

# England Tree Strategy

## Consultation - Technical Annex

June 2020

### Erattum

- *17<sup>th</sup> August 2020: The estimate of vacant land on page 11 has been updated to replace an error and explain the source of the estimate on page 12 of the consultation document.*

### Contents

Erattum .....	1
General background .....	1
Expanding and connecting our woods .....	3
Ambition .....	4
Creating space for nature .....	5
Planting trees for water .....	6
Helping landowners create woodlands .....	8
Working together to create landscape scale change .....	10
Restoring degraded land .....	11
Funding future woodland creation – markets for ecosystem services such as carbon ...	12
Supplying the trees we need to plant and assuring their biosecurity .....	12
Protecting and improving our woodlands .....	14
Improving protection for trees and woodland .....	14
Preparing for our future climate .....	15
Protecting plant health .....	16

Managing our woodlands and trees .....	17
Protecting young trees and woodland condition .....	18
Regulation .....	19
Engaging people with trees and woodland .....	20
Street trees.....	20
Developing green and healthy places to live .....	22
Creating woodlands in and around towns and cities .....	22
Engaging people with nature .....	23
Supporting the economy .....	24
Timber .....	24
Energy.....	25
Agroforestry.....	25
Tenant farming .....	26
Productivity and supply chains .....	26
Workforce.....	27

# General background<sup>1,2</sup>

- The National Forest Inventory<sup>3</sup> shows that woodland<sup>4</sup> covers 1.3 million hectares (~10%) of England's land. Of this, 214,000 hectares (16% of England's woodland) is on the public forest estate and 1,093,000 hectares is in other ownership.
- The Forestry Commission National Forest inventory of tree cover outside woodland in Great Britain found that 4.3% of England's tree cover is outside woodland (565,000 hectares). When combined with the proportion of land that is classified as woodland, England's total tree cover is 14.3%. Of tree cover outside woodland 26% is in urban areas (covering 11% of urban land area) and 74% is in rural areas (covering 3% of rural land area).<sup>5</sup>
- Approximately 75% of England's woodland area is made up of broadleaved species and 25% of mostly conifer species. 59% of woodland is considered to be actively managed and there is a marked difference between the management of conifer (around 77% of annual growth harvested) and broadleaved (around 12% of annual growth harvested) woodland.
- The UK Forestry Standard (UKFS)<sup>6</sup> sets out UK Government's approach to sustainable forestry. It seeks to ensure that international agreements and conventions on subjects such as sustainable forest management, climate change, biodiversity and the protection of water are applied in the UK. The principles within UKFS apply to all woodland, regardless of who owns or manages it. Compliance with UKFS is an eligibility requirement for public funding, as well as for the approval of woodland management plans and felling licences and some voluntary certification schemes. At its heart it aims to ensure sustainable forestry by ensuring all the forest's benefits are maintained in the long-term by balancing their environmental, economic and social functions.
- The 25 Year Environment Plan includes the following goals relevant to trees and woodlands:

---

<sup>1</sup> Forestry Commission (2019) Corporate Plan Performance Indicators 2019

[www.gov.uk/government/statistics/forestry-commission-corporate-plan-performance-indicators-2019](http://www.gov.uk/government/statistics/forestry-commission-corporate-plan-performance-indicators-2019)

<sup>2</sup> Forestry Statistics 2019 -

[www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/forestry-statistics-2019/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/forestry-statistics/forestry-statistics-2019/)

<sup>3</sup> [www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/](http://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/)

<sup>4</sup> The National Forest Inventory defines 'woodland' as land with at least 20% canopy cover or the potential to achieve this, of at least 0.5 hectares in area with a minimum width of 20 metres

<sup>5</sup> Tree cover outside woodland in Great Britain - <https://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/what-our-woodlands-and-tree-cover-outside-woodlands-are-like-today-8211-nfi-inventory-reports-and-woodland-map-reports/>

<sup>6</sup> [www.gov.uk/government/publications/the-uk-forestry-standard](http://www.gov.uk/government/publications/the-uk-forestry-standard)

- Encourage larger scale woodland and forest creation, planting 180,000 hectares of new woodland by 2042, on the way to 12% woodland cover in 2060.
- Create or restore 500,000 hectares of wildlife-rich habitat (outside protected sites) as part of a Nature Recovery Network.
- Increase the number of woodland Sites of Special Scientific Interest (SSSIs) in favourable condition to maximise the range of benefits they provide.
- Take action to recover threatened species.
- The 25 Year Environment Plan considers how we might also:
  - Increase hardwood production through active management of more woodlands that will also improve habitat condition and biodiversity. (Demand for hardwood is relatively high and prices are strong<sup>7</sup> and this can offset the costs of woodland management to increase biodiversity and improve resilience to climate change and disease.)
  - Work with Grown in Britain<sup>8</sup> to promote greater use of home grown timber in construction and wood products.
- The Green Finance Strategy<sup>9</sup> was published in 2019, in part, as a response to the recommendations of the Green Finance Taskforce<sup>10</sup>. This taskforce was set up to accelerate private sector investments to help deliver the Clean Growth Strategy and 25 Year Environment Plan. The Green Finance Strategy supports the UK's economic policy for strong, sustainable and balanced growth, the delivery of our modern Industrial Strategy and our domestic and international commitments on climate change, the environment and sustainable development. An important announcement within the strategy is the launch of the Green Finance Institute<sup>11</sup>: the UK's principal forum for collaboration between the public and private sector with respect to green finance.

---

<sup>7</sup> Grown in Britain hardwood prices - <https://www.growninbritain.org/downloads/>

<sup>8</sup> [www.growninbritain.org/](http://www.growninbritain.org/)

<sup>9</sup> <https://www.gov.uk/government/publications/green-finance-strategy>

<sup>10</sup> <https://www.gov.uk/government/publications/accelerating-green-finance-green-finance-taskforce-report>

<sup>11</sup> <https://www.greenfinanceinstitute.co.uk/>

## Expanding and connecting our woods

- Woodland cover has doubled in England over the past one hundred years, but after a peak of 6,500 hectares in 1971, planting rates have declined. In the 2019/2020 planting season a total of 2,330 hectares of woodland were planted in England. High planting rates at points during the 20<sup>th</sup> Century were driven by Government intervention to create a strategic reserve of timber after shortages during the First World War. This was led by the Forestry Commission which was created in 1919.
- Since the 1970s the rationale for Government's support for woodland creation has broadened from timber to multipurpose woodlands which provide a wider range of environmental and social benefits or ecosystem services. The ecosystem services our trees and woodlands provide make them important natural capital assets valued at £175 billion, providing services worth £4.9 billion per year<sup>12</sup> across the UK.
- Trees take in the greenhouse gas carbon dioxide, storing the carbon in their wood. This ecosystem service is valued at £1.2 billion per year for all of the UK's woodland<sup>6</sup>. It is estimated that 105 million tonnes of carbon are stored in the trees of England's woodland and forest trees<sup>13</sup>, just over 91% of the UK's total carbon dioxide emissions in 2019<sup>14</sup>. A further 189 million tonnes of carbon are stored in the soils of English woodlands<sup>15</sup>.

---

<sup>12</sup> Figure 1, Tree Health Resilience Strategy - <https://www.gov.uk/government/publications/tree-health-resilience-strategy-2018>

<sup>13</sup> [www.forestresearch.gov.uk/documents/2726/FCNFI113.pdf](http://www.forestresearch.gov.uk/documents/2726/FCNFI113.pdf)

<sup>14</sup> Emissions of 351.5MtCO<sub>2</sub> converted to MtC with a 3.67 conversion rate  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/863325/2018-final-emissions-statistics-summary.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/863325/2018-final-emissions-statistics-summary.pdf)

<sup>15</sup> [www.forestresearch.gov.uk/research/understanding-the-carbon-and-greenhouse-gas-balance-of-forests-in-britain/](http://www.forestresearch.gov.uk/research/understanding-the-carbon-and-greenhouse-gas-balance-of-forests-in-britain/)

- Our woodlands are a key component of our biodiversity; providing habitat for rare and declining species, for example, supporting at least 250 of England's 942 priority species<sup>16</sup>. Many of our woodlands are small (less than 10 hectares<sup>17</sup>) and isolated from other woodland. Studies have shown<sup>18</sup> that small woodlands support proportionally fewer species than larger woodlands. The UK Government assessment of progress towards targets under the Convention on Biological Diversity<sup>19</sup> and the Evaluation of *Biodiversity 2020*<sup>20</sup>, the England strategy that expressed these targets domestically, concluded that through some good progress has been made, including on creation and management of woodland habitat, there are ongoing declines in biodiversity

## Ambition

- The Government's manifesto commitment is to increase tree planting across the UK to 30,000 hectares per year by 2025. This reflects the Committee on Climate Change<sup>21</sup> advice to the UK Government about how to reduce carbon emissions to meet its net-zero commitment<sup>22</sup>.
- We estimate that planting 10,000 hectares per year by 2025 is the highest possible planting rate for conventional forestry (i.e. excluding planting energy crops) in England. This is estimated based on historical planting rates and an assumption that current environmental standards will be retained in the long-run. However, further work is required to understand what can be achieved in England. The highest planting rate recorded in England was 6,500 hectares in 1971, when policy and financial incentives provided greater support for woodland creation.
- In recent years 10-15% of total UK planting has taken place in England, with the vast majority happening in Scotland. Almost all English planting is supported by grants - a reflection of higher land prices and higher quality agricultural land, whereas in Scotland the timber industry plants the majority of trees as land prices are low and low quality land cannot profitably support other land uses.
- The Forestry Commission has recently published a leaflet<sup>23</sup> to help local authorities and landowning businesses achieve net zero through tree establishment and woodland creation.

