

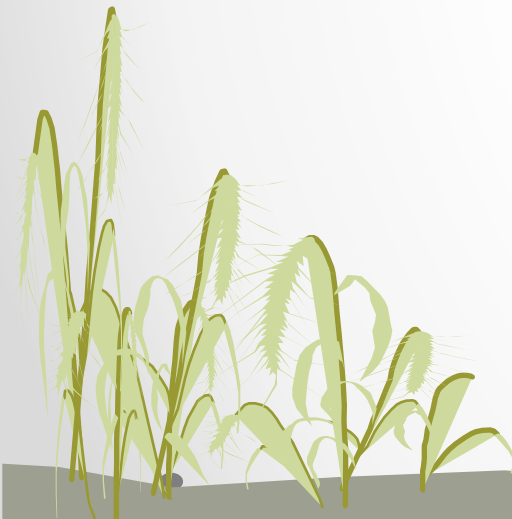


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# Nature Based Solutions

The role of partnerships

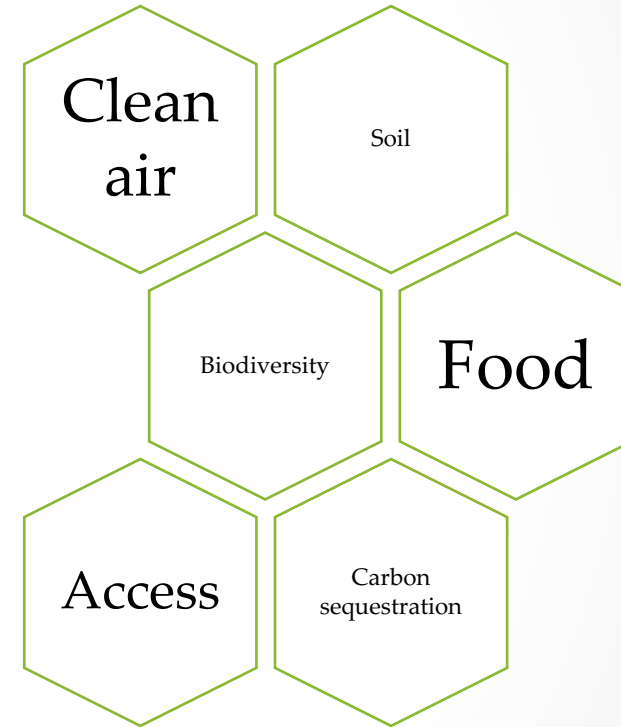
Prof Rosie Hails, The National Trust





# Multifunctional Land Use

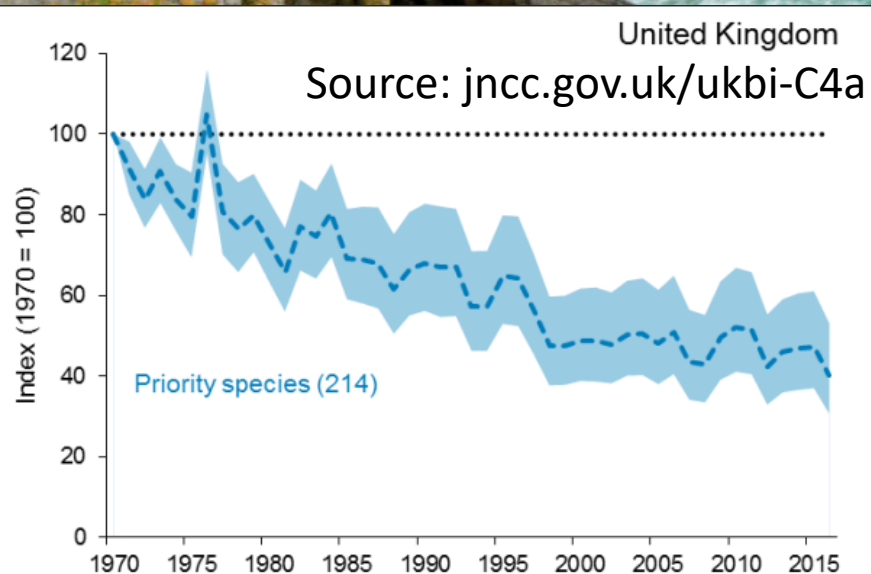
- Reducing our greenhouse gas emissions
- Sequestering carbon
- Reversing the loss of nature
- Increasing supply of sustainable high quality, nature- and climate-friendly food and timber
- Developing rural economic opportunities
- Restoring healthy soils, air and freshwaters
- Adapting to the effects of climate change
- Addressing inequality of access to nature
- Improving public health and wellbeing





