

## The Wildlife Trusts – Written evidence (NSD0036)

### Introduction

The Wildlife Trusts (TWT) is the UK's largest people-powered environmental organisation working for nature's recovery on land and at sea. There are 46 individual Wildlife Trusts covering the whole of the UK, the Isle of Man and Alderney. Every individual Wildlife Trust is its own charity and is also a member of the Royal Society of Wildlife Trusts (RSWT), a registered charity in its own right. RSWT leads the development and coordination of the movement and aims to ensure a strong voice for wildlife at a UK and England level. Together, The Wildlife Trusts have more than 800,000 members, 2,000 staff and 600 trustees. We look after more than 2,300 nature reserves, covering more than 98,500 ha. This makes the Wildlife Trusts' movement one of the top ten land holders in the UK. TWT also operates more than 100 visitor and education centres.

### Summary

We are in the midst of twin and inextricably linked nature and climate crises. Without a healthy, well-functioning natural environment, the UK will be unable to achieve Net Zero greenhouse gas emissions by 2050 because the natural environment will be unable to sequester and continue to store a sufficient amount of carbon to make that goal achievable. **Our key message is that the Government needs to afford nature-based solutions (NbS) significantly greater profile, attention and resources, on a par with that currently given to other areas of technology and engineering needed to reach Net Zero such as low-carbon transport and energy. Government also needs to invest in addressing major gaps in understanding, policy and regulatory mechanisms around NbS that, combined, will ensure delivery fulfils its potential, including the lack of globally agreed high Standards, regulation and understanding the full potential for the contribution of NbS to net zero.**

### 1. What is the potential scale of the contribution that nature-based solutions can make to decarbonisation in the UK?

The Wildlife Trusts are clear that if we [Let Nature Help](#), Nature-based Solutions (NbS) could contribute up to one-third of CO<sub>2</sub> mitigation required to reach and maintain net zero greenhouse gas emissions for the UK, or an even more ambitious target, whilst simultaneously delivering numerous [public co-benefits](#) and aiding nature's recovery. TWT undertook a [review of the scientific literature](#) concerning the relationship between habitat creation, restoration and management and atmosphere greenhouse gas levels to assess carbon sequestration potential per hectare for different land cover types and land use changes.

A diverse portfolio of NbS will be important on the path to Net Zero and crucial for adaptation, however, several ecosystems can play a particularly significant role:

- Peatlands – the UK's largest natural carbon store (estimated [11,000 MtCO<sub>2</sub>e](#)). However, the majority of UK peat is degraded, even inside designated areas, as a result of drainage and degradation. Emissions from degraded peatlands account for c. 5% of UK emissions and tips the UK's land use sector into a [net source of emissions](#). The restoration of

degraded peatlands offers the largest potential for natural emissions reductions on land.

- Woodlands – currently store around 1.09 billion tonnes of carbon in the UK and have high sequestration rates in younger years, ancient woods can also store significant amounts of carbon in above-ground biomass for centuries. Alongside protecting our ancient woodlands, the Climate Change Committee recommend woodland cover in the UK should increase from today's 13% to [at least 18% of by 2050](#), alongside other woody habitats, by planting the right tree in the right place to ensure this recommendation benefits both the climate and nature crises.
- Seabed – the marine equivalent of peat, the UK waters' subtidal muds alone are estimated to [store 23.9 Mt C](#). Bottom-trawling and scallop dredging fishing methods, as well as infrastructure development in the sea, damage this precious ecosystem, releasing carbon and depleting their ability to store more in the future. Sea use policy changes will be pivotal, in addition to innovation in infrastructure design, to protect and enhance the seabed's carbon stores.
- Saltmarsh – extremely important ecosystem for storing ([estimated 4.05 Mt C](#)) and rapidly and continually capturing carbon ([1 Ha can capture 2 tC per year](#)). Coastal realignment and saltmarsh restoration offer bountiful ways to increase carbon capture, benefit wildlife and increase coastal communities' resilience and adaptation to climate change.

But the UK is one of the most [nature-depleted countries](#) in the world and climate change poses further, systemic risks to the UK's nature. Natural carbon stores are at high risk of degradation and carbon loss from the more extreme climatic conditions that are already inevitable over the next 30 years. We need to restore [30% of land and sea by 2030](#), through implementation of landscape-scale nature recovery networks, kickstarted by an extra £1 billion per annum.

## **2. What major scientific uncertainties persist in understanding the effects of nature-based solutions and affect their inclusion in carbon accounting, and how can these uncertainties be addressed?**

At present, knowledge and evidence on UK habitats' GHG fluxes, the effectiveness of different NbS interventions in sequestering carbon over time, and opportunities for their deployment are the biggest gaps in understanding in the UK context.

Uncertainties that are common across all habitats are:

- Too few studies of greenhouse gas emissions and sequestration (and net flows) in situ from all habitats.
- Context-specific factors, such as local abiotic and biotic conditions, result in large data variations even for the same habitat. Identifying meaningful and reliable standardised emissions factors, therefore, is challenging. It is unclear if standard factors can be developed for habitat types other than woodland or peatland.
- Extent of risks to permanence vary between habitat and over time and space in the UK. As climate change progresses, so too will the risk to permanence of stored carbon in many existing habitats or nature-based interventions. This risk to permanence is not well-characterised or acknowledged in the UK or elsewhere.