---

<sup>16</sup> [www.legislation.gov.uk/ukpga/2006/16/section/41](http://www.legislation.gov.uk/ukpga/2006/16/section/41)

<sup>17</sup> Table 4 NFI 2011 woodland map GB <https://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/what-our-woodlands-and-tree-cover-outside-woodlands-are-like-today-8211-nfi-inventory-reports-and-woodland-map-reports/>

<sup>18</sup> [www.wren-project.com/outputs.html](http://www.wren-project.com/outputs.html)

<sup>19</sup> <https://jncc.gov.uk/our-work/united-kingdom-s-6th-national-report-to-the-convention-on-biological-diversity/>

<sup>20</sup> [randd.defra.gov.uk/%2FDocument.aspx%3FDocument%3D14654\\_EvaluationofBiodiversityStrategy2020-FinalReport.pdf&usq=AOvVaw0rwVx7\\_H-pKwZhXXkOOLod](http://randd.defra.gov.uk/%2FDocument.aspx%3FDocument%3D14654_EvaluationofBiodiversityStrategy2020-FinalReport.pdf&usq=AOvVaw0rwVx7_H-pKwZhXXkOOLod)

<sup>21</sup> [www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/](http://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/)

<sup>22</sup> [www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law](http://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law)

<sup>23</sup> <https://www.gov.uk/government/publications/leaflet-responding-to-the-climate-emergency-with-new-trees-and-woodlands>

## Creating space for nature

- The England Tree Strategy will link into the emerging Nature Strategy which will set our ambition to conserve and enhance England's biodiversity, delivering on global and domestic targets.
- Creation of a Nature Recovery Network is a commitment of the 25 Year Environment Plan to be progressed by the upcoming Nature Strategy. The Nature Recovery Network will be an expanding and increasingly connected network of places across England that are rich in wildlife, resilient to climate change, and provide wider benefits, including carbon capture. Existing protected sites and other natural and semi-natural habitat will be at its core, and the Government has a commitment to create or restore an additional 500,000 hectares of wildlife-rich habitat outside protected sites. We are assessing the contribution of different types of woodland and open habitat to the different elements of the network.
- Local Nature Recovery Strategies are proposed in the Environment Bill and are a new system of spatial strategies for nature, covering the whole of England. These strategies will map the most valuable existing habitat for nature and proposals for creating or improving habitat for nature and wider environment goals, and agree priorities for nature's recovery.
- The UK Forestry Standard (UKFS), Environmental Impact Assessment (EIA) regulations and Open Habitat Policy<sup>24</sup> provide a well-established framework for considering woodland creation and the restoration of open habitat from woodland. These decisions are determined by whether restoration of the open habitat is possible.
- The Open Habitat Policy uses a balancing mechanism that requires compensatory tree planting in certain circumstances to maintain the total area of commercially productive woodland. When published in 2010 this policy considered a rate of conversion of woodland to open habitat of around 1,000 hectares per year to be reasonable if the rate of woodland expansion also accelerated. An acceleration in tree planting has not yet happened so there is currently a greater requirement for compensatory tree planting unless the restoration will restore habitat on a designated site, such as Sites of Special Scientific Interest.
- Forestry Commission analysis indicates 3.2 million hectares of land in England has low sensitivity to woodland creation<sup>25</sup>. This analysis is based on national datasets so does not account for local sensitivities. Furthermore the priority habitats inventory is not definitive and information on ground nesting breeding birds is imprecise. While these can be constraints to the design of new woodland creation, there may be potential even outside low risk areas if sensitivities can be addressed through careful woodland

---

<sup>24</sup> [www.gov.uk/government/publications/when-to-convert-woods-and-forests-to-open-habitat-in-england-march-2010](http://www.gov.uk/government/publications/when-to-convert-woods-and-forests-to-open-habitat-in-england-march-2010)

<sup>25</sup> <https://www.gov.uk/guidance/assess-environmental-impact-before-you-create-new-woodland>

design. For example, the uplands may be important areas for woodland expansion and are home to important and increasingly scarce bird species such as curlew and redshank, and data on these birds' presence is limited.

- Trees outside woods are a significant and important element of tree cover in England. Forestry Commission has surveyed small woods, groups of trees and lone trees since 1924. Changes in data collection methodology mean comparison of datasets is not possible, but this is a useful long-term dataset. The National Forest Inventory 'Tree cover outside woodland in Great Britain' report<sup>24</sup> concludes that outside of woodlands, tree cover in England is 565,000 hectares. Of this non woodland canopy cover, 78,000 hectares is made up of lone trees, which represents 22.2 million trees.
- Forestry Commission estimates there to be 336,000 hectares of hedgerow in England (452,000 hectares in Britain)<sup>26</sup>. Within those hedges, a Defra-commissioned report<sup>27</sup> shows individual trees are being lost from the landscape faster than they are being replaced. However, trees outside woodlands have a high biodiversity value; the majority in lowland rural landscapes are found in hedgerows and make an important contribution to connectivity and ecological functioning of landscape<sup>28</sup>.
- Analysis<sup>29</sup> by Forest Research (co-authored by Forestry Commission and Natural England) based on the 2012 National Forest Inventory, found that 20,152 hectares of our afforested peat resource would, if restored to peatland, extend or buffer high quality blanket bog, lowland fen or lowland raised bog habitat. Restoring some or all of this peatland would represent an important contribution to the 25 Year Environment Plan's target for peat restoration<sup>30</sup>, to be developed by the forthcoming England Peat Strategy.

## Planting trees for water

- Woodland established along watercourses (riparian planting) in appropriate locations helps slow the flow as part of natural flood management<sup>31</sup> (NFM), for example the Vale of Pickering, which now has a successful natural flood defence scheme<sup>32</sup>.

---

<sup>26</sup> Tree cover outside woodland in Great Britain - <https://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/what-our-woodlands-and-tree-cover-outside-woodlands-are-like-today-8211-nfi-inventory-reports-and-woodland-map-reports/>

<sup>27</sup> <http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=14823>

<sup>28</sup> Ruth E. Feber, E. E, Paul J. Johnson, P. J, Gelling, M., Macdonald, D. W. (2017) Ecology and conservation of mammals of hedgerows and field margins. In Dover, J. W ed. The Ecology of Hedgerows and Field Margins. London: Routledge, pp. 233-249

<sup>29</sup> [www.forestresearch.gov.uk/tools-and-resources/peatland-restoration/](http://www.forestresearch.gov.uk/tools-and-resources/peatland-restoration/)

<sup>30</sup> [www.parliament.uk/business/committees/committees-a-z/commons-select/environment-food-and-rural-affairs-committee/inquiries/parliament-2017/peatland-17-19/publications/](http://www.parliament.uk/business/committees/committees-a-z/commons-select/environment-food-and-rural-affairs-committee/inquiries/parliament-2017/peatland-17-19/publications/)

<sup>31</sup> <http://slowtheflow.net/>

<sup>32</sup> <https://environmentagency.blog.gov.uk/2015/11/11/slowing-the-flow-working-with-nature-to-reduce-flood-risk-in-north-yorkshire/>



