Forestry Commission

Forestry Commission Key Performance Indicators

Report for 2020-21

Forestry Commission

Forestry Commission Key Performance Indicators: Report for 2020-21 (First Release)

Table of Contents

Introduction

The Forestry Commission publishes a range of key performance indicators to show our contribution towards forestry and woodlands in England, and to show barometers of trends in the wider forestry sector in England. The indicators reflect our priorities to protect, improve and expand England's woodlands. They display some of the contributions Forestry England makes to people, nature and the economy through the nation's forests. Our use of indicators also reflects our commitment to evidence-based working and to ensuring that there is a robust evidence base available to the forestry sector to underpin policies and operational decisions. As such they show parts of how we are contributing to delivery of the government's 25 Year Environment Plan[1]. This *Forestry Commission Key Performance Indicators: Report 2020-21* provides our latest annual monitoring report on indicators which we have reported and developed over time.

Forest Services' Five-Year Strategy identified the need to review the Key Performance Indicators (KPIs) to ensure that these remain good measures of the positive differences we are making in the real world and are improved where necessary. The outcome of the review is an enhanced suite of indicators approved by the Forest Services Board and Executive Team.

All of the new suite of Forest Services indicators are reported here and we plan to publish interim updates where data are available quarterly in our Headline Performance Updates. The indicators will help us monitor aspects of *The England Trees Action Plan 2021-2024* launched recently[2]. We have added new indicators to pick up on key new areas and made some changes to the suite of six headline indicators that we intend to report quarterly. Indicators that remain relevant have been retained with enhancements in places. A small number of indicators now less relevant will no longer be reported.

The creation of Forestry England as a refreshed and re-energised organisation to care for the nation's forests and increase their value to society provided the opportunity to consider those KPIs. Assessment of the existing KPIs illustrated that they needed to be updated to better reflect the current purpose of the organisation and connect better to the operational decision making of the business. With guidance from the Forestry England Board and Executive Team a new Performance Evaluation Framework was developed.

Within the Framework, the Key Performance Indicators published within this report are those measures that relate to overall organisational purpose as well as key policy requirements. They are long-term measures, calculated and reported annually. This is the first year that this new suite of Forestry England KPIs has been used. The indicators will help monitor achievement of Forestry England's five-year plan, *Growing the future: 2021-26* launched recently[3].

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[1] HM Government (2018) *A Green Future: Our Plan to Improve the Environment*, London: Defra, at https://www.gov.uk/government/publications/25-year-environment-plan

[2] UK Government (2021) *The England Trees Action Plan 2021-2024*, London: UK Government, 30 pages, at https://www.gov.uk/government/publications/england-trees-action-plan-2021-to-2024

[3] Forestry England (2021) *Growing the future: 2021-26*, Bristol: Forestry England, 18 pages, at https://www.forestryengland.uk/growing-the-future

This report contains:

- Part 1: Forest Services headline key performance indicators, from page 12.
- Part 2: Forestry England headline key performance indicators, from page 23.
- Part 3: Other Forest Services indicators, from page 31.

We publish:

- Updates on the six headline Forest Services indicators quarterly[4].
- Updates on the six headline Forestry England indicators annually.
- Reports on the full suite of Forestry Commission indicators, 38 in all, annually.

The coverage of all the indicators is England and figures are at country level. Most of the indicators are based on statistical and geographical analysis of Forestry Commission administrative data, the National Forest Inventory, surveys conducted and commissioned for us by the Forest Research Statistics team, and data available from other parts of Defra Group and other data collections.

This is an Official Statistics publication, produced with a view to meeting the standards of the *Code of Practice for Statistics* (Office for Statistics Regulation and UK Statistics Authority, 2018). The latest outturns of the indicators have been assured by the Government Internal Audit Agency.

See the Forestry Commission Key Performance Indicators web pages on GOV.UK for other reports in this statistical series.

This Forestry Commission report is based on a wide range of contributions from our senior managers, indicator managers and data managers as well as our statistical and geospatial analysts.

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[4] Available from the Forestry Commission Key Performance Indicators webpage: https://www.gov.uk/government/collections/forestry-commission-corporate-plan-performance-indicators

Short term trends in the indicators

Method of assessment

A proper review of this *Indicators Report 2020-21* is best made by reading each report in full, ideally alongside other contextual information on that aspect of the forestry sector. To provide a summary, however, we also provide a simple assessment of short-term trends in each indicator. These show change in the indicator over time. They do not show whether the indicator has reached any actual or implied targets nor whether the current status is 'good' or 'bad'.

This assessment is a simple one made only by comparing the difference between the value of the indicator in the most recent single year for which data is available with the data for the single year 5 years earlier. They do not account for unusual year(s) nor reflect fluctuations during intervening years. The assessment made is against a simple standard 'rule of thumb' threshold of 3% per 5-year period; see Table 1.

Table 1: Short term assessment categories and what they represent

Category of short-term trend	Threshold
Improving	>3% positive change over 5 years
Little or no overall change	Less than 3% change over 5 years
Deteriorating	>3% negative change over 5 years
Not assessed due to insufficient comparable data	Not applicable

Note: In many cases 'little or no overall change' is actually reported where strong performances have been maintained.

For some indicators we don't have a time series covering at least 5 years. In these cases it is not possible to produce meaningful trend assessments. These assessments need to be treated with special caution. In these cases the assessment covers the longest period available: 1, 2, 3 or 4 years. If change exceeds at least 1% per annum the direction of change is given simply as an acknowledgement of very recent trends and as a possible early indication of a more substantive direction of change that may be found at a later date.

The approach is simplistic but broadly consistent in principle with the more sophisticated approach used for the England Natural Environment Indicators (Defra, 2018).

Where the above approach is not feasible, trends have been assessed by a sensible comparison with our measure of 'what success looks like' for that indicator.

Readers are recommended not to place much weight on the simple trend assessments alone, and rather to consider the entire report for each indicator presented elsewhere in this document.

Table 2: Short term trends in the indicators

Indicator	Short-term trend[1]	Page
Part 1. Forest Services Headline Key Performance Indicators		
Expanding		
Area of woodland in England	Marginal increase	12
New planting of woodland and trees in England	Improving	14
Improving		
Percentage of woodland that is sustainably managed	Little change	17
Percentage of the annual growth of trees in English woodlands that is a harvested	Little change	19
Protecting		
Number of additional tree pests and diseases becoming established in England within a rolling 10-year period	Little change	20
Percentage of known tree felling carried out with Forestry Commission approval	Little change	22

Note 1: See page 5 for the method of assessment of short-term trends in the indicators.

Table 2: Short term trends in the indicators continued

Indicator	Short-term trend[1]	Page
Part 2. Forestry England Headline Key Performance Indicators		
Land area of the nation's forests held by Forestry England	Little change	23
Total natural capital value of the nation's forests	Improving	25
Public engagement: Number of visits per annum to the nation's forests managed by Forestry England	Improving (note 2)	26
Percentage of Forestry England's income that is self-generated	Little change	27
Health and safety: Number of work-related accidents per 100 employees in Forestry England	Improving	29
Health and safety: Number of accidents per 100,000 visits to the main visitor hubs in the nation's forests	Improving	30

Note 1: A fuller version of the short-term trend category labels are shown in the method of assessment.
Note 2: The short-term trend assessment of this indicator covers less than 5 years; treat with more caution.

Table 2: Short term trends in the indicators continued

Indicator		Short-term trend[1]	Page
Part 3. Forest Services Indicators (other than Headline Indicators)			
Expanding and connecting our trees and woodland			
Expanding			
Net change in woodland area, based on the balance between new planting of woodland, and woodland removal		Deteriorating	31
Percentage of new planting of woodland in England that is broadleaved woodland		Not assessed	34
Area of tree cover outside woodland in England		Not assessed	35
Connecting			
Measure of woodland resilience to climate change based on the size and spatial configuration of woodland patches within the landscape		Little change	36
Trees and woodland as a part of the green economy			
Natural capital value of England's woodlands		Not assessed	37
Gross Value Added from domestic forestry		Improving	38
Volume of timber brought to market per annum from English sources		Improving	39
Number of apprentices, those with work based diplomas, and university students entering forestry	Apprentices and those with work-based diplomas	Improving	40
	University students	Deteriorating	40
A measure of Forest Services' training support for the English forestry sector		Not assessed	42
Carbon captured by English woodlands		Little change	43
Projected carbon capture in 2050 by Woodland Carbon Code woodland creation projects		Little change (note 2)	44

Note 1: A fuller version of the short term trend category labels are shown in the method of assessment.
Note 2: The short-term trend assessment of this indicator covers less than 5 years; treat with more caution.

Table 2: Short term trends in the indicators continued

Indicator		Short-term trend[1]	Page
Part 3. Other Forest Services Indicators			
Protecting and improving our trees and woodland			
Woodland ecological condition in England using information from the National Forest Inventory		Not assessed	46
Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition in England	Favourable or unfavourable recovering condition	Little change	49
	Favourable condition	Little change	49
Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in woodland in England	PAWS	Deteriorating	50
	Open habitat	Deteriorating	50
Measure of what is happening to the number and variety of species that live in woodland; using Woodland Birds data		Little change	52
Number of high priority forest pests in the UK Plant Health Risk Register (UKPHRR)		Deteriorating	54
Area of woodland in England that is certified as sustainably managed		Deteriorating	59
Area of felling licenses issued		Improving	60
Connecting people with trees and woodlands			
Number of visits to woodland in England		Little change	62
Percentage of people in Priority Places close to accessible woodland in England		Deteriorating	64

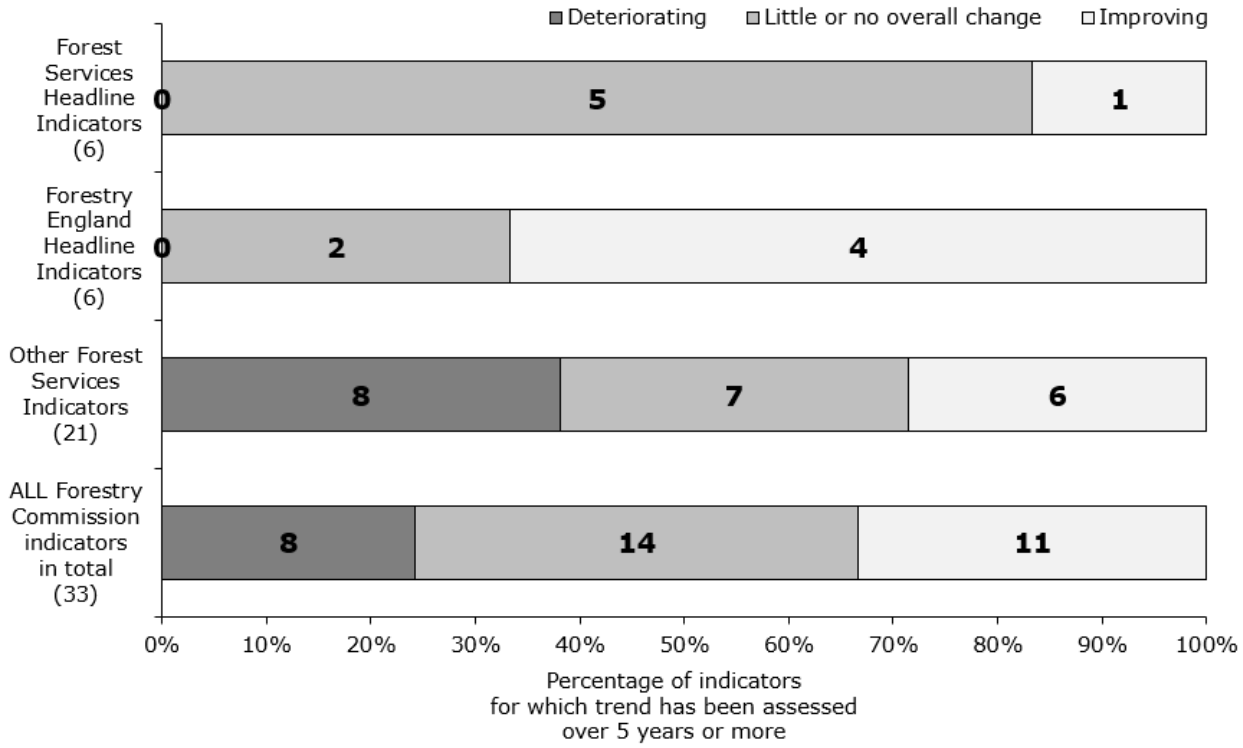
Table 2: Short term trends in the indicators continued

Indicator	Short-term trend[1]	Page
Part 3. Other Forest Services Indicators		
Organisational health		
Percentage of grant and felling license transactions completed on time or early	Deteriorating	64
Percentage of Forest Services grants and felling license customers who report their customer satisfaction as either very satisfied or satisfied	Improving	65
Number of work-related accidents per 100 employees (headcount) in Forest Services	Improving	66

Note 1: A fuller version of the short-term trend category labels are shown in the method of assessment.
Note 2: The short-term trend assessment of this indicator covers less than 5 years; treat with more caution.

There are 33 Forestry Commission indicators (out of 38 indicators reported in total) which trend has been assessed over a period of 5 years or more, and for which this simple assessment is more useful (see Figure 1). See page 5 for the method of assessment of short-term trends in the indicators. Readers are recommended not to place much weight on the simple trend assessments alone, and rather to consider the **entire report for each indicator** presented elsewhere in this document.

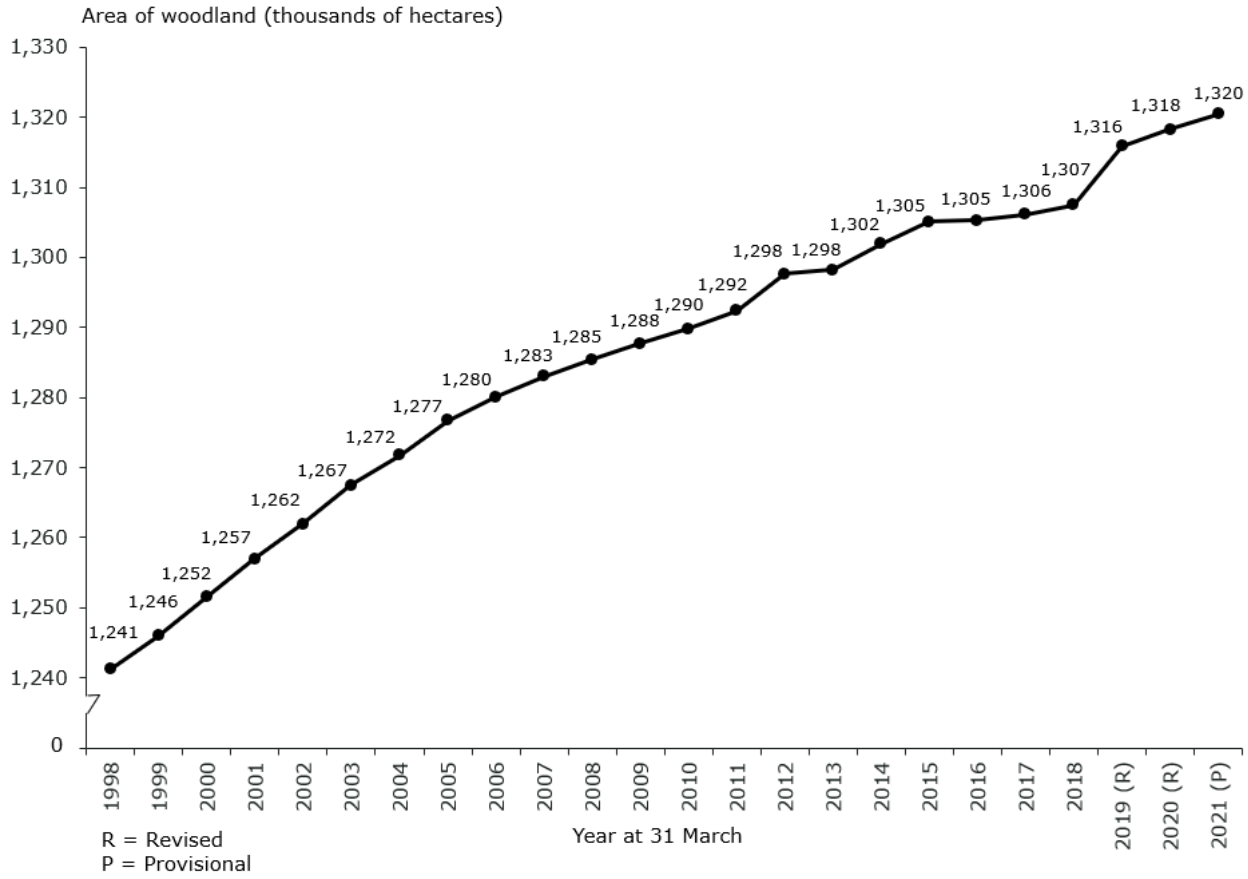
Figure 1: Summary assessment of short-term trends in the Forestry Commission Key Performance Indicators at 31 March 2021



Part 1. Forest Services Headline Key Performance Indicators

Expansion of woodland

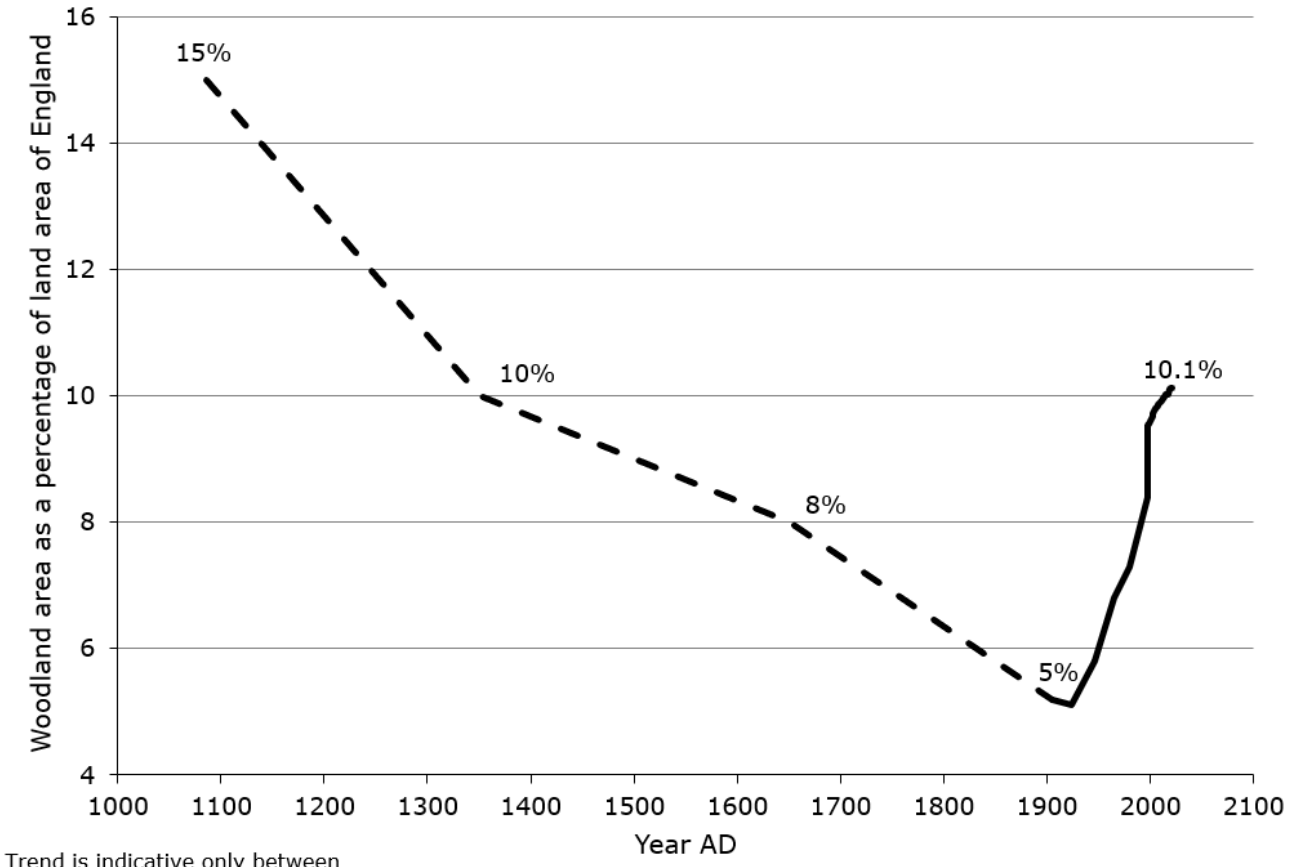
Area of woodland in England



Source: Forestry Statistics 2020 and Provisional Woodland Statistics 2021 (Forest Research), based mainly on the National Forest Inventory and Forestry Commission administrative data.

The area of woodland in England is 1,320 thousand hectares at 31 March 2021 (provisional figure). The March 2021 figure is an increase of 2 thousand hectares on the previous year, and the total is 10.1% of the land area of England. Woodland area figures at March 2019 and at March 2020 have been revised from those provided in Forestry Statistics 2020 to take account of updates to the National Forest Inventory woodland area map. The large increase in woodland area reported for 2019 results from updated analysis of remote sensing data that revealed an additional 7,000 hectares of woodland in England. Confirmation or revision of the 2021 figure is scheduled to be published in Forestry Statistics 2021 (Forest Research) on 30 September 2021.

