Senedd Cymru
Y Pwyllgor Newid Hinsawdd, Amgylchedd a Materion Gwledig
UK Emissions Trading Scheme: Common Framework
CCERA(5) ETS 01
Ymateb gan Ymddiriedolaethau Natur Cymru

Welsh Parliament
Climate Change, Environment and Rural Affairs Committee
Cynllun Masnachu Allyriadau y DU: Fframwaith Cyffredin
CCERA(5) ETS 01
Evidence from Wildlife Trusts Wales

Introduction

The world is starting to take note of the threat of climate catastrophe. In response, the Welsh government has joined many governments around the world in setting a net-zero emissions targets. However, we cannot tackle the climate crisis without a similar ambition to meet the nature crisis head-on; the two are inseparable.

The climate crisis is driving nature's decline; the loss of wildlife and habitats leaves us ill-equipped to reduce our emissions and adapt to change. Nature's incredible ability to trap carbon and provide other essential benefits is proven. But nature in the UK and Wales has seen a 60% decline in the last 50 years, and critical habitats are degraded and declining. Rapid cuts in our emissions must be matched with determined action to fix our broken ecosystems, so they can help stabilise our climate and our economy.

The UN **Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services** (IPBES) report[1] highlighted that around 1 million animal and plant species are now threatened with extinction. It listed **climate change as a significant driver of this change in nature along with pollution.** It called for 'transformational change' so that nature can still be conserved, restored and used sustainably – this is also key to meeting most other global goals.

It is estimated that, globally, nature provides services worth around US$125 trillion a year[2]. Governments, business and the finance sector are starting to question how global environmental risks will affect the macroeconomic performance of countries, industries and financial markets. The World Economic Forum[3] identified the global risks as extreme weather, climate policy failure and natural disasters and accelerating biodiversity loss. "*Of all risks, it is in relation to the environment that the world is most clearly sleepwalking into catastrophe."*

The Institute for Public Policy Research warns that climate breakdown, the poor state of the natural environment around the UK, pollution and our unsustainable use of natural resources are all increasing risks that are affecting our economy. In its report, the IPPR concluded that the UK stood on the brink of environmental breakdown[4]. The authors drew parallels with the coronavirus pandemic. Laurie Laybourn-Langton, the associate fellow at IPPR, said: "*The threats posed by the environmental crisis could also emerge quickly and could overwhelm our capacity to respond*."[5]
We must act now, and we must get this right. According to the Intergovernmental Panel on Climate Change (IPCC), decisions we take in the next 10 years are crucial for avoiding total climate catastrophe. We must kickstart nature's recovery and make nature-based solutions to climate change a priority.

Nature can make a massive contribution to achieving net-zero, but only if we restore our damaged

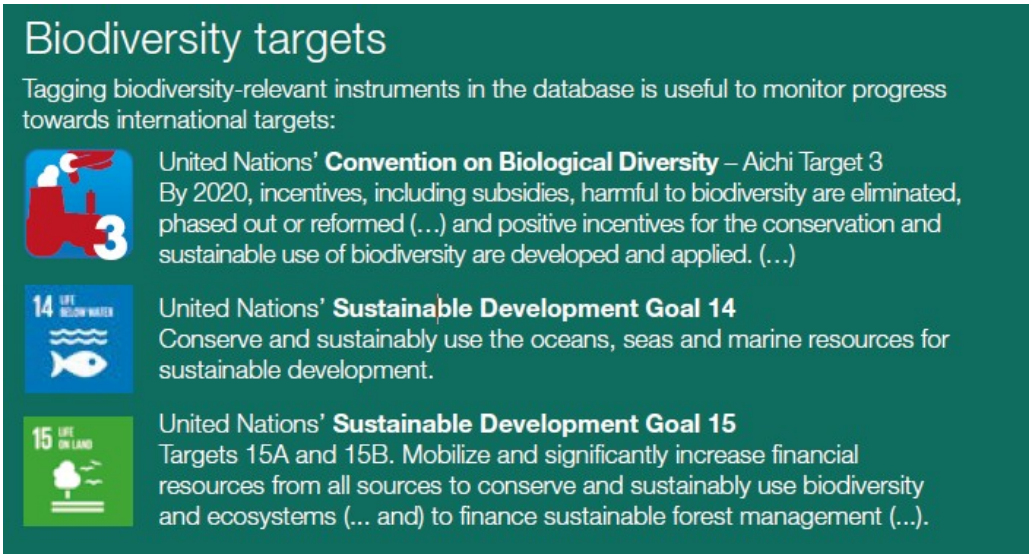
ecosystems**. Restoring our natural systems could provide 37% of the UK's CO2 mitigation needed by 2030 to mee**t **the Paris Agreement. But this will require substantial funding over the short to medium term. However, at the minute, there is no road map to investment into biodiversity recovery or climate action** beyond agricultural payments or the welcomed but short-term announcement of RDP funding.