- Trees and woodland also improve water quality by intercepting sediment, nutrients and pesticides (diffuse pollutants) from adjacent land use activities. This contributes to Water Framework Directive River Basin Management Plan objectives and water status targets.
- In 2016<sup>33</sup> 40% of river waterbodies were not achieving good status as part of the Water Framework Directive, due to diffuse pollution from agricultural and rural land management. This is caused by pressures from five main activities: agriculture, forestry, equine activities, recreation, and rural development<sup>34</sup>. More information on this can be found in the Environment Agency's Challenges and Choices consultation<sup>35</sup> outlining the challenges that threaten the water environment and proposals for how we can work together to manage our waters. This is open until 24 September 2020.
- Forestry causes has a limited impact on waterbodies not achieving good status due to diffuse pollution, with forest harvesting having less than 0.5% risk of associated pollution which could affect water courses. Furthermore, modelling shows that more than 20% of a catchment would need to be planted with trees to detrimentally affect water availability<sup>36</sup>. Controls on woodland creation provided through the Environmental Impact Assessment Regulations consider this risk. The process may require a critical load assessment in areas which are sensitive to acidification to ensure that the establishment of new woodland will not prevent the water body reaching good ecological status.
- Environment Agency research into the use of three-dimensional buffer strips, such as areas of trees alongside watercourses, shows that appropriately positioned and well-designed woodland that conforms to UKFS guidelines provides the best solution in places where agricultural run-off is polluting watercourses<sup>37</sup>. 10 - 20 metre wide buffer strips of trees can deliver a reduction in the run off from agricultural nutrients of between 50 – 90%.
- In the past, management of the water environment has fallen to Government, to private companies and to landowners, often operating in isolation. The Catchment Based Approach (CaBA)<sup>38</sup> embeds collaborative working at a river catchment scale, delivering a range of environmental, social and economic benefits and protecting our precious water environments for the benefit of us all. CaBA partnerships are actively working in all 100-plus river catchments across England and cross-border with Wales, directly

---

<sup>33</sup> The latest data currently available through the Catchment Data Explorer - <https://environment.data.gov.uk/catchment-planning/>

<sup>34</sup> [https://consult.environment-agency.gov.uk/++preview++/environment-and-business/challenges-and-choices/user\\_uploads/physical-modification-challenge-rbmp-2021.pdf](https://consult.environment-agency.gov.uk/++preview++/environment-and-business/challenges-and-choices/user_uploads/physical-modification-challenge-rbmp-2021.pdf)

<sup>35</sup> <https://consult.environment-agency.gov.uk/environment-and-business/challenges-and-choices/>

<sup>36</sup> [https://consult.environment-agency.gov.uk/++preview++/environment-and-business/challenges-and-choices/user\\_uploads/physical-modification-challenge-rbmp-2021.pdf](https://consult.environment-agency.gov.uk/++preview++/environment-and-business/challenges-and-choices/user_uploads/physical-modification-challenge-rbmp-2021.pdf)

<sup>37</sup> [www.ciwem.org/assets/pdf/Events/Past%20Presentations/DP18/2.2.4%20Marc%20Stutter.pdf](http://www.ciwem.org/assets/pdf/Events/Past%20Presentations/DP18/2.2.4%20Marc%20Stutter.pdf)

<sup>38</sup> [www.catchmentbasedapproach.org/](http://www.catchmentbasedapproach.org/)

supporting the achievement of many of the targets under the 25 Year Environment Plan.

- There are opportunities to plant trees and create urban woodland as part of Sustainable Drainage (SuDS) systems. SuDS are an increasingly important part of our green infrastructure and are created to collect or minimise surface water run-off and flood risks in an environmentally friendly way by mimicking natural water systems such as ponds, wetlands, swales and basins. Trees can be planted as part of SuDS developments to improve and increase water interception, storage and infiltration alongside their other benefits, including being attractive planting features, and increasing biodiversity whilst helping to ensure adaptation to climate change.
- Countryside Stewardship offers grants for improvements to watercourses; these grants are targeted with spatial maps showing the priority locations for planting trees for the benefit of water quality and quantity. These maps were produced in 2013/14 and since then the concept and theory of NFM and water quality improvements through woodland creation has been established amongst the Defra agencies.
- From the £5.7m Northern Forest fund we have allocated £700,000 to Leeds City Council's Flood Alleviation Programme. This programme, delivered by the Environment Agency, includes creation of clough woodland as part of NFM to prevent future floods in Leeds City. The Moors for the Future Partnership<sup>39</sup> created design guidelines for establishing riparian woodland cloughs in ecologically sensitive areas. These are available to be adapted and followed throughout the Northern Forest, especially in the South Pennines.

## Helping landowners create woodlands

- Government has traditionally supported woodland creation with grant aid. Work to develop the Environmental Land Management Scheme (ELMS) is under way through a programme of tests and trials in advance of its introduction in 2024. Meanwhile the following grants are currently available:
  - Woodland Creation Planning Grant<sup>40</sup> - supports land managers to develop plans for new woodland that is compliant with the UKFS.
  - Countryside Stewardship – supports woodland creation that contributes to biodiversity and water objectives; will be replaced by ELMS in 2024.
  - The Woodland Carbon Fund<sup>41</sup> - supports land managers planting large-scale multi-purpose woodlands with a significant productive element.

---

<sup>39</sup> <https://www.moorsforthefuture.org.uk/our-work/our-projects/clough-woodland-project>

<sup>40</sup> [www.gov.uk/guidance/woodland-creation-planning-grant](http://www.gov.uk/guidance/woodland-creation-planning-grant)

<sup>41</sup> [www.gov.uk/guidance/woodland-carbon-fund](http://www.gov.uk/guidance/woodland-carbon-fund)

- HS2 Woodland Fund<sup>42</sup> - provides funding for woodland creation and restoration of ancient woodland as part of HS2's compensation package for ancient woodland losses.
  - Changing Landscapes Scheme<sup>43</sup> – a scheme supporting woodland creation run by the National Forest Company.
- The Woodland Carbon Guarantee is also available and for successful bidders, provides a guaranteed price for the carbon sequestered by new woodlands in the future. Auctions are run regularly where bidders outline the price at which they would need to sell woodland carbon in the future to make a new woodland creation project profitable.
  - The Forestry Commission has published<sup>44</sup> a set of case studies showing how different land managers have used the different incentives and support for woodland creation on their land.
  - The creation (and removal of woodland) is controlled by the Environmental Impact Assessment (Forestry) (England and Wales) Regulations 1999<sup>45</sup>. These regulations ensure any significant impacts on the environment are considered before a woodland creation or removal project can go ahead. In 2017 the regulations were amended to introduce a notification process for woodland creation proposals in areas of land where afforestation is considered to present a low risk to the current characteristics and known features of the land. Only 1% of woodland creation proposals have required consent under these regulations in the last 10 years<sup>46</sup>.
  - Roots to Prosperity<sup>47</sup>, funded by the Forestry Innovation Fund<sup>48</sup>, has prepared a model agreement enabling a landowner and investor to enter into a new form of forestry partnership. This model enables the landowner to retain ownership whilst deriving an annual income and opens up opportunities for investors with relatively limited capital sums. A Limited Liability Partnership consisting of the landowner and the investor(s) is formed, with the landowner retaining ownership of the land. The investor makes annual payments into the partnership whilst the landowner draws a management fee. Investors could be individuals, partnerships, local communities or NGOs. The partners can choose how to balance income streams between an annual payment and/or timber income, with the landowner deriving additional income from becoming involved in woodland creation and establishment work.

---

<sup>42</sup> [www.gov.uk/guidance/hs2-woodland-fund](http://www.gov.uk/guidance/hs2-woodland-fund)

<sup>43</sup> [www.nationalforest.org/about/grant-opportunities/changing-landscapes-scheme](http://www.nationalforest.org/about/grant-opportunities/changing-landscapes-scheme)

<sup>44</sup> <https://www.gov.uk/guidance/create-woodland-overview>

<sup>45</sup> [www.gov.uk/guidance/environmental-impact-assessments-for-woodland-overview](http://www.gov.uk/guidance/environmental-impact-assessments-for-woodland-overview)

<sup>46</sup> Forestry Commission Records.