Figure 2: Long-term trend in woodland as a percentage of land area of England

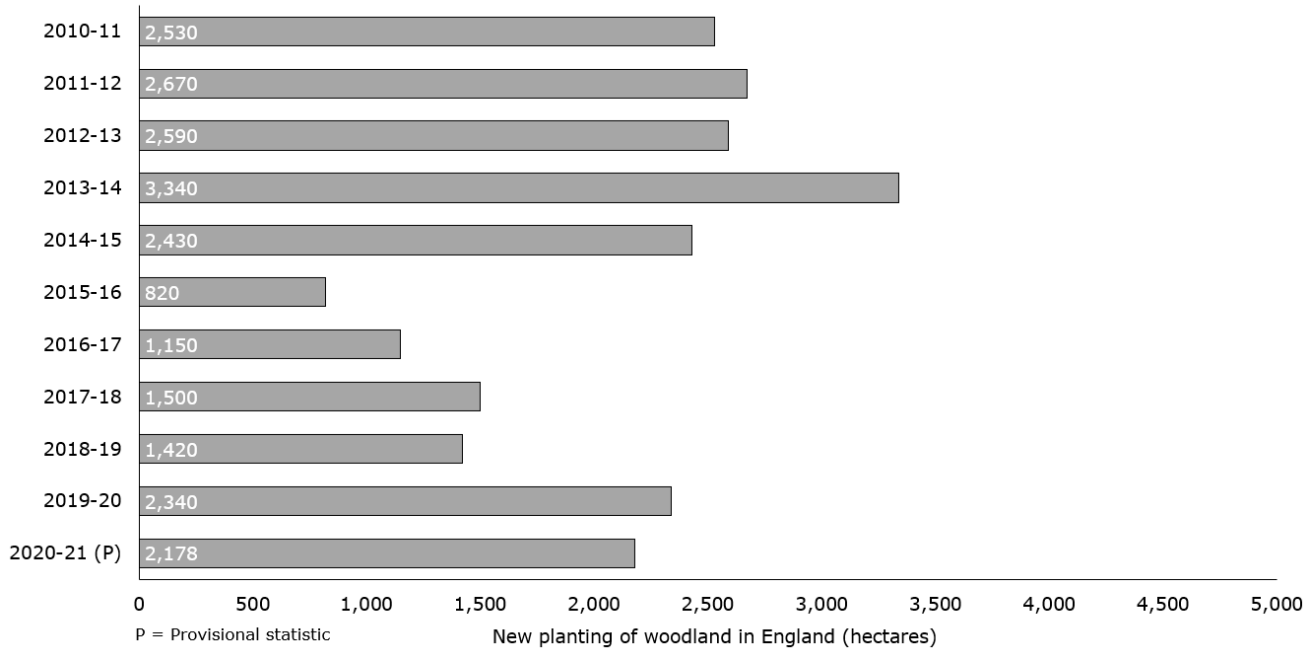


Trend is indicative only between 1086 Domesday Book data and 1905

Source: Forestry Statistics

Assessment of change in: Area of woodland	
Five-year trend, 31-Mar-21 compared to 31-Mar-16	Marginal increase in woodland area

New planting of woodland and trees in England



Source: Forestry Statistics 2020 and Provisional Woodland Statistics 2021 (Forest Research) and Forestry Commission Key Performance Indicators.

There was a total of 2,178 hectares of recorded new planting of woodland in England in 2020-21, including that with and without central government support.

Government funding from all ten counted sources supported the planting of at least 1,892 hectares in 2020-21, corresponding to nearly four million trees with a significant new contribution from the Community Forests Trees for Climate Programme funded by the Nature for Climate fund. Other contributions have come with support from the Woodland Carbon Fund, the High Speed 2 Woodland Fund, Forestry England, the Environment Agency, the National Forest Company, and the Northern Forest partnership.

Of this, the Countryside Stewardship woodland creation grant and English Woodland Creation Grant, as a part of the Rural Development Programme for England, supported the creation of 689 hectares of woodland. This is only 55% of the area planted the previous year, and the smallest area planted with this support since 2016-17.

In 2020-21 applications for the Woodland Carbon Fund and Countryside Stewardship were somewhat constrained by some landowners and agents preferring to wait and see what form support for landowners might take following the UK's exit from the European Union and awaiting the opening of new incentive schemes funded through the Nature for Climate Fund, announced in March 2020. Interest, however, in new planting remains strong as evidenced by management information on the volume of applications to the Woodland Creation Planning Grant.

Table 3: New planting of woodland and trees in England, by source, 2020-21 year (and the four years April 2017 to March 2021): provisional statistics

New planting of woodland and trees in England[1]		2020-21 Area of woodland in hectares[1,2,3]	2020-21 Equivalent in number of trees[1,2,3]	Four years Apr 2017 to Mar 2021: Area of land in hectares[1,2,3]	Four years Apr 2017 to Mar 2021: Equivalent in number of trees[1,2,3]
Government-supported new planting of trees in England					
1	Rural Development Programme for England: CS and EWGS woodland creation[4]	**689**	1,219,000	**3,851**	6,351,000
2	Woodland Carbon Fund[5]	**244**	561,000	**444**	992,000
3	High Speed 2 Woodland Fund	**54**	145,000	**97**	228,000
4	Forestry England	**8**	26,000	**133**	369,000
5	Countryside Stewardship: other tree planting options	**69**	134,000	**207**	357,000
6	Environment Agency	**293**	732,000	**607**	1,073,000
7	Northern Forest	**69**	159,000	**274**	467,000
8	National Forest Company	**38**	47,000	**123**	147,000
9	Ministry of Defence	**0**	0	**0**	0
10	Highways England[5]	No data	No data	No data	No data
11	Urban Tree Challenge Fund[6]	**0**	113,000	**0**	113,000
12	Community Forests	**429**	725,000	**429**	725,000
Total Government-supported new planting of trees in England[7]		**1,892**	3,860,000	**6,165**	10,822,000
Recorded new planting of woodland and trees in England supported by other organisations[8]					
1	The Woodland Trust	**286**	392,000		
Total new planting of woodland and trees in England[1,8]		**2,178 hectares**	**4,252,000 trees**		

Notes to Table 3 follow on the next page.

Notes to Table 3:

1. Includes trees in areas counting as woodland, and some tree cover outside woodland.
2. The density of tree planting, in numbers of trees planted per hectare of land, varies between planting schemes.
3. Tree numbers are approximate and to the nearest 1,000 trees. Figures may not sum due to rounding.
4. CS: Countryside Stewardship and EWGS: the former English Woodland Grant Scheme
5. No data so far for Highways England tree planting of the counted type.
6. Figures for the Urban Tree Challenge Fund (UTCF) shown are the formal record for 2020-21 onwards; there has been planting in previous years with UTCF support.
7. The total Government-supported new planting of trees in England figure for the four years Apr 2017 to Mar 2021 has been revised to 10,822,000 trees to correct an inadvertent typographical error.
8. It is anticipated that future reports will include returns from other organisations' new planting of trees in England.

This indicator on **all** new planting of woodland and trees in England includes reporting of new planting that is either supported by Government or that supported by other organisations.

It therefore builds on and incorporates the most recent reports of the *Government supported new planting of trees in* England key performance indicator. The most recent full report of that indicator was for the full 2019-20 year[5]. The most recent report overall was the interim one for the half year to 30 September 2020[6]. All previous reports for that indicator, including details of the methodology of what is included, can be found at https://www.gov.uk/government/collections/forestry-commission-corporate-plan-performance-indicators

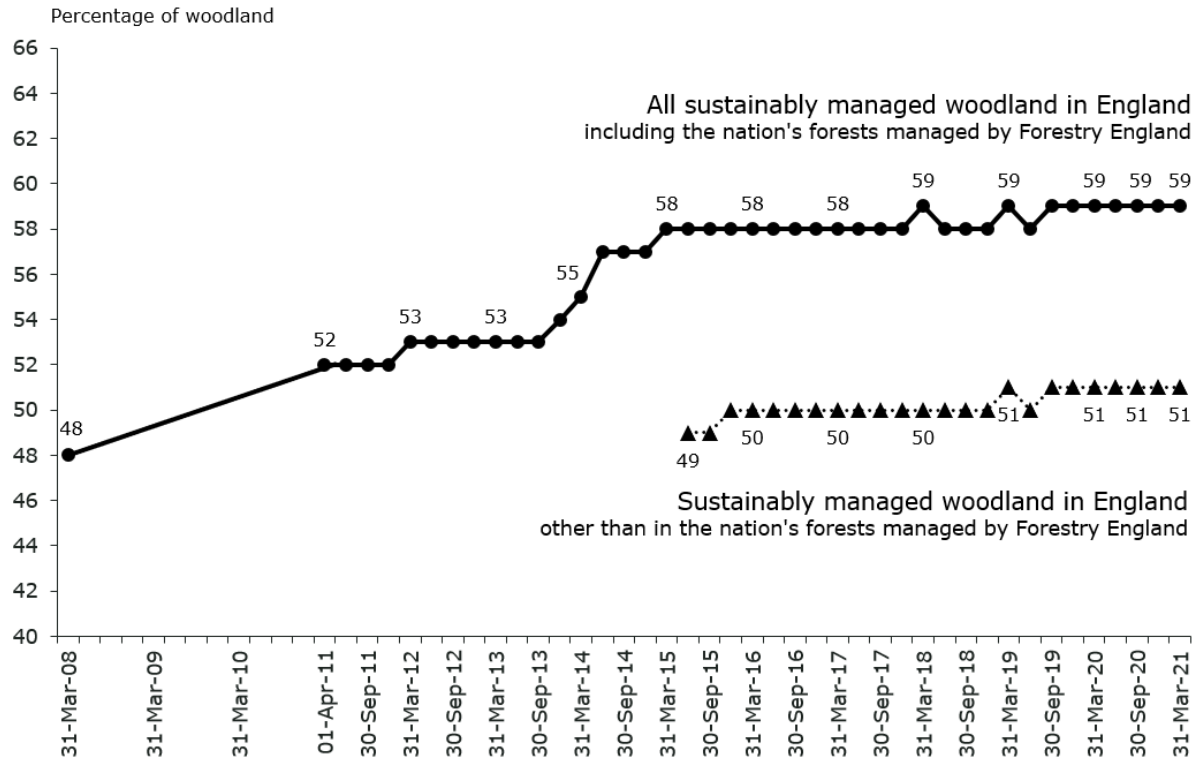
Assessment of change in: New planting of woodland and trees in England	
Five-year trend, 2020-21 compared to 2015-16	Improving

[5] Forestry Commission (2020) *Government supported new planting of trees in England: Report for 2019-20*. Bristol: Forestry Commission, 10 pages. Available at: https://www.gov.uk/government/statistics/government-supported-new-planting-of-trees-in-england-report-for-2019-20

[6] Forestry Commission (2020) *Government supported new planting of trees in England: Interim update for the half year April to September 2020*. Bristol: Forestry Commission, 8 pages. Available at: https://www.gov.uk/government/statistics/government-supported-new-planting-of-trees-in-england-interim-update-for-the-half-year-april-to-september-2020

Improvement of woodland

Percentage of woodland that is sustainably managed



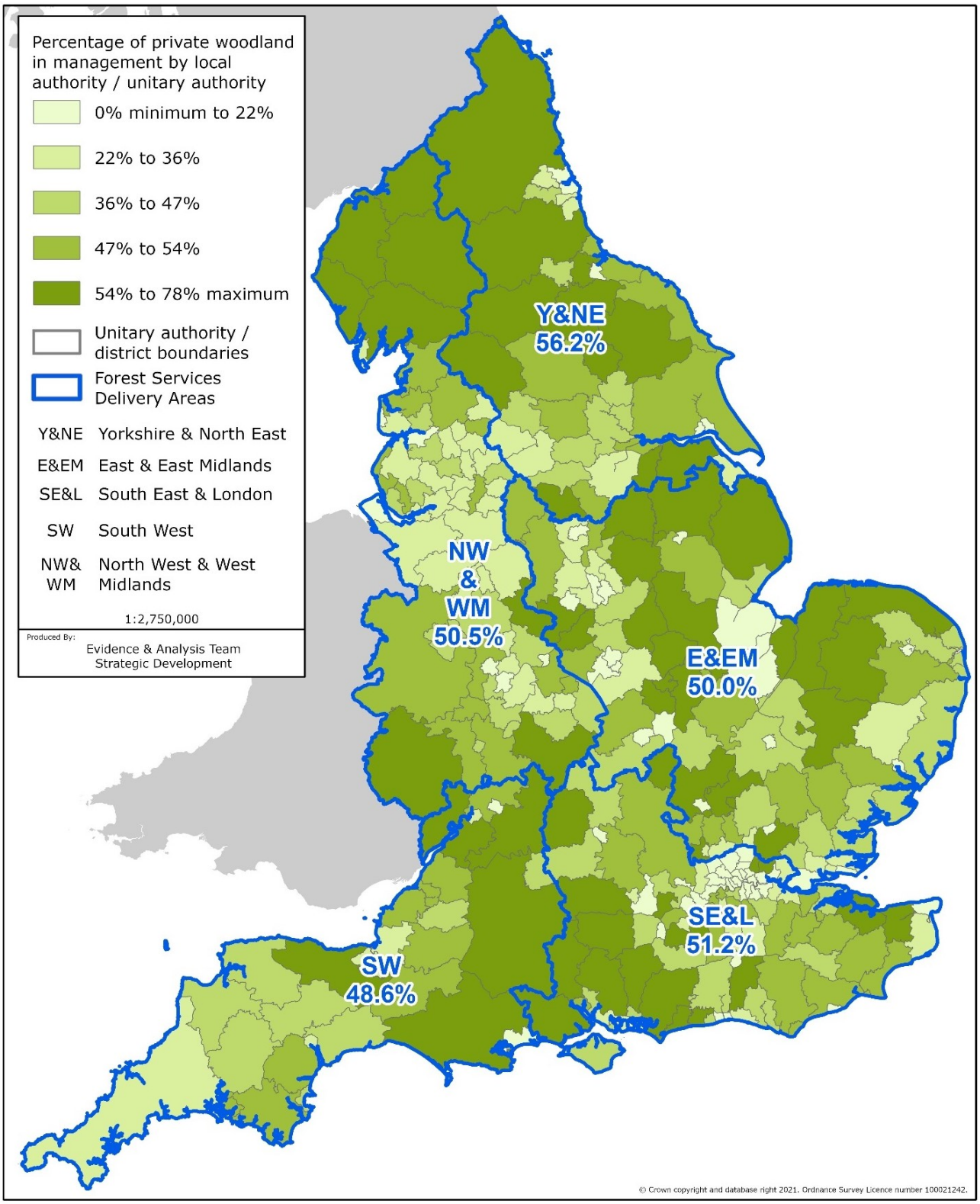
Source: Forestry Commission administrative data and the National Forest Inventory (Forest Research).

As at 31 March 2021, 59% of all woodland in England was sustainably managed; totalling 770,000 hectares of woodland in management. The equivalent figure for woodland other than in the nation's forests was 51%, totalling 556,000 hectares of woodland in management.

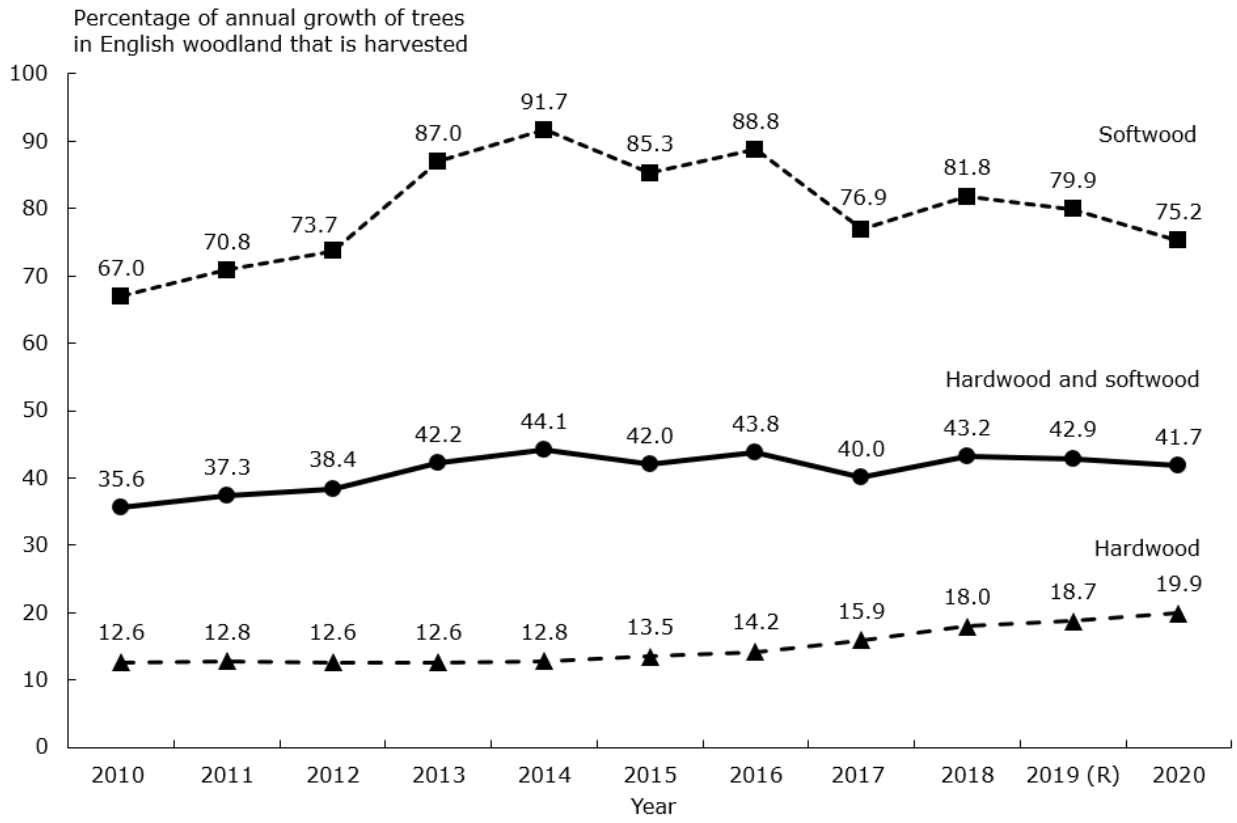
Our definition of 'sustainably managed' is woodland managed to the UK Forestry Standard that has a Woodland Management Plan, or for which we have made a previous grant of felling licence in the last 15 years. It also includes all woodland in the nation's forests managed by Forestry England and all woodland on Defence Infrastructure Organisation training areas. It is recognised that other woodland might be considered as managed as well. Evidence suggests markets for timber remain relatively strong. There is scope to further increase the area of woodland sustainably managed to meet demand for UK grown timber, to help manage tree pests and diseases, and to improve woodland resilience.

Assessment of change in: Percentage of all woodland that is sustainably managed	
Five-year trend, 31-Mar-21 compared to 31-Mar-16	Little or no overall change

Map 1: Percentage of woodland in sustainable management other than that in the nation's forests managed by Forestry England, 31 March 2021



Percentage of the annual growth of trees in English woodlands that is harvested



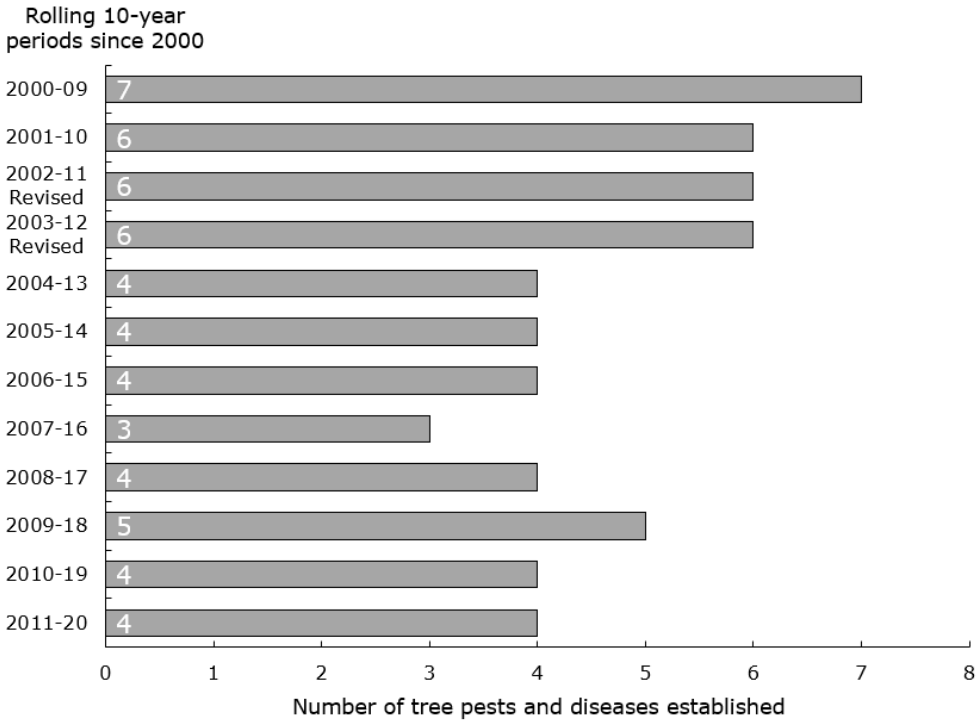
Source: Forest Research statistics on UK wood production and trade and National Forest Inventory team forecasts.

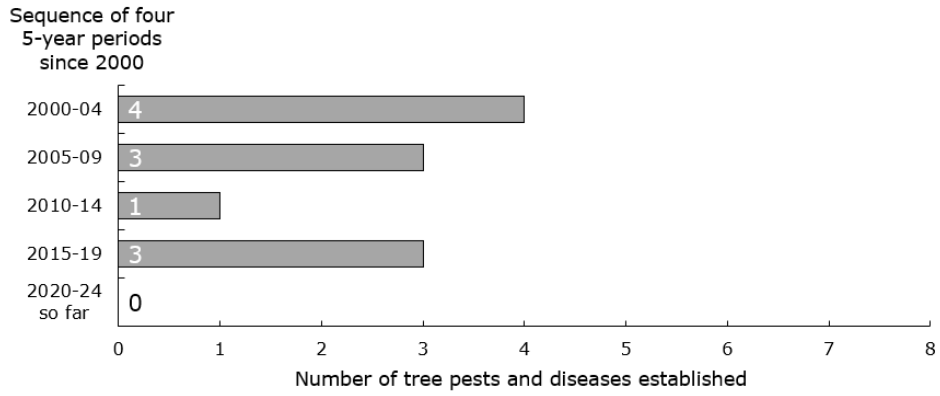
There is an opportunity to considerably increase the hardwood harvest if new markets are developed. The proportion of softwood annual increment that is harvested remains high, reflecting strong demand and also the age structure of the conifer woodland resource.

Assessment of change in: Percentage of the annual growth of trees in English woodlands that is a harvested	
Five-year trend, 2020 compared to 2015 (hardwood and softwood element)	Little or no overall change

Protection of woodland

Number of additional tree pests and diseases becoming established in England within a rolling 10-year period





Source: Forestry Commission administrative data.

The number of additional tree pests and diseases becoming established in England within a rolling ten year period fell from a peak of seven in the ten year period 2000-09 to a low of three in 2007 16.

