Investing in Peatlands

Climate Catalyst

LANDSCAPE FINANCE LAB

WaterLANDS

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Foreword

In the temperate and tropical world, peatlands are one of the most efficient and concentrated natural climate solutions. Functional, healthy peatlands provide vital, long-term natural carbon stores and sinks for our planet's biosphere.[1] Halting peatland degradation and destruction—and facilitating the regeneration and restoration of healthy peatlands—requires urgent, coordinated action from both the public and private sectors. As a nascent asset class, peatland protection and restoration offers a range of under-appreciated investment opportunities.[2] As this paper explores, investing in peatland conservation and restoration can provide multiple returns including reducing carbon emissions, improving water flow resistance, ecosystem services, biodiversity and ultimately carbon sequestration.

Almost half of global GDP is moderately or highly dependent on ecosystem services,[3] and research predicts that the collapse of natural systems could erase USD 2.7 trillion per year from the global economy by 2030.[4] Companies and financial institutions are a vital part of the global movement investing towards a climate-neutral and nature-positive economy. Peatlands comprise an underinvested piece of this puzzle.

Current peatland investments tend to be small. Landscape-level investments in peatlands can provide greater scale and multiple co-benefits. Along with cultural and recreational impact for communities, they can enhance biodiversity, reduce flooding and improve water quality. From an economic perspective, they can boost local business, provide access to biodiversity and water credits, and offer financial returns from carbon markets.

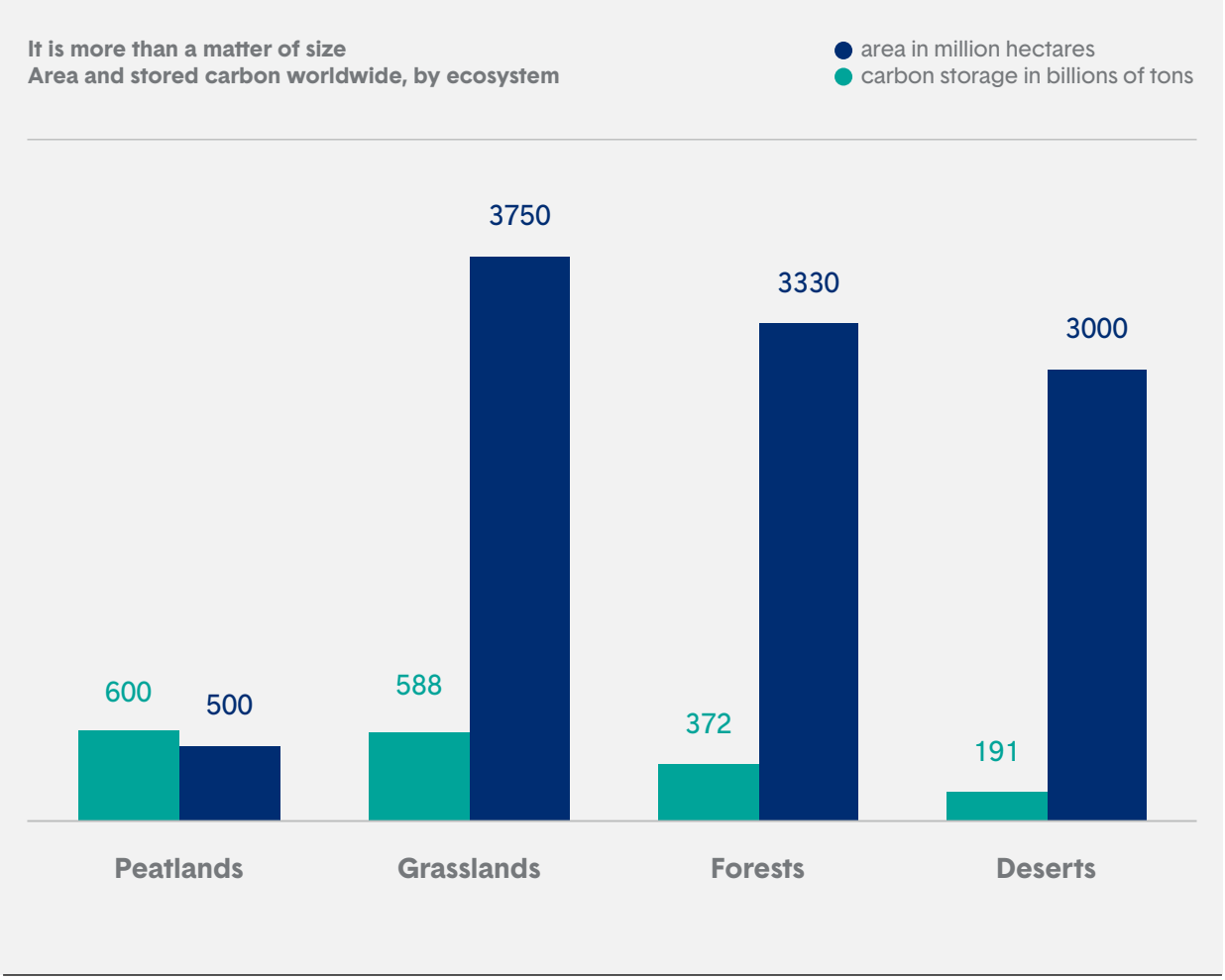
Private sector investment in peatlands is still at an early stage, and more needs to be done to quantify expected returns and build the investment infrastructure to attract institutional investors. A landscape approach is essential for peatlands and it offers the potential to use blended finance to attract private sector investment and catalyse capital at the necessary scale. This report highlights the opportunities for investment in peatlands at landscape scale and some of the enablers.

01 What are peatlands and why they are important

Peatlands are wetland ecosystems distinguished by their highly organic and carbon-rich peat soils. Some 80% of peat is organic matter and carbon accounts for 50-60% of its mass.[5] Peatlands are characterised by permanently waterlogged conditions that prevent plant material from fully decomposing, keeping carbon locked in and preventing it from entering the atmosphere as greenhouse gas. **They are vital ecosystems** in the fight against climate change, covering just 3% of the world's surface yet holding nearly 30% of all natural carbon (450 to 650 gigatons) —almost twice as much as the entirety of Earth's forest biomass.[7] They are also crucial sanctuaries of biodiversity, and significant sources of clean and constant freshwater.

FIGURE 1

Carbon storage is higher in peatlands than in grasslands, forests and deserts, despite covering much less area.[8]