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We are in the midst of a global crisis



## Sandeels and their availability as seabird prey



- Sandeels are an important trophic link between plankton and predatory fish, seabirds and mammals, and support a large fishery in the North Sea.
- Seabirds are particularly sensitive to sandeel availability because they depend on them to feed their chicks.
- Climate change can have a direct impact on the reproductive timing of sandeels and the phenology of the plankton prey they depend on, increasing the likelihood of a mismatch between sandeel larvae and their prey, leading to poor recruitment.
- Current approaches to managing sandeels include population level landing restrictions and closed areas. However, further restrictions on anthropogenic activities in seabird foraging areas could be considered. The growing contribution of alternative prey such as sprat requires that fisheries on forage species should take account of predator requirements.



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# And People need nature too

## 10 years of surveys by Natural England's Monitor of Engagement with the Natural Environment revealed:



Most people's experience of **nature** is close to **home**, in **green spaces** in towns and cities.



Spending time in **nature** is **good** for your **wellbeing**.



Engagement is **unequal**; low **income**, **ethnic** minority and old **age** groups are less likely to frequently visit.



Children's experience with nature is **varied**, with almost **25%** spending time outside less than once a month.



There are many **different** reasons and **barriers** people have for not **visiting** the environment.



Promoting people's **access** to nature should be an **aim** in itself because of the **benefits** it provides to **society**



**Concern** for the environment is **mainstream**, but most pro-environmental **behaviours** are not.



Time spent in the natural world provides **large** benefits to the **economy**.



# Priority Investment Examples



**Good evidence**  
(estimates of costs and benefits possible)

**Woodland planting** – of at least 250,000 additional hectares, located near towns and cities, such areas can generate net benefits in excess of £500 million per annum.

**Upland peatland restoration** – on around 140,000 hectares in upland areas. This would deliver net benefits of £570m over 40 years in carbon values alone. Further work is needed to determine water quality, recreation and wildlife values. Including these will significantly increase the net benefits of such investments.

**Wetland creation** – on around 100,000 hectares, particularly in areas of suitable hydrology, upstream of major towns and cities, and avoiding areas of high grade agricultural land.

**Protecting and expanding areas of intertidal habitats** – these provide a wide range of benefits including coastal flood protection, carbon storage, areas for wildlife and the provision of nursery grounds for commercial fish stocks.

**Improving fisheries management** – particularly white fish (like cod) and shellfish, which remain considerably below optimal levels. We recognise that reducing the level of fishing effort to allow stock to recover will have short-term impacts, but the long-term gains are potentially large.