Four tree pests and diseases became 'established' in England in the most recent ten-year period 2011-20, namely:

1. Chalara dieback of ash (*Hymenoscyphus fraxineus*) considered established in 2012. Ash dieback is present in most parts of the United Kingdom and continues to spread. New planting for replacement of trees lost is included in the support offered by the Local Authority Treescapes Fund.

2. Oriental chestnut gall wasp considered established in 2016. This is a larval pest of sweet chestnut trees present with a distribution limited to southern England and the Midlands. Research is underway to investigate potential biological control of this pest.

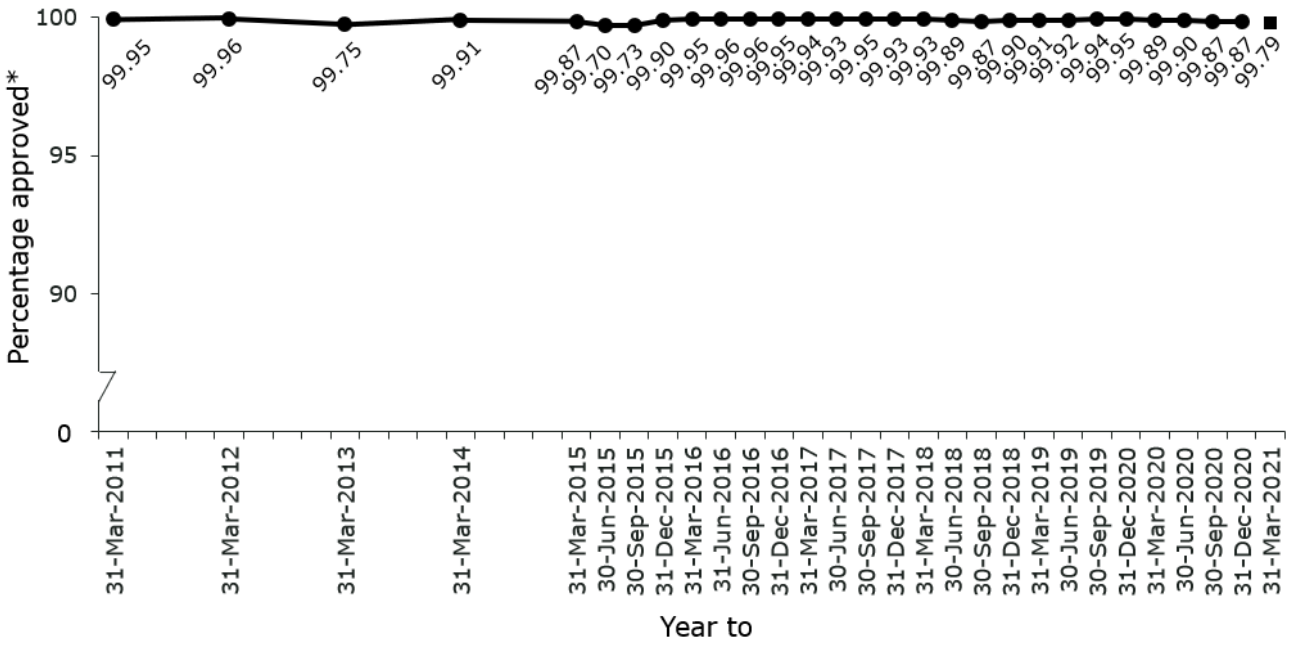
3. Sweet chestnut blight caused by the fungus *Cryphonectria parasitica*, has been identified at a number of sites in England where it is under official control. Ongoing surveillance has identified new outbreak sites in Kent and Nottinghamshire.

4. Elm zigzag sawfly (*Aproceros leucopoda*), considered established in 2018, and continuing to spread in south east England and the east Midlands.

There are other tree pests and diseases, some of which have become established in England. These include for example *Phytophthora ramorum* considered established in 2003, with a limited distribution, and under official control to reduce the spread and intensity (see Map 2). Information on a range of forestry pests in England is available from the pest and disease resources webpage provided by Forest Research.

Assessment of change in: Number of additional tree pests and diseases becoming established in England within a rolling 10-year period	
Five-year trend, 2011-20 compared to 2006-2015	Little or no overall change

Percentage of known tree felling carried out with Forestry Commission approval



Source: Forestry Commission administrative data.

In the year to 31 March 2021, some 99.79% of known tree felling was carried out with Forestry Commission approval. This and future reports of this indicator will be based on the date that the application was approved to more accurately reflect the small proportion of applications that are amended, withdrawn or refused.

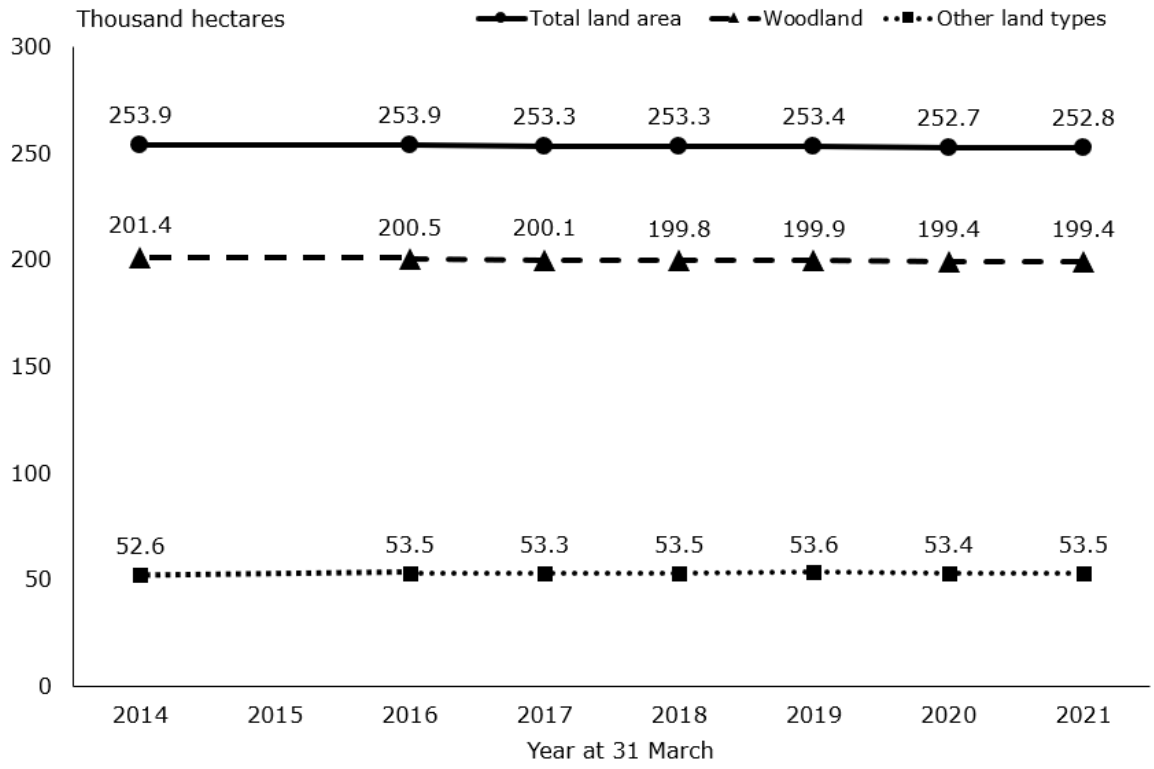
Over recent years the figures for tree felling where approval was sought has remained significantly greater than the known level of tree felling undertaken without Forestry Commission approval.

We have processes in place for receiving and investigating reports of alleged illegal felling. When we become aware of illegal felling, this is frequently, though not always, in anticipation of property development. We are exploring how to better identify, act upon and mitigate illegal felling where it takes place.

Assessment of change in: Percentage of known tree felling that is carried out with Forestry Commission approval	
Five-year trend, 31-Mar-21 compared to 31-Mar-16	Little or no overall change

Part 2. Forestry England Headline Key Performance Indicators

Land area of the nation's forests held by Forestry England

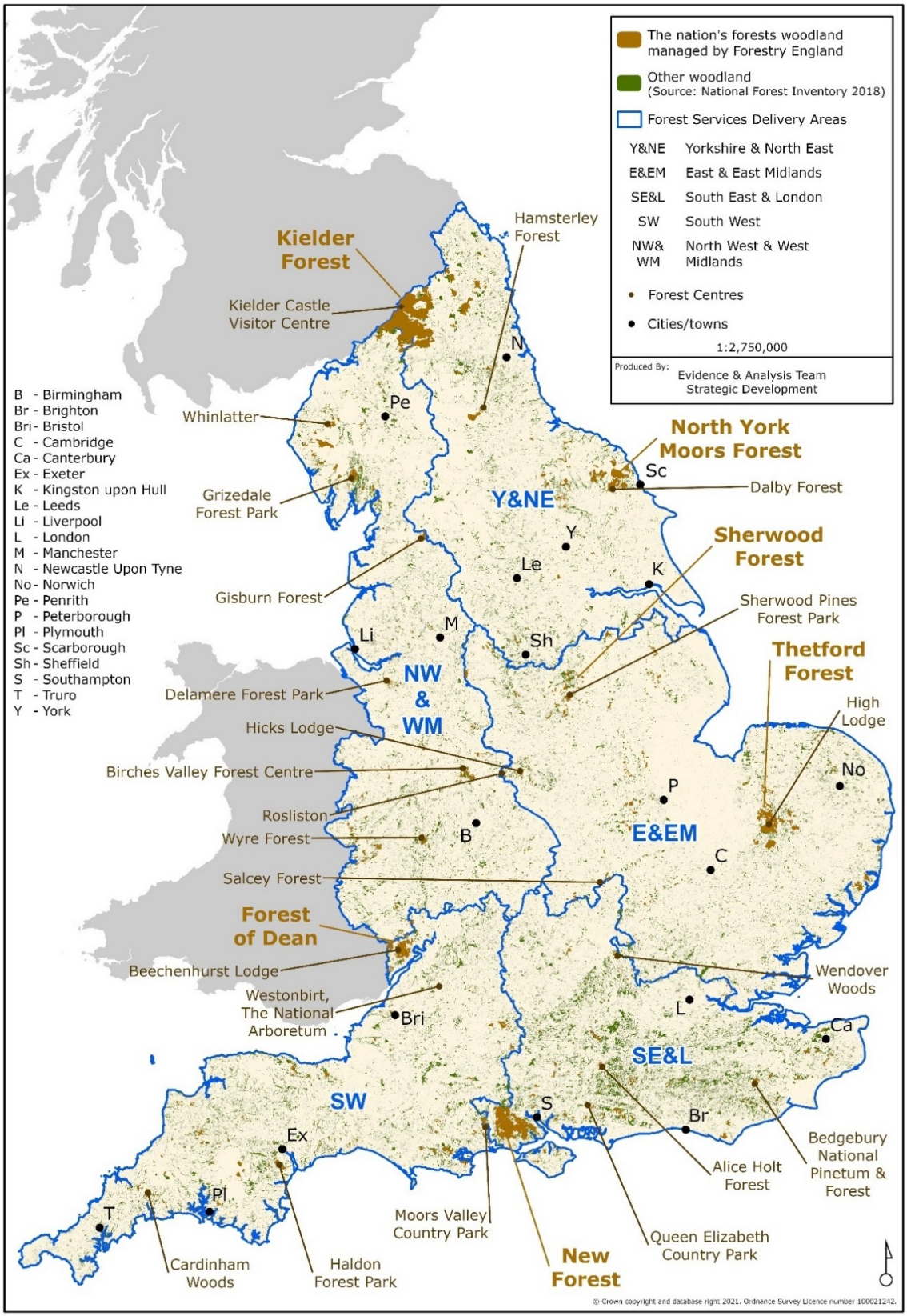


Source: Forestry England administrative data.

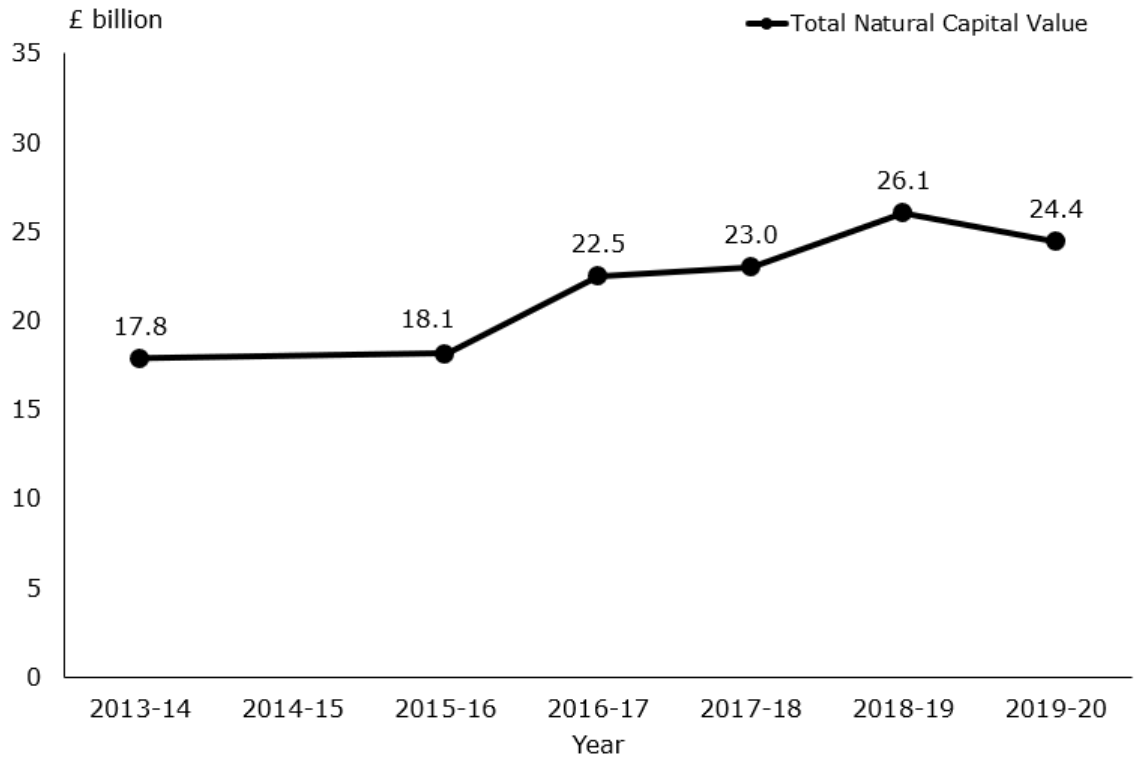
The total area of the nation's forests, those forests which are owned freehold or through leasehold by Forestry England, has been maintained. There have been some changes in the makeup of this ownership, for example we have seen a small decrease in leasehold and a small increase in freehold, due largely to the transfer of land at Croxton near Thetford Forest from a leasehold to freehold ownership. Land purchase for woodland creation such as at Pleasant Farm in Kent account for any increase in total area. This is likely to increase the area further over coming years as Forestry England advances its critical role within the England Tree Planting Programme.

Assessment of change in: Land area of the nation's forests held by Forestry England	
Five-year trend, 31 March 2021 compared to 31 March 2016	Little or no overall change

Map 2: Distribution of all woodland and woodland managed by Forestry England, March 2021



Total natural capital value of the nation's forests



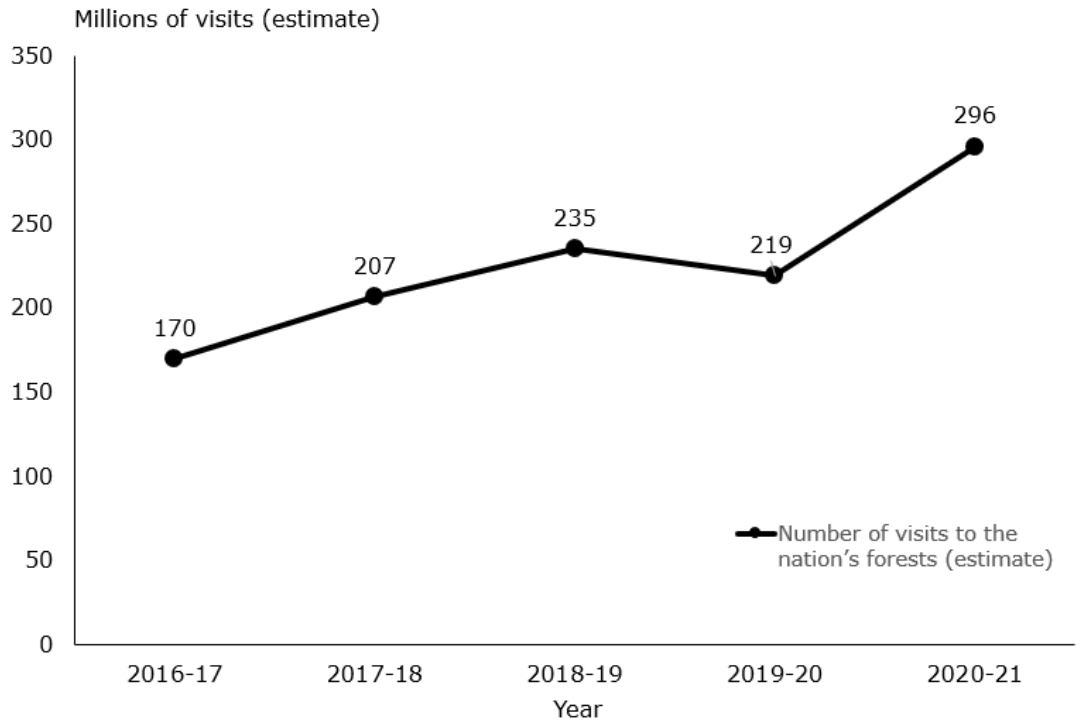
Source: Forestry England Natural Capital Accounts (Forestry England, 2020).

Note: These statistics were previously released in the Forestry England Natural Capital Accounts.

The total calculated natural capital value has slightly decreased this year. Due to the technicalities of our natural capital accounting, this calculation is based upon data from the 2019-20 financial year and published during the 2020-21 financial year. This year's decrease is due largely to the reduction in modelled estimated visits made to the nation's forests during the 2019-20 financial year. Our annual Natural Capital Account illustrates that as the trend of increasing value over time continues in spite of intermittent annual reductions, so the extent and condition of the nation's forests, the natural capital assets also improves. This insight underpins our understanding of the sustainability of our management of the nation's forests.

Assessment of change in: Total natural capital value of the nation's forests	
Five-year trend, 2019-20 compared to 2014-15	Improving

Public engagement: Number of visits per annum to the nation's forests managed by Forestry England

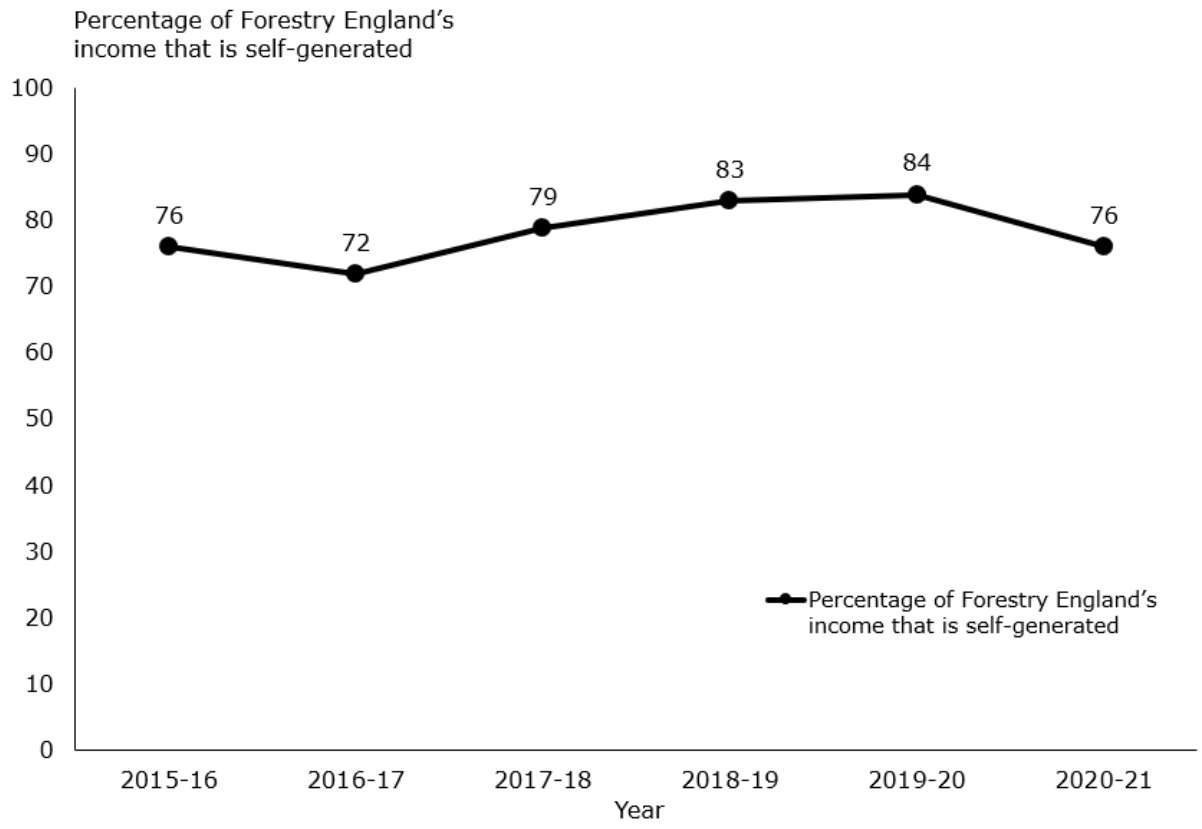


Source: Surveys conducted for Forestry England.

The total modelled estimated visits to forests managed by Forestry England is 296 million visits for 2020-21. This is an increase of around 35% on the previous year and continues the upward trend over multiple years of visits made to the nation's forests. Our data shows that this increase was largely driven by repeat visits with the proportion of people who visited more than once increasing by around 5%. The proportion of visitors who visited once per week increased, while the proportion of those who visited once every three months decreased, further illustrating that those who visited did so more often than those who have visited in the past.

Assessment of change in: Number of visits per annum to the nation's forests managed by Forestry England	
Four-year trend only, 2020-21 compared to 2016-17	Improving

Percentage of Forestry England's income that is self-generated



Source: Forestry England accounts.