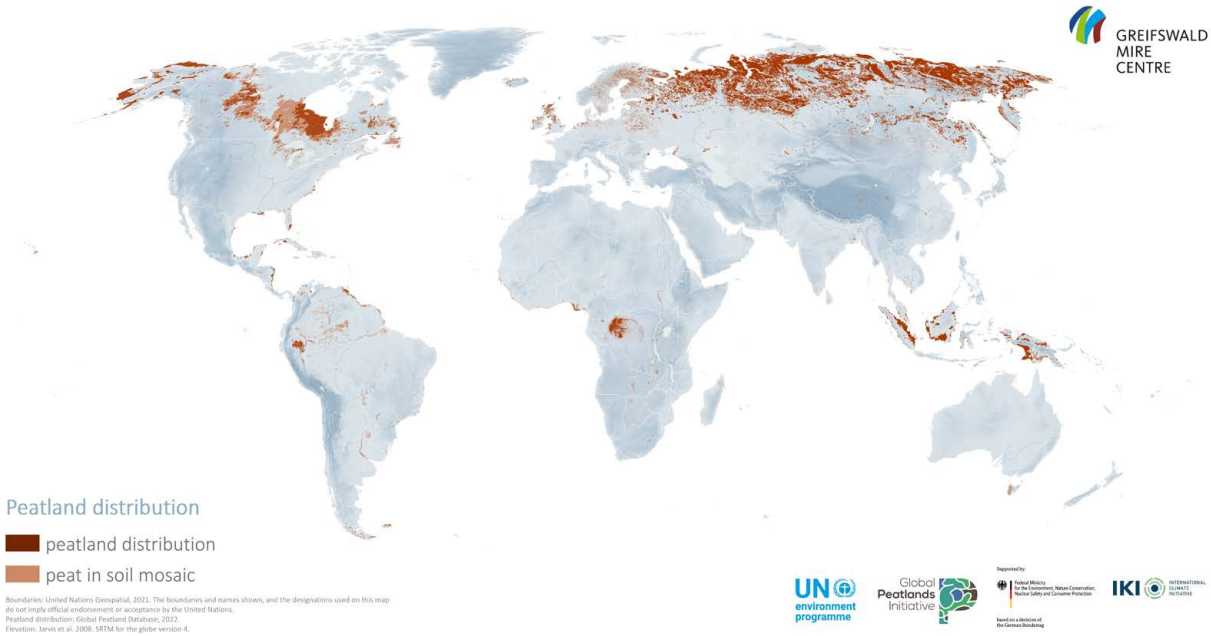


The concentration and long lifetime of carbon storage offered by healthy peatlands is unmatched by any other carbon sink in our planet's biosphere.[9] Peatlands sequester around 0.37 gigatons of CO_2 annually. Approximately 20% of peatland carbon storage is in the tropics, but most peatlands are at higher latitudes – in boreal zones, below permafrost areas, where they are proving vulnerable to warming temperatures and wildfires.[10]

Peatlands continue to be degraded around the world. About 12% of the world's peatlands have been drained for agricultural and forestry use. Extracted peat is used as horticulture substrate or, when dried, as fuel for heating and industrial processes, leading to significant greenhouse gas emissions.[11,12] The European Union has experienced the largest losses, with over 50% of former peatland areas no longer accumulating peat.[13]

FIGURE 2

Map of global peatlands cover including tropical and temperate peatlands.2.0[14]



Drained and degraded peatlands currently emit around twice as much greenhouse gas (GHG) as the aviation industry.[15] This is a result of the peat soil becoming exposed to air, which accelerates the decomposition of its organic matter, releasing stored carbon as CO_2 into the atmosphere. Degraded peatlands account for 4% of global annual emissions (1.9 gigatons CO2e/yr).[16] Peatlands represent 3% of the EU's agricultural land, and rewetting them would avoid up to 25% of the EU's greenhouse gas emissions from agriculture.[17] Restoring European peatlands would prevent roughly the same amount of annual emissions as taking 84 million passenger vehicles off the roads.[18]

The required investment is significant; it will take c. USD 320 billion (c. EUR 300 bn) in financing for peatland restoration between 2022 and 2050 to contribute to keeping global temperature increase below 2°C. It is, however, significantly less than the reforestation needs of c. USD 3,400 billion (c. EUR 3,200 bn).[19]

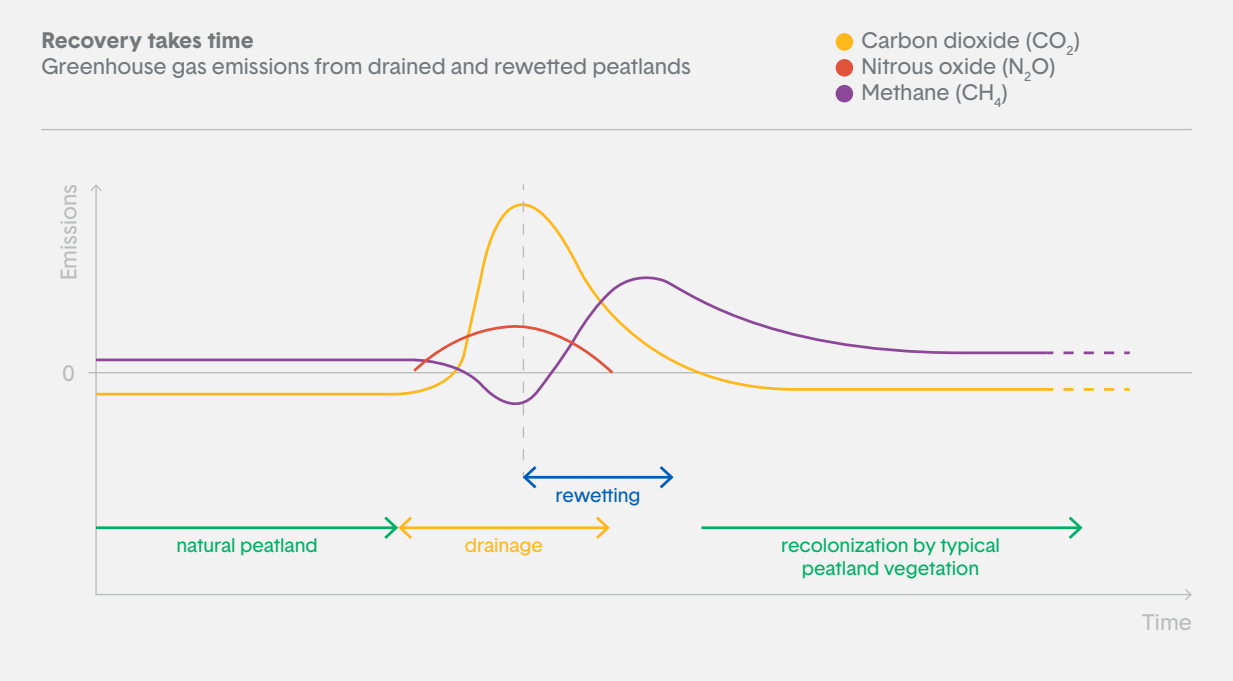
02 Benefits of peatlands

There are multiple reasons for preserving and restoring peatlands, ranging from carbon sequestration to ecosystem services that support climate adaptation and resilience. Benefits are often at a broader societal level, but there is strong potential for returns as well as specific benefits to businesses operating sustainably on peatlands, such as agricultural and livestock operations.[20]

Carbon storage and sequestration: Total carbon stored in peatlands globally is estimated to be in the range of 450,000 to 650,000 megatons (Mt). Europe is the second largest current greenhouse gas emitter from drained peatlands after Asia, at close to 600 Mt CO2e/yr. It is also the highest historical emitter in cumulative terms. Peatland restoration can reduce emissions from degradation and in many cases reverse emission balances by sequestering new carbon, as ecosystems recover and new peat is actively formed. Robust standards and methodologies are in place that allow for viable carbon payments for peatland restoration.

Reducing methane and carbon emissions: Re-establishing wet conditions in dried-out peatlands stops or reduces CO_2 emissions immediately. While this can cause a spike in methane emissions, this effect is temporary and will stabilise at a lower level after a short time. In the Republic of Ireland, for example, restoring peatlands to their previous state of health would reduce overall national emissions by an estimated 5%.[21]

FIGURE 3 **Emissions associated with rewetted peatlands.[22]**



Water quality and purification: Peatlands are often found at the headwaters of Europe's major water supply areas. For example, most of Berlin's water supply depends on peatland source areas[23] and up to 70% of UK drinking water is sourced from catchments dominated by peatland habitat.[24] Peatlands naturally filter out many pollutants and nutrients in surface and groundwater, lowering the burden on water treatment facilities. Peatland degradation increases the amount of dissolved organic carbon in water, giving it a brown colour and increasing the cost of water treatment.[25] Peatland restoration offers a better option to improve the quality of raw water from peaty catchments, reducing the need for costly chemical treatments.

Water retention, buffering and flood attenuation: Peat acts like a sponge. It can store up to four times as much water as other types of soil. When peatlands are extracted or drainage systems are constructed, their ability to attenuate water flow is reduced, contributing to flash flooding. Degraded peatlands no longer release water into surrounding areas during dry periods, worsening droughts.[26]

Conserving biodiversity: Healthy peatlands are home to large and varied populations of wildlife and plants including unique species such as the tropical Meranti Bakau tree, Asia's woody liana Akar Jitan and the North American wood frog, the only species that can successfully reproduce in highly acidic bog waters and survive deep freezing. In central Africa, peatlands are home to iconic mammal species such as the bonobo chimp, lowland gorilla and forest elephant.[31] They also offer important breeding grounds and habitats for migratory and local bird species. The EU's Habitats Directive recognises the contribution of peatlands to biodiversity but implementation has been patchy with fines now under deliberation for

several countries. As the loss of biodiversity threatens economies,[32] protecting endangered species by restoring peatlands is not only a **moral imperative** but also makes good business sense.