<sup>47</sup> [www.rootstoprosperity.org/](http://www.rootstoprosperity.org/)

<sup>48</sup> [www.gov.uk/guidance/woodland-research-and-development-grant](http://www.gov.uk/guidance/woodland-research-and-development-grant)

## Working together to create landscape scale change

- The Northumberland Forestry Partnership (NFP) is a new partnership leading work to identify where to plant trees. Established in September 2019, the NFP will facilitate tree planting in Northumberland where, with landowner support, up to 120,000 hectares of land could be suitable for forests and other woodland creation. The NFP will do this by developing plans for the new woodland, bringing together local residents, landowners and environmental groups to create a vision for a new forest in the region.
- National Parks and Areas of Outstanding Natural Beauty (AONBs) together cover nearly 25% of England's land areas. These places, designated in statute for their natural beauty, will be vital in achieving tree planting targets as part of the national effort for nature-based solutions to climate change. The independent Review of Designated Landscapes, commissioned as part of the 25 Year Environment Plan, affirmed that National Parks and AONBs can support afforestation ambitions, whilst securing natural beauty. National Park Authorities (NPAs) and AONB organisations, which oversee the protection and enhancement of these landscapes, have an important role to play in setting a vision for these beautiful landscapes, including working with partners to develop their statutory management plans, which could play a stronger role in shaping how environmental benefits are achieved in these areas. NPAs and AONB organisations will also be key for convening farmers and bodies such as the Forestry Commission and local authorities so that tree planting is part of a shared, landscape scale vision in their areas. NPAs and AONB organisations may also play a role in the allocation of resources for woodland creation in their areas.
- The North East Cumbria Forestry Investment Zone pilot acts as a test-bed for other woodland creation partnerships across England in establishing the conditions that give landowners and investors confidence when bringing forward UK Forestry Standard-compliant woodland creation schemes. It is working with local communities, landowners, stakeholders and industry to better integrate farming and forestry and support future sustainable land use. The pilot has developed approaches that bring efficiencies to the application and approval process, enabling woodland creation whilst at the same time directing planting away from sensitive sites.
- England's Community Forests<sup>49</sup> are located in and around our largest towns and cities. They aim to provide urban, economic and social regeneration, creating high-quality environments by revitalising derelict land, providing new opportunities for leisure, recreation, and cultural activities, enhancing biodiversity, preparing for climate change and supporting education, healthy living and social and economic development. Each Community Forest is a partnership between local authorities and local, regional and national partners including the Forestry Commission and Natural England. The

---

<sup>49</sup> <https://www.communityforest-trust.org/>

founding basis for each Forest is a government-approved Forest Plan, a 30-year vision of landscape-scale improvement.

- The Northern Forest<sup>50</sup> is an ambitious project that will plant 50 million trees in and around the cities of Liverpool, Chester, Manchester, Leeds, Sheffield and Hull. This new forest aims to transform the landscape and create a real asset for the communities that live nearby by helping to tackle climate change and encourage nature-rich landscapes. It will provide £2.5 billion of social, economic and environmental benefits by reducing the risk of flooding, creating new jobs, cooling and cleaning air in towns and cities and improving health and wellbeing. This work is being led by a partnership of the Mersey Forest<sup>51</sup>, City of Trees<sup>52</sup>, White Rose Forest<sup>53</sup>, and HEYwoods<sup>54</sup> community forests and Woodland Trust<sup>55</sup>.
- Where they restore or create wildlife-rich habitat across landscapes, these projects will make an important contribution to large-scale areas of the Nature Recovery Network.

## Restoring degraded land

- We estimate there is (at least) around 13,000 hectares of vacant and derelict land in England. This is based on the sum of category A and D land (12,775 hectares) in this 2012 data set:  
<https://webarchive.nationalarchives.gov.uk/20170201084629/https://www.gov.uk/government/statistics/national-land-use-database-of-previously-developed-land-2012-nlud-pdl>. Categories: A - Previously developed land now vacant (7,106.83 hectares), B - Vacant Buildings (*excluded*), C - Derelict land and buildings (5,668.77 hectares), D - Previously developed land or buildings currently in use and allocated in local plan or with planning permission (*excluded*). This data set notes that the data is raw (not processed for use) and that only 45% of Local Planning Authorities (excluding National Parks) provided a return.
- There are many examples of the successful regeneration of derelict land to woodland, for example Thames Chase Community Woodland<sup>56</sup> and the Newlands Project<sup>57</sup> in North West England.
- We have estimated the area of historic landfill in England to be 84,068 hectares<sup>58</sup>. The dataset used for this estimate included 19,782 sites but 963 (5%) were excluded from

---

<sup>50</sup> <https://thenorthernforest.org.uk/>

<sup>51</sup> [www.merseyforest.org.uk/](http://www.merseyforest.org.uk/)

<sup>52</sup> [www.cityoftrees.org.uk/](http://www.cityoftrees.org.uk/)

<sup>53</sup> [www.kirklees.gov.uk/beta/white-rose-forest/index.aspx](http://www.kirklees.gov.uk/beta/white-rose-forest/index.aspx)

<sup>54</sup> <http://heywoods.org.uk/>

<sup>55</sup> [www.woodlandtrust.org.uk/](http://www.woodlandtrust.org.uk/)

<sup>56</sup> [www.forestryengland.uk/jeskyns](http://www.forestryengland.uk/jeskyns)

<sup>57</sup> [www.newlandsproject.co.uk/](http://www.newlandsproject.co.uk/)

<sup>58</sup> Using this data set - <https://data.gov.uk/dataset/17edf94f-6de3-4034-b66b-004ebd0dd010/historic-landfill-sites>

our analysis because they did not have a spatial boundary recorded (when including the missing sites and using a buffer of 25 meters the area increases to a total of 84,257 hectares).

## Funding future woodland creation – markets for ecosystem services such as carbon

- The Woodland Carbon Code<sup>59</sup> is the voluntary standard for woodland creation projects that are claiming carbon sequestration value. The Woodland Carbon Fund<sup>60</sup>, launched in 2011, provides an opportunity for landowners/project developers to secure ‘carbon finance’. Take-up has been limited due to the low market price for carbon and the lack of a carbon reduction market to sell the ‘Woodland Carbon Units’.
- The Clean Growth Strategy<sup>61</sup> committed to strengthening domestic carbon markets, building on the Woodland Carbon Code to attract ‘innovative finance’ to woodland expansion. In November 2019 the Woodland Carbon Guarantee<sup>62</sup> was launched. This £50 million scheme provides participants with the option to sell their captured carbon dioxide in the form of verified woodland carbon units to the government for a guaranteed price every five or ten years up to 2055/56. This provides an additional long-term income from woodland. Alternatively the carbon credits can be sold on the open market.

## Supplying the trees we need to plant and assuring their biosecurity

- We are working to increase tree production in our domestic nursery sector, build on current businesses and facilities, and explore innovative ideas and technologies to improve production capacity. This is necessary to create a resilient, healthy, and genetically diverse planting stock which is ready for our future climate and grown in the UK.
- All trees planted by Forestry England in a forestry setting are UK grown. This has been the case for the last three years and was adopted as a biosecurity measure to demonstrate leadership in this area.
- The Plant Healthy Certification Scheme aims to help people and businesses grow and supply healthy plants to halt the introduction and spread of damaging plant pests. The scheme is owned by the Plant Health Alliance and backed by the Plant Health Management Standard. This standard has been developed by industry, with input from

---

<sup>59</sup> [www.woodlandcarboncode.org.uk/](http://www.woodlandcarboncode.org.uk/)

<sup>60</sup> [www.gov.uk/guidance/woodland-carbon-fund](http://www.gov.uk/guidance/woodland-carbon-fund)

<sup>61</sup> [www.gov.uk/government/publications/clean-growth-strategy](http://www.gov.uk/government/publications/clean-growth-strategy)

<sup>62</sup> [www.gov.uk/guidance/woodland-carbon-guarantee](http://www.gov.uk/guidance/woodland-carbon-guarantee)

Government and third sector organisations. It sets out key requirements for plant health management and relates to a range of horticultural businesses and organisations. These include: forestry / tree / commercial nurseries, plant retailers, landscape management businesses and public gardens. Certification for the scheme is available from NSF and Grown in Britain.



## Protecting and improving our woodlands

- England's woodlands provide habitat for rare and declining species and support at least 250 of England's 942 priority species<sup>63</sup>.
- The England Biodiversity Indicators track the long-term trends in biodiversity including for woodland species. As of [2017](#), the breeding woodland bird indicator for England was 27% lower than in [1970](#) (Figure 6.1)<sup>64</sup>. The greatest decline occurred in the previous decades and since [1996](#) the index has been more stable. Since [1990](#), the woodland butterfly index for England has fallen by 40% although, since it reached an all-time low in [2012](#) the index has shown some signs of recovery.
- Recovery of threatened and iconic animal and plant species will need a greater number and diversity of habitats, and wildlife corridors that help them move in response to climate change.

## Improving protection for trees and woodland

- Ancient woodland sites have been wooded since at least 1600AD. Their longevity means they have often developed very special groups of plants, fungi and animals. The Ancient Woodland Inventory<sup>65</sup> identifies approximately 340,000 hectares of ancient woodland in England<sup>66</sup>. The Ancient Woodland Inventory is provisional and a wood's absence from the list does not definitively mean it is not ancient; woodlands that are potentially ancient can be considered for addition on a case by case basis. The inventory is managed by Natural England and the Woodland Trust, supported by MHCLG.
- While ancient woodland is an irreplaceable habitat, it is still at risk from neglect and loss to other land use: it is estimated that 57 hectares, 0.02% of England's total ancient woodland cover, was permanently lost between 2006 and 2015<sup>67</sup>. Following publication of the 25 Year Environment Plan, the National Planning Policy Framework has been strengthened to better protect ancient woodland, recognising that any losses to development subject to the Town and County Planning Act (1990) should be "wholly exceptional". This is supported by the Natural England and Forestry Commission's

---

<sup>63</sup> [www.legislation.gov.uk/ukpga/2006/16/section/41](http://www.legislation.gov.uk/ukpga/2006/16/section/41)

<sup>64</sup> [www.gov.uk/government/statistics/england-biodiversity-indicators](http://www.gov.uk/government/statistics/england-biodiversity-indicators)

<sup>65</sup> <https://data.gov.uk/dataset/9461f463-c363-4309-ae77-fdcd7e9df7d3/ancient-woodland-england>

<sup>66</sup> Keepers of Time policy statement - <https://www.gov.uk/government/publications/keepers-of-time-a-statement-of-policy-for-englands-ancient-and-native-woodland>

<sup>67</sup> paragraph 31 -

<http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/environment-food-and-rural-affairs-subcommittee/forestry-in-england/written/41693.pdf>



Standing Advice on ancient woodland, ancient trees and veteran trees: protecting them from development<sup>68</sup>.

