



**Delivering the UK's Environmental Improvement Plan  
through the Value of Plants**

# Introduction

The social, economic, environmental, health and wellbeing value of plants is explored extensively in the accompanying report *From Nursery to Nature: The Value of Plants*.

This complementary report, *Delivering the UK's Environmental Improvement Plan through the Value of Plants*, sets out the vital role which plants play in delivering the UK Government's aims of the Environmental Improvement Plan 2023 (EIP).

Plants, by their very nature, support clean air, thriving wildlife, mitigate the impacts of climate change and encourage people to engage with the natural world. The Environmental Horticulture sector works to maximise the value of UK plants and trees and supply them to gardens and communities. However, there are challenges to overcome to ensure the successful delivery of the legally binding goals in EIP.

**Only with the support of policy-makers in UK and devolved parliaments, can the Environmental Horticulture sector ensure that the true value of plants can be realised.**

## Defra's Environmental Improvement Goals

Does Environmental Horticulture provide a Solution?

1. Thriving plants & wildlife	✓
2. Clean air	✓
3. Clean and plentiful water	✓
4. Managing exposure to chemicals & pesticides	
5. Maximise our resources, minimise our waste	
6. Using resources from nature sustainably	
7. Mitigating and adapting to climate change	✓
8. Reduced risk of harm from environmental hazards	✓
9. Enhancing biosecurity	✓
10. Enhancing beauty, heritage and engagement with the natural environment	✓

## Asks of Government to Enable a Thriving Horticulture Industry and the Success of the EIP

### Recognition and Improved Policy-Making

#### *Through a Creation of Government Office for Green Spaces*

We ask the government to formally recognise the value of the Environmental Horticulture Sector by creating a Government Office for Green Spaces. A cross-government group tasked to maximise the value of Green Spaces in all aspects of policy-making and regulatory impact assessments. All regulation must be proportionate with a full environmental and economic impact assessment to accompany it.

### Champion Skills

Champion careers in horticulture as vital green growth jobs and the of value of plants in meeting environmental targets, delivered through the inclusion of horticulture in the Green Jobs Taskforce or similar.

effects of extreme heat and drought. This must be underpinned by the goal of increasing UK production capacity in the medium-term.

### Action on Water

Urgently act on barriers to increase drought resilience, such as through a Horticulture Drought Resilience and Innovation programme to include a grant scheme for investment in reservoirs, infrastructure and water saving innovations, with a lower minimum grant value to make this more accessible to businesses without large funds behind them.

### Collaboration

Collaborate with industry to champion gardening in schools to reap the benefits of gardening at home as well as inspiring the next generation of horticulturalists.

### Environmentally Supportive Peat Policy

To avoid a shortfall of around 100 million finished plants and trees in 2027, current and future governments must provide adequate time as well as immediate and sustained R&D support for the sector to transition to peat-free growing media.

### Procurement

Current and future governments must prioritise UK grown trees and plants to meet environmental targets, whilst ensuring that public procurement and new developments are designed to mitigate the impacts of climate change - flood risks,



## Plants start with specialist growers...

*who nurture young flora*

Growers are facing a number of challenges - threats to water security, the transition to peat-free growing media and disruptions to trade and the labour market. To reduce the impact of the challenges facing growers, it is crucial that barriers to increasing drought resilience are removed and R&D grant funding is increased to deliver the transition to peat-free.



## Then they go to retail...

*that offer a broad range of species and specialist advice*

Retailers face similar challenges in terms of peat-free growing and care, and water supply. In terms of trade, in the absence of a long-term Sanitary Phytosanitary (SPS) agreement with the EU, government must collaborate with industry to ensure all elements of the plant import process are integrated, streamlined and efficient, including but not limited to CITES and IPAFFS.