Minimising wildfire risk: On drained peatland, fires can start accidentally. Sometimes they are also started deliberately for land clearing and management. Peat fires can burn for weeks or months below the surface, unexpectedly rekindling into dangerous surface fires. In Indonesia, the six largest peat fire events between 2004 and 2015 are estimated to have caused a total of USD 93.9 billion in economic losses;[27] 2015 emissions from Indonesian peat fires were equivalent to the annual emissions of Japan. Smoke from peatland fires can contain dangerous levels of particulates termed "black carbon" and other pollutants that increase the risk of cardiovascular diseases, respiratory conditions and cancer.[28]

Cultural importance and employment: Through the ages and across cultures, peatlands have held sacred and cultural value for local communities and inspired art and literature. They are increasingly popular for leisure and educational activities, including ecotourism. Peatlands have contributed to the understanding of history in many places due to their ability to preserve artefacts, from jewellery and weapons to the remains of animals and remarkably preserved "bog bodies" such as the 2300-year-old body found in Tollund, Denmark.[29] In much of Europe, extracting peat has been central to rural life and economies for centuries and traditionally a large employer. People who have been engaged in extraction in the past can potentially now be engaged for restoration work: for example, Bord na Móna, the semi-state company responsible for peat exploitation in the Republic of Ireland, ceased harvesting peat for energy in 2019 and is now focused on renewable energy and peatland restoration.

Paludiculture: A form of wet agriculture, in most cases, on drained peatlands which require them to be rewetted. Paludiculture, along with contributing to emissions reductions, can yield commodity products that include renewable biomass for energy and materials for construction such as packaging, insulation boards, structural panels and bricks derived from cattail and reeds.[33] Despite all the benefits of paludiculture, obstacles and counteracting incentives in the EU's Common Agriculture Policy currently limit broader uptake by farmers.[34]

CASE STUDY 01

The toMOORow Initiative (Germany)

The "toMOORow" initiative for rewetting peatlands has set itself the goal of creating large-scale wet peat landscapes. It was launched by the Michael Otto Environmental Foundation and the Michael Succow Foundation, partners in the Greifswald Mire Centre, with support from the Otto Group and Systain Consult. The initiative aims to accelerate peatland restoration in Germany and the EU and increase social support. Specifically it aims to:

- Demonstrate peatland rewetting as a solution to the climate crisis and species extinction in Germany and Lithuania.
- Promote the sustainable use of wet peatlands through added value from paludiculture and carbon certificates.
- Advocate for incentives for peatlands rewetting in the environmental and agricultural policies at German federal and state level and the EU.

The rewetting project is expected to result in: GHG savings of approximately 1,000 t CO_2e per year; new habitats for rare animal and plant species; and improved water quality by significantly reducing the release of nutrients such as nitrogen and phosphorus. It will offer landowners economic incentives to rewet through carbon certificates and paludiculture. An alliance of commercial enterprises is being set up to develop value chains for paludiculture products and market carbon certificates (MoorFutures®).

03 Why a landscape approach makes sense

3.1 What is a landscape approach?

Nature-based solutions—actions to protect, restore and manage natural ecosystems that address social and economic challenges (such as climate change, biodiversity loss and flooding) while simultaneously benefiting human well-being[35]—have often been approached through small-scale projects. This limits the impact they can have, and fails to reflect the reality that natural systems are connected over much larger areas. For example, water flows across entire catchment areas, and species migrate through different habitats and require large populations to maintain a healthy level of genetic diversity.

Ecosystem, or 'landscape', approaches have emerged that work on a larger scale (ideally at least 100,000 hectares). Such approaches bring stakeholders together to collaborate on sustainable economic and social development and nature conservation, with the potential to achieve a range of benefits. They require working with community groups, business and across government sectors in an integrated way to ensure a common understanding and approach to land use, development and conservation issues.

An example of a landscape approach is the "4 Returns Framework" (see Figure 4), a conceptual and practical framework to help stakeholders achieve social returns, natural returns, financial returns and returns in terms of inspiration. It aims to connect ecology with community values, culture, and long-term economic sustainability, so that government, business and communities can co-create and deliver on a common vision.[36] This includes working across three zones of land use: a natural zone aimed at restoring natural habitats; a regeneration zone, where sustainable production and regeneration of biodiversity are combined; and an economic zone which include urban and industrial complexes.

FIGURE 4 **The 4-Returns Framework.[37]**

The 4 Returns Framework combines five process elements in an approach that zones landscapes into three use categories. It guides collective stakeholder action in landscape initiatives that operate over an extended timeframe of at least 20 years to deliver social, financial, natural and inspirational returns.

CASE STUDY 02

Peatland restoration led by and benefiting indigenous and local communities

Finland is a critical location for boreal and Arctic peatlands, with over 10 million hectares of peatlands within its borders (~30% of the land area). Since the 1940s, the proliferation of industrial forestry and peat extraction has degraded more than 5 million hectares of peatlands. In addition to loss of habitat and species, these changes also have downstream water quality impacts.

Finnish non-profit, Snowchange Cooperative, set up the Landscape Rewilding Programme (LRP) in 2017 which to date has restored 52,000 hectares of peatland. Some sites have been purchased while others are managyed through land use agreements (Snowchange and private landowners agree on restoration and management actions that will take place on their property). Over 85 sites have been identified as Indigenous and Community Conserved Areas (ICCAs).

At one site, Linnunsuo in North Karelia, restoration has been led by local communities. The area was mined for peat between 1982 and 2010 and traditional fishers in the area identified several massive fish die-offs downstream of Linnunsuo, resulting from mud and acidic peat runoff from peat extraction operations. Working with village leaders in the town of Selkie in the Jukajoki watershed, the fishers were successful in suspending peat extraction.

Once mining was suspended, residents of Selkie and Alavi initiated community-led restoration of wetlands in 2012 with self-funding from the peat-extraction company VAPO to compensate for the pollution caused by its activities. Snowchange included the site in the LRP in 2017 which enabled full restoration with funding from philanthropic donors, the Finnish Center for the Environment, Transport and Commerce and loans from Triodos Bank, an ethical bank based in the Netherlands, and Rewilding Europe Capital, itself funded out of the EIB's Natural Capital Financing Facility. EIB also provided technical assistance to undertake a scientific assessment of greenhouse exchange on rewilded sites. Since 2017, the villages have expanded their work throughout the Jukajoki watershed, working with dozens of landowners, companies, cities, and municipalities.

As a result of restoration, peat sediment and heavy metals are captured by wetlands and CO_2 emissions have been reduced. The area has become an important bird habitat with 215 species recorded, including regionally rare species. Considered an "ecologically severely impacted" river a decade ago, Jukajoki is once again a trout river with a spawning population of critically endangered Vuoksi brown trout. By taking a landscape approach at the level of the river catchment, the restoration has allowed for impact at scale (the Jukajoki river and its environs). Smaller-scale projects could have had local-level impacts but with adjacent areas still degraded the health of the whole catchment would have continued to deteriorate.

3.2 Landscapes and investment

Landscape-scale initiatives provide solid frameworks for investment by putting in place governance structures and supporting businesses and landowners to develop "investment-ready" projects. This is achieved through institutions that can support the development of project portfolios, manage monitoring and evaluation frameworks, and serve as a liaison between investors and projects to distribute revenues and provide administrative support.

FIGURE 05

Landscape-scale initiatives can offer investors five significant advantages:

3.3 Creating "landscape initiatives" for investment-ready portfolios

Institutional investors generally require a minimum scale of investment, or "ticket size", to reduce legal, due diligence and other costs. Landscape initiatives bundle multiple projects into portfolios that offer the appropriate scale and risk diversification. Legal entities or "special purpose vehicles" (SPVs) are established to administer the landscape financing initiatives, interface with the investor and deploy capital through blended finance mechanisms and/or direct investments. Portfolios can offer a range of project types and payback mechanisms including financial returns, carbon credits, ecosystem services, eco-tourism and new commodities, such as biomass from paludiculture.

