

United Bank of Carbon: Our response to the England Tree Strategy consultation

The United Bank of Carbon (UBoC) is a UK registered charity which seeks to protect and restore forests and other greenspace by translating science into action. We work in partnership with the University of Leeds to support research into the benefits of woodland creation, and the maintenance and protection of trees, woodlands and forests. Our work spans the practical restoration of conifer plantations to mixed native woodlands in Cumbria, understanding the value of street trees to society, and estimating the area of woodland creation that will be needed to help organisations achieve their climate goals. We work to enhance engagement with, and the protection and planting of, forests both at home in Yorkshire, in the UK and globally.

UBoC welcomes the Defra England Tree Strategy consultation as an opportunity to shape the future of our landscape, better connect people to nature and build resilience in our natural environment. Our response to the England Tree Strategy is informed by our research to date, in line with our objectives as a charity.

This document supplements our answers submitted to the consultation by responding in more detail to areas where we feel we have expertise.

In our view, a tree strategy for England should:

- A. **Establish** the necessary level of ambition and funding for the nation but be flexible to support and fund regionally appropriate strategies for tree planting, woodland creation and management.
- B. **Support and fund** local authorities and landowners to ensure ongoing care and maintenance of trees and woodlands.
- C. **Deliver** an approach to the planting and management of woodlands and trees that is robust against planning policy and developments, to ensure consistency across policies and delivery of the tree strategy targets.
- D. **Enhance** the delivery of ecosystem services and the public's awareness of the benefits provided by trees.
- E. **Increase and protect** the nation's canopy cover, demonstrating commitment to the mitigation of climate change.
- F. **Provide education and funding** so that land owners and managers can maximise the potential for natural regeneration to contribute to national woodland expansion efforts.
- G. **Increase** the viability of woodland creation for landowners by ensuring long-term income can be generated.
- H. **Strengthen** the integration of street trees in landscape design and developments.

Section 1: Expanding and connecting trees and woodlands

The United Bank of Carbon has carried out a range of research looking at the benefits that trees provide to people and planet. By expanding and connecting trees and woodlands, we have the opportunity both to enhance the delivery of ecosystem services, such as habitat provision and flood risk reduction, and to increase access to the health benefits and cultural values of trees, green spaces and woodlands. From a climate perspective, we recognise the vital role that trees and woodlands can play in helping to limit the amount of carbon dioxide in the atmosphere. Whilst there is a large push for woodlands to contribute to climate change mitigation, we must ensure that we do not lose sight of the wider benefits to nature and society. We must strive to establish new woodlands in a way that maximises benefits for people and nature.

We believe that a nationally coordinated approach is required to set the necessary level of ambition and provide funding to support the strategy, but that national policy must be used to support and fund regionally appropriate plans, at the local authority, county council or city region scale. This approach includes recognising areas of greater agricultural productivity, urban areas that are currently lacking in canopy cover and local authorities with limited land available for planting and will ensure that land is used in the most appropriate way to help achieve a range of objectives across England. The national strategy should keep wider objectives in mind, such as management of land for food production and increasing equality in the access of the population to woodlands. National policy should also have capacity to support existing cross-regional partnerships and foster new partnerships as appropriate.

To successfully expand and connect trees and woodlands, the capacity of local authorities and other large landowners to provide ongoing care and maintenance will need to increase. Without long-term support, newly planted trees and restored woodlands will not be able to deliver the benefits that we seek. An important consideration for the England Tree Strategy will be to focus on quality and not just quantity of trees planted or woodlands created, in order that they are able to deliver the intended benefits for climate mitigation. The UK Forestry Standard must be the minimum standard for our forests, with higher ambitions for the delivery of benefits to nature and people (Forestry Commission, 2017); with this comes the requirement of funding to support the ongoing management of trees and woodlands

UBoC has undertaken work to explore some of the issues around funding for land-use change. There was consensus amongst stakeholders [which included landowners, funders, community groups and local people] that funding to support project development and planning was limited and became a barrier to successful delivery of projects. The research also identified issues associated with land ownership and the competition for land, with a range of different organisations approaching landowners. A partnership approach, including a range of stakeholders, could help to support decisions around changing land use and ensure that land is used most effectively.

UBoC is undertaking a review of woodland creation policies that have been proposed by a number of individuals and organisations in the UK, and this assessment covers most of the woodland creation policies included in this Defra consultation. A panel of policymakers, analysts and lobbyists have been asked to rate policies for their desirability, feasibility and potential effectiveness and to identify potential negative impacts of the policy tools. The findings to date show that the consistently highly-rated policies include:

- A. Information policies e.g., disseminating impartial advice on woodlands to farmers and including forestry in agricultural education.
- B. Promoting carbon trading to generate investment in forestry and offering competitive financial incentives for woodland creation with long-term income for maintenance, to reward both carbon and ecosystems benefits of woodlands.
- C. The delivery of a single UK land-use policy, the creation of policy certainty, and regulations to encourage the planting of a wider range of species to deliver resilience.
- D. Facilitation of forest partnerships like the Northumberland Forest and an expansion of the nationally owned forests.
- E. Policies to define and regulate agroforestry.

The policy tools which provoked most divergence of opinion were regulatory changes to woodland approval processing, to the terms of felling licences and to tenancy terms, which would all need careful formulation to be acceptable and to avoid counter-productive effects. Education for landowners is required to support woodland creation. This research is currently unpublished but we will be happy to share our findings with Defra when the work is complete.