## and into peoples' homes and gardens...

*for the enjoyment and health of millions of people across the UK*

With increasing demands on space, it's more important than ever that new and renovated buildings are constructed with greenery in mind (green roofs, gardens), delivering urgently needed access to green space as well as climate change mitigation benefits. Launching a public campaign to 'enjoy and maximise your domestic or local green space' will help to promote greater health and wellbeing across the UK.



## Or they go into the wider environment

*to mitigate climate change and for the benefit of society*

Plants' ability to deliver these outcomes rests on increasing recognition across the government for horticulture's value. The World Health Organization considers green space projects to be a public health and social investment. The prompt creation of a Government Office for Green Spaces, as well as a formal recognition of careers in horticulture as green growth jobs will help to ensure that the value of plants can be maximised, the benefits of which will be felt in communities across the UK, now and in the future.



# How the Horticulture Industry Supports the EIP Goals

## Goal 1: Thriving Plants and Wildlife

*Focus: To halt the decline of species abundance, creating and restoring habitats, increase tree canopy and woodland and ensure that there is a resilient network of land water and sea.*

Consumers' gardens and the plants within them can offer a network of habitats for animals to access the wider landscape through connecting green spaces and the countryside. To deliver tree planting goals, sustainable land management practices, and biodiversity net gain on new developments, processes must be designed with horticulture in mind. 29.5% of the UK's urban areas are domestic gardens, and covering an area of around 0.54 million hectares.<sup>1</sup>

For England, the garden area is more than four and a half times larger than that of our National Nature Reserves. This is a colossal resource of national significance for the thousands of generalist species that can live in gardens.<sup>2</sup>

## Goal 2: Clean Air

*Focus: To tackle and reduce the damage and pollution caused by our everyday activities.*

Trees and plants are well documented for their abilities to remove pollutants from the atmosphere, including fine particulate matter and nitrogen oxide, both key pollutants being targeted in the EIP 23. According to the Plant Biosecurity Strategy for Great Britain, 1.3 billion kg of air pollutants are removed by plants in the UK each year.

The right trees in the right places at the right time can help improve urban air quality on a local scale by forming a barrier between people and pollutants. They also remove some particulate pollution from the air by catching the tiny particles on their leaf surfaces. Research has found significantly lower asthma rates among children aged 4-5 in areas with more street trees.<sup>3</sup>

## Goal 3: Clean and Plentiful Water

*Focus: To improve the health and abundance of water available in the UK.*

This includes a specific goal on increasing water storage by agriculture and horticulture by 66%. Growers are already increasing their use of water storage such as via reservoirs and rainwater harvesting tanks. In 2020, the HTA ran a survey of its members and found that 50% of UK ornamental growers use rainwater capture systems, and 41% have reservoirs<sup>4</sup>, however there is appetite for this to increase but often space, cost and planning are all barriers to this aspiration.

According to the Plant Biosecurity Strategy for Great Britain 15,000 litres of water can be intercepted by a mature evergreen tree each year, mitigating flood risk.



## Goal 7: Mitigating and Adapting to Climate Change

*Focus: To take all possible action to mitigate climate change, while adapting to reduce its impact.*

This goal is critical for the government's Net Zero target, and involves improving the state of the country's peatlands, boosting woodland creation, and improving flood mitigation infrastructure. Horticultural growers are a vital cog for these actions to be carried out, including moving away from the use of peat in growing media, producing trees, and hedging for woodland and hedgerow

The UK Government estimates that total carbon storage by trees in Great Britain (both above and below ground) is just over 980 million tCO<sub>2</sub>e<sup>8</sup>

creation and flood mitigation. However, nature based solutions like these require the sector to deliver vast quantities of plants and trees for private and public procurement purposes.