In addition to demonstrating potential financial and environmental returns, creating a landscape financing initiative involves deploying robust standards and monitoring frameworks (such as those covered in section 5.2 below) to establish baselines and measure outcomes. In the initial stages, landscape initiatives may depend on capacity building and financial support, for example from government agencies or philanthropic organisations.

Landscape initiatives can work with a variety of capital providers to develop blended finance mechanisms, including public sector, foundations and private sector. The Flow Country Green Finance Initiative (FCGFI) and Peatlands Finance Ireland (PFI) are examples of landscape initiatives that are working with partners to develop blended finance mechanisms and establish legal entities through which capital can be channelled to restoration of peatland (See below and Case study 06).

CASE STUDY 03

Flow Country Green Finance Initiative

Covering over 400,000 hectares in the north of Scotland, the Flow Country is a peatland landscape that hosts a wide range of plants and birds. It stores 400 million tonnes of carbon – more than twice as much as all Britain's woodlands. Much of the peatland is now well managed, but many areas, historically degraded by activities including forestry and agriculture, still need to be restored. The area has been nominated as a World Heritage site based on its outstanding natural values.

The Flow Country Green Finance Initiative is a multi-stakeholder partnership that has agreed a common vision "to achieve a multi-use landscape in which restored peatlands support biodiversity and climate protection as well as high quality jobs and prosperity". The vision combines ecological restoration and sustainable land use with a carbon investment model, support for circular business, and community development.

The Initiative aims to unlock finance – public and private – by working at a landscape scale using a blended finance investment model. Local organisations, councils, businesses and universities have come together to identify how their activities can complement each other and integrate them into a larger investment opportunity.

The initiative will generate returns through a premium price from the sale of carbon payments issued on verification of successful restoration action. The projects will offer high-quality "charismatic carbon" structured to provide accountability and transparency and ensure that landowners will get a "fair return".

The initiative is currently working on proof of concept with two pilot areas representing three categories of land use in the region: private farms, mixed farming and sporting estates, and common grazing areas. These pilots will help develop categories of investable properties or model "pathways" for investment that can be scaled up across the Flow Country.

The initiative is in the process of establishing a Scottish Community Interest Organisation (SCIO) – a legal structure that can connect and aggregate existing, small-scale projects and act as an intermediary with external providers of capital. Investors are invited to engage in the ongoing development of the initiative by advising on their requirements.

04 Investment in peatlands

4.1 Public sector investment in peatlands

With increasing awareness of climate change and the vital role of peatlands in carbon storage, biodiversity and water regulation, public sector investment began shifting towards peatland conservation and restoration in the 1970s and 80s. In the 1970s, Sweden – one of the world's most peat-rich countries, with peatlands making up 15% of its land area[38] – became an early adopter of peatland restoration practices. The Swedish government initiated large-scale programmes to rehabilitate drained peatlands, with a focus on rewetting and revegetation. In the United Kingdom, the Pennines Peat Project was initiated in the 1980s.[39]

Such early investments paved the way for broader efforts to protect and restore peatlands, serving as an example for other countries and contributing to the development of best practices. Example initiatives in the EU include:

- The EU-LIFE nature programme, which has invested over EUR 167 million in projects to restore over 90,000 hectares of peatland habitats in Western European countries.[40] For example, the Wild Atlantic Nature LIFE Integrated Project (see case study 04).
- The EU's Recovery and Resilience Facility, which has allocated EUR 108 million to peatland restoration in Ireland via the Peatlands Climate Action Scheme.[41]
- The European Innovation Partnership projects such as FarmPEAT.

In June 2023, the UK announced GBP 7.5 million of government grants for peatlands water management projects aimed at reducing emissions. Outcomes from these pilots can be used to showcase opportunities for private finance to invest in commercially viable paludiculture.[42] In 2021, Scotland – where more than 20% of landmass is peat bog – promised to restore 250,000 hectares by 2030 with a 10-year, GBP 250 million investment.[43] The UK is also phasing out the commercial sale of peat for use in gardens and elsewhere.

Germany's *Aktionsprogramm Natürlicher Klimaschutz* (Nature-based climate solutions action programme) has allocated EUR 1.2 billion of its EUR 4 billion budget to peatlands. Additionally, the German government is funding nine large-scale paludiculture demonstration projects over a 10-year period, and a forum on peat-free substrates that will connect with discussions at EU level.[44]

BOX 02

International initiatives supporting peatland restoration

The European Peatlands Initiative (EPI) is currently under development to create a network and strong alliance for peatland climate protection in Europe. Through government-backed support across Europe and in collaboration with multi-stakeholder partners, the EPI aims to leverage established networks to foster momentum, facilitate knowledge sharing, promote mutual learning and augment investment in peatland protection and restoration by forging strategic partnerships for peatlands.[45]

The Global Peatlands Initiative (GPI), established in 2016, aims to protect and conserve peatlands as the world's largest terrestrial organic carbon stock. Led by the United Nations Environment Programme (UNEP), it includes more than 50 global member organizations. The GPI focuses on improving the conservation, restoration, and sustainable management of peatlands. It raises awareness, shares best practices, and encourages information exchange among countries and stakeholders while supporting national and regional initiatives. Moreover, it collaborates with governments, academia, NGOs, and the private sector to facilitate investment opportunities in peatland protection.[46]

CASE STUDY 04

Results Based Agri-Environmental Payment Schemes

Results Based Agri-Environmental Payment Schemes (RBAPS) policy frameworks funded through the European Innovation Partnership (EIP) and LIFE programme have been developed in a number of EU countries in relation to ecosystem service payments for improvements to water quality on rewetted peatlands.

RBAPS enable regulatory and institutional innovation at Member State level with a clear focus on incentivising results rather than imposing penalties. They require an integrated approach to ensure that improvements in the quality of the results delivered are adequately rewarded.

Ireland is a leader in RBAPS incentivisation schemes which use simple proxy measures – such as vegetation cover and species counts – to reward more sustainable farming practices.[47] Schemes include the FarmPEAT (Farm Payments for Ecological and Agricultural Transition) project and LIFE-IP Wild Atlantic Nature, which works in Special Areas of Conservation (Cuilcagh Anierin SAC). This approach can now be found in the CAP Strategic Plan for Ireland (2023-2027), which covers more than 1 million hectares of land and 89% of Ireland's terrestrial Natura 2000 network.

RBAPS provide the potential to support peatland restoration at scale and may offer opportunities for supporting projects that attract private investment. For example, a project in an area with an active RBAPS scheme will benefit from restoration activities in adjacent areas that will enhance hydrological conditions and biodiversity. RBAPS use proxy measures which offer the potential for the development of more formalised measurement of climate and biodiversity benefits, to ensure robust mechanisms for monitoring, reporting and verification (MRV) are in place.

4.2 Business and peatlands

Many industries are impacting on peatlands, through either their own operations or their supply chains. Section 2 outlined how investing in peatlands makes sense in terms of delivering multiple benefits for society at large. However, the public good that comes from maintaining and restoring peatlands can also be a compelling case for investment from the private sector, including insurers.

Companies in sectors such as livestock, dairy, horticultural substrate, plantations (e.g. palm oil) and commercial forestry incur business risks by draining and degrading peatlands. These risks are often not fully reflected in, or are externalised from their business models. They include reducing soil health over time; soil subsidence, which increases the risk of flooding or even salination due to saltwater intrusion, and lowers crop yields; and compacting soil, leading to financial and technical challenges. Other industries that damage peatlands can also face risks: for example, building on drained peatlands can lead to unstable foundations. Degraded peatland can substantially increase GHG emissions associated with company operations and supply chains.

Enhancing peatland projects' appeal to business will require incentives such as payment schemes e.g. Results Based Agri-Environmental Payment Schemes (RBAPS) and blended finance (see Section 4.1), as well as specific returns through mechanisms such as better-developed carbon and biodiversity markets and payment for ecosystem services (see Section 4.3).