Therefore, we propose that the **replacement to the EU Carbon Trading Scheme should fund nature-based solutions for climate change mitigation and adaption**. For example, peatland restoration, new native broadleaved forests and new wetlands, floodplain restoration[6] etc.

Using this finance mechanism isn't transformational change but rather a common-sense change. It is asking the polluter to pay

- to mitigate their impacts on biodiversity caused by climate change and
- absorb the carbon that they are emitting through nature-based solutions.

If these opportunities are taken, it will help Wales achieve its international commitments highlighted below.



Trading Scheme and Nature-Based Solutions

Restoring ecosystems, saving the climate and in doing so, improving people's lives needs to be central to recovery. We should not aim to rebuild the profits of private-sector industries or funding private companies to be less damaging. We should be using revenue from the scheme to fund nature-based solutions to climate change.

The **Greenhouse Gas Emissions Trading Scheme Order 2020**, Explanatory Memorandum states that "*the public sector will benefit from any auction revenues from the scheme. Using the two illustrative scenarios based on £15 per tonne CO2e (the Auction Reserve Price) and £32 per tonne CO2e, the 8.06 million allowances which were required to be purchased by Welsh participants in the EU ETS in 2019, and an assumption all allowances would be purchased at auction,* ***the annual transfer to public-sector would be between £120.9 million and £257.93 million. Under current practices, these funds are not hypothecated but contribute to general Treasury coffers****.*

However, ***an alternative approach the Welsh Government supports for is the establishment of an industrial decarbonisation fund to recycle auction receipts into funding packages for deep***

decarbonisation of our industries".

Welsh Government should investigate how this revenue can be used to fund nature restoration and nature-based solutions. This could be the single most significant opportunity for the government to shape the future decade, and it could give a significant economic boost to rural Wales.

The options could include 100% of the revenue going nature-based solutions or a percentage, with the rest going to '*decarbonisation of our industries'***.** If the latter option was preferred, Wales could use a similar model to the Landfill Disposals Tax (LDT) Communities Scheme.

Nature-Based Solutions

A new report by the Wildlife Trusts, *Let Nature Help*[7], suggest that nature-based solutions could store enough carbon to outweigh a substantial proportion of the UK's existing greenhouse gas emissions. Doing so would also help to protect wildlife populations.

It is worth noting that

1. Oceans absorb 20-35% of human-made CO2 emissions every year. Carbon is incorporated into the tissues of plants and animals, and later into mud and sediments.
2. Globally, plants have removed 25% of human-made CO2 emissions. Soils contain more carbon than is stored in plants and the atmosphere combined.

All of the following contribute to creating carbon sinks, which absorb CO_2 from the atmosphere;

- **Returning <u>degraded peatland and bog</u> to its natural state**. - Peatlands are the UK's largest store far more carbon dioxide. They occupy about 12% of the UK's land area and store 5.5bn tonnes of carbon, over half of the entire countries current carbon storage and more than 35 times that our forests (forests store 150m tonnes of carbon, although forests grow faster, and absorb carbon faster, than peatlands)[89]. But peatlands become part of the climate problem by giving off CO_2 when they dry out. Restoring peat moors is a relatively inexpensive way of tackling climate change by blocking up drainage ditches and bringing back vegetation to the moors.

  In a report this last July, the **Office for National Statistics estimated that fully restoring the UK's lost peatlands could cost between £8bn and £22bn over the next 100 years. But it predicted savings of £109bn in terms of reduced carbon emissions**[10]. And there are other advantages to healthy peatlands. They provide more than 25% of the UK's drinking water and also help to control flooding by soaking up heavy rainfalls and releasing the water more gradually.
- **Grassland** - UK grasslands store 2 billion tonnes of carbon, but this is vulnerable to disturbance. We can restore species-rich grasslands to lock up carbon and support abundant wildlife.
- **Cultivating marine meadows of seagrass** – they store carbon 35 times faster than tropical rainforests and harbour up to 40 times more marine life than seabed without grass. Seagrass can store about half a tonne of carbon per hectare per year, and more when it is mature. Seagrass covers just 0.2% of the ocean but provides an estimated 10% of its carbon storage. Seagrass has a high turnover of leaves, and the dead ones fall into oxygen-poor sediments below where they trap carbon, similar to peatlands. The meadows also slow currents, allowing other organic material to drift down and be trapped, potentially for thousands of years.

  The first seagrass restoration in Britain was in **Pembrokeshire**, which captured carbon

rapidly and offered habitat for lost marine life. However, seagrass beds are a rare habitat in the UK, a victim of past pollution and shipping. But the £400,000 Seagrass Ocean Rescue[11]project aims to change that and will ultimately place 20km of rope and a million seeds on the shallow seafloor, where they will sprout through the bags and restore the habitat.
The seeds are like small pine nuts, and many have been placed in their grow bags by **volunteer schoolchildren**. The first green shoots should appear by October.

