FUTURE SCENARIOS FOR IRISH PEATLANDS 2050

What are scenarios?

A scenario is a story that describes a possible future. This project uses an adapted version of the Oxford Scenario Planning Approach developed at the Saïd Business School, University of Oxford. In this approach, scenarios are plausible, relevant descriptions of the future context for an issue or entity, designed to challenge and contrast with current understandings and expectations of how that context will evolve.

Scenarios are built by exploring how present-day uncertainties in the wider environment may play out over time in ways which challenge our assumptions. They are not predictions, forecasts, or expressions of desired future states.

Why are we using scenarios?

During the workshop, we will use the scenarios outlined below to better understand how future social, economic and environmental worlds will be served by the choices we are making for peatlands today. Scenarios inform strategy and policy by helping us to re-perceive the context within which we operate, seeing things afresh from the vantage point of multiple futures. This fresh thinking allows us to explore new options for individual, collective, and systemic action, informing wiser decision-making in the here-and-now.

How to use these scenarios?

Each scenario contains elements of the present context and articulates dynamics that may already be emerging. Before the workshop, we ask participants to familiarise themselves with the scenarios by reading through the following materials and time traveling with us to these possible peatland futures. This document contains:

- Introduction to the three *Peatland Scenarios 2050*
- Scenario Overviews and Characteristics of possible future contexts
- Story Highlights: further details of how this context might play out

Click here to register for the workshop on Eventbrite

This set of scenarios were created by the Peat Hub Ireland team in partnership with Dr. Matt Finch and developed out of the <u>IMAJINE scenarios</u>, a foresight project funded by the European Commission's Horizon programme to explore questions of regional inequality across Europe. The project is funded under the EPA Research Programme 2021-2030 and co-funded by the Department of Agriculture, Food and the Marine.

An Roinn Talmhaíochta, Bia agus Mara

Department of Agriculture, Food and the Marine



PEATLAND SCENARIOS 2050



Peatlands for Profit

Sustainable peatland management is a high tech corporate enterprise

National governments give way to corporate citystates as the private sector takes over duties which once belonged to the state. Social and economic life migrates to virtual spaces. Peatland management is an automated enterprise run by a small, highly skilled pool of workers. Irish peatlands are protected within a Europe-wide plan for sustainable economic growth. Energy parks and data centres are located at many peatland sites.



Politics of Peatlands

Sustainable peatland management becomes ever more contested

Conflict over cultural and social norms breaks Europe into a mosaic of divergent regions, with vastly differing interpretations of sustainability, equity and environmental management. Peatlands are contested spaces in the European culture wars. In some areas, innovation, sustainability and collaboration is evident in peatland management but in others, there is inequity in the sharing of benefits and burdens. The years of polycrisis have had a huge impact on social cohesion and trust.



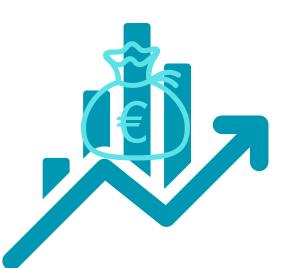
Peatlands for People and Planet

Sustainable peatland management for wellbeing of people and planet

Climate catastrophe forces humanity to collaborate and act, prioritising sustainability and survival. With increasing competition for safe territories, populations flee flooded coastlines and cities. The economics of profit and growth give way to sustainable stewardship. Ireland's responsibility to the new world order is equitable custodianship of peatlands for wellbeing of humans and nonhumans.







Peatlands for Profit



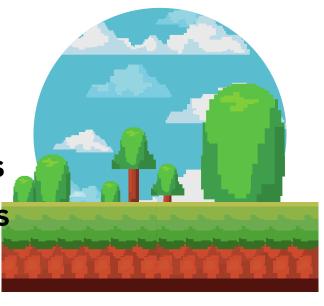
2050 Scenario Overview

Sustainable peatland management is a high tech corporate enterprise

National governments give way to corporate city-states as the private sector takes over duties which once belonged to the state. Social and economic life migrates to virtual spaces. Peatland management is an automated enterprise run by a small, highly skilled pool of workers. Irish peatlands are protected within a Europe-wide plan for sustainable economic growth. Energy parks and data centres are located at many peatland sites.