For the agriculture sector in particular, which represents a disproportionate amount of Europe's GHG emissions, peat soils that are currently farmed either at low levels or not at all may offer significant potential for returns-based investment if properly incentivised. PFI, for example, is looking at the potential to engage with several large agri-business actors and their farmer networks (see case study 07). Lessons could be learned from similar programmes that are not specific to peatlands, such as Nestlé LENS (Landscape Enterprise Networks) in the UK, which identifies the relationships between landscape assets, landscape functions, and landscape beneficiaries to create a collaborative value chain.[48]

While it is not required by current guidance such as SBTi Forest, Land and Agriculture (FLAG), all businesses operating on drained peatland need to start taking account of associated emissions, as it is likely that this guidance will become stricter over time.

CASE STUDY 05

The Great North Bog (GNB)

The Great North Bog (GNB) is an ambitious, large-scale peatland restoration initiative stretching across almost 7,000 km2 of protected landscapes in northern England. The landscape is estimated to store between 450 and 660 million tonnes of carbon and provide water to 15 million properties. However, due to drainage, peat cutting, overgrazing and burning, these peatlands release some 3 million tonnes of carbon annually. Over the last two decades, approximately 1,100 km2 of peatlands have been restored in the GNB region, with funding mainly from public sources in the UK and EU as well as private finance primarily from water companies.

The initiative is being developed by the North Pennines Areas of Outstanding Natural Beauty (AONB) Partnership, the Yorkshire Peat Partnership and the Moors for the Future Partnership, together with the Northumberland, Cumbria and Lancashire Peat Partnerships. GNB aims to deliver a 10-year funding, restoration and conservation plan to make a significant contribution to the UK's climate and carbon sequestration targets.

In 2023, the partnership issued a "Private Sector Partner Specification and Invitation to Respond".[49] It estimates that the GNB project pipeline has the potential for 3.4 million tC02e in emissions reductions. GNB envisages entering an agreement with up to three private sector partners who will invest in peatland restoration through buying Peatland Code issued "pending issuance units" PIUs – effectively carbon credits in advance, for a minimum price and/or "peatland carbon units" (PCUs) - certified units.

GNB aims to offer private sector partners:

- a steady, high quality, long-term pipeline of Peatland Code-accredited carbon credits;
- measurable ecosystem services from individual projects, e.g. biodiversity gain, water stewardship (storage, quality, reduced flood risk) and social benefits (local employment, volunteering, community investment initiatives); and
- an opportunity to raise awareness and demonstrate commitment to environmental and social restoration by working collaboratively with the GNB coalition to support broader initiatives across northern England.

Peatland preservation and restoration can also bring business opportunities. These include increasing value chain resilience, reducing emissions, meeting customer demand for sustainable goods, and avoiding regulatory risks by staying ahead of changes in regulatory requirements related to climate and biodiversity. For example, companies in Germany are exploring using materials developed through paludiculture, such as reeds, for inputs into insulation and packaging. Nestle is also aiming to increase resilience through managing water supplies and fire-risk by protecting and conserving 25,000 hectares of peatland in South Sumatra.

There are also benefits for other business sectors, such as fresh, clean water for use in food and beverage production and other industrial sectors (see case study 06).[50]

CASE STUDY 06

Moors for the Future Partnership

Peat's ability to retain vast quantities of water enables it to act as a natural reservoir, providing water security for agriculture, industry and domestic water supplies. Draining and degradation result in less water retention, reducing filtration and water storage, and increasing the sediment load and dissolved organic matter in the water that flows from the peatlands.

In the UK, the FTSE100-listed water utility Severn Trent has seen water quality improvements and treatment cost reductions following an investment of GBP 1.2 million in the Moors for the Future Partnership.[51] The target restoration area holds 9 million tonnes of carbon, and investment in restoration ensures this remains a strong carbon sink.

Severn Trent has been recognised for its work with the Moors for the Future Partnership to restore peatland, including a commitment to plant over 600 hectares of sphagnum moss by 2025. Moors for the Future operates landscape-scale restoration across the Peak District and South Pennines and is part of the Great North Bog.

4.3 How challenges for peatland landscape investment are being addressed by landscape initiatives

As peatland financing is relatively new, it can pose challenges to investors related to short-term profit priorities, awareness gaps, project complexity, regulatory gaps, market demand perceptions, and a lack of comprehensive tools to quantify and convey peatland's full value. Overcoming these barriers requires recognising non-market benefits and adopting a multifaceted approach involving incentives, policies, awareness campaigns, and collaboration. Landscape initiatives are working to overcome these challenges to provide greater clarity and certainty to investors.

- **Proof of concept**: Landscape-level financing is a nascent asset class with a limited track record. To address this landscape initiatives are using funds from impact investors, the public sector and philanthropists to demonstrate proof of concept.
- **Long investment horizons:** The long-term timescale of landscape initiatives helps ensure impact at scale in ecosystem restoration, social safeguards and benefits to local populations. However, it means return on investment can take time. Landscape initiatives are working to generate the required long-term commitment from stakeholders by developing a shared vision and agenda and establishing leadership in local institutional structures.
- **Calculating returns:** The economic returns generated by landscape initiatives are not always obvious to investors. Investment indicators tend to focus on returns generated directly by projects, and overlook benefits such as avoided costs from reduced risk of landslides, flooding, drought or fires. Landscape initiatives are aiming to engage early with investors on methodologies to integrate these returns into investment indicators.
- **Quantifying impact:** Because landscape initiatives generate benefits beyond the economic realm, quantifying their results involves complex methodologies. This complexity can increase the perception of risk in landscape-scale investments. Landscape initiatives are developing indicators and monitoring systems that can effectively calculate impacts at both project and landscape level, and report results in ways that are easily understood and align with international reporting systems for the public and private sector.
- **Government incentives:** Governments can provide visibility and promote the implementation of landscape initiatives by integrating them into policies and activities to meet climate and biodiversity targets. For example, regulations and market instruments such as tax reductions can increase the attractiveness of investing in landscape initiatives. Initiatives such as Peatland Finance Ireland and the Flow Country Green Finance Initiative are working with government agencies to develop incentives and blended finance to encourage landscape-level investment.

CASE STUDY 07

Peatland Finance Ireland

Peatlands cover 1.5 million hectares in Ireland. Approximately 30% have been degraded through activities such as draining and agricultural practices. Peatland Finance Ireland (PFI) aims to establish a national and catchment-scale financing system for peatland restoration, integrating ecosystem restoration with local economies and broader water management, incentivising restoration, and delivering benefits for carbon, biodiversity, water, and people.

PFI was established as a legal entity in 2022, facilitated by University College Dublin and the Landscape Finance Lab, with initial funding and support from the European Investment Bank and Ireland's National Parks and Wildlife Service. The PFI Steering Group includes key government departments, semi-state bodies, financial advisors, and community representative organisations. It has established advisory groups to lead on the development of key financial, technical and social aspects of peatland restoration.

One group of stakeholders will develop a financing mechanism with potential for investment in carbon, payment for ecosystem services and biodiversity credits, and support from government sources that can de-risk investment. An Irish peatland standard, based on the UK Peatland Code, is being developed for a robust and consistent approach to measurement, reporting and verification of ecosystem services. PFI will ensure equitable distribution of benefits and support bankable projects through micro-credit schemes and capacity building.

Preliminary investigations suggest that feasible restoration actions can be conducted with current carbon prices. PFI is currently working on demonstration projects in former peat extraction areas; forestry (carbon and water benefits from peatlands where trees have been removed); agriculture (restoring peat layers under farmland); and water (providing ecosystem services to industry and government agencies). These pilot sites will provide pathways for scaling.