UBoC has also supported research into the effectiveness of natural regeneration to create new woodlands without the need for tree planting. With controlled grazing and a local seed source, natural regeneration can create new woodlands with sapling density of more than 3000 per hectare (Spracklen *et al.*, 2013; Smith *et al.*, in prep.), exceeding the minimum tree planting density required for creation of new woodlands. Most upland areas of England are currently grazed too heavily, predominantly by sheep or deer, to allow natural regeneration. The success of natural regeneration can be variable; further research is required to understand the prerequisites for success. Currently there is limited funding available for natural regeneration; policies and incentives need to be developed that help landowners unlock the potential for natural regeneration and natural processes to deliver woodland expansion.

Regarding question 6, *'Which actions would address the financial barriers that prevent the creation of new woodland?'*, in conversations we have had with landowners and other stakeholders, there has been concern around the loss of agricultural income and subsidies after establishment of a woodland.

When considering question 7, *'Woodlands provide a range of ecosystem services that provide benefits to businesses and society. How could government better encourage private investment*

in establishing trees and woodland creation?; we recognise that mechanisms delivering long-term, annual cash flow for ecosystem services [particularly for native woodlands] would be helpful, particularly where timber production is not a primary objective. The government could work to increase awareness across the private sector of the ecosystem services provided by trees, including increased engagement with natural capital valuation, to demonstrate the benefits to business and society. A major barrier to private investment is that woodland creation is not often an attractive or viable option, particularly where revenue creation is the primary objective. We need an approach to generate sustainable revenue from the non-commercial services provided by our trees and woodlands.

Section 2: Protecting and improving our trees and woodland.

If we are to reach net-zero greenhouse gas emissions in the UK, trees and woodlands must not fall down the agenda when changes are made to national planning procedures. We hope to see a consistent approach to the maintenance and replacement of trees affected by development. Supplementary planning documents may be helpful at a local level to ensure that planning policy and development reflects the need to protect and maintain existing trees, as well as planting more. Urban tree planting will be particularly important to ensure that people living in towns and cities have access to greenspace and the associated benefits.

To date, there has been limited work comparing the ability of managed and unmanaged forests in the UK to take up and store carbon. Modelling studies suggest that unmanaged forests are able to accumulate and store more carbon than managed woodlands over the short to medium term (i.e., up to around 100 years). Managed forests could potentially have better carbon balances after this time, but this is very sensitive to assumptions about future substitution benefits (e.g., where biomass is used in place of fossil fuels; Pukkala, 2017; Vance, 2018). Therefore, where woodland is created with the aim of maximising carbon sequestration, unmanaged woods and forests may be more appropriate in many circumstances. If such woodland is brought under management, thinning rates should be low and long-term uses found for any removed biomass.

Understanding current canopy cover is important in order to target regions with low levels of canopy cover for tree planting and woodland creation, and to ensure that planting brings additional sequestration benefits. Using canopy cover as a measure is helpful to enable us to account for trees outside of woodlands; our preliminary analysis suggests that in West Yorkshire approximately half of the total canopy cover is composed of trees outside woodlands. Canopy cover in our towns and cities is often distributed unevenly across wards, for example in Leeds, the average canopy cover is 17% across the city but individual wards vary from less than 10% to almost 30% (United Bank of Carbon, 2019). From conversations with stakeholders, it seems that there's not always a full picture of the existing canopy cover and how much is being planted. The key here is additionality.

The strategy must also include a robust approach to managing pests and disease as this will have implications for the longevity of carbon sequestration and storage associated with increase in woodland cover.

Section 3: Engaging people with trees and woodland

UBoC has carried out a body of research looking into urban trees, their value and people's engagement with trees and woodlands (in particular, see Gugan *et al.*, 2019). Whilst we have tested a range of natural capital valuation tools to try to capture the value of trees to people and their environment, the available methods are not without limitations and opposition. Further research is required to more fully account for the wider benefits provided by street trees and to factor this into decision making that is largely driven by economics.

Regarding the barriers to securing and maintaining street trees (question 31), we recognise that lack of resource for maintenance is a barrier to the successful establishment of street trees and their potential to deliver the benefits. Furthermore, our research has demonstrated the importance of planting the right tree in the right place: trees must be positioned strategically to ensure that they have appropriate soil volumes, access to adequate water and light and limited disruption to their environment in order to thrive and deliver maximum environmental benefits (Gugan *et al.*, 2019). This is an important consideration for the establishment and maintenance of street trees.

Lack of public awareness of the physical and amenity services provided by trees is a barrier and drives requests for unnecessary tree removal. More support for the maintenance and planting of street trees may be obtained through communication of these wider benefits to the public. With reference to question 32, *'How could the government overcome the barriers to security and maintaining street trees?'*, UBoC identifies a need for the government to increase communication and engagement to raise awareness of the benefits of street trees. There is an opportunity for natural capital valuation to be applied to demonstrate these benefits to increase support for the maintenance of existing street trees, and incorporation of street trees in future landscape designs. To support our urban trees, decisions made about developments should be guided by local and regional woodland strategies, and these should be underpinned by national legislation regarding tree canopy cover and protection.

To address question 36 regarding *actions by government that would be most effective in addressing barriers to people's access to trees and woodlands*, a priority for UBoC would be creating new accessible woodlands in and around towns and cities. The COVID-19 pandemic has highlighted how strongly people value being able to spend time in greenspace. An increase in accessible woodlands around towns and cities would increase access to the physical ecosystem services and the amenity benefits provided by trees to people.

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