Characteristics of Peatlands for Profit Scenario

- Economic and social life takes new forms in digital spaces
- People disconnect from physical spaces and have little connection to peatlands and nature
- Access to communications infrastructure and digital literacy affects incomes and creates inequities
- Corporations provide public services such as utilities, education and healthcare for their employees



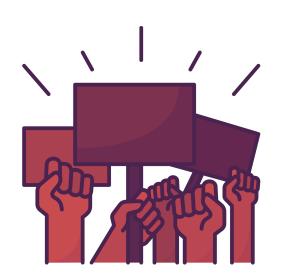












Politics of Peatlands



2050 Scenario Overview

Sustainable peatland management becomes an ever more contested concept

Conflict over cultural and social norms breaks Europe into a mosaic of divergent regions, with vastly differing interpretations of sustainability, equity and environmental management. Peatlands are contested spaces in the European culture wars. In some areas, innovation and collaboration is evident in peatland management but in others, there is disagreement and inequity in sharing of benefits and burdens. The years of 'polycrisis' have had a huge impact on social cohesion, collaboration and trust.

Characteristics of Politics of Peatlands Scenario

- Different regions across Europe embrace wildly varied ideas of identity, social value, and human wellbeing
- Some regions lead the world in environmentalism and sustainability, while others show an almost complete disregard for such concerns
- Communities define sustainability in different ways causing division amongst different societal groups, lower social connectedness and increased conflict















Peatlands for People & Planet



2050 Scenario Overview

Sustainable peatland management for wellbeing of people and planet

Climate catastrophe forces humanity to rewrite the global order, prioritising sustainability, cooperation and survival. With increasing competition for safe territories, populations flee flooded coastlines and pandemic-rife cities. The economics of profit and growth give way to ideas of sustainable stewardship and fair share. Part of Ireland's responsibility to this new world order is equitable custodianship of peatlands for wellbeing of humans and nonhumans.

Characteristics of Peatlands for People and Planet Scenario

- EU Structural Funds no longer distributed via GDP, but on social and environmental wellbeing indicators
- Sea level rise impacts coastal communities and rural areas are now highly valued and seen as safer from multiple risks
- New SEGs (Sustainability and Equity Goals) emphasise social-ecological justice, conflict avoidance, and solidarity
- Europeans in 2050 favour security over privacy, accepting tight surveillance and regulation











Sustainable peatland management is a high tech corporate enterprise

Peatlands for Profit - Story Highlights

Having displaced the nation-state, corporations own peatlands and manage them using advanced AI and robotic technologies, harnessing them as an asset for climate regulation through lowered emissions and carbon storage. Monitoring and mapping is carried out with satellites, sensors and other digital technologies developed since the 2020s that record a range of physical and biochemical data. People rarely work in or visit bogs anymore, as monitoring dashboards provide all data required. This results in reduced costs and reduced environmental impacts due to less need for human presence.

All major transnational corporations have HQs in Dublin, and Ireland has become a focal point for innovation and cutting-edge technologies using machine learning and advanced analytics for environmental management. Google Bogs is a corporate ESG initiative that funds carbon projects all over Europe and Apple's "WatchBog" is patented technology for monitoring peatlands. Corporate data centres sponsor peatland restoration projects and Lego's new Climate Solutions range includes a carbon storing peatland and diggers for dams. This investment in restoration projects results in lowered emissions from peatlands although monitoring has tended to focus on carbon and water quality (to avail of credits) rather than biodiversity.

Traditional upland farming dies out and people abandon rural areas for Smart Cities, but there is a perception that every aspect of people's lives is subject to intrusive surveillance. As Europe's "digital citizens" spend less time outdoors, efforts are made to incorporate the nature world into online games and social media. Virtual peatlands are among the most popular tranquil spaces in this online world, and the gamification of peatland science makes this knowledge accessible to a wider range of people.

Ireland is highly dependent on wind energy and this has resulted in societal tension and conflict in certain places, with protests at wind farm sites as energy is increasingly controlled by private corporations. However, much of Ireland's rural population in 2050 are too young to remember when bogs were open, wild expanses. Now the Irish countryside is dominated by wind and solar farms and energy parks.