- The 'Keepers of Time' policy statement (2005) sets out Government policy on ancient and native woodland. The supporting good practice guide 'Managing Ancient and Native Woodland in England'<sup>69</sup> provides guidance on woodland management and planning, including species conservation, for owners of ancient and native woodland.

## Preparing for our future climate

- The Forestry Commission advises woodland owners and managers to consider the impacts of a 4°C increase in average temperature and of a 10°C increase during the hottest days in summer when writing a management plan for new and existing woodlands<sup>70</sup>. This will require the adoption of alternative approaches to management, for example more extensive continuous cover systems of management, species diversification and planting species better suited to a hotter drier climate. This includes the exploitation of the genetic resource of native and exotic species through a range of approaches. These include using natural regeneration (where present), planting stock grown from seed collected locally and from origins which are between two and five degrees south of the planting site (assisted migration).
- The National Adaptation Programme<sup>71</sup> describes how woodlands and groups of trees themselves need to be made more resilient to climate change. One of the main objectives is to make sure that England's woodland resource is expanded and better linked to enhance its resilience. It also recommends species diversification and using assisted migration. Expansion and linking was one of the original key recommendations in the Lawton Report, Making Space for Nature<sup>72</sup> with its message of "bigger, better, more linked" habitat. Although the original report was aimed at biodiversity, these principles of "bigger, better, more linked" apply equally to plantation forests where the threat from climate change and pests and diseases has highlighted the need to diversify all woodland.

---

<sup>68</sup> [www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences](http://www.gov.uk/guidance/ancient-woodland-and-veteran-trees-protection-surveys-licences)

<sup>69</sup> [www.gov.uk/government/publications/managing-ancient-and-native-woodland-in-england](http://www.gov.uk/government/publications/managing-ancient-and-native-woodland-in-england)

<sup>70</sup> Managing woodlands in a climate emergency - [www.gov.uk/government/publications/managing-englands-woodlands-in-a-climate-emergency](http://www.gov.uk/government/publications/managing-englands-woodlands-in-a-climate-emergency)

<sup>71</sup> National Adaptation Plan - <https://www.gov.uk/government/publications/climate-change-second-national-adaptation-programme-2018-to-2023>

<sup>72</sup>

<https://webarchive.nationalarchives.gov.uk/20130402170324/http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>

- The expansion of woodland is also a key recommendation in the report Net Zero – the UK’s contribution to stopping global warming<sup>73</sup> where in order to achieve the Government’s target of net zero carbon by 2050 for England it recommends, amongst other actions, planting 30,000-50,000 hectares of new woodland per year in England.
- A strategy for UK Forest Genetic Resources (FGR): “protecting the UK’s unique diversity of trees and shrubs”<sup>74</sup> was published in 2018. This aims to ensure sufficient genetic diversity between and within tree species so that the UK’s woodlands and trees meet present and future societal and environmental challenges. It aims to ensure collaboration for better understanding of the UK’s FGR, guide the conservation of the UK’s FGR and promote its value and use.
- To support a proactive approach to climate change a partnership of woodland stakeholders has developed the Action Plan for Climate Change Adaptation of Forests, Woods and Trees in England<sup>75</sup>. Additionally the British Woodland Survey 2020<sup>76</sup> will focus on progress with adapting England’s woodlands to climate change. The British Woodlands Survey is co-ordinated by the Sylva Foundation. You can access this survey here: [www.sylva.org.uk/bws2020](http://www.sylva.org.uk/bws2020) until the end of June 2020.

## Protecting plant health

- In 2018 the Tree Health Resilience Strategy<sup>77</sup> was published and considerable progress has already been made to deliver it. The UK Plant Health Alliance<sup>78</sup> has been established, the ‘Plant Healthy’ management standard<sup>79</sup> has been launched and an industry-led Plant Healthy Certification Scheme<sup>80</sup> has been developed based on this standard. We have also recruited more inspectors at the border and carried out readiness reviews for Xylella and Emerald Ash Borer and are currently reviewing the package of tree health grants.

---

<sup>73</sup> <https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/>

<sup>74</sup> Strategy for UK Forest Genetic Resources - [www.kew.org/sites/default/files/2019-06/UK%20Forest%20Genetic%20Resources%20Strategy.pdf](http://www.kew.org/sites/default/files/2019-06/UK%20Forest%20Genetic%20Resources%20Strategy.pdf)

<sup>75</sup> [www.rfs.org.uk/media/605364/fccwg-climate-change-adaptation-progress-report.pdf](http://www.rfs.org.uk/media/605364/fccwg-climate-change-adaptation-progress-report.pdf)

<sup>76</sup> <https://sylva.org.uk/bws2020>

<sup>77</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/710719/tree-health-resilience-strategy.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/710719/tree-health-resilience-strategy.pdf)

<sup>78</sup> [www.planthealthy.org.uk/plant-health-alliance](http://www.planthealthy.org.uk/plant-health-alliance)

<sup>79</sup> [www.planthealthy.org.uk/assets/downloads/3\\_Plant-health-management-standard-v1.0-published-240119.pdf](http://www.planthealthy.org.uk/assets/downloads/3_Plant-health-management-standard-v1.0-published-240119.pdf)

<sup>80</sup> [www.planthealthy.org.uk/](http://www.planthealthy.org.uk/)

## Managing our woodlands and trees

- A diverse woodland structure provides the greatest opportunity for biodiversity but a lack of active management in many of our broadleaved woodlands over the past 50 years has simplified their structures and closed their canopies, reducing the amount of sunlight that reaches the woodland floor to enable other plants to grow<sup>81</sup>. The State of Nature report for 2019<sup>82</sup> shows that as a result the indicators for woodland birds and butterflies (continue to) show declines.
- The recently published National Forest Inventory ecological condition survey<sup>83</sup> shows only 9% of woodland is in favourable condition.
- The 25 Year Environment Plan has a target for 75% of Sites of Special Scientific Interest (SSSIs) (for all habitats) to be in 'favorable condition'. At present 36% of our woodland SSSIs are classified as being in 'favorable condition'.
- The Tree Health Resilience Strategy<sup>84</sup> advocates the active management of woodland, which provides woodland owners with an opportunity to restructure their woodland to make them more resilient to climate change and pests and diseases. This is achieved by diversifying the range of species and woodland structure and potentially appropriately removing and replacing trees affected by pests and diseases, most notably dieback of ash<sup>85</sup>.
- Bringing woods into management results in a reduction in carbon stocks in the forest. This is offset to some extent by carbon continuing to be stored in durable wood products and through those products avoiding fossil fuel emissions associated with materials such as concrete and steel that wood products are used in place of. This means that while reducing the level of harvesting could help to meet near-term carbon budgets, it is important to take a longer term and holistic view of the forest carbon cycle. Increasing the level of sustainable management of England's woodland therefore can improve habitat quality, support jobs, and make a significant contribution to the rural economy.

---

<sup>81</sup> [www.forestresearch.gov.uk/research/implications-of-lowland-broadleaved-woodland-management-for-the-conservation-of-target-bird-species/](http://www.forestresearch.gov.uk/research/implications-of-lowland-broadleaved-woodland-management-for-the-conservation-of-target-bird-species/) and Long term ecological change in British woodland (1971- 001) ENRR653 <http://publications.naturalengland.org.uk/publication/94019?category=550043>

<sup>82</sup> <https://nbn.org.uk/wp-content/uploads/2019/09/State-of-Nature-2019-UK-full-report.pdf>

<sup>83</sup> [www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/what-our-woodlands-and-tree-cover-outside-woodlands-are-like-today-8211-nfi-inventory-reports-and-woodland-map-reports/nfi-woodland-ecological-condition/](http://www.forestresearch.gov.uk/tools-and-resources/national-forest-inventory/what-our-woodlands-and-tree-cover-outside-woodlands-are-like-today-8211-nfi-inventory-reports-and-woodland-map-reports/nfi-woodland-ecological-condition/)

<sup>85</sup> [www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/ash-dieback-hymenoscyphus-fraxineus/](http://www.forestresearch.gov.uk/tools-and-resources/pest-and-disease-resources/ash-dieback-hymenoscyphus-fraxineus/)

- The Royal Forestry Society paper on Bringing woodlands into management<sup>86</sup>: estimates that increasing the proportion of England's managed woodland from 58 to 75% would create 182 jobs and add over £16m to the economy.
- Wood pasture is a type of woodland habitat recognised as having its own inherent value as a priority habitat<sup>87</sup>. Traditionally, grazing animals were raised alongside trees, on the same area of land. The trees were often managed to ensure their growth would not be affected by the presence of grazing animals. Such land management systems date back centuries, even pre-dating some ancient woodlands. The outcome can be culturally important trees such as the Major Oak in Sherwood Forest and the ancient oaks of Windsor Forest and Great Park. Their value for biodiversity and their aesthetic and cultural value will not go unrecognised in the delivery of the tree planting ambitions.