This indicator shows how much of our income is self-generated and indicates the level of our reliance on government funding. Mineral income and Coronavirus Job Retention Scheme (CJRS) income are classified as public sector income and are not included as self-generated income.

The additional support funding provided by Defra and the Forestry Commission reduced the percentage of self-generated income in 2020-21.

For 2021-22 the plan is to increase the percentage to 83% as the level of government support decreases.

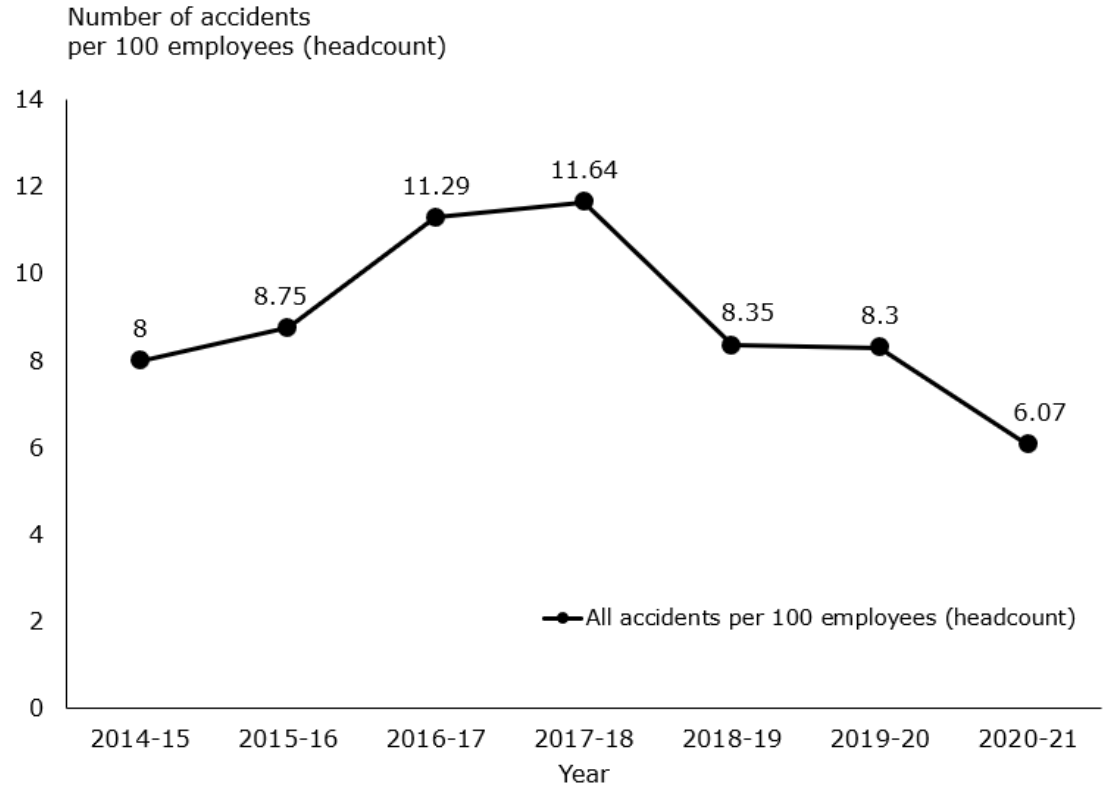
Scheme specific grant increases, for example the England Tree Planting Programme, would reduce the percentage of self-generated income and can also alter the composition of funding over time.

Table 4: Components of Forestry England's income that is attributable to government.

Attributable to government	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Percentage of total incoming resources	24%	28%	21%	17%	16%	24%
Consisting of:						
Mineral and CJRS income	4%	2%	4%	4%	4%	5%
Scheme specific Forestry Commission grant funding					3%	3%
Forestry Commission core funding	96%	98%	96%	96%	93%	92%

Assessment of change in: Percentage of Forestry England's income that is self-generated	
Five-year trend, 2020-21 compared to 2015-16	Little or no overall change

Health and safety: Number of work-related accidents per 100 employees in Forestry England



Source: Forestry Commission administrative data.

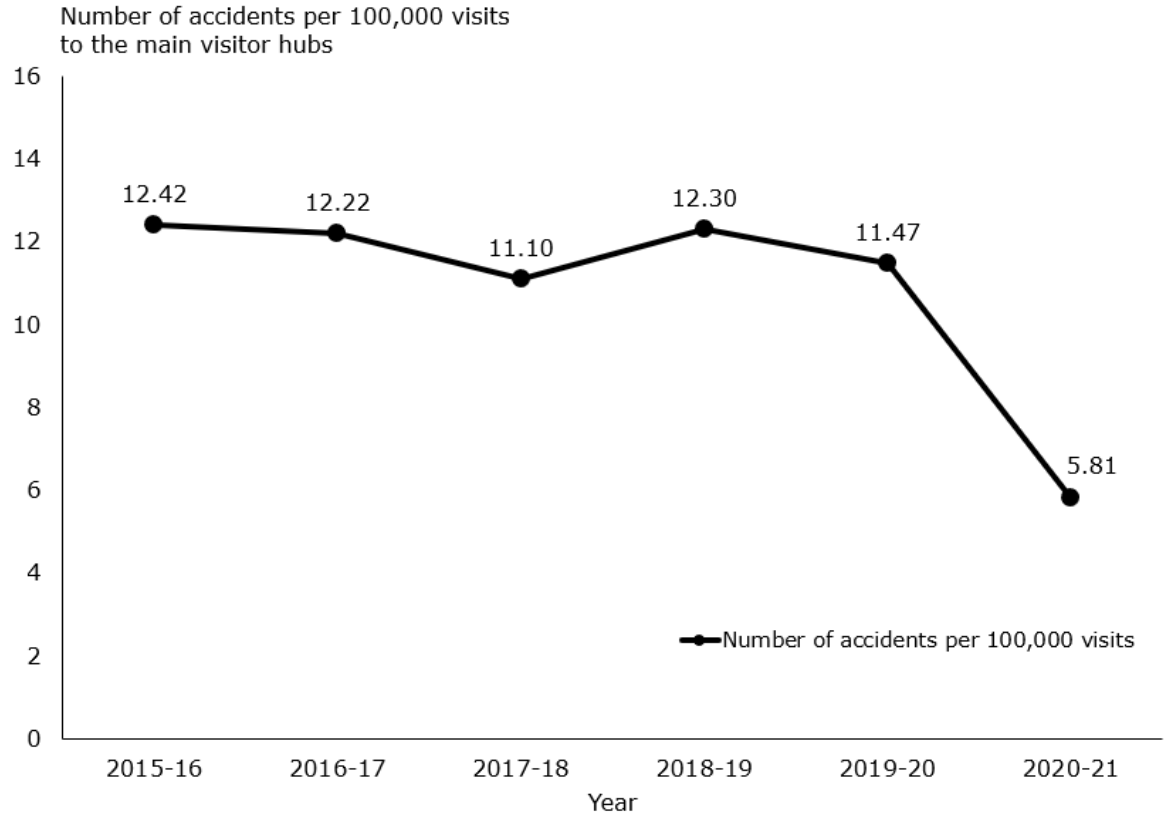
The number of accidents per 100 employees (headcount) was 27% lower in 2020-21 than in the previous year. Staff headcount is only 1.8% higher than it was at the end of 2019 20, and so relatively stable, whereas accidents reported are down to 68 from 84.

The reasons for the decline in reported accidents is unclear: it may be due to the change in system, effectiveness of control measures put in place, reporting culture from managers, remote working and furlough, or natural fluctuation.

This should become clearer as we gather more data in the new system which allows more accurate and live statistical analysis of the data.

Assessment of change in: Number of work-related accidents per 100 employees in Forestry England	
Five-year trend, 2020-21 compared to 2015-16	Improving

Health and safety: Number of accidents per 100,000 visits to the main visitor hubs in the nation's forests



Source: Forestry England administrative data.

The number of accidents per 100,000 visits to main visitor hubs was 49% lower in 2020 21 than during the previous year. There were fewer reported accidents during 2020 21 than previous years, and an increase in estimated visits.

The increase in visits since the easing of lockdown is likely due to Coronavirus travel restrictions on international travel, though we would have to wait for future studies to confirm or disprove this.

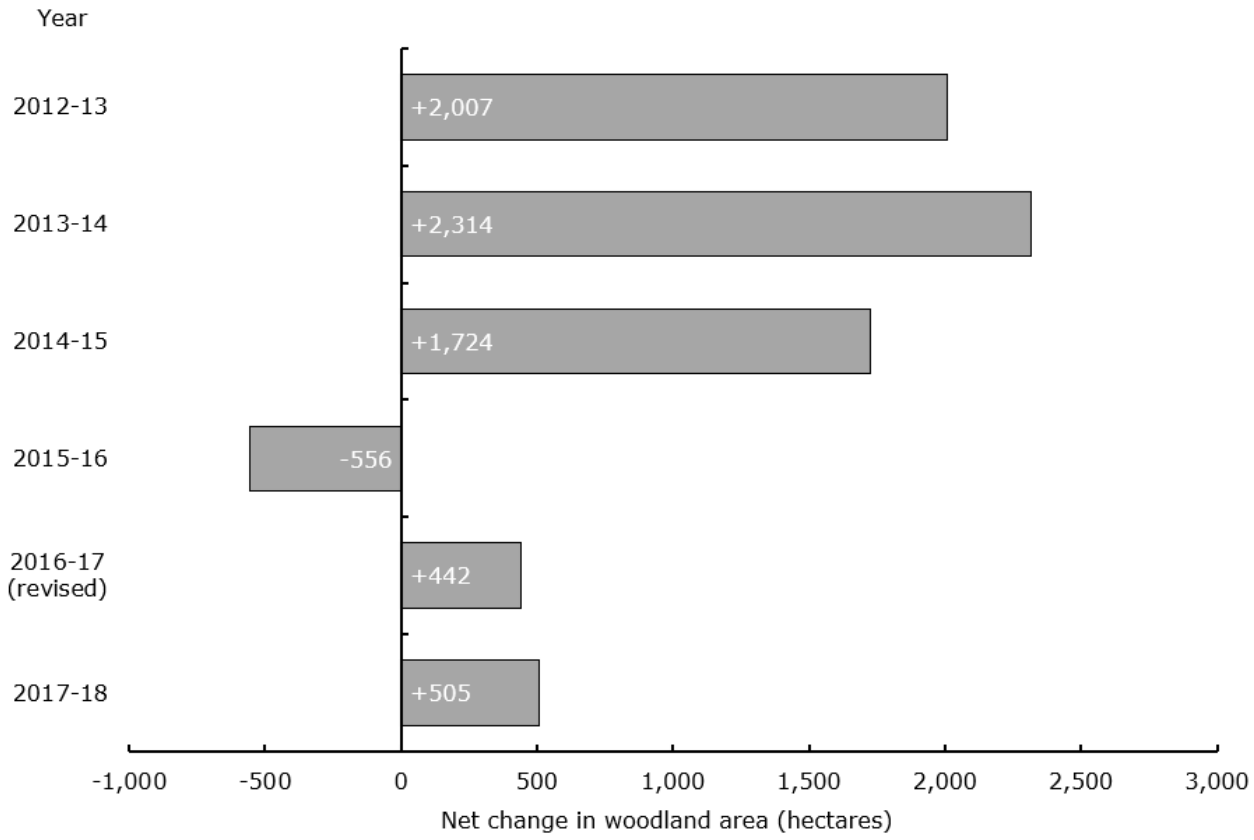
The decrease in reported accidents may also be due to Coronavirus, as people may be less inclined to report accidents at hubs, whether due to the pandemic, or due to a slightly different demographic makeup of visitors during 2020-21

Assessment of change in: Number of accidents per 100,000 visits to the main visitor hubs in the nation's forests	
Five-year trend, 2020-21 compared to 2015-16	Improving

Part 3. Other Forest Services indicators

Expanding and connecting our trees and woodland

Experimental Statistics: Net change in woodland area, based on the balance between new planting of woodland and woodland removal



Sources: Forestry Commission administrative data and statistics – see Table 5 for detailed sources.

During 2017-18, the most recent year for which we have data, there was a net increase in woodland area of 505 hectares, once woodland removal for open habitat restoration and woodland loss to development is accounted for. The area of woodland lost to development (661 hectares) represents a 60% increase over the previous year (413 hectares) and 39% higher than the five-year average. The net increase in woodland area is similar to that observed the previous year and brings the total net increase in woodland area over the five most recent years reported to 4,438 hectares (an average of 888 hectares per annum).

Table 5: Components of net change in woodland area in England, 2012-13 to 2017-18 (Experimental Statistics)

Contribution to change in woodland area (Hectares)	2012-13	2013-14	2014-15	2015-16	2016-17 (revised)	2017-18	Average per annum over the five years 2013-14 to 2017-18
Woodland creation (+)							
a. Total new planting of trees in England (Source 1)	**2,587**	**3,340**	**2,425**	**821**	**1,149**	**1,501**	**1,847**
Woodland removal (-)							
Open habitat restoration other than in the nation's forests (Source 2)	341	693	273	434	200	197	**359**
Open habitat restoration in the nation's forests (Source 2)	119	213	70	116	85	138	**124**
Attributable to development (Source 3, Note 1, Note 2)	120	120	358	827	413	661	**476**
b. Total woodland removal	**580**	**1,026**	**701**	**1,377**	**698**	**996**	**960**
c. Total net change in woodland area (a. minus b.)	**2,007**	**2,314**	**1,724**	**-556**	**451**	**505**	**Total for last 5 years: 4,438 hectares**
d. Average net change in woodland area per annum last five years 2013-14 to 2017-18 (revised) (c÷5)							**Average per annum over these 5 years: 888 hectares**

Sources

1. Forestry Commission (2020) *Forestry Statistics 2020*, Edinburgh: Forestry Commission.
2. Forestry Commission (2021) *Key Performance Indicators: Report for 2020-21*, Bristol: Forestry Commission.
3. Forestry Commission (2016) *Preliminary estimates of the changes in canopy cover in British woodlands between 2006 and 2015*, Edinburgh: Forestry Commission, National Forest Inventory. Table 14 on page 53. Plus unpublished sample-based updates for 2015-16 and a revised figure for 2016-17 from the National Forest Inventory team.

Note 1: A single figure for woodland loss attributable to development was available for 2012-13 and 2013-14 combined. This was simply split evenly between these two years.

Note 2: The net change in woodland area in 2016-17 has been revised again to reflect a revision of new planting figures for that year.

Summary of methodology

Purpose

The aim is to have an indicator that combines all relevant known sources of woodland creation (gross) and woodland removal (gross), to show the balance between these (net) over the short term. This is to add to the fuller picture of change provided by the area of woodland in England statistics that incorporate methodological improvements such as better recognition techniques and more detailed sources of satellite remote sensing data.

Principles of what is counted

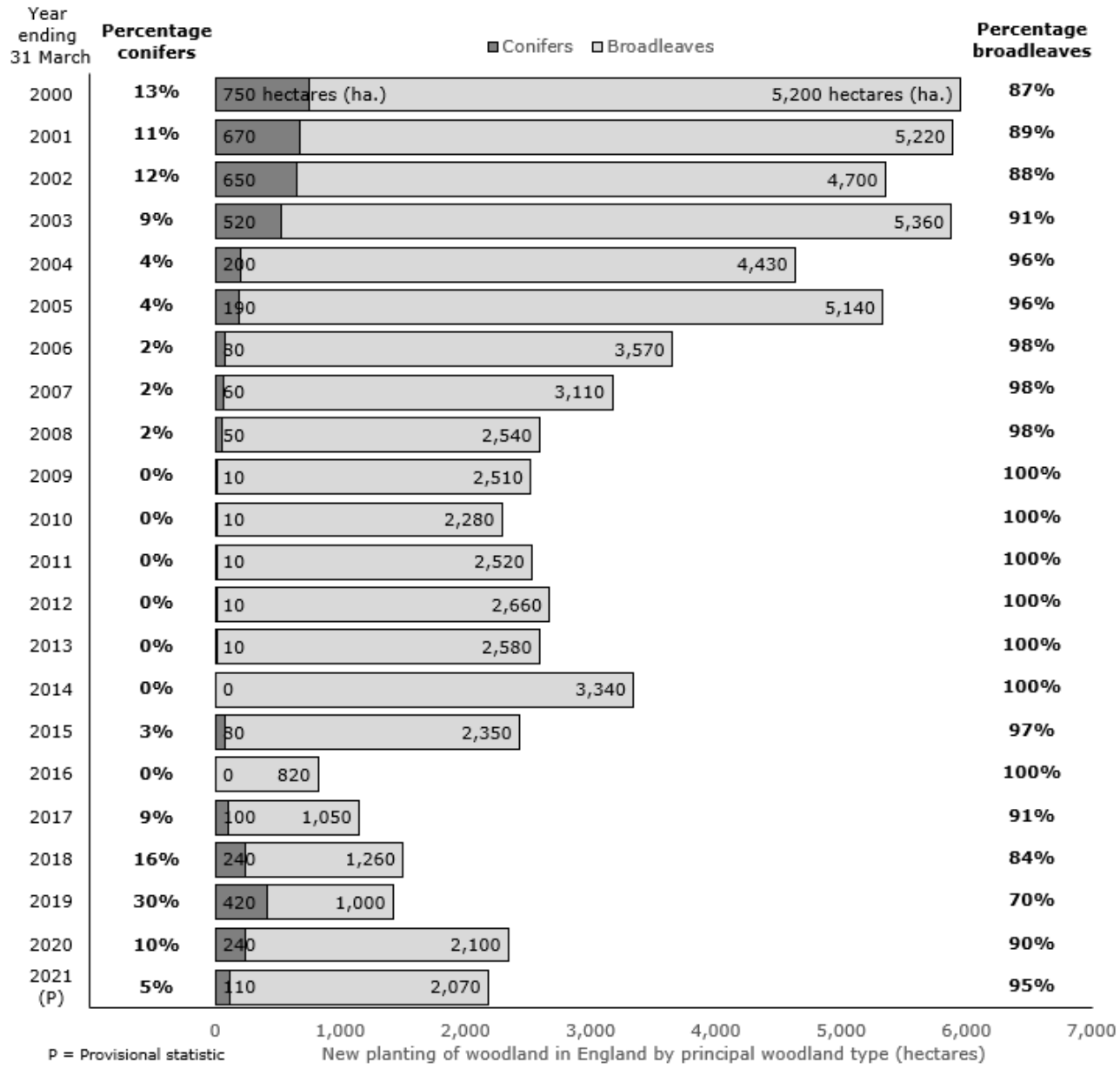
The indicator generally reports woodland creation and loss in England that conforms to the National Forest Inventory definition of woodland (of at least 0.5 hectare in area with a minimum width of 20 metres, and that have at least 20% canopy cover (or the potential to achieve this)). Creation of integral open space of less than 1 hectare within existing woodland is not reported as woodland loss within the National Forest Inventory woodland loss data, but some of the losses to achieve open habitats restoration recorded as a part of open habitats in the nation's forests and elsewhere can be of smaller areas of woodland.

In this indicator figures are largely for financial years to 31 March except figures for area of woodland removal attributable to development that are for years June to June.

Figures are by year of records, not necessarily the year of woodland creation or woodland removal. In particular unconditional felling licenses allow private woodland owners a number of years over which to conduct open habitat restoration.

Assessment of change in: Net change in woodland area, based on the balance between new planting of woodland, and woodland removal (Experimental Statistics)	
Five-year trend, 2017-18 compared to 2012-13	Deteriorating

Percentage of new planting of woodland in England that is broadleaved woodland

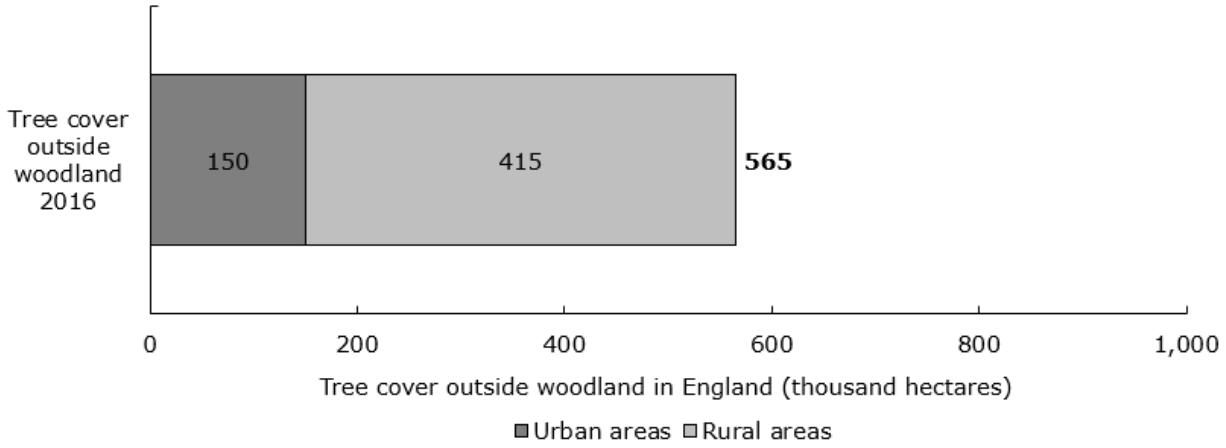


Source: *Forestry Statistics 2020* and *Provisional Woodland Statistics 2021* (Forest Research)

Some 95% of the woodland reported as newly planted in England in 2020-21 was broadleaf, with the remainder conifer species. This is greater than the percentage of broadleaf planting in the previous four years with the indicator varying over that time. However, the area of conifers planted, averaged over the most recent five years (13%), is greater than over the decade before that (6%).

Assessment of change in: Percentage of new planting of woodland in England that is broadleaved woodland	
This indicator	Not assessed for this indicator

Area of tree cover outside woodland in England



Source: Tree cover outside woodland in Great Britain summary report (Forest Research, 2017).