4.4 Commercial financing for peatlands restoration

Restoring degraded peatlands can be costly but costs do vary greatly depending on the terrain, ease of access by machinery and state of degradation. One UK study[52] states it can be EUR 2,465 per hectare[53] while a recent study for Germany assumed an average EUR 4,000 per hectare. Costs can be lower if landowners undertake restoration work themselves. For example, in Ireland restoration costs were as low as EUR 400 per hectare where organisations used "in-house" staff and machinery for restoration in lowland areas. It is essential to establish long-term payment measures to incentivise farmers and landowners. There are four primary options: productive land use through paludiculture; carbon payment systems; new biodiversity credit systems; and payment for ecosystem services.

4.4.1 Productive land use

Paludiculture, wet farming, in the context of peatlands, seeks to preserve peat soils by working with naturally wetter climates, rather than fighting it.[54]

Initiatives like Natural England's Paludiculture Exploration Fund have been created to help projects tackle barriers to developing commercially viable paludiculture on lowland peat soils.[55]

Paludiculture can be an attractive private sector investment with the potential for profitable returns. Wetland-adapted crops can be used for bioenergy, construction materials, and food products. For example, reed (*phragmites*) and cattail (*typha*) can be used for biofuels (pellets or bioethanol), thatch for roofing, and insulating panels.

4.4.2 Carbon payments

A carbon credit represents either removing from the atmosphere, or avoiding emitting, one tonne of carbon dioxide equivalent (1t CO2e).[56] Organisations buy carbon credits to actively absorb their GHG emissions, or those indirectly generated as a consequence of their value chain (see case study 09), or to claim a contribution to societal climate targets. Sellers use them to raise finance for projects that reduce GHG emissions.

There are two main types of carbon credit system: mandatory, also known as cap-and-trade, (e.g. the EU Emissions Trading System [ETS]); and voluntary, used primarily by companies looking to offset emissions generated during their business activities. The voluntary carbon market (VCM) is much smaller than the mandatory market, but also less regulated. The ETS, for example, does not allow developed nations to use land use projects as offsets.

Peatlands have immense carbon market potential as restoration can substantially reduce emissions and ultimately sequester carbon. The right carbon price can make costly restoration projects viable. A 2021 study of peatlands in Northern Ireland found that for every GBP 1 spent on peatlands, GBP 3.91 were generated in return, 92% of which is related to changes in carbon sequestration.[57]

Peatland carbon credit programmes can be challenging due to the availability of cheap carbon credits on the global market that can be as low as one dollar. Carbon credits generated from peatland restoration in Europe need a higher price to cover the cost of restoration and to incentivise landowners to change their land use. Some international initiatives, such as the SBTi, encourage companies to purchase credits linked to GHG removals to compensate for their residual emissions, rather than those reducing or avoiding emissions (see case study 09) which can disincentivise companies from buying peatland credits. The measurement, reporting and verification standards and codes described in Section 5.2 below have found ways to address some of these challenges. These frameworks have also achieved interesting carbon price levels: the MoorFutures® scheme sold credits for EUR 35 per tonne of CO2e when it was set up in 2010, and the first sale of carbon credits by Valuta voor Veen in the Netherlands achieved EUR 70 per tonne in 2020[58]; the UK's Peatland Code carbon price index for PIUs (Pending Issuance Units – effectively carbon credits in advance) was GBP 24 (EUR 28) per tonne with a spread of GBP 25 (EUR 29) in 2022. [59]

Higher carbon prices could enable peatlands to generate income that compares favourably with other land uses, especially in combination with paludiculture, or agricultural and environmental subsidies.

National and regional level standards and codes can also offer advantages to national and local businesses and investors that can support higher carbon prices. For example, restoration sites are accessible so that investors can showcase their projects to clients, the media and staff, providing opportunities for promotion and staff motivation. The multitude of benefits provided by peatland restoration can also demonstrate a broader investment in nature and society beyond carbon offsetting.

BOX 03

Additionality

Additionality means that a project would not have gone ahead in a "business as usual" scenario, so any emissions reduction is "additional". Legally required (e.g. requirement under a planning consent), or economically attractive ways to reduce GHG emissions are not "additional". Voluntary and mandatory schemes use various methods for assessing additionality, which can vary from country to country.

The approach has been criticised for the so-called "paradox of additionality", where there is no economic incentive for farmers or landowners to maintain good environmental practices. Projects that restore degraded peatlands, for example, may qualify as "additional", while those that maintain healthy and well-managed peatlands do not. This can reward landowners who have allowed their peatlands to degrade while penalising those who have maintained them. Carbon standards should have mechanisms in place to make sure a landowner cannot destroy their peatland today and claim carbon credits for the restoration tomorrow.

Other sources of funding and financing can support the maintenance of intact peatlands, such as government and philanthropic grants. There is also potential for "discounted additionality", where, for example, restoration goes beyond what is required by law and a proportion of the carbon retained or sequestered is considered additional.

CASE STUDY 09

Science-Based Targets initiative

The Science-Based Targets initiative (SBTi) provides a rigorous, science-driven framework for organisations to set emissions reduction targets aligned with global climate goals. By ensuring that targets are based on sound evidence, it helps businesses and governments take effective actions to reduce emissions in line with limiting global warming to 1.5°C. More than 1000 companies are committed to the Business Ambition for 1.5°C campaign. These companies represent over USD 23 trillion in market capitalisation, more than the GDP of the United States.[60]

SBTi recommends that after a company's net zero target date has been reached, companies should only use carbon credits linked to GHG removals to offset residual emissions. Carbon removal eliminates carbon after it has entered the atmosphere, for example through direct air capture (DAC). The carbon is stored permanently in terrestrial or marine reservoirs. Emission reductions, on the other hand, seek to minimise GHG emissions, for example by reducing fossil fuel use.

Because peatland restoration primarily leads to active emission reductions rather than removals, some companies are reluctant to purchase carbon credits related to peatland restoration. Experts and institutions leading peatland restoration are advocating for SBTi to change this approach, or to make exceptions for ecosystem restoration projects that have the same impact on the atmosphere as removals while having multiple benefits beyond avoiding carbon emissions. There have been some efforts to promote an additional category of carbon offsets that specifically relate to ecosystem restoration.

4.4.3 Biodiversity credits

In December 2022, world leaders at the UN Convention on Biological Diversity's COP15 pledged international cooperation to reverse ecosystem destruction. They agreed to the Global Biodiversity Framework, which calls on signatories to stimulate innovative financing schemes such as biodiversity offsets and credits.[61]

Biodiversity credits, or biocredits, represent a quantifiable unit of biodiversity that is being conserved or enhanced.[62] Some biocredits measure habitat restoration as a proxy for biodiversity while others use metrics that measure species richness. Corporates and governments are increasingly interested in their potential to support conservation. Several types of biocredit could be applicable to peatland restoration:

- Biodiversity-linked carbon credits (often referred to as "charismatic carbon") may receive a price premium on voluntary carbon markets (MoorFutures® 2.0).[63]
- "Beyond value chain" biodiversity credits, for corporate entities and investors, are being set up in Australia, the UK and New Zealand.
- Insetting credits involve companies integrating biodiversity conservation into their operations or supply chains, rather than "offsetting" negative impacts.

The first biocredits were sold in 2022 in New Zealand.[64] They have so far been linked to three main types of activity: preserving ecosystems at high risk of degradation; preserving ecosystems with high biodiversity; and restoring degraded ecosystems with low biodiversity.

While jurisdictional programmes, for example in the UK and Australia, are regulated, biocredits need further regulation and policymakers are moving towards mandatory disclosure and management of nature-related impacts to address this. Biocredits are still new and evolving, the market could hit an estimated USD 160 billion by 2030.[65] Peatland landscape initiatives aim to supplement financing from carbon credits with those from biocredits.

4.4.4 Water-related payments for ecosystem services

Functional peatlands and sustainable wet agriculture practices provide ecosystem services such as water storage, water purification and flood attenuation. Initiatives such as the Moors for the Future Partnership in the UK (see case study 06) have received private sector investment in water-peatland restoration with water companies receiving benefits in terms of reduced costs for water treatment. Some peatland standards described in section 5.2 have incorporated payment for ecosystem services related to water, 'bundling' them with carbon and biodiversity credits.