Politics of Peatlands



2050 Scenario Overview

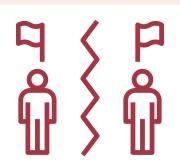
Sustainable peatland management becomes ever more contested

Politics of Peatlands - Story Highlights

Culture wars over issues like climate, the environment and cultural identity cause European society to fragment in the 2020s and distrust is rife. Social media continues to polarise, shaping societal narratives around climate change and the environment, with controversy and debates often manufactured by reactionary groups and vested interests. Crackdowns on misinformation and false content have largely failed due to lack of enforcement and lack of compliance by big tech. Some countries and cities forge ahead with decarbonisation, biodiversity conservation and environmental protection while others lag behind.

Peatland culture wars are ongoing as different societal groups have different visions for the future of Ireland's peatlands. Some see the bogs only as an economic resource, and a minority continue to cut turf every year as fuel prices have rocketed. State agencies under pressure from Europe are stricter on enforcement leading to local disruption and conflict. Radical and reactionary groups see an opportunity to align themselves with this cause and protests at bogs frequently become violent. The lack of trust between different sectors (civil society, academia, public and private sectors) impedes knowledge sharing and collaboration. Efforts to overcome silos stall as organisations are fearful and cultures become entrenched.

In contrast, innovation and opportunities are harnessed in some places as land access agreements are developed between communities, farmers and private landowners to manage undesignated bogs for social, ecological and community benefits. Scientists, artists, ecologists and archaeologists often work together on these projects using a variety of novel finance mechanisms. The "Rights of Peatlands" movement has gained a significant following, championed by artists and communities. Clara Bog becomes the first peatland in Ireland (and Europe) to be granted legal rights, a move that is backed by decades of research. Communities and civil society organisations are at the forefront of recognising a broader set of values for peatlands, highlighting benefits to wildlife and wellbeing so that people and peatlands can begin to coexist more harmoniously. However, the area of active peatland continues to dwindle due to climate change and other environmental and human impacts, and the sense of loss of a precious habitat and its heritage is felt by local communities and scientists alike.









Peatlands for People & Planet

2050 Scenario Overview

Sustainable peatland management for wellbeing of people and planet

Peatlands for People and Planet - Story Highlights

Climate and water security are at the forefront of landscape management and the "sustainability dashboard" for peatlands includes metrics for carbon storage, water and air quality, and social and nature-based benefits for human and nonhuman wellbeing. Turf cutting is all but abandoned as a practice by the 2030s. Places are monitored by drones as part of the new "environmental regulation and policing" agenda.

Winter storms cause the loss and damage of treasured cultural heritage in coastal areas including heritage associated with peatlands. The remains of the Ceide Fields structure has been excavated and moved inland after a partial cliff collapse. Peat slides on blanket bog have become increasingly common and communities are hugely concerned about the impact of these on wildlife and fish populations, as well as local water quality. Despite restoration efforts, there are catastrophic losses of peat carbon as drier summers lead to lowered water levels and increased oxidation of the peat. Bogs start to shrink as they dry out and wildfires are a danger to local communities and wildlife.

Peatland social enterprises, civil society organisations, and community co-ops proliferate. Paludiculture thrives under the EU's Common Food and Health Policy, producing a range of food products, construction and biotextile materials. Circular economy principles support home and commercial composting at scale, needed to combat ongoing soil erosion. Peat use in horticulture has been phased out. A "Renewable Energy Subsidy" (RES) replaces fossil fuel subsidies. Local sustainable energy generation exists alongside larger energy interests. Peatland research projects are designed for long term 10-20 year funding cycles but in the "Restoration Rush", companies vie for peatland projects and competition for prized contracts is intense.

With travel costly and environmental values ascendant, people tend to holiday at home. Looking for meaningful ways to spend their free time, they join nature conservation holiday packages, attending "bog breaks" and "soil festivals". These volunteer holidaymakers form part of wider networks of communities, agencies and businesses involved in peatland restoration, conservation, rewetting, and paludiculture.