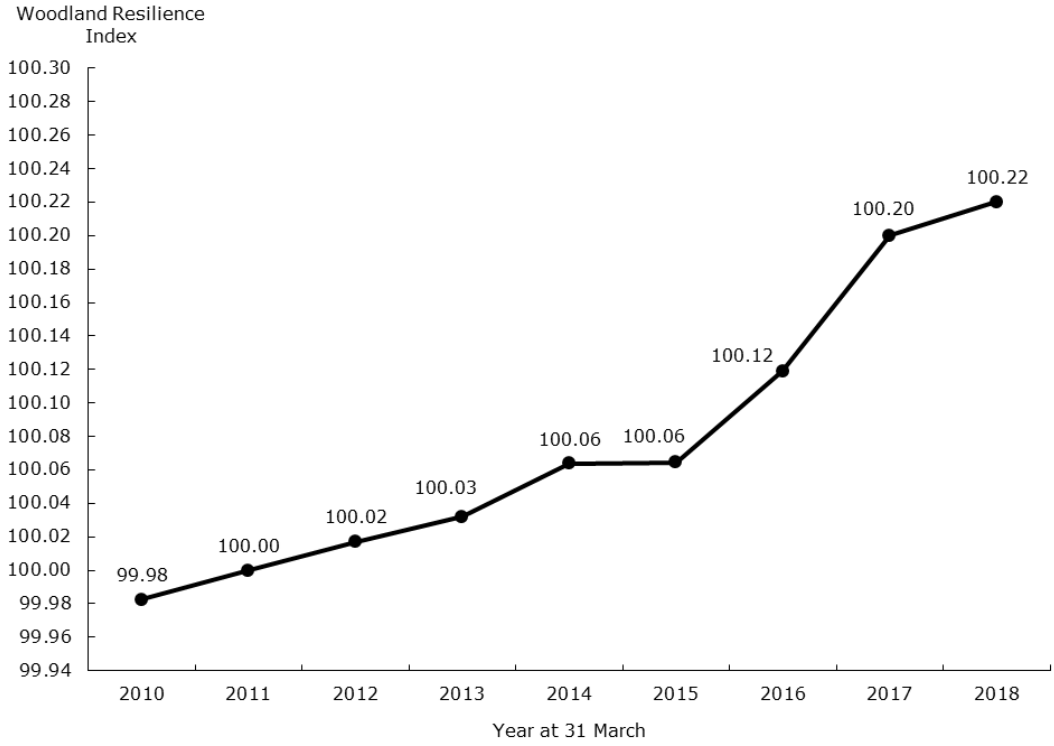
Tree canopy cover outside National Forest Inventory woodland (where woodland is over 0.5 hectare in extent and greater than 20 metres in width) amounted to 565,000 hectares in England as of January 2016. This represented 30% of total tree canopy and woodland cover at that time, bringing combined total cover to around 15% of the land area of England within the consistent methodology. Some 150,000 hectares of this tree cover outside woodland is in English urban areas, while the South East and London region had the largest area of such tree cover; 124,000 hectares. The total area of tree cover outside woodland comprised three elements, namely 295,000 hectares (52%) in small woods (between 0.1 and 0.5 hectares), 193,000 hectares (34%) in groups of trees (clusters and linear features of less than 0.1 hectare) and 78,000 hectares (14%) associated with lone trees. This is a new indicator presenting the newest and most suitable data available that we plan to update in future.

Note 1: The area figures shown are statistical estimates based on a methodology that combined remote sensing data with samples of aerial photography and field surveying across the country. The figure for total tree cover outside woodland in England therefore has a standard error of +/- 5%, as does that for rural areas; this is +/- 10% for urban areas.

Note 2: Full details of methodology and terms used can be found in the *Tree cover outside woodland in Great Britain* statistical report (Forest Research, 2017).

Assessment of change in: Area of tree cover outside woodland in England	
This indicator	Not assessed due to insufficient comparable data

Measure of woodland resilience to climate change based on the size and spatial configuration of woodland patches within the landscape



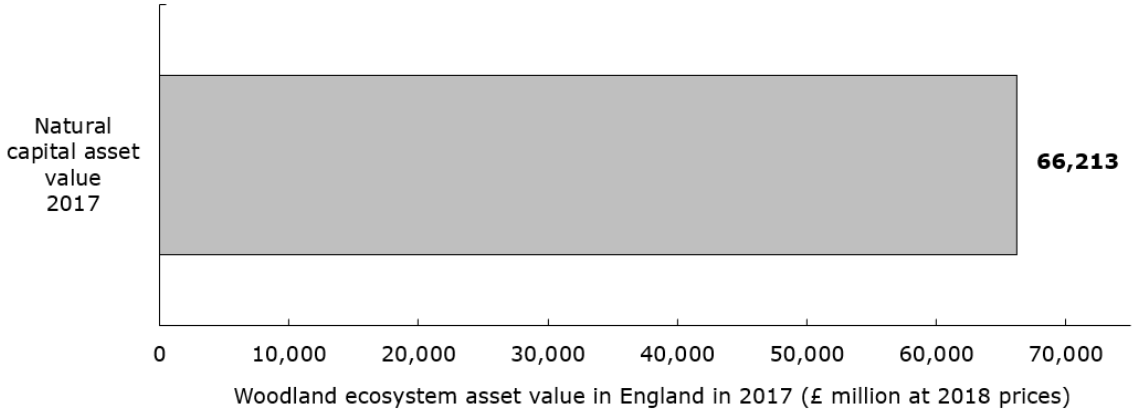
Source: Forestry Commission administrative data and the National Forest Inventory woodland map, modelled by the Urban Forest Research Group, Forest Research.

Maintaining and improving connectivity is important in promoting nature recovery in fragmented habitats, especially under a changing climate. When habitats are more connected, species can expand populations or migrate at different rates in response to threats and pressures. Greater connectivity makes it easier for woodland ecological communities to gradually adapt to changes in climate. Connectivity of woodland is measured according to the size and distribution of patches of forests and woodlands, relative to a value of 100 assigned to 2011. This indicator shows an increase in connectivity for forests and woodlands in England between 2011 and 2018, which is the last date for which data is available.

Assessment of change in: Measure of woodland resilience to climate change based on the size and spatial configuration of woodland patches within the landscape	
Five-year trend, 31-Mar-18 compared to 31-Mar-13	Little or no overall change

Trees and woodland as a part of the green economy

Natural capital value of England's woodlands

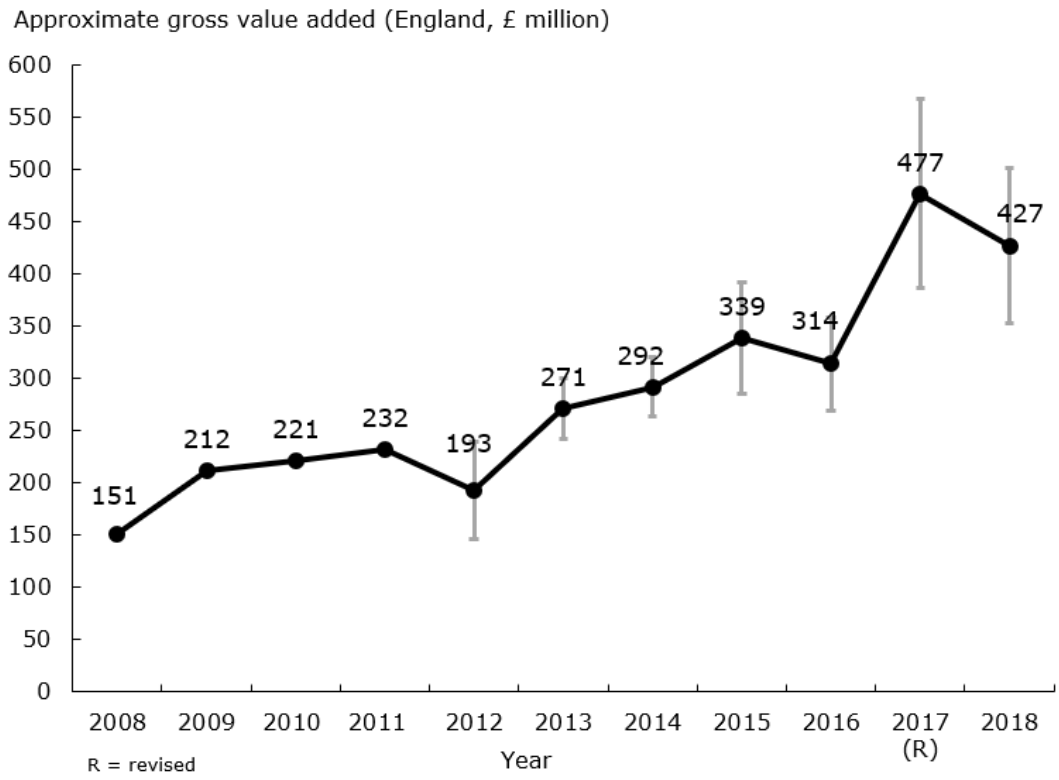


Source: *Woodland natural capital accounts: ecosystem services for England, Scotland, Wales and Northern Ireland, 2020* (Office for National Statistics, 2021).

The Office for National Statistics have recently published new statistics estimating the natural capital asset value of England's woodland as £66.2 billion in 2017 (at 2018 prices). These figures add to their previous reports of figures for the UK as a whole. Within England the largest contributors to this total were carbon sequestration (38%), recreation (24%), and pollution removal (20%). The other contributions that it has been possible to measure so far are urban woodland cooling (7%), flood prevention (7%), timber (3%), noise reduction (1%) and wood fuel (1%). The figures are new and so represent a baseline for future reporting.

Assessment of change in: Natural capital value of England's woodlands	
This indicator	Not assessed due to insufficient comparable data

Gross Value Added from domestic forestry

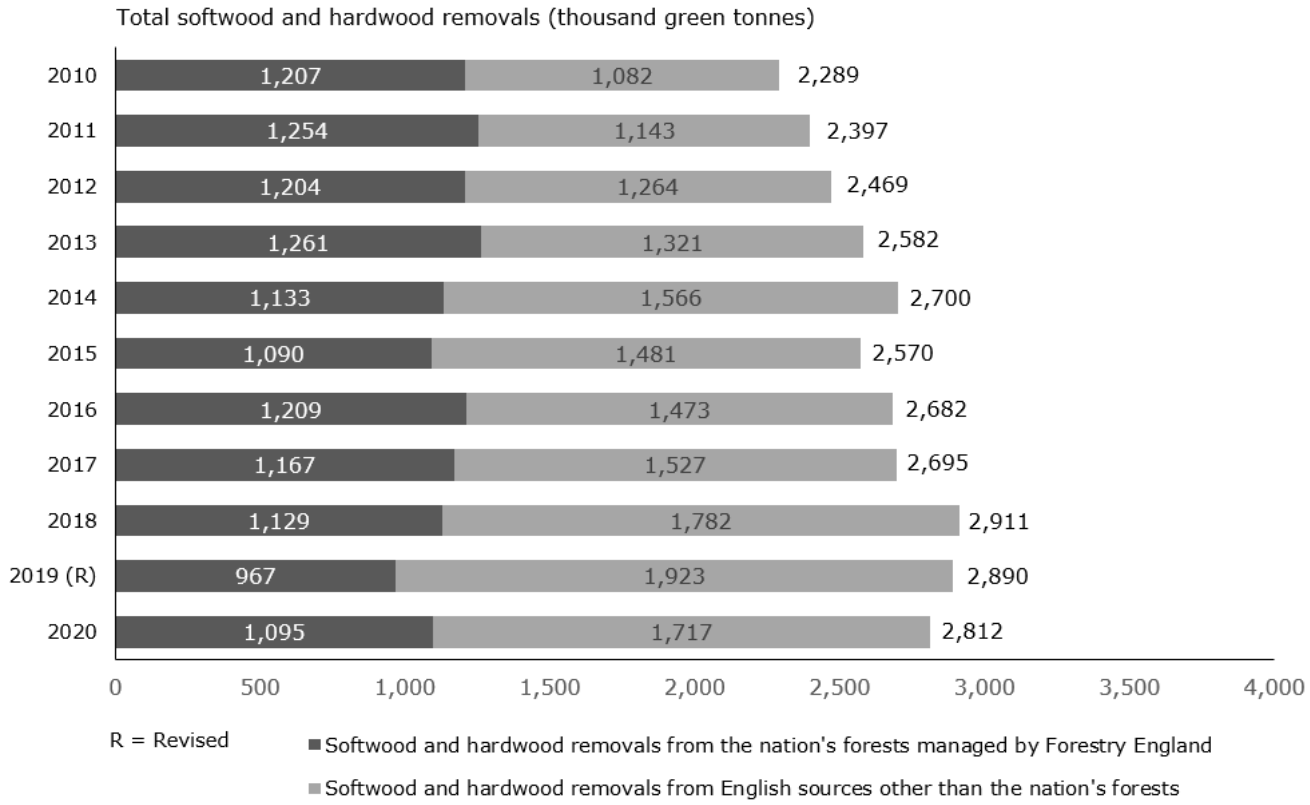


Source: Annual Business Survey 2018 regional results and quality measures (Office for National Statistics).
Note: The graph shows the Gross Value Added from domestic forestry figures for each year with their respective standard errors.

Generally favourable trading conditions and a strong demand for timber helped England's forestry contribute about £427 million to the economy in 2018. This is a slight reduction on the figure for 2017 but the position remains healthy.

Assessment of change in: Gross Value Added from domestic forestry	
Five-year trend, 2018 compared to 2013	Improving

Volume of timber brought to market per annum from English sources

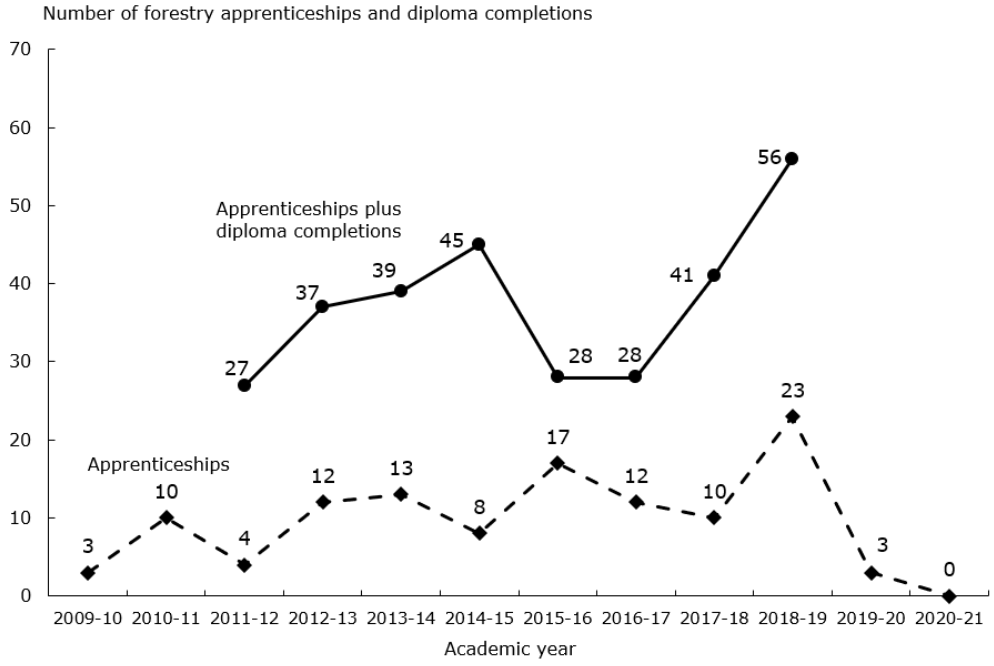


Source: Forest Research statistics on UK wood production and trade.

Timber supply chains experienced some disruption caused by the Coronavirus pandemic in the spring of 2020. Markets picked up later in the year, demand for softwood remains strong and prices are very high, maintaining relatively high levels of production in privately owned conifer woodlands. There is less reliable data for estimated hardwood production, especially volumes of hardwood delivered to energy markets.

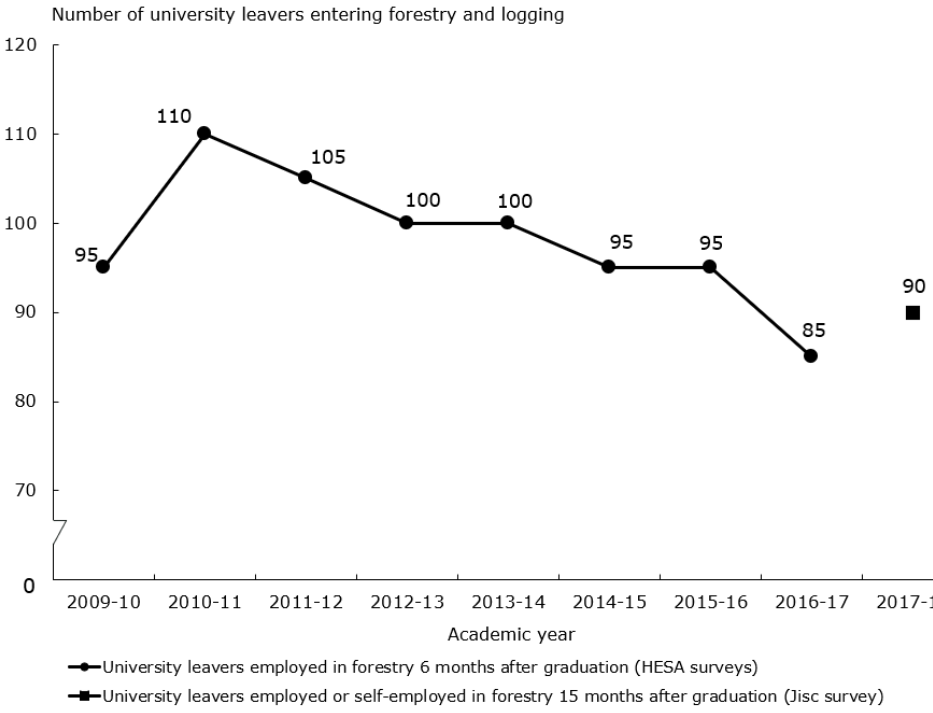
Assessment of change in: Volume of timber brought to market per annum from English sources (Total)	
Five-year trend, 2020 compared to 2015	Improving

Number of apprentices, those with work-based diplomas, and university students entering forestry



Source: LANTRA.

Note: Data on diploma completions was unavailable to us for the 2019-20 and 2020-21 years.

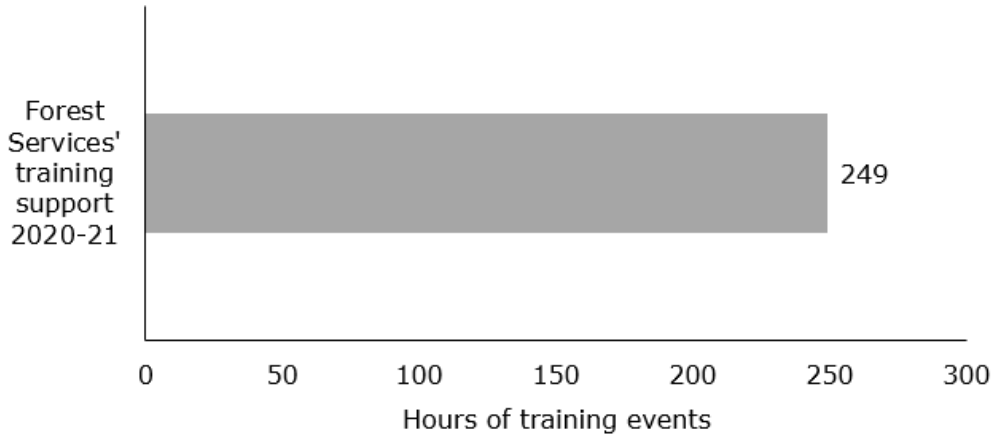


Sources: Destination of Leavers of Higher Education survey (Higher Education Statistics Agency, HESA)).and the Higher Education Graduate Outcomes Survey (HESA and Jisc).

The latest statistics show that some 90 graduates of 2017-18 were employed, or self-employed, in forestry 15 months after graduating. However, the latest statistics on numbers of completions of apprenticeships of the counted types declined in 2020-21; disruption due to the Coronavirus pandemic resulted in some interruption as institutions were unable to continue educational activities in the usual ways. We can reasonably though expect that as conditions improve the numbers of university students entering forestry, and completions of forestry apprenticeships, should rise as interest in 'green' careers increases due to greater positive appreciation of forestry and related disciplines.

Assessment of change in: Number of apprentices, those with work-based diplomas, and university students entering forestry	
Apprentices and diploma completions, five-year trend, 2018-19 (latest data) compared to 2013-14	Improving
University leavers, five-year trend, 2016-17 (latest comparable data) compared to 2011-12	Deteriorating

Forest Services' training support for the English forestry sector (hours of training events)

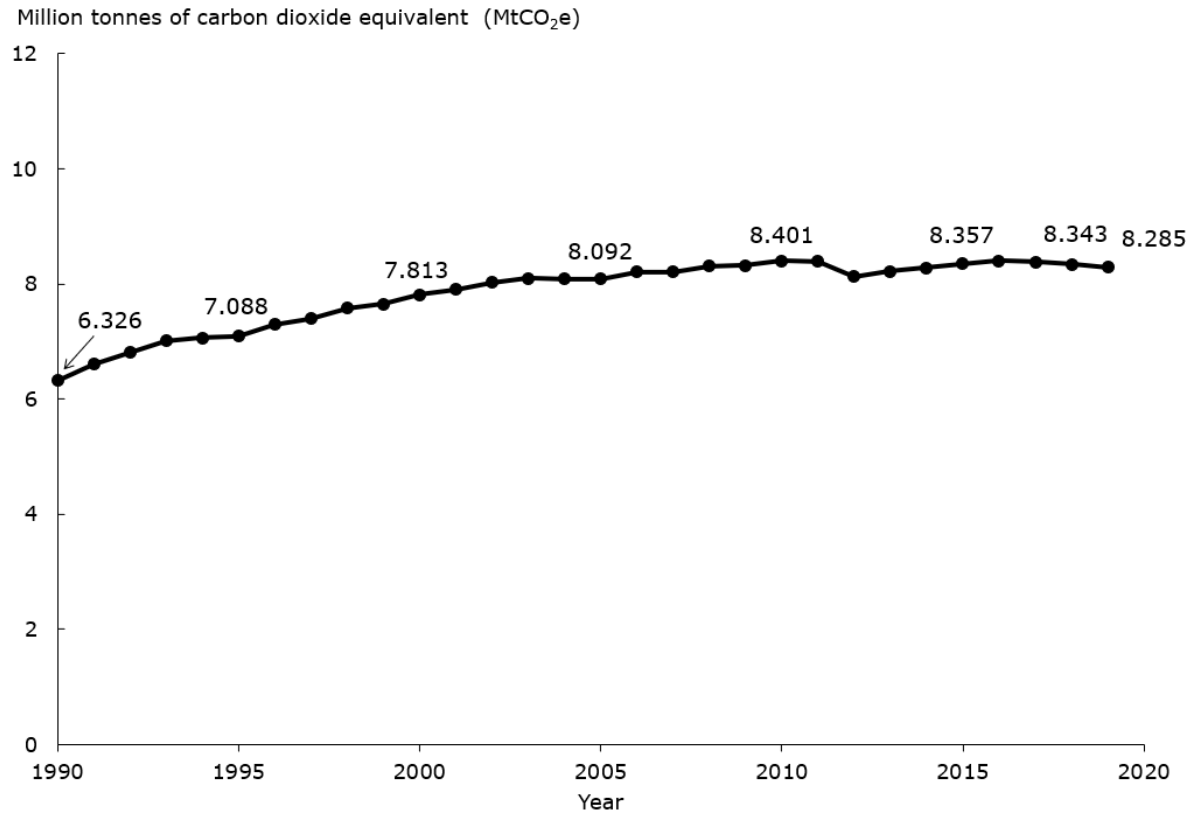


Source: Forestry Commission administrative data.