Investment in peatland restoration by the public and private sectors is currently being explored in Ireland, where upland blanket bogs provide the majority of potable water for cities, and financial benefits and risks related to water are increasingly understood by business stakeholders. The benefits in terms of reduced water flow and suspended solids as a result of restoration can be quantified based on Volumetric Water Benefit Accounting methodology.[66] The Volumetric Water Benefit of restoration at a blanket bog site near Dublin is being assessed with a view to providing companies with credible data for reporting the impact of their investment. The country's water provision and treatment utility, *Uisce Eireann* (Irish Water), also has a keen interest in the cost savings of "upstream thinking".

The benefits of sustainable water management related to peatland restoration can be seen more directly at a local level, usually within a river catchment area, than is the case with carbon credits. This makes it easier to identify the stakeholders that receive direct benefits from the ecosystem services and can facilitate investment in restoration.

05 Scaling financing to peatlands

5.1 Investment risk reduction through public sector support

While it provides multiple opportunities for returns, peatland restoration is a relatively new category for investors and therefore may be perceived to carry high risk (see section 4.3). Landscape initiatives are working with government and other stakeholders to implement mechanisms to de-risk investment and allow private sector participation. These include:

- **Risk sharing:** Public sector investment, or donor monies, can be structured to provide credit enhancement to private investors and increase their confidence in a project's financial viability through various risk mitigation mechanisms that limit potential losses due to unforeseen events, or project underperformance. These can include revenue guarantees, first loss tranche protection, or risk-sharing agreements.

  The UK Big Nature Impact Fund, for example, includes GBP 30 million of first loss capital seed money to attract private investment into natural capital, including peatlands.[67] In Scotland, the proposed Price Floor Guarantee aims to build confidence in this early-stage market by providing a minimum price for carbon that reduces risk for investors in peatland restoration projects.[68] In Ireland, PFI (see Section 4.2) is working with government agencies to look at the potential for funding to de-risk private investments by taking first-loss as a credit enhancement mechanism.

- **Direct financing:** Public sector funding often includes subsidies or grants that directly offset project costs, assisting a landscape initiative to develop to a stage where it is financially feasible and has a higher probability of providing a return on investment. Subsidies and grants also help reduce risks for private investors by lowering the upfront financial burden.

- **Technical assistance:** Public sector support can take forms such as technical assistance or capacity building. This includes sharing best practices, providing access to expert advice, and helping investors navigate the complexities of peatland restoration. Technical assistance reduces operational risks, improves project outcomes, and can sometimes be considered to be a risk mitigation mechanism. The EIB, for example, has provided technical assistance to support the development of PFI including pilot pathways, a financing mechanism and an Irish Peatland Standard (see section 4.2).

- **Market integrity:** Governments can give investors confidence in the integrity of carbon credits by ensuring that a robust system of monitoring and verification is in place. For example, the Peatland Code, owned by the IUCN UK Peatland Programme, is recognised by the UK government, and similar standards are in place or under development in other countries (see Box 03). For payment for ecosystem services and biodiversity credits, governments can play a leading role in establishing national systems that provide frameworks for project development and investment.

- **Programmatic synergies:** Governments can help create synergies between different types of programs and schemes for agriculture and rural development. For example, the EU's Common Agricultural Policy provides payments to farmers for environmental outcomes such as enhancing biodiversity. Regional development programmes usually promote the development of local business. By aligning these schemes with peatland restoration efforts, governments can provide strong incentives for the development of projects and business start-ups that are ready for investment.

Such mechanisms collectively enhance the attractiveness of peatland restoration projects by lowering financial, operational, and technical risks, while also aligning the project's goals with broader environmental and social objectives.

5.2 Providing certainty through robust standards and monitoring frameworks

Robust MRV systems can give confidence that results are being achieved at the level of projects and the landscape as a whole. Global standards such as Verified Carbon Standard (VCS) and Verra[69] which offer methodologies for rewetting drained tropical and temperate peatlands. Several systems have also been developed that are aligned to international systems while being adapted to the national and local context.

In the context of recent criticisms of global MRV systems in the voluntary carbon market, national and regional frameworks provide additional quality assurance. Often cheaper and more convenient for projects to apply, they allow for regional approaches that align with government and business monitoring and reporting requirements. They also create the potential for 'bundling' carbon credits with biodiversity credits and payment for ecosystem services, as detailed in Section 4.

BOX 04

National and regional carbon standards

International carbon standards can be applied to peatlands but can be costly, especially for small projects. Peatland-specific standards developed at national and regional level include the UK Peatland Code, MoorFutures® in Germany and Valuta voor Veen in the Netherlands.[70] They can be applied at lower cost, allowing small peatland project developers to access financial incentives for peatland restoration. Focusing on the national and regional level they can also cater to local conditions and peatland types.

The **MoorFutures®** scheme, introduced in Mecklenburg-Western Pomerania in 2010, was the world's first regional carbon credit scheme for peatland rewetting. It is based on the VCS standard for rewetting drained temperate peatlands and adapted to fit the regional context.[71] Emission calculations are based on water level and vegetation surveys (Greenhouse Gas Emission Site Types). Credits are sold at a regional and national level, issued and registered by the State Ministry for Environment and Agriculture. In addition to Mecklenburg-Western Pomerania, the scheme also operates in neighbouring peatland-rich states of Lower Saxony, Schleswig-Holstein, and Brandenburg.[72]

The **UK Peatland Code**, a voluntary national standard launched in 2015 by the IUCN UK Peatland Programme and backed by the UK government, provides assurance and clarity for business and other investors in peatland restoration projects through independent validation and verification. The Peatland Code addresses scientific uncertainties surrounding peatland carbon emissions by applying conservative eligibility criteria. Emission reductions are calculated using the latest scientific evidence and it also has strict criteria on additionality. Projects are listed on the public UK Land Carbon Registry, managed by S&P Global, which displays project data as well as the ownership and use of carbon units.

Valuta voor Veen (Currency for Peat) in the Netherlands aims to compensate for the loss of farmers' income due to rewetting and operates on a voluntary basis. It focuses on potential emissions reduction without substantial changes in current land-use intensity and business models. Certification is carried out by the National Carbon Market Foundation.

Peatland Finance Ireland is developing an Irish Standard for peatlands, based on the UK Peatland Code, which will account for specificities of carbon emissions from Irish peatland ecosystems as well as land tenure and legislation in the Irish context. PFI has established an Advisory Group made up of Irish government departments, universities and other stakeholders that will work with experts and IUCN UK to develop the standard. The standard development will also be informed by pilot projects in Ireland. The first version of the standard should be available in late 2024 following public consultation.

Responsibly Managed Peatlands Standard is a standard for responsible horticultural peat moss production, implemented in USA, led by SCS Global Services and Veriflora Standard.[73]

Standard Methods for Estimating Greenhouse Gas Emissions from Forests and Peatlands in Indonesia is a framework used to estimate GHG emissions and removals from peatlands, in Indonesia, is led by the Indonesian National Carbon Accounting System (INCAS), from the Ministry of Environment and Forestry Research, Development and Innovation agency.[74]

5.3 Financial instruments

Financing mechanisms range from impact-first non-returnable capital, such as grants, to finance-first liquid instruments traded on exchanges. Their structure depends on factors such as their intended purpose and legal jurisdiction. Blended finance structures are commonly the most effective way to catalyse private sector capital towards nascent asset classes.

Phased approach

As peatland restoration is a relatively new area for large-scale investors, few are likely to engage in the short-term. However, some "impact-first" investors are willing to take on higher levels of risk and relatively lower financial returns, if investments will also generate non-financial returns such as increased biodiversity, socio-economic benefits, and increased resilience and mitigation of climate change. Once impact investors are engaged and there is proof of concept, it opens the door for corporates and institutional investors to engage and invest via blended finance structures, allowing for larger amounts of capital to flow. The typical anticipated stages in developing a large-scale landscape approach and engaging investors are outlined below.

