing the size of the overall project, packages of 'delineated funding' may help make smaller or marginal schemes more financially viable, or attractive to contractors.

  At a site level it creates a positive business case for delivering a range of outcomes which may otherwise be secondary considerations in a delivery plan or contract.
- **Weaknesses.** Separation of service delivery presents a partial solution. While it provides a 'cordon sanitaire' around differently funded site features, it may not realise the full potential for 'leverage' presented by more fully integrated payments and action. Beneficial schemes where the core carbon component is financially marginal may therefore remain non-viable.

  Clearly defined 'menus' of fundable actions would be required to avoid public funds being directed to primarily enabling or preparatory work – for example funding public access infrastructure that realistically will only be used for site management.

4.2 Carbon trigger funds – *setting up government funding that only 'triggers' when a certain level of private sector carbon funding is achieved.*

'Trigger funds' would be government funds (directed at carbon, and / or other site outcomes) that would only be released once a certain level of private carbon finance was reached. The level would be set at a percentage of the overall project budget. A single universal percentage level could be used, or stepped trigger levels could be used based on site prioritisation (using a cost-benefit matrix, as described in 5d below).

Trigger funds are well suited to carbon, but they could also be applied differentially to other scheme components and features, as a combination approach with 'funds delineation'.

The trigger fund could also be operated on a challenge basis – with regionally targeted 'pots' of public sector money being made available at pre-determined 'trigger points'. It would be important for these to be administered in a way that allowed decisions to be made throughout – rather than just at the end of – the period over which a challenge fund is operating.

- **Strengths.** Trigger funds would allow Governments to direct funds for carbon outcomes at Peatland Projects, without 'squeezing out' private sector finance, increasing the overall level of funds available for Peatland Restoration.

  A key additional benefit is that the effect of private carbon finance triggering public funds would assist in demonstrating additionality. A double-lock on this would be for the trigger level to be set at ≥15%; the current additionality test level.

- **Weaknesses.** Set too low, trigger levels may have the effect of capping, or cancelling out the potential level of private sector funding. They also represent a level of organisational complexity that, for example, simpler match funding may not involve.

4.3 Establishing fund-matching / co-investment as a default principle

This is an extension of 'trigger funds' in that it establishes a wider default that public funds should only be issued on the basis that a level of private sector funds are already in place for a peatland project. The objective is to 'spread' both public and private funds further, and to increase the number of peatland sites that are viable for restoration.

An important practical consideration of fund-matching is that it would be significantly facilitated if the systems and processes used for deploying and contracting payments were at least aligned, or better still - integrated.

The establishment of a default principle is important in terms of 'signalling' and building confidence within the marketplace that private funds (for carbon and other functions) will be instrumental in peatland projects. However, 'default' leaves room for exceptions, and it may be that exceptional peatland projects that deliver almost exclusively public, non-market benefits could be funded publicly.

- **Strengths.** The main strength of the 'default' approach is that it builds a straightforward expectation that public funds will be directed in conjunction with private ones, with the result that private carbon markets are less likely to be squeezed or priced-out.

- **Weaknesses.** As with 'trigger funds', default co-funding may have the effect of capping, or cancelling out the potential level of private sector funding. There is a risk of organisational complexity, and the potential for delay to publicly – or privately – funded schemes, where funds are not evenly available or where timing is not aligned. Finally, there is a risk that more public-benefit oriented projects, where there is little private sector demand for carbon or other landscape-derived benefits, will be disadvantaged.

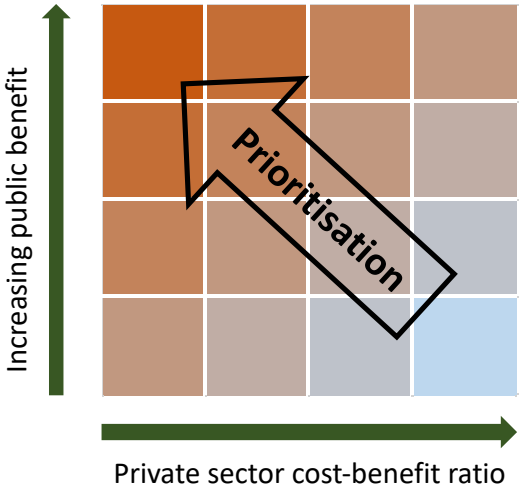

Fig. 1 Basic logic for allocating public sector co-investment into peatland restoration

4.4 Using a transparent cost-benefit matrix to target public sector funds

If public funds are used to simply 'mirror' where private sector carbon (and other) funds are being deployed, then there is a risk that certain categories of peatland project will not be funded; principally: (1) technically challenging, expensive schemes, and (2) schemes with significant public benefit, but little private sector investment potential.

To address this, public funds could be adjusted according to a matrix of public benefit versus private finance potential. Stepped, or differential, rates of

funding would need to be guided by a transparent set of tests (ideally these would be narrative rather than numerical). The basic logic for prioritisation would be as set out in **Fig. 1 (page 7)**.

- **Strengths.** Creates 'smarter' funding, 'stepping up' funds for more difficult, or public-good oriented schemes or locations.
- **Weaknesses.** Adds complexity, and requires a defensible and widely applicable set of tests.

4.5 Creating integrated systems for public-private implementation

A key potential barrier to effective funds integration will be mismatches in the different systems and processes involved in delivery. Mismatches may come about because of different organisation scales, differing timescales, and simple differences in terminology, definitions, and metrics. These are likely to be exacerbated by the need to manage the particular requirements and opportunities presented by individual projects.

Integration could be as simple as ensuring that there is alignment in system design – and dialogue between those involved in it (this may be defined more as system harmonisation). More radical integration could include regional clearing houses for integrating funds and managing deployment.

Timing is important for funds integration, in that it is difficult from a value for money perspective to justify additional funding to a programme of work once the work is underway or completed. Packages of funds should therefore be agreed and contracted up-front, before delivery takes place. This suggests that integration mechanisms should be in place before public funding is deployed.

- **Strengths.** System integration has the potential to improve the quality and efficiency of public-private funded peatland schemes, by designing-in the resolution of different funding requirements before they are presented as a specification to an organisation wishing to deliver a project.
- **Weaknesses.** Depending on the level of integration, it could increase bureaucracy, and reduce the agility of private sector delivery. This would be especially so for organisations managing 'end-to-end' services, connecting carbon clients with project delivery without the need for intermediaries.