This is a new indicator to demonstrate support given to the forestry sector through provision of training. The training provided covered a wide range of topics.

Assessment of change in: Forest Services' training support for the English forestry sector (hours of training events)	
This indicator	Not assessed due to insufficient comparable data

Carbon captured by English woodlands



Source: Data from the Department for Business, Energy & Industrial Strategy.

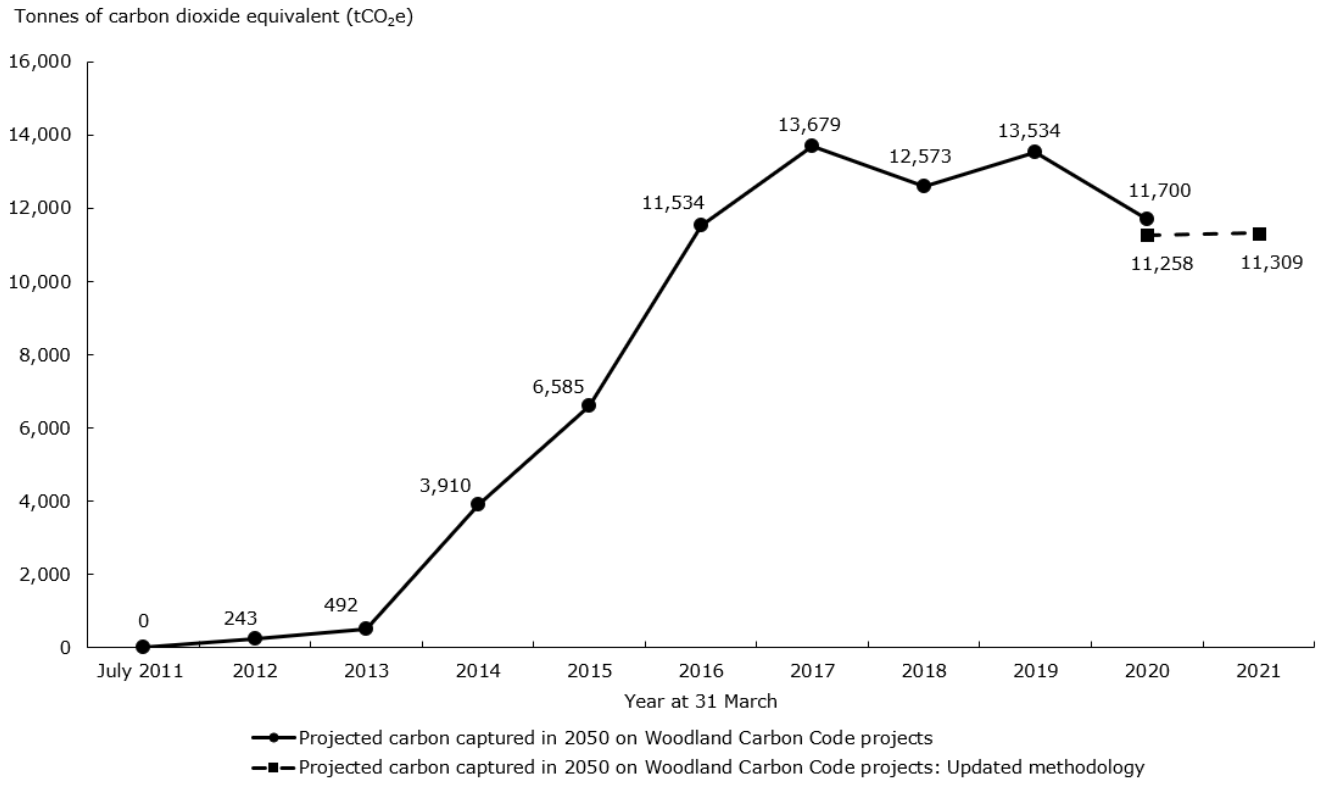
The figures represent the net exchange of carbon dioxide, nitrous oxide and methane, corrected for their global warming potential and expressed as million tonnes carbon dioxide equivalent, for 'forestland'. It does not include removals associated with harvested wood products in service or the emissions of forestland converted to other landcovers. There is a continual programme of improvements to the methodology used to prepare the UK Greenhouse Gas Inventory. When the methodology is changed, the entire time series of the inventory is updated: the most recent data is shown in the graph above.

The net greenhouse gas sink strength of England's woodlands has decreased slightly from 8.343 $MtCO_2e$ in 2018 to 8.285 $MtCO_2e$ in 2019, but remains broadly stable. It is expected to continue to decline in the medium term as the carbon captured is dominated by past planting rates and subsequent harvesting activity. A removal (or sink) of 8.285 $MtCO_2e$ is equivalent to 1.8% of total UK greenhouse gas emissions for 2019, or 18% of agricultural emissions (see note).

Note: from the Department for Business, Energy & Industrial Strategy (2021) Final UK greenhouse gas emissions national statistics 1990-2019.

Assessment of change in: Carbon captured by English woodlands	
Five-year trend, 2019 compared to 2014	Little or no overall change

Projected carbon capture in 2050 by Woodland Carbon Code woodland creation projects



Source: Woodland Carbon Code statistics (Forest Research).

At March 2021, 99 projects were validated to the Woodland Carbon Code (WCC), compared to 87 in March 2020. The 99 projects validated by March 2021 are expected to sequester 11,309 tonnes of carbon dioxide equivalent (tCO_2e) in 2050 (compared with 11,258 tCO_2e in March 2020) and a total of 374,000 tCO_2e by 2050 at March 2021 (compared with 301,000 tCO2 in March 2020). Of the validated projects, 39 have also been verified/checked at year 5 to ensure they are well established and on track to deliver the predicted carbon savings. Verified projects had sequestered 3,400 tCO_2e by March 2021 compared to 1,626 tCO_2e by March 2020.

A further 165 projects are currently registered and going through the validation process compared to 47 in 2020. The large increase in registrations – overall 130 new projects this year - is due to both interest in the Woodland Carbon Guarantee together with an increase in interest in the voluntary carbon market more generally. This results in a close to doubling of the total number of projects registered/validated to 264 in March 2021 from 134 in March 2020. All projects registered/validated by March 2021 are predicted to sequester 2.5 Million tCO_2e over their lifetime of 100 years (compared to 1.2 Million tonnes of CO_2e over their lifetime by March 2020), and create 5,438 hectares of new woodland (compared to 2,008 hectares in March 2020).

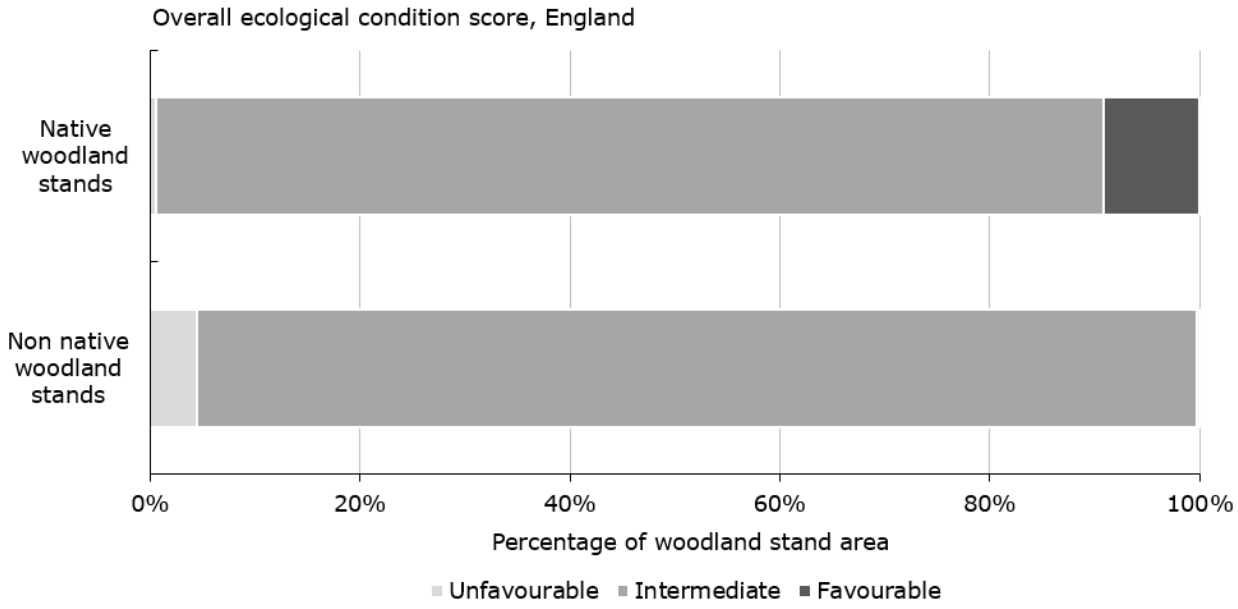
Note: The indicator is now calculated on a different basis than before and is now calculated from the number of units listed in the UK Land Carbon Registry and the date

those units are due to be converted from Pending Issuance Units (PIUs) to Woodland Carbon Units (WCUs), rather than from summarising data from each separate project's WCC Carbon Calculation.

Assessment of change in: Projected carbon capture in 2050 on Woodland Carbon Code woodland creation projects	
One-year trend only (new methodology), 31-Mar-21 compared to 31-Mar-20	Little or no overall change

Protecting and improving our trees and woodland

Woodland ecological condition in England using information from the National Forest Inventory



Source: Forestry Commission (2020) *NFI woodland ecological condition in England: classification results*, National Forest Inventory.

There are 914 thousand hectares (ha.) of native woodland in England (around 68% of all woodland) and 419 thousand hectares of non-native woodland (30%). 99.5% of native woodland, and 95.6% of non-native woodland, is in favourable or intermediate condition, based on the National Forest Inventory 2010-15 survey cycle data.

Up to 2020 biodiversity strategy interim reporting of condition drew on the Sites of Special Scientific Interest (SSSI) data and area of priority habitat in management to indicate progress against Biodiversity 2020 targets. In early 2020 work concluded to analyse and agree the condition status of England's woodland. Fifteen ecological condition indicators were measured as part of the National Forest Inventory survey cycle 2010-15 and compared to a benchmark of a stand of ancient semi-natural woodland (ASNW) in good condition. This enabled native, near native and non-native woodland stands (outside of protected sites) to be classified as favourable, intermediate or unfavourable in terms of their ecological condition for the first time.

Ten reports were published in 2020 in relation to woodland ecological condition; executive summary, methodology, statistics and classification results, by country and for Great Britain. These reports and data can be found on the National Forest Inventory Woodland Ecological Condition pages of the Forest Research website.

Assessment of change in: Woodland ecological condition in England using information from the National Forest Inventory	
This indicator	Not assessed due to insufficient comparable data

Figure 3: The proportion of each woodland ecological condition (WEC) class, for each WEC indicator type in native woodland stands in England

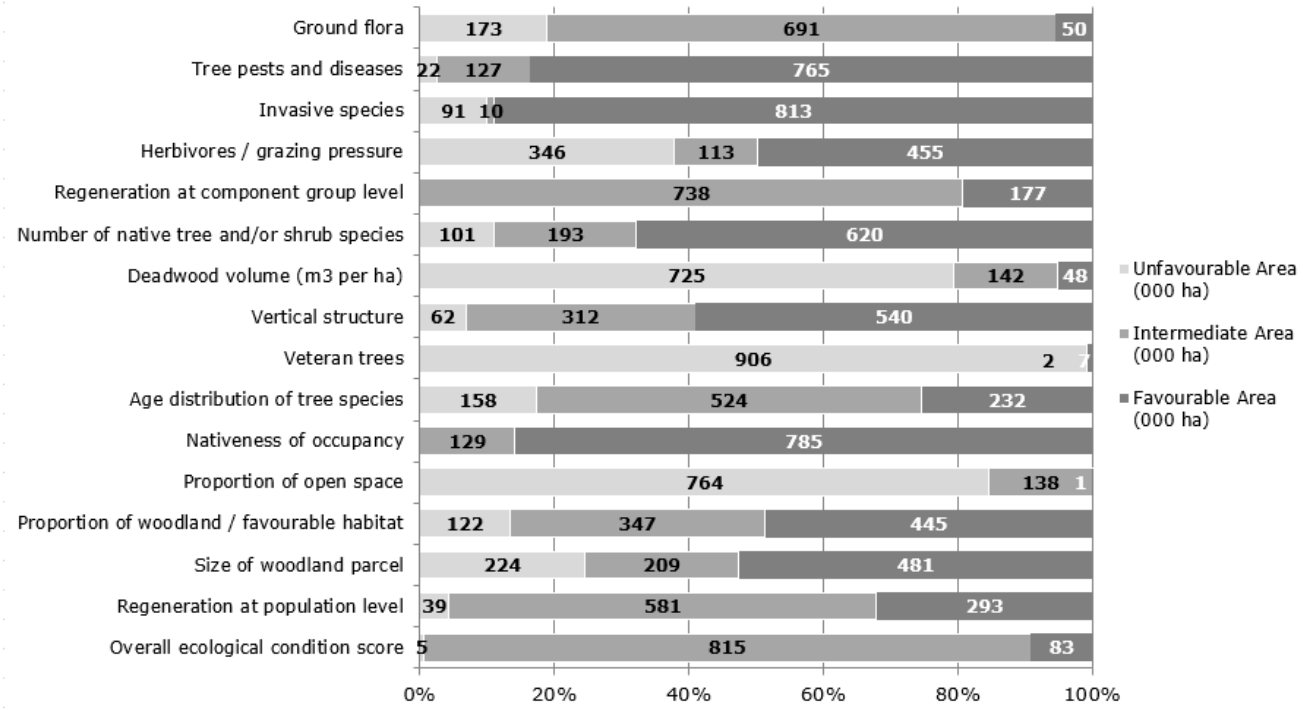
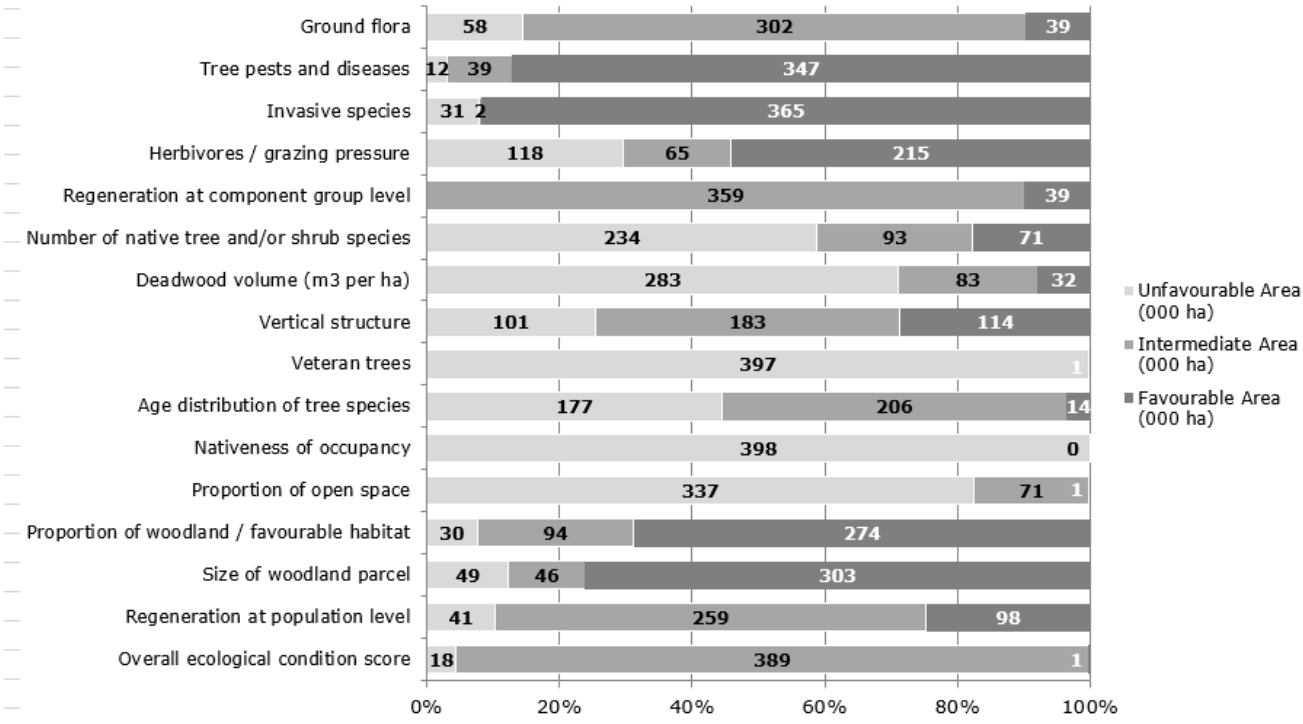


Figure 4: The proportion of each woodland ecological condition (WEC) class, for each WEC indicator type in non-native woodland stands in England



Notes on woodland ecological condition in England

Note 1: Native woodland

Native woodland is defined as stands with 50% or more native tree species occupancy in the upper canopy that either:

- form a discrete woodland parcel with a minimum area of 0.5 ha.
- form a woodland stand with a minimum area of 0.1 ha that is part of a woodland that is 0.5 ha or larger.

Note 2: Non-native woodland

Non-native woodland is defined as stands with less than 40% native tree species occupancy sitting within a woodland of any size.

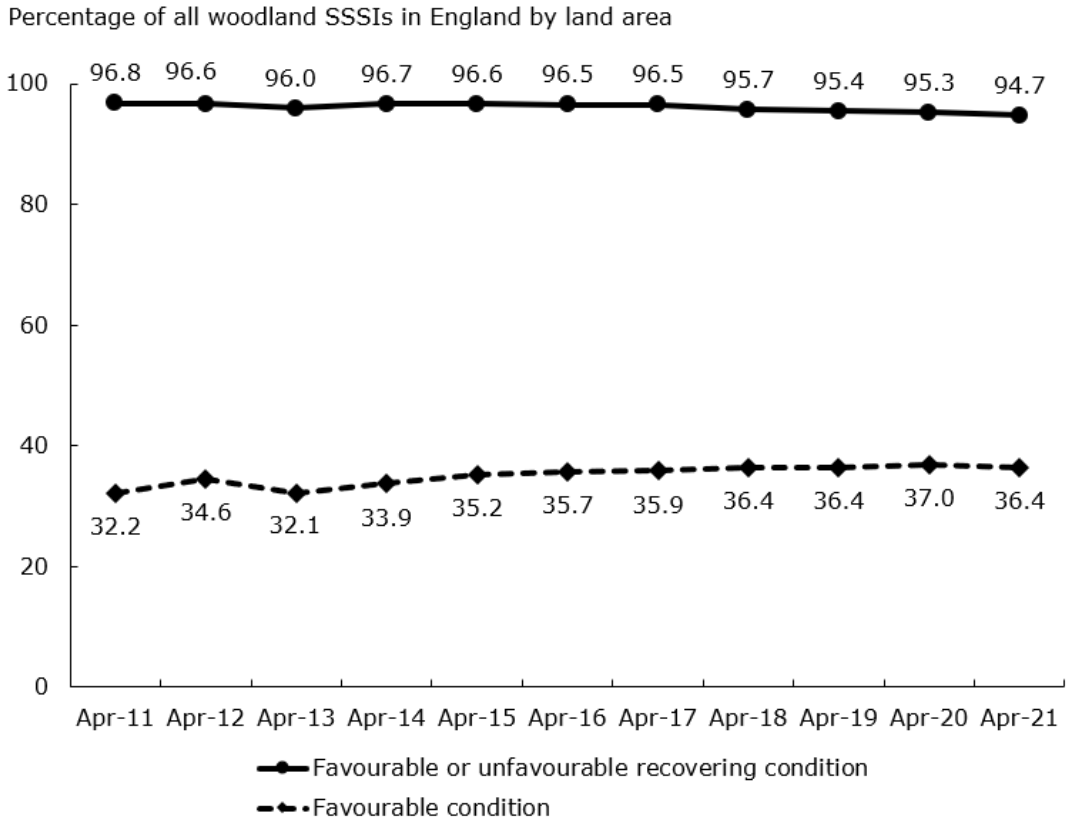
Note 3: Definition of the indicators:

The woodland ecological condition classification categories and indicators are defined in the methodology report: Forestry Commission (2020), *NFI woodland ecological condition in Great Britain: Methodology* National Forest Inventory.

Note 4: Classifications for each indicator and overall scoring

The National Forest Inventory woodland condition classifications for each of the 15 separate WEC indicators shown are shown in the Table 11.1 classification threshold summary (page 32) in the *NFI woodland ecological condition in England: classification results*. This also shows the overall scores that determine whether woodland habitat is in unfavourable, intermediate or favourable condition.

Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition in England

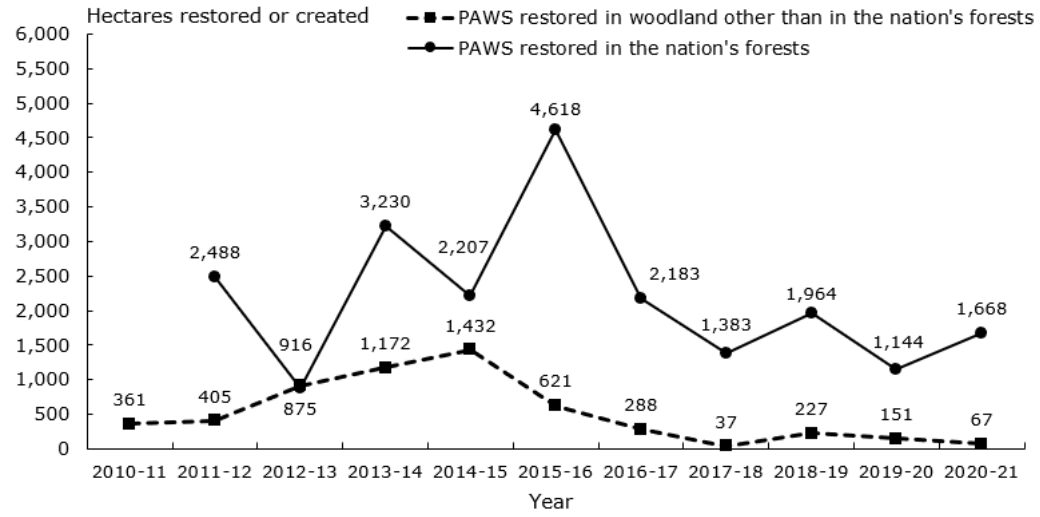


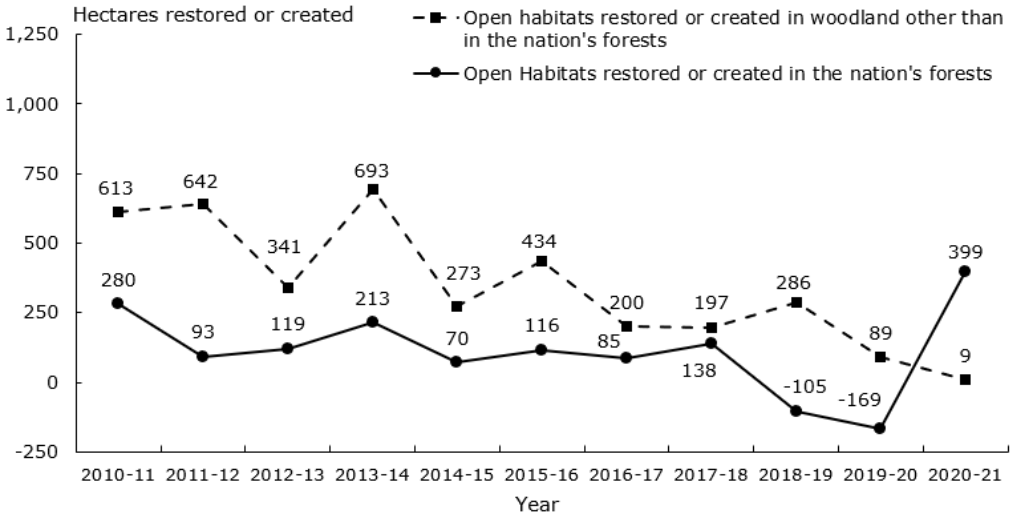
Source: Forestry Commission administrative data on grant schemes and Natural England data on SSSIs.

This indicator shows the percentage of all woodland Sites of Special Scientific Interest (SSSIs) which are in either favourable or unfavourable recovering status. In previous years, we reported these figures for Forestry England separately to the figures reported for all other woodland. This year, the figure has been reported using the area of all woodland SSSIs in England, irrespective of ownership. Past figures have been amalgamated and presented to show trends over time. The new figures for April 2021 show an overall decrease of 0.6% (equating to 6,979 hectares) of woodland SSSIs in favourable condition, and a decrease of 0.6% (equating to 8,346 hectares) in unfavourable recovering condition. There is an overall reduction of 15,325 hectares in target condition. Woodland SSSIs are condition assessed by Natural England at regular intervals, with the condition status amended as required.

Assessment of change since in: Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition in England	
Favourable or unfavourable recovering condition, Five-year trend, Apr-21 compared to Apr-16	Little or no overall change
Favourable condition, Five-year trend, Apr-21 compared to Apr-16	Little or no overall change

Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in woodland in England





Source: Forestry Commission administrative data.

Note: There is no data for PAWS restored in the nation's forests in 2010-11.

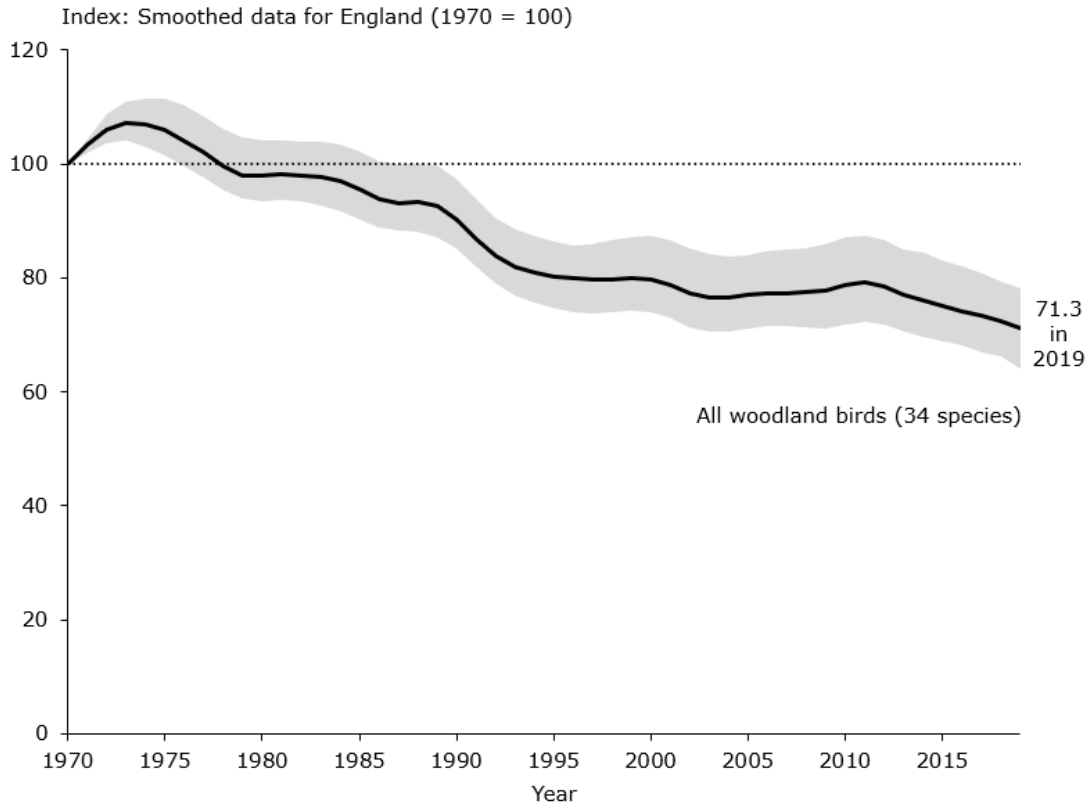
The restoration rate of Plantations on Ancient Woodland Sites (PAWS) remains low on land outside the nation's forests managed by Forestry England. The overall trend over the last five years has been down but increased in 2020-21. Rates are expected to remain low. Countryside Stewardship does not include a specific capital grant to support PAWS restoration but the HS2 woodland fund does so could increase rates slightly. Opportunities for open habitat creation should increase with the development of the Nature Recovery Network and Local Nature Recovery Strategies.

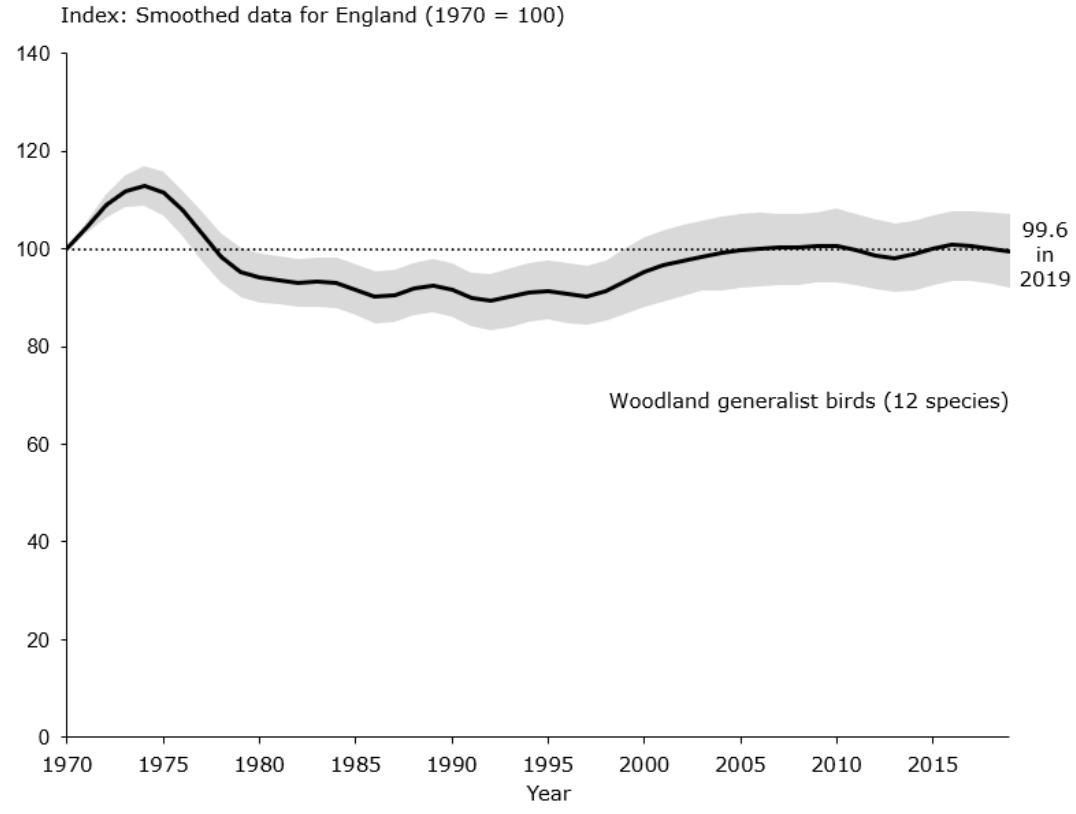
There was a small reduction of priority open habitat across the nation's forests in 2018-19 and 2019-20. In 2018-19 the reduction was primarily due to natural regeneration of

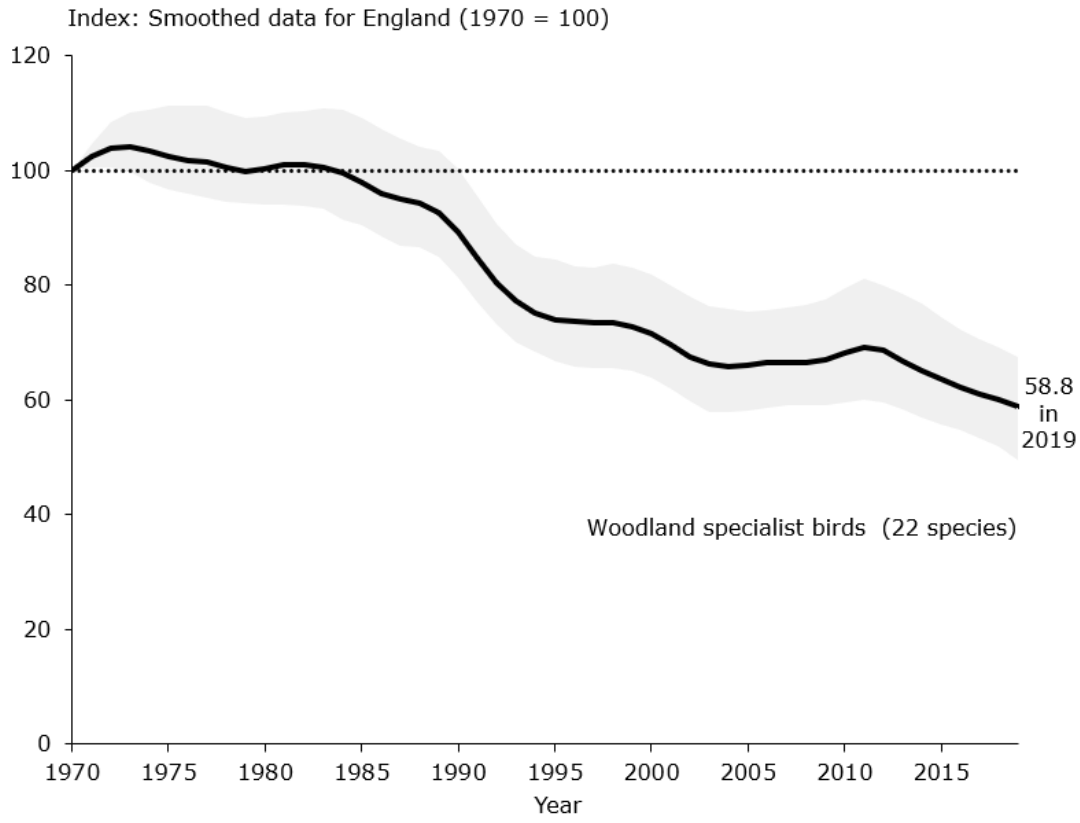
spruce trees in previously open upland areas. In 2019-20 there was a reduction of 169 hectares primarily due to a land transfer from Forestry England to Forestry and Land Scotland, with 173 ha of blanket bog transferred. The quantity of all open habitat across the nation's forests has increased since 2013.

Assessment of change in: Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in woodland in England Five-year trends, 2020-21 compared to 2015-16	
PAWS restored in England	Deteriorating
Open habitats restored or created in England	Deteriorating

Measure of what is happening to the number and variety of species that live in woodland; using Woodland Birds data





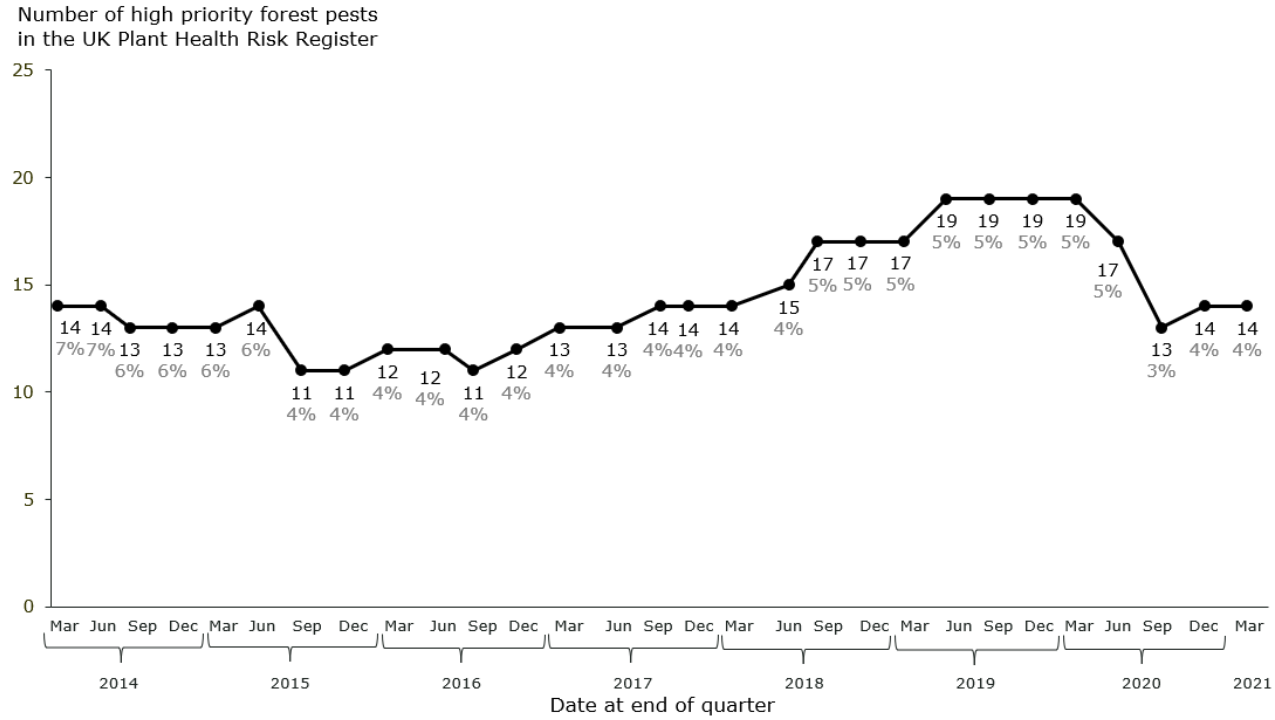


Source: Data for England related to the report: Wild bird populations in the UK, 1970 to 2019 (Defra, 2020).
Note: Each of the three graphs shows a smoothed, unstandardised woodland bird index for England and its 95% confidence interval.

In 2019 the all woodland bird index for England was 28.7% lower than in 1970 (smoothed data). The greatest decline occurred between the early 1980s and the mid-1990s, which is thought to driven by the nature and extent of woodland management. All three indexes show some slight variation compared to the 2018 figures (decrease for all woodland birds, specialist birds and generalist birds), but none of those are statistically significant.

Assessment of change in: Measure of what is happening to the number and variety of species that live in woodland; using Woodland Birds data	
All woodland birds index (England), fifteen year trend, 2019 compared to 2004	Little or no overall change

Number of high priority forest pests in the UK Plant Health Risk Register (UKPHRR).



Source: UK Plant Health Risk Register (UKPHRR) data.

Report at end March 2021: There are now 399 pests identified as forest pests on the UK Plant Health Risk Register (UKPHRR), **14 (4%) of which have been assessed and are considered high priority**.

Pests are ranked as high priority if they are assessed as having a mitigated relative risk rating of 15 or more (see Table 2 and Note A below). These high priority pests require actions, in addition to current mitigation measures, to help prevent them having a potentially substantial negative impact on England's woodland.

The number of high priority forest pests and diseases remains at 14. Plane wilt (*Ceratocystis platani*) has dropped off the list and been replaced by stem dieback of hazel (*Pseudomonas avellanae*).

Of the 14 pests and diseases, eight (8) are currently present in England, with three being classed as widespread. These are *Hymenoscyphus fraxineus* which causes ash dieback*, Phytophthora alni* which affects all alder species in Great Britain, and *Pseudomonas syringae pv. aesculi*, that causes horse chestnut bleeding canker.

The number of high priority forest pests and diseases remains at 14. Following the introduction of new national measures, Plane wilt (*Ceratocystis platani*) has been removed from the list. However, a new pathogen has been added; stem dieback of hazel (*Pseudomonas avellanae*).

Work continues in an effort to eradicate the newly found population of the larger eight-toothed spruce bark beetle (*Ips typographus*) in Kent. This pest does not meet the

definition as 'high priority' for this indicator because its mitigated risk rating is less than 15. This is, however, a quarantine (notifiable) pest considered to be a major risk to Norway spruce trees in particular[7].

Table 6: The 14 high priority forest pests in the UK Plant Health Risk Register with a relative risk rating (mitigated) of 15 or more at end March 2021.

Pest or disease: common name	Pest or disease: Latin name	Type of pest or disease	Present in the UK?	Mitigated likelihood score	Mitigated impact rating	Mitigated likelihood multiplied by impact risk rating
Bleeding canker of horse chestnut	*Pseudomonas syringae pv. aesculi*	Bacterium	Present: widespread	5	4	**20**
Shoot blight on cedar/Tip blight on eastern hemlocks	*Sirococcus tsugae*	Fungus	Present: unknown distribution	5	4	**20**
Two-lined chestnut borer	*Agrilus bilineatus*	Insect	Absent	4	5	**20**
Sudden oak death; *ramorum* dieback	*Phytophthora ramorum*	Oomycete[8]	Present: limited	4	4	**16**
Chalara ash dieback	*Hymenoscyphus fraxineus*	Fungus	Present: widespread	4	4	**16**
Phytophthora disease of alder	*Phytophthora alni*	Oomycete[6]	Present: widespread	4	4	**16**
Stem dieback of hazel nut	*Pseudomonas avellanae*	Bacterium	Absent	4	4	**16**
Zigzag elm sawfly	*Aproceros leucopoda*	Insect	Present: unknown distribution	5	3	**15**
Emerald ash borer	*Agrilus planipennis*	Insect	Absent	3	5	**15**

[7] There is more information on the larger eight-toothed European spruce bark beetle (*Ips typographus*) here: https://www.gov.uk/guidance/eight-toothed-european-spruce-bark-beetle-ips-typographus

[8] An oomycete is an algae-like fungus.

Table 6 continued: The 14 high priority forest pests in the UK Plant Health Risk Register with a relative risk rating (mitigated) of 15 or more at end March 2021.

Pest or disease: common name	Pest or disease: Latin name	Type of pest or disease	Present in the UK?	Mitigated likelihood score	Mitigated impact rating	Mitigated likelihood multiplied by impact risk rating
Acute oak decline	*n/a*	Other	Present: limited	3	5	**15**
Two spotted oak buprestid	*Agrilus biguttatus*	Insect	Present: limited	3	5	**15**
Sachalin fir bark beetle	*Polygraphus proximus*	Insect	Absent	3	5	**15**
Cypress jewel beetle or juniper buprestid	*Lamprodila festiva*	Insect	Absent	5	3	**15**
Fan-leaf virus nematode[9]	*Xiphinema* index	Nematodes	Absent	5	3	**15**

Source: UK Plant Health Risk Register (UKPHRR) data.

Unmitigated risk ratings

The number of forest pests assessed as having an unmitigated risk rating of 15 or more at the end of March 2021 is 64 (16%) of pests identified as forest pests on the UKPHRR.

[9] A nematode is a very small elongated roundworm.

Notes

A) **Definition, source and summary:** This indicator seeks to report trends in forest pests from the UK Plant Health Risk Register (UKPHRR) that records and rates risks to UK crops, trees, gardens and ecosystems from plant pests and pathogens. 'High priority' pests and diseases are defined for the purposes of this indicator as those with a mitigated relative risk rating (the mitigated likelihood score multiplied by the mitigated impact score) of 15 or more. The individual ratings for likelihood and impact are each on a scale from 1 to 5. Relative risk ratings therefore can have values from a minimum of 1 to a maximum of 25. Taking into account the economic, environmental and social importance of the host species, these risk scores are used to help prioritise additional actions to combat the threats posed by the pests. It should be noted that the data are for the UK. Nearly all listed forest pests present in the UK will also be present in England and listed forest pests absent from the UK are very likely to pose a threat to England.