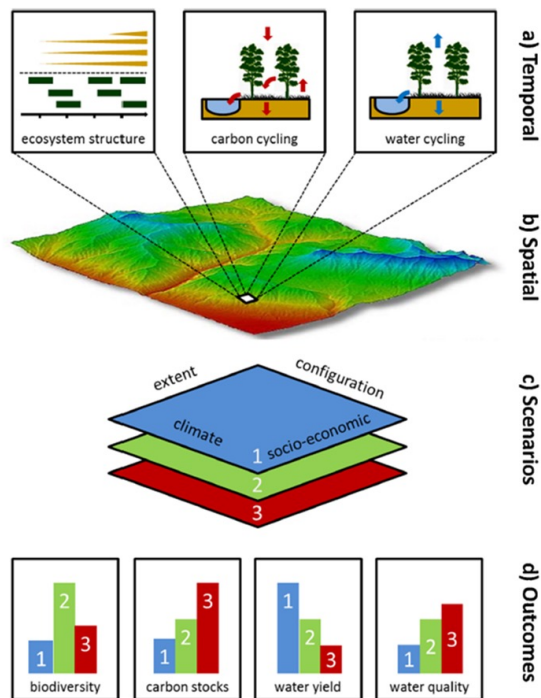


### Set constraints

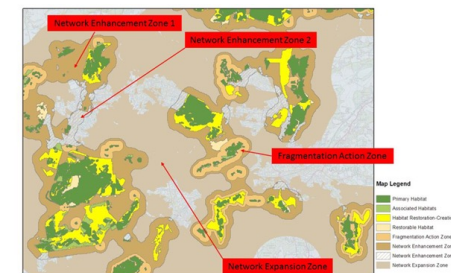
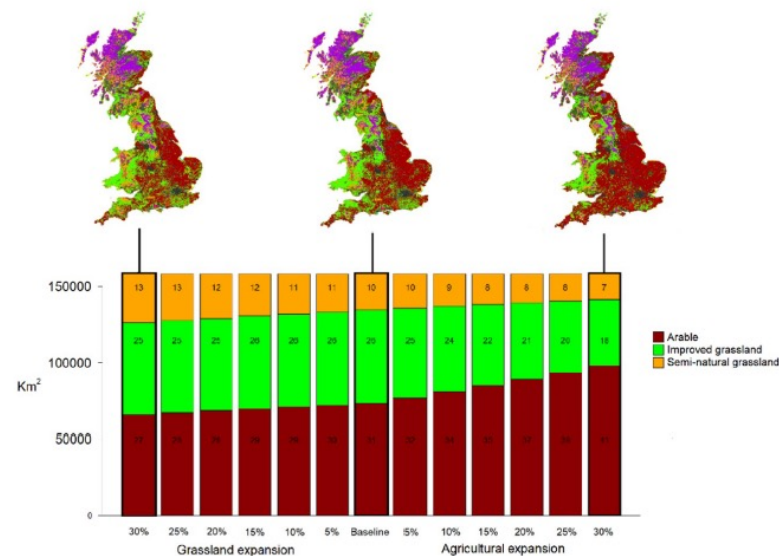


Constraint layer	Land available (ha)	% available
Natural & seminatural habitats	16 233 342	71
Slope >15%	16 704 785	73
High organic carbon soils	16 794 958	73
Urban areas, main roads, rivers, lakes	20 289 135	89
Designated areas	20 469 186	89
Existing woodland	20 566 746	90
Cultural heritage	22 719 325	99
All seven constraints	9 086 465	40

### Opportunity map layers



### Scenario maps



- Decide rules (e.g. do not plant trees on peat soils, steep gradients)



- Draw on relevant data layers (depending upon question, >40 layers drawn from external & internal sources)



- Flex the rules and explore the consequences



- Integrate with local knowledge and co-design land use change with property team

# Nature-Based Solutions Compact

The National Trust, as a practitioner of nature-based solutions, has put together a set of ambition guiding principles for land managers for the Climate and Land Summit at Wimpole Estate, 12th October 2021. The principles aim to ensure that solutions deliver for nature, for the climate and for everyone.

**Signatories believe that a climate-focused nature-based solution of the highest standard will:**

1. **Be implemented alongside, not instead of, urgent and meaningful action to reduce greenhouse gas emissions, adapt to climate change and increase biodiversity, and be designed and monitored to ensure that there is a net gain of carbon sequestration.**
2. **Create or restore wildlife rich habitats and ecosystems to genuinely support nature's recovery and provide long term biodiversity increases in a changing environment.**
3. **Wherever practical, be designed, implemented or managed in consultation with local communities to ensure they take account of past, present, and future landscape character.**
4. **Facilitate opportunities, wherever practical, to deliver benefits for communities and people, at a local and a national level, including to address the impacts of climate change upon people, communities, infrastructure and society.**
5. **Consider the location, ecology and the broader landscape, to put the right solution in the right place and deliver multiple benefits.**
6. **Be future-proofed and adaptively managed to ensure they are climate resilient and effective for generations to come.**



# FINANCING UK NATURE RECOVERY

SCALING UP HIGH-INTEGRITY ENVIRONMENTAL MARKETS ACROSS THE UK

APRIL 2022



- There are many opportunities, willing partners & the case for investment is strong: but significant investment is needed.
- ELMs is a foundation, but private investment will also be important
- Consortia of land managers will be needed to deliver packages of ecosystem services
- Trusted trading platforms are needed to enable transactions to take place