The Climate Change Committee (CCC) recommends that climate resilience is fully integrated into, and enforced by, the planning system. The CCC also recommends that "Urban heat island risks are minimised. Urban heat island effects can be minimised through careful urban design. Policies which encourage more shading (trees) and water in street design can act to reduce urban outdoor temperatures, as can maximising green and blue spaces, and reducing surfaces that absorb heat (such as creating green or reflective roofs)."<sup>5</sup>

However, one of the main issues is that "Planning policy lacks standards and mechanisms for monitoring the inclusion and maintenance of climate resilience measures."<sup>5</sup> Therefore it is vital that government establish and publish how it will monitor and maintain plans for nature recovery and tree planting goals.

## Goal 8: Reduced Risk of Harm from Environmental Hazards

*Focus: To reduce the risk of harm to people, the environment and the economy that comes from flooding, drought, and coastal erosion.*

Commitments include increasing tree planting and sustainable urban drainage solutions, both of which depend on the horticulture and landscaping industry. Better design of urban developments including greater inclusion of green and blue infrastructure will be possible because of the horticulture industry, providing trees, hedging and soft landscaping.

The Forestry Commission also stated that "correctly situated urban trees will deliver more than carbon reduction, they will contribute to a wide range of other local agendas including improving air quality, reducing the risks of flooding and improving water quality, as well as other public health, wellbeing and biodiversity benefits"<sup>6</sup>.

## Goal 9: Enhancing Biosecurity

*Focus: To enhance biosecurity to protect our wildlife and livestock and boost the resilience of plants and trees.*

The changing climate means that the spread of pests and diseases is likely to change. To fully understand the changes in pest and diseases and non-native species spread, monitoring, surveillance and early detection mechanisms must be maintained. Policy makers must continue to collaboratively work with the industry to deliver both the Plant Biosecurity Strategy for Great Britain, and the Tree Health Resilience Strategy, to effectively enhance biosecurity without damaging trade or increasing biodiversity loss.

In the long-term, there is a need to explore compensation options for businesses who have

had their plants and trees destroyed due to changing pest and disease behaviour, through no fault of their own. This will encourage best practice and provide security for businesses who are so vital to the delivery of the EIP targets.

## Goal 10: Enhancing Beauty, Heritage and Engagement with the Natural Environment

*Focus: To conserve and enhance the beauty of our natural environment, and make sure it can be enjoyed, used by and cared for by everyone.*

Whether customers have access to a garden, or are looking for houseplants, garden retail plays a crucial role in enabling and inspiring consumers to engage with the natural environment, with UK consumers making an estimated 200 million visits

to garden centres in 2022<sup>6</sup>. Engaging with nature and gardens was a refuge for many people during the covid pandemic.

Many consumers value plants that are great for pollinators for example, showing a real connection with the need for pollinators in our landscapes.

There is also a growing body of evidence for houseplants providing health and wellbeing benefits and helping people to connect with nature.<sup>7</sup> This is also something that the industry is ready to support, through further provision of trees and plants which can be maximised through the Levelling Up Parks Fund.

A key factor to successful climate mitigation is ensuring trees reach maturity and are well established.

In 2019, expenditure from visiting parks and gardens was valued at £1.2 billion from over 182 million trips



# The Importance of Plants

98% of the oxygen we breathe is produced by plants



80% of the world's terrestrial species of animals, plants and insects live in forests



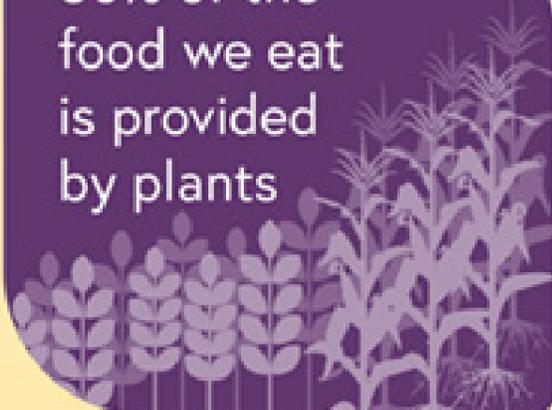
1.3 billion kg of air pollutants are removed by plants in the UK each year



over a third of the 454 native tree species in Europe are considered threatened



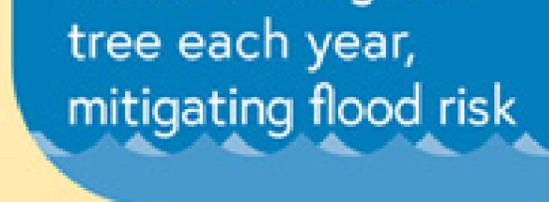
80% of the food we eat is provided by plants