## Protecting young trees and woodland condition

- The most effective way of preventing deer damage to trees and woodlands is to reduce the deer population to a level that the wider landscape can carry without a deterioration in woodland condition or risk to tree establishment. Managing deer to a sustainable level can take years of co-ordinated work between land managers but can be successful, as demonstrated by the outcome of the Collaborative Deer Management Grant<sup>88</sup>, which encouraged woodland owners in target areas to work together to reduce damage caused by deer. Fencing provides one way to prevent deer damage to individual trees and woodlands but pushes deer from one area to another. The sale of venison and stalking fees can offset the cost of managing deer and in some cases generate a return for woodland owners.
- Grey squirrels strip bark from trees which can kill or deform trees. Grey squirrels are also a direct threat to red squirrels through competition for food and habitat and as carriers of a squirrel pox virus which is fatal to reds. The UK Squirrel Accord<sup>89</sup> aims to address these issues and is working with Defra to develop a Red Squirrel Action Plan. At the same time the Grey Squirrel Action Plan is also now due for review. Grey squirrel control is costly and requires a sustained approach to management by land managers working together.

---

<sup>86</sup> [www.rfs.org.uk/media/589127/woodland-management-missed-opportunities.pdf](http://www.rfs.org.uk/media/589127/woodland-management-missed-opportunities.pdf)

<sup>87</sup> <http://publications.naturalengland.org.uk/publication/4864081829822464>

<sup>88</sup> A four year grant jointly funded by Forestry Commission and Natural England and delivered by the Deer Initiative Ltd between 2016 and 2020.

<sup>89</sup> <http://squirrelaccord.uk/index.html>

- A consultation on management measures for widely spread Invasive Alien Species in England and Wales<sup>90</sup> in 2019 was relevant to grey squirrel and muntjac deer. A full response is in preparation but Ministers have concluded that humane lethal control should continue alongside the implementation of existing control strategies and continued encouragement of coordinated management partnerships at the landscape-scale.
- Plastic tree shelters and guards are an effective means of protecting establishing broadleaf trees. They provide a micro-climate that increases tree survival and growth and protection from herbivores and animal damage<sup>91</sup>, but it is important that they are collected and recycled once they have performed their function. Fencing, deer and pest control can provide alternative approaches but shelters and guards are currently used in the majority of broadleaf establishment. Forest Stewardship Council certified and bio-based alternatives are coming to market and being trialled.

## Regulation

- The forestry sector is regulated to ensure that high environmental standards are upheld and that the cultural, heritage and amenity value of our trees and woodlands is maximised and protected.
- Tree felling is regulated under the Forestry Act 1967. Tree felling that takes place outside of the regulations is a threat to woodland habitat, and runs counter to Government ambitions to increase the level of woodland cover across England.
- In 2019 356 cases of alleged illegal tree felling were reported to the Forestry Commission. Tentative evidence from remote sensing data suggests that the true figure of unlicensed felling is significantly higher than this. Nonetheless, of these 356, 82 cases covering 54 hectares led to regulatory action being taken by the Forestry Commission. This included several criminal investigations leading to a number of prosecutions.
- Felling regulations under the Forestry Act reflect the objectives of forestry 50 years ago; focusing on regulating woodland management to maintain a strategic resource of timber. Improvements to the enforcement powers available under the Forestry Act after unlicensed tree felling are currently included in the Environment Bill. However the Act may benefit from a more comprehensive review and refresh. For instance, the Forestry Act currently limits the conditions which can be placed on felling licences so that they relate only to the replanting of the trees to be felled under the licence. Conditions to control a broader range of factors and support UKFS compliance (e.g., timing of operations, biosecurity, resilience and record keeping) cannot currently be required.

---

<sup>90</sup> [https://consult.defra.gov.uk/wildlife-management/invasive-alien-species-management-measures/supporting\\_documents/iasconsultdoc.pdf](https://consult.defra.gov.uk/wildlife-management/invasive-alien-species-management-measures/supporting_documents/iasconsultdoc.pdf)

<sup>91</sup> [www.forestresearch.gov.uk/research/archive-treeshelters/](http://www.forestresearch.gov.uk/research/archive-treeshelters/)

- UKFS underpins sustainable woodland management. Its implementation is largely self-regulated with monitoring only through checks made when land managers require regulatory approval, for example to fell trees or create a new woodland. That said, the principles of UKFS directly translate across to the environmental information that must be considered by Forestry Commission under the Environmental Impact Assessment regulations for any afforestation or deforestation project.

## Engaging people with trees and woodland

- The 25 Year Environment Plan seeks to connect people with the environment to improve health and well-being and encourage children to be close to nature and have greater contact with natural spaces. This aims to ensure that high quality accessible natural spaces are close to where people live and work, noting community forests' role in this. The Plan's natural capital approach highlights the importance of urban trees and green infrastructure.
- The urban forest consists of all the trees in the urban realm – in public and private spaces, along linear routes and waterways, in amenity areas, and is a key part of green infrastructure. Trees provide climate cooling, flood risk mitigation, air purification and noise mitigation as well as improving the physical and mental wellbeing of urban populations. 81% of people live in our towns and cities which magnifies the important services trees provide. Approaches such as iTree and CAVAT<sup>92</sup> are helping local authorities and others value the ecosystem services of the urban forest in their area. Such studies have shown the urban forest of a small town can provide at least £75,000 of benefits annually to those living and working there<sup>93</sup>. This value is significantly elevated in a large city (£133 million for Greater London and £33 million Greater Manchester<sup>94</sup>).

## Street trees

- Streets and roads make up three-quarters of all public space. How they are designed therefore has a significant impact on people's lives. Manual for Streets<sup>95</sup> (MfS) was published in 2007, and represented a complete change of approach to residential street design, advocating that streets should no longer be designed by assuming 'place' to be subservient to 'movement'. MfS<sup>96</sup> was published in 2010 and extended these principles to other streets such as town centres.

---

<sup>92</sup> [www.ltoa.org.uk/resources/cavat](http://www.ltoa.org.uk/resources/cavat)

<sup>93</sup> [www.forestresearch.gov.uk/research/i-tree-eco/i-tree-eco-projects-completed/i-tree-eco-petersfield/](http://www.forestresearch.gov.uk/research/i-tree-eco/i-tree-eco-projects-completed/i-tree-eco-petersfield/)

<sup>94</sup> Manchester iTree Survey - [www.cityoftrees.org.uk/news/largest-i-tree-eco-survey-uk-highlights-%C2%A333million-annual-value-greater-manchester%E2%80%99s-trees](http://www.cityoftrees.org.uk/news/largest-i-tree-eco-survey-uk-highlights-%C2%A333million-annual-value-greater-manchester%E2%80%99s-trees)

<sup>95</sup> [www.gov.uk/government/publications/manual-for-streets](http://www.gov.uk/government/publications/manual-for-streets)

<sup>96</sup> [www.gov.uk/government/publications/manual-for-streets-2](http://www.gov.uk/government/publications/manual-for-streets-2)



- The manuals co-exist and apply to residential streets, busier streets and non-trunk roads. The manuals need updating to ensure the advice within them is still relevant and enables those designing streets to do so in a way that contributes to sustainable, healthy and active communities.
- Good street design enables the delivery of many other policy objectives. MfS is relevant to various priority areas for Government, such as encouraging active travel, delivering more and better housing, improving accessibility to transport for disabled people, improving air quality, and encouraging wider use of electric vehicles.
- The ‘Building Better, Building Beautiful’ Commission (BBBBC) is an independent body that was established in November 2018 to advise the Government on how to promote high-quality design for new-build homes and neighbourhoods, making them more likely to be welcomed, rather than resisted, by existing communities.
- The report of the BBBBC ‘Living with Beauty’ was published on 30 January 2020<sup>97</sup>. It makes 45 broad-ranging recommendations under eight themes such as planning, regeneration and nature and includes a call for changes to the National Planning Policy Framework. The report covers three principle goals:
  - To ask for beauty – not just for exceptional schemes that win awards, but for the places we live in and the places we pass by every day.
  - To say no to schemes which we know are bad for the people destined to live there and the surrounding community.
  - The need to promote stewardship – to ensure that all those involved take a longer-term, sustainable view of communities as places that grow and evolve.
- The National Planning Policy Framework (NPPF)<sup>98</sup> sets out the Government’s planning policies for England and how these are expected to be applied. The revised NPPF was published in 2018, with updates on 19 February 2019, and includes policies on conserving and enhancing the natural environment that recognise the benefits of trees and woodland, and of achieving well-designed places.
- The NPPF is supported by a suite of planning practice guidance (PPG) that expands on these policies. The National Design Guide<sup>99</sup> sets out ten characteristics of well-designed places based on planning policy expectations and emphasises the importance of nature, including street and other trees, in contributing to the quality of a place, and to people’s quality of life.