The meadows are also a rich habitat, providing shelter and food for juvenile cod, plaice and other species. The 20,000 square metres being restored in Pembrokeshire could also support cuttlefish, pipefish and seahorses, and 200 million invertebrates such as the snakelocks anemone, stalked jellyfish and colourful snails. Seagrass meadows around the world also provide nurseries for a fifth of the world's biggest fishing species, including pollock, herring and whiting, meaning their restoration can improve catches. Seagrass restoration ticks so many boxes: climate, fisheries, water quality, biodiversity. But we will only get the benefits if we act now and at scale. Next in the team's sights are locations in North Wales, if funding can be obtained.

- **Restoring salt marshes and wetlands** – Wetlands can accumulate carbon for centuries, but in some areas of the UK, we have lost over 90% of our wetland habitat. Restored wetlands provide rich habitat, clean water naturally and reduce flood risk downstream

  Salt marshes lock away vast amounts of carbon by taking carbon dioxide out of the atmosphere through their plant leaves and storing it in the roots. And, when the plants die, the carbon becomes part of the soil. Saltmarshes also
  - help protect coastlines from storms, storm surges and erosion by creating a buffer between dry land and the sea, building up the height of the coast by trapping silt during floods and adding new soil from their decaying vegetation.
  - provide a refuge for birds, fish and invertebrates;
  - they provide clean water by filtering runoff, and they are low maintenance because they were naturally self-repairing.

  However, in many places, salt marshes have been destroyed by drainage for land reclamation, coastal developments, sea walls, pollution and erosion. Globally, about 50% of salt marshes have been degraded, and the rest remain under threat. Schemes to restore salt marshes have proved successful, such as the
  - **Wallasea Island Project**[12] - By 2025, the RSPB aims to have created 148 hectares of mudflats, 192 hectares of saltmarsh and 76 acres of shallow saline lagoons, with about eight miles of coastal walks and cycle routes allowing people to get closer to the island's wildlife.
  - **Essex Wildlife Trust's Abbotts Hall** is the site of a pioneering managed realignment scheme developed in 2002, and shows how farming and nature conservation can work side by side at the coast.
  - The **Anglesey and Llŷn Fens Project**[1314] - the North Wales Wildlife Trust (NWWT) is working in partnership with Natural Resources Wales, Dwr Cymru and Anglesey Local Grazing Partnership created a holistic management approach to restoring the fens.

- **Planting the right tree in the right place** - About 1 billion tonnes of carbon are locked up in UK woodlands, mostly in the soils. Planting more woods and allowing natural regeneration could lock up more carbon, but this must be carefully planned to maximise benefits and avoid harming other habitats. Wales has historically invested in ecologically damaging woodlands. In the 1980s, peatlands and moorlands were planted with conifer plantations with ecological and climate-damaging results. Although the industry now talks about the

provision of ecosystem service benefits, these can also be derived, often in greater quality and quantity, from Wales' native broadleaved forest. Commercial woodlands tend not to be certified and still caused land management concerns as well contributing to polluting our rivers. What is needed is the restoration and expansion of existing native broadleaved woodlands, such as Wales rainforests, the Atlantic Oak woodlands, otherwise known as the Celtic Forest, that hold on along our western coastline.

[1] https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/#:~:text=The%20Report%20finds%20that%20around,20%25%2C%20mostly%20since%201900.
[2] Costanza, R. et al. Changes in the global value of ecosystem services. Global Environmental Change 26: 152-158, doi:10.1016/j.gloenvcha.2014.04.002 (2014).
[3] World Economic Forum These are the biggest risks facing our world in 2019
[4] https://www.ippr.org/environment-and-justice
[5] https://www.theguardian.com/environment/2020/jun/24/tackle-uk-carbon-emissions-by-working-with-nature-government-urged
[6]https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/654440/Working_with_natural_processes_one_page_summaries.pdf
[7] Wildlife Trusts, Let nature help
[8] Guardian (Feb 2014) Plantwatch: Nature's finest soakaway
[9] Guardian (Dec 2019) Weatherwatch: restore peat bogs to fight climate change Peat moors store far more carbon dioxide than forests, as well as helping to control flooding

[10] Office of National Statistics - UK natural capital: peatlands July 2019
[11] https://www.projectseagrass.org/seagrass-ocean-rescue/
[12] https://www.rspb.org.uk/our-work/our-positions-and-casework/casework/cases/wallasea-island/
[13] https://www.northwaleswildlifetrust.org.uk/what-we-do-landing-page/wildlife-conservation/living-landscapes/anglesey-fens-living-landscape
[14] Anglesey and Llŷn Fens LIFE Project https://naturalresources.wales/about-us/our-projects/nature-projects/anglesey-and-llyn-fens-life-project/?lang=en