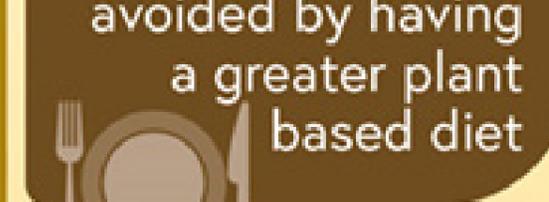
Half of the world's population rely primarily on natural medicines for their health care



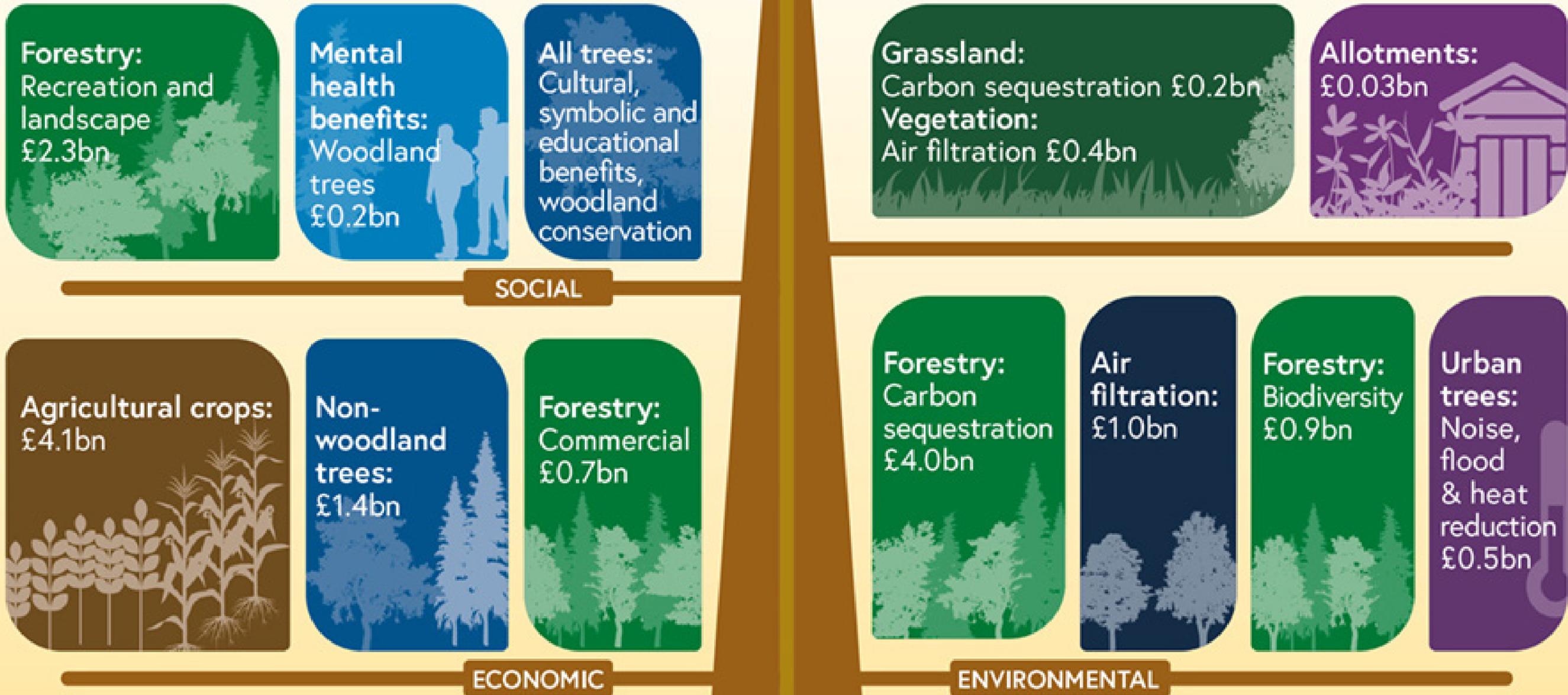
15,000 litres of water can be intercepted by a mature evergreen tree each year, mitigating flood risk