---

<sup>97</sup> <https://www.gov.uk/government/publications/living-with-beauty-report-of-the-building-better-building-beautiful-commission>

<sup>98</sup> <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

<sup>99</sup> <https://www.gov.uk/government/publications/national-design-guide>

## Developing green and healthy places to live

- The average urban tree canopy cover in England is 16% and varies greatly between and within towns and cities<sup>100</sup>. There has also been a gradual decline of large tree species, which provide more ecosystem services, in towns over the past 20 years. To help address this Government has ambitions to plant more trees in and around our towns and cities as well as a manifesto commitment of an expectation that all new streets will be lined with trees. The £10 million Urban Tree Challenge Fund<sup>101</sup> launched in May 2019 supports the planting of urban trees.
- Government has committed to publishing a Framework of Standards for Green Infrastructure. This will give one clear framework for planners and developers to assess their delivery of green infrastructure.
- The Government has previously published an Urban Tree Manual<sup>102</sup>. This provides guidance on the selection, procurement and management of the right tree for the right place, making sure urban trees are considered as a critical part of green infrastructure. Government has also committed to producing best practice guidance for local authorities which develop Tree and Woodland Frameworks<sup>103</sup>.
- There is increasing demand for housing and infrastructure. Government has committed to a target of building 300,000 homes a year by the mid-2020s. Biodiversity Net Gain is proposed in the Environment Bill and will ensure that developers have a clear approach to demonstrating the biodiversity benefit of trees and woodland. We are working to ensure the metric for this assessment reflects how trees and woodlands deliver this value.

## Creating woodlands in and around towns and cities

- England's Community Forests deliver urban forestry and green infrastructure in some of the most deprived areas of England. For example, the £7million EU investments in the Mersey Forest contributed to a wide range of benefits valued at £71 million on the basis of net present value.
- Charities such as Trees for Cities, the Tree Council, the Woodland Trust and the Trees and Design Action Group support communities and professionals to ensure trees are included as part of their built environment.

---

<sup>100</sup> From 3% (Fleetwood, Lancashire) to 45% (Farnham, Surrey) and at ward level from 2.2% to 55.2%.

<sup>101</sup> <https://www.gov.uk/guidance/urban-tree-challenge-fund>

<sup>102</sup> <https://www.forestresearch.gov.uk/tools-and-resources/urban-tree-manual/>

<sup>103</sup> Measures for felling street trees: Summary of responses and government response  
[www.gov.uk/government/consultations/tree-and-woodlands-introducing-measures-for-felling-street-trees/outcome/summary-of-responses-and-government-response](http://www.gov.uk/government/consultations/tree-and-woodlands-introducing-measures-for-felling-street-trees/outcome/summary-of-responses-and-government-response)



## Engaging people with nature

- There were 446 million visits to woodlands in 2015/16<sup>104</sup>. A wealth of research highlights the many benefits of trees, woods and forests for people<sup>105</sup>. Data on accessible woodland (Woods for People) and the subsequent Space for People analysis shows just under 70%<sup>106</sup> of the population have access to larger woodlands within four kilometres of where they live but only 38% have access to smaller woodlands on their doorstep.
- The Public Opinion of Forestry surveys<sup>107</sup> undertaken by Forest Research in 2019 showed 94% of respondents in England agreed forests and woodlands were important because they are important places for wildlife. 93% agreed forests and woodlands were important to them as a space to relax and de-stress.
- Open access land is designated under the Countryside and Rights of Way Act 2000. Woodland is not classified as open access land unless the land owner dedicates it for this purpose. When establishing trees on open access land, consideration must be given to the long-term implications of this change and continued facilitation of public access should take place.
- Involving children with nature is a specific action in the 25 Year Environment Plan. Forest education is a growing approach for out-of-classroom learning. It includes using regular contacts with trees and woodland to develop children's confidence and self-esteem through the Forest School<sup>108</sup> approach as well teaching curriculum-based activities in woodlands where schools chose to do so. This work is supported by the Forest Education Network<sup>109</sup> which supports education in woodlands through networking, sharing good practice and facilitating communication between the education and woodland sectors and practitioners.
- As part of the Forestry Skills Action Plan<sup>110</sup> the Sylva Foundation and partners launched 'Fieldwork in the Forest' in November 2019. This provides a toolkit, consistent with the GCSE and A Level curricula, that supports and encourages fieldwork in local woodlands.

---

<sup>104</sup> Monitor of Engagement with the Natural Environment (MENE 2015-16) Public Opinion of Forestry Survey

<sup>105</sup> [www.forestresearch.gov.uk/research/](http://www.forestresearch.gov.uk/research/)

<sup>106</sup> FC Indicators Report 2018 shows 67.9% of population has access within 4km to a >20 hectare woodland.

<sup>107</sup> [www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/public-opinion-of-forestry/](http://www.forestresearch.gov.uk/tools-and-resources/statistics/statistics-by-topic/public-opinion-of-forestry/)

<sup>108</sup> [www.forestschoolassociation.org/what-is-forest-school/](http://www.forestschoolassociation.org/what-is-forest-school/)

<sup>109</sup> [www.lotc.org.uk/fen/](http://www.lotc.org.uk/fen/)

<sup>110</sup> Forestry Skills Action Plan - <https://careersinforesstry.org.uk/>

## Supporting the economy

- Following the Health and Harmony consultation in February 2018, plans to reform agricultural policy were set out in a policy statement in 2018<sup>111</sup>. The reforms aim to create an agricultural policy that moves away from the Common Agricultural Policy (CAP) and towards the payment of public money for public goods, helping deliver the 25 Year Environment Plan and net zero emissions by 2050. This policy introduced the concept of phasing out direct payments for farming land: starting in 2021 the intention is to phase out Direct Payments in England over a seven year transition period (2021 to 2027)<sup>112</sup>.

## Timber

- There is a strong demand for wood in England. The Roots to Prosperity Action Plan<sup>113</sup> reports that the use of coniferous roundwood by all users in the north of England could rise from 1.45 million m<sup>3</sup> to over 1.54 million m<sup>3</sup> by 2023.
- Grown in Britain is an independent not-for-profit organisation, building a ‘wood culture’ by engaging with Government, construction, retail, NGOs and the private sector. The organisation is driving a change in attitudes and practices, to ensure the future success of the UK’s woods and forests. The Grown in Britain certification mark provides visible assurance of provenance and legality for forest products that conform to the UK Forestry Standard. Grown in Britain also carries out research and supply chain development to add value here in the UK and reduce imports. To reduce carbon miles and biosecurity risks, Grown in Britain connects people to the provenance of home-grown forest products via a clear and trusted supply chain label.
- The Clean Growth Strategy<sup>114</sup> and 25 Year Environment Plan identified potential carbon abatement that could be achieved through increasing timber in construction. The Read Report<sup>115</sup> published in 2009 indicated that between 2009 and 2019 there was potential to increase the carbon stored in the UK’s housing stock by 37 Mt CO<sub>e</sub> with further savings of 74 Mt CO<sub>2e</sub> achievable through the avoidance of fossil fuel emissions as a result of substituting wood for materials with higher embodied carbon, such as concrete and steel. However, any growth in the use of timber will need to be

---

<sup>111</sup> <https://www.gov.uk/government/publications/the-future-for-food-farming-and-the-environment-policy-statement-2018>

<sup>112</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/868041/future-farming-policy-update1.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/868041/future-farming-policy-update1.pdf)

<sup>113</sup> <https://rootstoprosperity.org/the-action-plan>

<sup>114</sup> [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/700496/clean-growth-strategy-correction-april-2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf)

<sup>115</sup> Read, D.J., Freer-Smith, P.H., Morison, J.I.L., Hanley, N., West, C.C. and Snowdon, P. (eds). 2009. *Combating climate change – a role for UK forests. An assessment of the potential of the UK’s trees and woodlands to mitigate and adapt to climate change. The synthesis report.* The Stationery Office, Edinburgh.

done in a safe manner, in line with the regulations that control the use of combustible materials.