Uncertainties and evidence gaps are highest for:

- Woody habitats excluding woodland – hedgerows, scrub, orchards and wood pasture
- Freshwater habitats including wetlands and floodplains
- Coastal and marine habitats in a UK context
- Changes to land management and grazing practices
- Soil carbon in mineral soils

The marine environment is the earth's largest carbon sink and there is significant potential to increase its carbon stocks, but we lack knowledge of this in a UK context. For example, in UK seas, where we have no deep waters, kelp ecosystems function differently to the kelp forests in the Pacific Oceans. In the UK's shallow seas, [kelp forests do not store carbon](#); but rather transfer it to adjacent habitats. Much has been made of kelp as a carbon 'product' for offsetting in the UK in recent years, yet the Government needs to ensure that UK-appropriate evidence informs the policy and practice around NbS delivery as part of its net zero pathway.

### **3. What frameworks already exist for the regulation and financing of nature-based solutions?**

There is a substantial shortfall in funding to develop NbS, which is not being filled by private investment alone; there has to be concomitant public investment. Whilst [small positive steps](#) have been made, they are not on a par with investment in technological or engineered solutions despite the co-benefits they provide – levelling-up in investment needs to occur.

Governments also need to provide the regulation to enable market mechanisms to operate, and these mechanisms in turn need to be well-regulated and robustly verified to ensure market players can act with confidence. The absence of regulation or a rulebook on carbon offsetting or removals, for example, has led to date to carbon offsets [commonly failing to deliver genuinely additional benefits for climate](#), even on the compulsory market. As a rule, offsets should be used as a last resort in achieving corporate Net Zero targets as recommended by the Science-based Targets Initiative and Climate Change Committee. TWT advocate that no more than 10% of hard-to-abate emissions are offset [using NbS] to ensure that absolute emissions cuts remain the primary path to net zero. Regulatory mechanisms need to embed this as a fundamental requirement for companies to access high credibility offset schemes.

The Woodland and Peatland Codes are examples where partners (Forestry Commission and IUCN-UK Peatland Programme (run by Yorkshire and Scottish Wildlife Trusts) working alongside DEFRA) have sought to provide better regulation creating surety to investors that these schemes will lead to real offsets; though the issue of risks to permanence still remains. The Peatland Code has been developed with very little support from Government (in sharp contrast to the Woodland Carbon Code) and a lack of core financing hinders its momentum.

#### **4. Who are the key stakeholders for the implementation of nature-based solutions in the UK? How can stakeholders' expertise and concerns inform the incentives and requirements for implementing nature-based solutions?**

Across the UK, TWT have been delivering a plethora of diverse and high-quality NbS for decades for the benefit of nature, climate and people. Examples of these place-based NbS including fenland restoration at [Great Fen](#), a partnership to [curb urban flooding in Sheffield, leading peatland restoration across Yorkshire](#), and cost-effective [saltmarsh restoration in Essex](#). We have restored to date more than 46,000ha of peatland, more than the Government's own target for 2025. We have identified another 200,000ha that could be restored by the Trusts if sufficient finance were available to do so. In 2021, Wildlife Trusts have also been piloting the [IUCN's Global Standard for NbS self-assessment framework](#) in England. TWT are primed with the skills, knowledge, experience and learning as a key stakeholder for implementing the necessary scale-up of NbS as part of the UK's pathway to net zero, but we cannot do it alone.

Government policy and legislative frameworks need to provide the mechanism for consistent, high standard delivery of NbS that ensure resilient NbS interventions optimal benefits for climate, nature and people, with both mitigation and adaptation as key objectives. In particular, due to the scale of necessary change that farming and land management faces, the Government has a clear role in helping to provide access to quality advice and training. It should commit to invest in an advice and training programme for both environmental and business advice and skills and provide support and incentives for land managers.

#### **5. How should implementation of nature-based solutions be integrated with other government policies for landscapes and seascapes, for example, agricultural, forestry, and land-use planning policies?**

There needs to be ambitious, legally binding, and enforceable targets for nature's recovery enshrined in the Environment Bill, with objectives for sustainable land use tied to meeting these targets. The Environment Bill and Planning Bills will need to sit together as a coherent overarching strategy, alongside the Climate Change Act, with other strategies and policies clearly linked back through to those three. This is not currently the case; the Government has not made clear how all of its different strategies fit together and how funding for NbS runs through those strategies. The Environmental Land Management scheme will be part of this picture but is not the only possible funding mechanism for NbS; the Government needs to be much clearer about which funds are supporting which actions, and which goals are being met through those actions.

#### **6. How should nature-based solutions be planned and monitored at the national level?**

The Government should invest greater resources in addressing the major gaps in understanding, establishing and enforcing robust standards and regulatory mechanisms, and evaluation of NbS effectiveness that, alongside lack of capital investment, are holding back the rapid scale-up of NbS. This will engender greater confidence and surety in the genuine additionality and permanence of benefits achieved for both buyers and delivery agents. The Government should

provide the necessary frameworks and datasets to enable NbS across the UK to be designed at scale, with local stakeholder involvement. This includes the integration of NbS into planning and delivery of Nature Recovery Networks and Strategies to maximise the multiple co-benefits of NbS interventions.

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