FIGURE 6 **Three stages to building a peatlands finance industry.**

Timeframe	2023-2025	2025-2030	2030-2050
Stage	Pilot	Scaling	Mature market
Key Outcomes	- Pilot peatlands financed - Proof of concept	- Increased flow of capital - Geographic diversity	- Standards established - Recognised asset class
Financing Engaged	- Impact + philanthropy - Concessional	- Concessional - Blended finance	- Blended finance - Capital markets

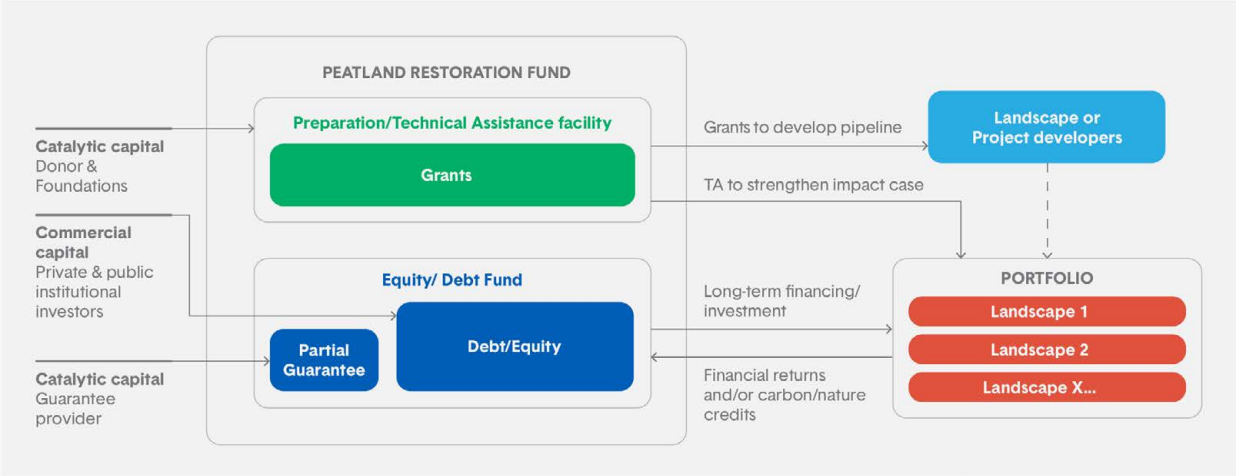
Potential peatland restoration fund

Initiatives are being developed to meet needs at a regional and national level and in a manner that will allow capital to flow at scale. Combining instruments can help mobilise private finance, although this must be traded off against additional complexity and minimum concessionality.

One possible structure for a peatland restoration fund is outlined below. Strong, structural links to pipeline originators will be critical. Grant funding from donor governments, philanthropies and/or climate finance institutions could be allocated directly to landscape developers via an integrated landscape/project preparation facility. The fund could also input to the design of incubator or accelerator facilities to improve the relevance of other potential sources of pipeline.

An additional pool of grant funding for Technical Assistance can help strengthen the impact case and address ESG deficiencies for portfolio landscapes. Private capital, whether debt or equity, could be further de-risked via a partial guarantee at the fund level including a minimum price for carbon credits. Careful sequencing of instruments will be imperative to ensure that incubators, accelerators and landscape or project preparation funding are deployed first to create a pipeline of investable opportunities for the fund.

FIGURE 7 **Concept for a peatland restoration fund.**



- **What is the fund's intended impact?** The scope of the fund will determine its impact. For instance, different projects will:
  - deliver different outcomes for peatlands (e.g. protecting intact peatlands vs. restoring degraded areas);
  - create impact directly or indirectly (e.g. peatland restoration with direct impact vs. businesses that benefit from healthy peatlands and so create incentives indirectly for protection and conservation);
  - generate different combinations of co-benefits (e.g. sustainable wildfire reduction vs. diversifying livelihoods).
- **What is the fund's target return?** Landscapes offer variable return profiles, from negative to low, below market, market and above-market rates. Landscapes may generate direct returns or carbon credits, which can be distributed to investors directly in return for investment, or sold to generate a financial return. The set of landscapes in scope and their relative proportions will impact the overall average return of the fund.
- **Does the scope offer scale and flexibility?** A broader set of business models and geographic areas in scope increases the pipeline of available projects, and diversifies the portfolio. While the pipeline remains nascent, getting to scale may require a wider set of investment themes.
- **What does the scope imply for capacity and expertise?** A broader set of business models and geographic areas in scope requires a correspondingly larger set of capabilities within the team, and a larger network of experts and partners on the ground, with implications for the cost of operation. This consideration is typically a trade off with scale and flexibility.

Peatland landscape initiatives

Landscape-scale peatland initiatives are currently being developed across Europe, bringing key stakeholders together around a common vision for peatland restoration at national and regional level, and considering or developing financial mechanisms for scaling up investment. They all share a common approach of looking to align government and private sector funds to enhance peatland restoration and deliver multiple benefits to nature and society while providing return on investment.

Peatlands Finance Ireland and the Flow Country are in the process of establishing such financing mechanisms, and the EU-funded WaterLANDS project (see Section 4.3) is supporting the development of financing at several sites. A learning network has been established for sites within and outside the project to share their experience of governance, financial mechanisms, developing a positive enabling environment and approaches for promoting the equitable sharing of benefits with communities and landowners.

CASE STUDY 10

WaterLANDS

WaterLANDS is a EUR 23.6 million, five-year EU-funded project to restore wetland sites and develop tailored financial solutions and resources that can lay the foundations for scaling across wider areas. As well as promoting collaboration at European level, WaterLANDS is engaged with four peatland landscapes:

- Cuilcagh-Anierin, Ireland: a blanket bog site covering 9,735 hectares in northwest Ireland where farmers are actively involved in restoration
- Ems-Dollard estuary: coastal farmland on the border between the Netherlands and Germany that has a high peat content and potential for restoration
- Yorkshire, England: the Yorkshipre iCASP action site covers 80,000ha of blanket peatland including parts of three National Parks: Peak District, Yorkshire Dales and North York Moors, which in turn form part of the larger Great North Bog landscape (see case study 05)
- Pärnu, western Estonia: an area with high potential for large-scale peatland restoration, providing a broad set of ecosystem services

06 Call to action

While different investor types will have different risk appetites and motivations to invest in peatlands, all investors can benefit from helping to shape emerging frameworks to facilitate investment in the longer term.

What investors can do now:

Support pilot landscapes

- Provide initiation and technical assistance funds for peatland landscape design and development.
- Invest in lessons exchange and methodology development to simplify the processes of peatland landscape development.
- Train staff in the essentials of landscape approach and landscape finance.

Catalyse private sector capital

- Work with a range of asset managers, including, but not limited to, governments, DFIs/MDBs, impact investors, institutional investors to catalyse private capital to peatland restoration using blended finance structures.
- Deploy capital into pilot projects, develop proof of concept and track record which will allow investors to gain confidence to invest in peatland restoration projects.
- Collaborate with peatland restoration initiatives to develop effective methodologies and tracking systems. These should evaluate and provide financial and ecosystem returns on investment, while also considering the broader advantages of restoration for the climate, nature, and society.

Adopt and support high-integrity science-based target setting and disclosure frameworks

- Integrate nature into corporate decision making using frameworks such as TNFD and disclose nature impacts and track progress against key benchmarks, such as SBTi.
- Adopt carbon and nature accounting methodologies to embed nature within internal decision-making processes.
- Collect and share peatland restoration data using robust standards to build the trust and transparency that are needed to drive innovation for investing in peatlands.

Share best practises, lessons learned, and examples of success across public and private sectors

- Demonstrate the opportunity for investing in peatland restoration and showcase the bankability of these projects.
- Highlight investors' needs towards governments, communities and other stakeholders of peatland landscape initiatives to enable capital to flow to peatland restoration.
- Engage with peatland landscape initiatives to deepen understanding of the potential impacts and co-benefits of peatland restoration for local communities and indigenous peoples.
- Harness the power of technology to collect and share high-quality data and analytics that investors, businesses, civil society and governments need to scaling up investments in peatland restoration.

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