- Analysis by the Committee on Climate Change found the carbon abatement potential building of 270,000 new homes each year using timber frame and cross-laminated timber would result in (net) storage of ~3 Mt CO<sub>2</sub>e p.a. of sequestered carbon in 2050<sup>116</sup>.

## Energy

- The Clean Growth Strategy and Bio-economy Strategy: 2018-2030<sup>117</sup> both set out ambitions to encourage the use of sustainably grown wood as a fuel and construction material.
- Short-rotation forestry (SRF) for biomass production is the cultivation of fast-growing trees that are harvested usually between eight and 20 years old. The creation of SRF crops is managed through the Environmental Impact Assessment regulations, but there is currently a presumption in the Forestry Act and UKFS that any afforestation is a permanent land-use change, which is to some a deterrent to energy afforestation.
- The Domestic Renewable Heat Incentive (RHI) scheme provides financial incentive to promote the use of renewable heat by paying for the green renewable heat generated by installing heating systems that use eligible energy sources. Wood fuel which meet strict sustainability and land criteria, may be used as an energy source for these systems. Through this the RHI has created a market opportunity for undermanaged woodlands for the next seven years. The RHI is coming to an end but to ensure a smooth transition to its successor - the Clean Heat Grant scheme - the Government has extended the application period for the Domestic RHI until 31 March 2022. Non-domestic applications can be made until March 2021. The Department for Business, Energy and Industrial Strategy recently opened a consultation on future support for low carbon heat which you can see here: [www.gov.uk/government/consultations/future-support-for-low-carbon-heat](http://www.gov.uk/government/consultations/future-support-for-low-carbon-heat). The consultation is open until 23:45 on 7 July 2020.

## Agroforestry

- Agroforestry is not widely practiced in England but presents a significant opportunity to increase tree cover and to diversify farm holdings and businesses. Agroforestry systems can provide extensive environmental services<sup>118</sup> and can increase productivity<sup>119</sup> compared with traditional agricultural systems. Agroforestry can take many forms, including: silvoarable agroforestry (trees and crops); silvopasture systems

---

<sup>116</sup> [www.theccc.org.uk/wp-content/uploads/2019/07/Wood-in-Construction-in-the-UK-An-Analysis-of-Carbon-Abatement-Potential-BioComposites-Centre.pdf](http://www.theccc.org.uk/wp-content/uploads/2019/07/Wood-in-Construction-in-the-UK-An-Analysis-of-Carbon-Abatement-Potential-BioComposites-Centre.pdf)

<sup>117</sup> [www.gov.uk/government/publications/bioeconomy-strategy-2018-to-2030](http://www.gov.uk/government/publications/bioeconomy-strategy-2018-to-2030)

<sup>118</sup> [www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/](http://www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/)

<sup>119</sup> [www.soilassociation.org/media/15756/agroforestry-in-england\\_soilassociation\\_june18.pdf](http://www.soilassociation.org/media/15756/agroforestry-in-england_soilassociation_june18.pdf)

(trees and livestock); forest farming, riparian forest buffer; windbreak/shelterbelt or improved fallow and multipurpose trees. Agroforestry therefore has flexibility to suit different farms. The Committee on Climate Change recognises planting trees on agricultural land while maintaining their primary use as a means of changing land use helps to achieve net zero – saving 6MtCO<sub>2e</sub> by 2050<sup>120</sup>. Committee on Climate Change modelling to achieve net zero by 2050 advocates extending hedges by 40%.

- We estimate that there are 551,700 hectares of agroforestry land in the UK, based on a very broad definition. Livestock agroforestry is the largest area of agroforestry, at 547,600 hectares, where there is a mix of trees and livestock (this includes 50,700 hectares of shrubland with sparse tree cover and 239,300 hectares of grassland with sparse tree cover) and 2,000 hectares of arable agroforestry, and 14,200 hectares of high value trees<sup>121</sup>.

## Tenant farming

- 29% (2,617 of 9,059 thousand hectares) of farmland in England is currently managed under tenancies (either Full Agricultural or Farm Business Tenancies)<sup>122</sup>.
- The Tenant Farmers Association report<sup>123</sup> states that in most cases the terms of tenancy agreements prevent tenants establishing trees on the land they manage, and trees, including those newly planted, are often reserved for the landlord. While these issues can be addressed through negotiation between the tenant and landlord, amendments are proposed to the Agriculture Bill to provide a mechanism for challenging unreasonable restrictions on the land tenants manage to encourage a joint approach to woodland creation and management between landlords and tenants.

## Productivity and supply chains

- Productivity within the UK forestry sector in gross value added (GVA) per hectare of forest (€249/ha) is above the European average (€145/ha), though lower per employee (€42K compared to €49K per employee)<sup>124</sup>.

---

<sup>120</sup> [www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/](http://www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/)

<sup>121</sup> [www.ons.gov.uk/releases/uknaturalcapitalwoodland](http://www.ons.gov.uk/releases/uknaturalcapitalwoodland)

<sup>122</sup> Area of Full Agricultural Tenancy (FAT) and Farm Business Tenancy (FBT) in 2018/19 = 2,617,000 hectares. (FBT = 1,354,000 hectares and FAT = 1,263,000 hectares) Source: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/871771/fbs-farmrents2018-12mar20.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/871771/fbs-farmrents2018-12mar20.pdf) Utilised agricultural area in 2019\* = 9,059,000 hectares. This includes cropped area, uncropped arable land, common rough grazing, temporary and permanent grassland and land used for outdoor pigs (excludes woodland and other land). Source: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/841483/structure-june-eng-series-24oct19.xls](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/841483/structure-june-eng-series-24oct19.xls)

<sup>123</sup> [www.tfa.org.uk/wp-content/uploads/2019/09/198August14NetZero.pdf](http://www.tfa.org.uk/wp-content/uploads/2019/09/198August14NetZero.pdf)

<sup>124</sup> <https://ec.europa.eu/eurostat/documents/3217494/10317767/KS-FK-19-001-EN-N.pdf/742d3fd2-961e-68c1-47d0-11cf30b11489>

- The hardwood supply chain in England is very fragmented. Market failures seem to be a shortage of skilled labour and uncertain timber prices. Supply chains are not easily able to convince woodland owners to undertake management work and there is some evidence that those engaged in the hardwood supply chain, which is dominated by small scale ownership and micro-enterprises, have difficulty in accessing finance due to lack of collateral and business skills. There are a number of forestry 'interest groups' but these lack the ability to organise owners to reach 'critical mass' either in terms of economical woodland management or timber marketing (FC, Personal Comms).

## Workforce

- Work to expand the forestry workforce is already under way through the Forestry Skills Forum<sup>125</sup>, which promotes skills and learning across the forestry sector and has developed the Forestry Skills Plan<sup>126</sup>. This plan runs until 2024 and brings together a set of actions to help organisations in the forestry sector identify opportunities for co-operation and avoid gaps in the provision of learning and development.
- T Levels are new two-year, technical study programmes that will be available across 11 industry routes and are a key element of Government's educational policy. They will sit alongside apprenticeships (work based) and A levels (academic) as one of three types of learning available to students aged 16 – 19. They will train learners in technical skills needed by industry. Forestry and arboriculture fall under the Agriculture, Animal Care and Environment T Level. A consultation<sup>127</sup> on the development of this T Level is now open. This presents the draft content for feedback until 13 July.

---

<sup>125</sup> [www.rfs.org.uk/skills-forum/](http://www.rfs.org.uk/skills-forum/)

<sup>126</sup> [www.confor.org.uk/media/247374/forestry-skills-plan-2019-2024.pdf](http://www.confor.org.uk/media/247374/forestry-skills-plan-2019-2024.pdf)

<sup>127</sup> [www.instituteforapprenticeships.org/t-levels/consultations/consultation-on-the-draft-outline-content-for-the-t-level-in-agriculture-land-management-and-production/](http://www.instituteforapprenticeships.org/t-levels/consultations/consultation-on-the-draft-outline-content-for-the-t-level-in-agriculture-land-management-and-production/)



© Crown copyright 2020

This information is licensed under the Open Government Licence v3.0. To view this licence, visit [www.nationalarchives.gov.uk/doc/open-government-licence/](http://www.nationalarchives.gov.uk/doc/open-government-licence/)

This publication is available at [www.gov.uk/government/publications](http://www.gov.uk/government/publications)

Any enquiries regarding this publication should be sent to us at

[Tree.Strategy.Consultation@defra.gov.uk](mailto:Tree.Strategy.Consultation@defra.gov.uk)