Up to 74% of the social costs of greenhouse gas emissions could be avoided by having a greater plant based diet



# UK Value of Plants



Summary of the £15.7billion annual value that our plants provide to the UK

# Environmental Improvement Plan Branch Map Recommendations

<p><b>2043</b> Legal end date for delivery</p>	<p><b>Goal 1</b> Thriving Plants and Wildlife</p>	<p><b>Goal 2</b> Clean Air</p>	<p><b>Goal 3</b> Clean and Plentiful Water</p>	<p><b>Goal 7</b> Mitigating and Adapting to Climate Change</p>	<p><b>Goal 8</b> Reduced Risk of Harm from Environmental Hazards</p>	<p><b>Goal 9</b> Enhancing Biosecurity</p>	<p><b>Goal 10</b> Enhancing Beauty, Heritage and Engagement with the Natural Environment</p>
<p><b>2033</b> Formal Review</p>	<p>Reduce the regulation burden on tree and plant growers</p>	<p>Innovative UK skyscrapers creating – vertical forest</p>	<p>Water recycling and predictive technology adopted by majority of UK growers</p>	<p>Business loans to develop new peat-free supply chains</p>	<p>Holistic approach with industry and trading partners on pest prevention, identification and action</p>	<p>Secure an SPS/plant health agreement with the EU</p>	<p>Health and recovery prescribing using green spaces/flora</p>
<p><b>2028</b> Formal Review</p>	<p>Increased UK plant production capacity to meet tree planting targets</p>	<p>Ensure future towns and cities benefit from innovative flora</p>	<p>Long-term water security strategy utilising Environmental Horticulture industry</p>	<p>R&amp;D support to help the industry fully transition to peat-free</p>	<p>Utilise UK grown flora in public planning projects</p>	<p>Deliver a fully integrated, seamless, pro-active, real-time digital border solution for SPS processes</p>	<p>Champion gardening in schools to inspire the next generation of horticulturalists</p>
<p><b>2023</b> Environmental Improvement plan published by Defra</p>	<p>Recognise careers in horticulture as vital green growth jobs</p>	<p>Invest in urban green spaces</p>	<p>Create an inclusive SME grant scheme for investing in water capture technology</p>	<p>Establish a Government Office for Green Spaces</p>	<p>Planning system utilises specialist planting to reduce urban flood risk</p>	<p>Plant import process are integrated, streamlined and efficient</p>	<p>Launch a public campaign to ‘enjoy and maximise your domestic and local greenspace’</p>
							

## References

- 1 ONS Natural Capital accounts
- 2 [Gardens as a Resource for Wildlife](#), Wildlife Gardening Forum [www.wlgf.org](http://www.wlgf.org)
- 3 [Tackling Air Pollution with Trees](#), Woodland Trust. [www.woodlandtrust.org.uk](http://www.woodlandtrust.org.uk)
- 4 HTA Member Survey, 2020
- 5 [Progress in adapting to climate change](#), 2023 Report to Parliament. [www.theccc.org.uk](http://www.theccc.org.uk)
- 6 [Responding to the Climate Emergency with New Trees and Woodlands](#), Forestry Commission.
- 7 YouGov for HTA, 2022
- 8 From Nursery to Nature: The Value of Plants