B) **Pests included in the scope of this indicator:** This indicator only includes pests listed on the UK Plant Health Risk Register that have been professionally assessed and where the assessment provides the information needed to identify which are forest pests, and of those which are high priority according to the indicator definition.

C) **Likelihood** provides an assessment of the probability of entry and establishment of a pest for those pests that are absent from the UK which, when combined, can result in the introduction of the threat to a new area. Some pests on the UKPHRR are already present in the UK. In these cases the risk is that of the pest spreading to its maximum extent in the UK. The likelihood scale has a minimum value of 1 (lowest risk) through to 5 (highest risk). There is more information on the factors taken into account in the Phase 1 UK Plant Health Risk Register – Summary Guide[10] (page 6).

D) **Impact** is an indication of the relative consequence of the pest for the host plant or sector, should the risk materialise. It does not take account of the size or value of the host or sector. Where the pest is already present, the impact is that caused by further spread, against a baseline of damage already occurring. Thus for a pest which is already widespread, the additional impact of it spreading to its full potential distribution may be limited, even if the pest itself is very damaging or expensive to control. The impact scale has a minimum value of 1 (lowest risk) through to 5 (highest risk). There is more on the factors taken into account in the Phase 1 UK Plant Health Risk Register – Summary Guide (page 6-7).

E) **Value at risk:** Value at risk is not taken into account in this indicator.

F) **Mitigations:** can reduce likelihood, impact or both and the risks remaining after mitigation provide the basis for this indicator. Mitigations may reduce risk by enhancing regulation, surveillance, awareness and research, or by providing an industry scheme or a contingency plan. The difference between unmitigated and mitigated risk represents an expert judgement of the effectiveness of the current mitigations. See Phase 1 UK Plant Health Risk Register – Summary Guide (page 4) for details.

G) **Possible relative risk ratings:** Relative risk ratings can take values from a minimum of 1 (lowest risk) through to 25 (highest risk). For the purposes of this indicator 'high priority' pests have been defined as those with a relative risk rating of 15 or more.

[10] https://secure.fera.defra.gov.uk/phiw/riskRegister/Summary-of-Guidance-for-phase-1-Public-Ver2.pdf

Table 7: Possible Relative Risk Ratings

Impact

5	5 Green	10 Yellow	15 Amber	20 Red	25 Red
4	4 Blue	8 Green	12 Yellow	16 Amber	20 Red
3	3 Blue	6 Green	9 Green	12 Yellow	15 Amber
2	2 Blue	4 Green	6 Green	8 Green	10 Yellow
1	1 Blue	2 Blue	3 Blue	4 Blue	5 Green
	1	**2**	**3**	**4**	**5**

Likelihood

H) **Other forest pests and diseases affecting English woodland.** The indicator is only based on the pests included in the UKPHRR. In so doing it effectively captures the major non-native pests threatening UK forestry together with a limited selection of native pests that are the subject of major Government campaigns of action. There are many native and non-native forest pests that are not included in the UKPHRR.

I) **Precise end of quarter report dates are:** 9 April 2014, 2 July 2014, 19 September 2014, 31 December 2014, 30 March 2015, 23 June 2015, 24 September 2015, 29 December 2015, 30 March 2016, 7 July 2016, 30 September 2016, 30 December 2016, 30 March 2017, 4 July 2017, 2 October 2017, 27 December 2017, 31 March 2018, 2 July 2018, 30 September 2018, 31 December 2018, 31 March 2019, 1 July 2019, 1 October 2019, 31 December 2019, 31 March 2020, 1 July 2020, 30 September 2020, 31 December 2020 and 6 April 2021.

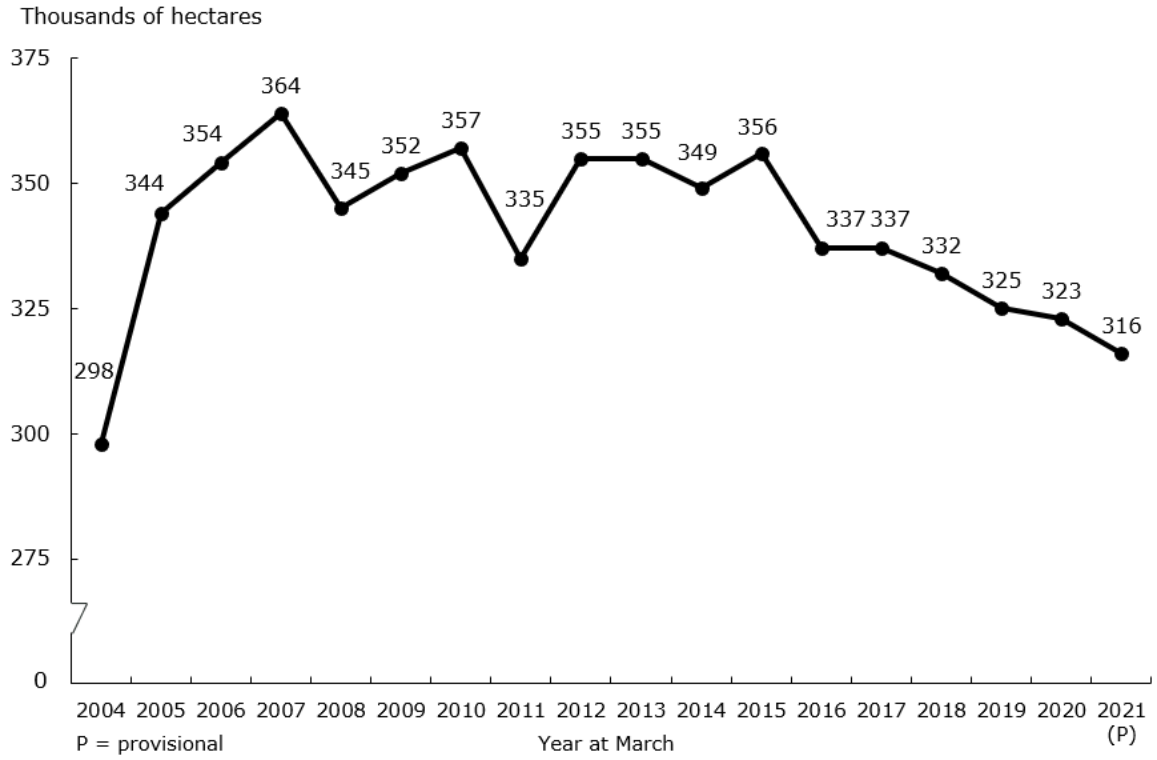
Source: UK Plant Health Risk Register (UKPHRR)[11] data.

Open Data: Source spreadsheet data is available from the UK Plant Health Risk Register (UKPHRR).

Assessment of change in: Number of high priority forest pests in the UK Plant Health Risk Register (UKPHRR)	
Five-year trend, Mar-21 compared to Mar-16	Deteriorating

[11] https://secure.fera.defra.gov.uk/phiw/riskRegister/

Area of woodland in England that is certified as sustainably managed

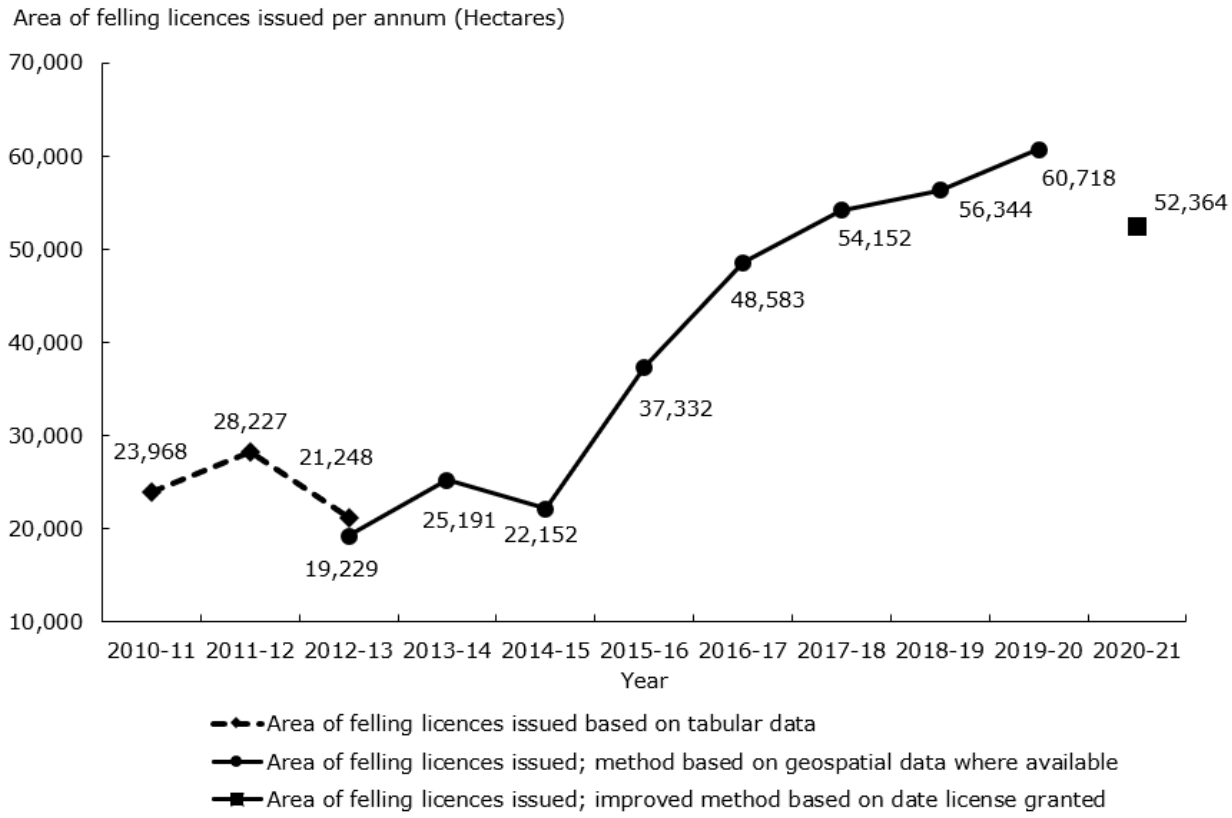


Source: Provisional Woodland Statistics 2021 (Forest Research). This statistic is based on Forest Stewardship Council and Programme for the Endorsement of Forest Certification (PEFC) data.

Demand for wood products from woodlands managed in accordance with voluntary certification schemes remains high. Many owners of larger (typically, softwood) woodlands and other businesses in the supply chain respond to this demand by joining internationally recognised schemes such as Forestry Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC). Local supply chains may not receive sufficient economic or environmental benefit to make joining voluntary schemes worthwhile. This may limit the area of woodland certified by international schemes in England.

Assessment of change in: Area of woodland in England that is certified as sustainably managed	
Five-year trend, 31-Mar-21 compared to 31-Mar-16	Deteriorating

Area of felling licenses issued

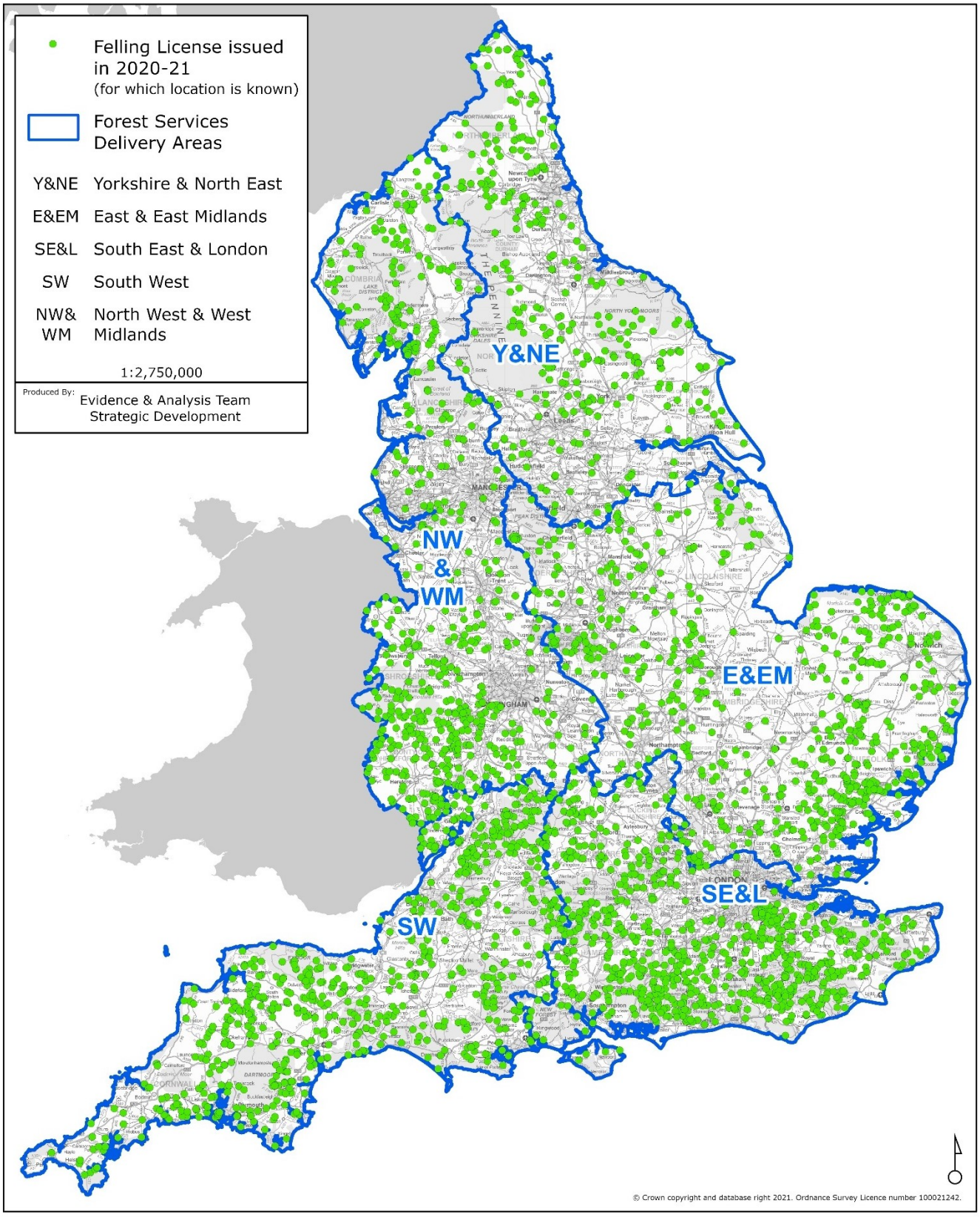


Source: Forestry Commission administrative data.

The area of woodland management supported by felling licenses remains at a moderate to high level, reduced slightly from 2019-20 probably due to the impacts of the Coronavirus pandemic. We continue to see high numbers of applications for felling licenses -with many now targeting trees outside woodlands to support ash dieback disease management. From data that can be disaggregated, we can report that 76% of the area of felling licenses granted in 2020-21 were unconditional, nearly all of which are for thinning of woodland. Some 24% of the area of licenses issued were conditional, enabling woodland owners to undertake a more intensive range of sustainable forest management operations, including clear felling, with legal conditions to require woodland regeneration after felling.

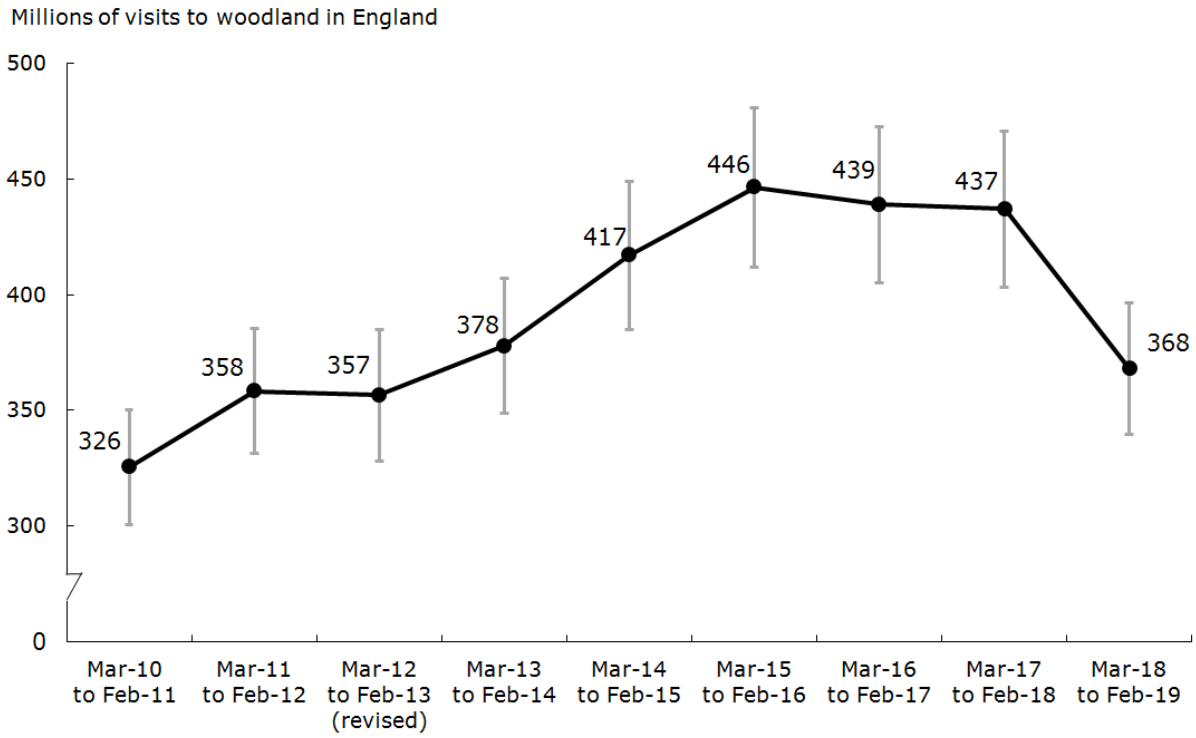
Assessment of change in: Area of felling licenses issued	
Five-year trend, 2020-21 compared to 2015-16	Improving

Map 3: Locations of felling licenses issued in England, 2020-21



Connecting people with trees and woodlands

Number of visits to woodland in England



The graph shows the number of visits to woodland from each annual MENE survey with its estimated 95% confidence interval

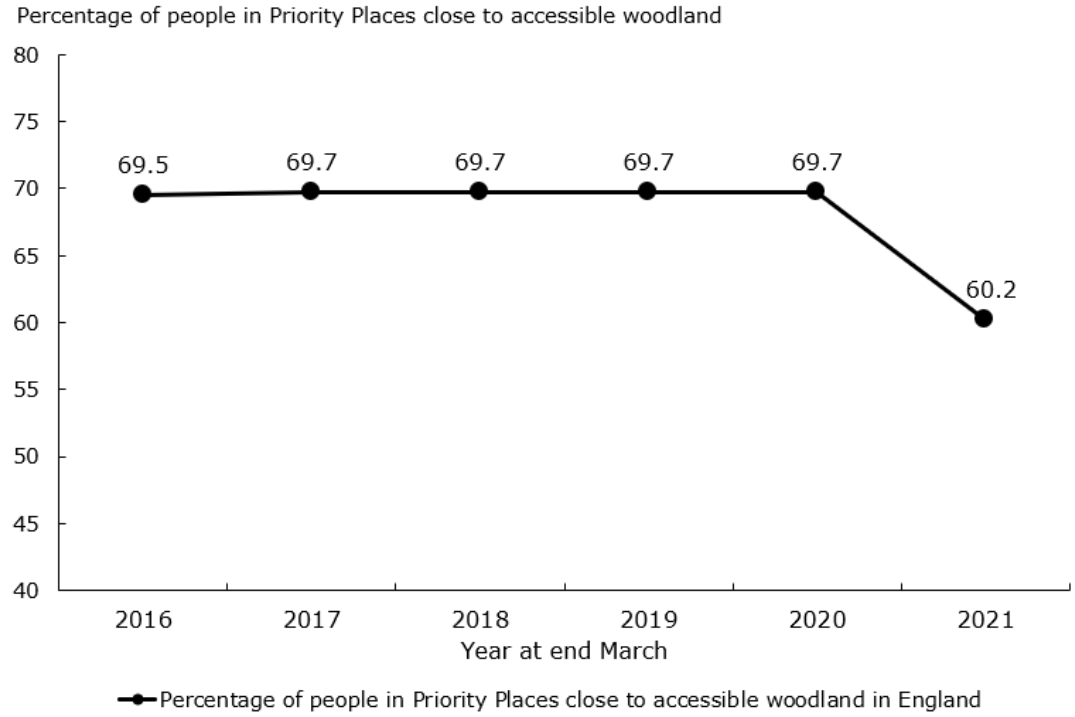
Source: Monitor of Engagement with the Natural Environment (MENE) (Natural England).

The Monitor of Engagement with the Natural Environment (MENE) survey is no longer updated and the People and Nature Survey for England, also conducted by Natural England, has taken over from it. So the assessment of the MENE figures remains the same as in previous years' reporting. Early analysis from the People and Nature survey shows that 30% of adults across the April 2020 to March 2021 year who responded to the survey (24,017) had visited a woodland or forest in the previous 12 months, and these places remain high on the list of types of green and natural spaces visited. We also see this reflected in estimates of numbers of visits to the Public Forest Estate which are consistently increasing year-on-year.

In future, we plan to draw more on the People and Nature Survey for England as more results become available.

Assessment of change in: Number of visits to woodland in England (from Natural England's Monitor of Engagement with the Natural Environment survey (MENE))	
Five-year trend, Mar-18/Feb-19 compared to Mar-13/Feb-14	Little or no overall change

Percentage of people in Priority Places close to accessible woodland in England



Source: Based on the Woods for People dataset (variously the Woodland Trust/ and Forestry Commission), Census of Population (Office for National Statistics) and the Index of Multiple Deprivation (Ministry of Housing, Communities & Local Government).

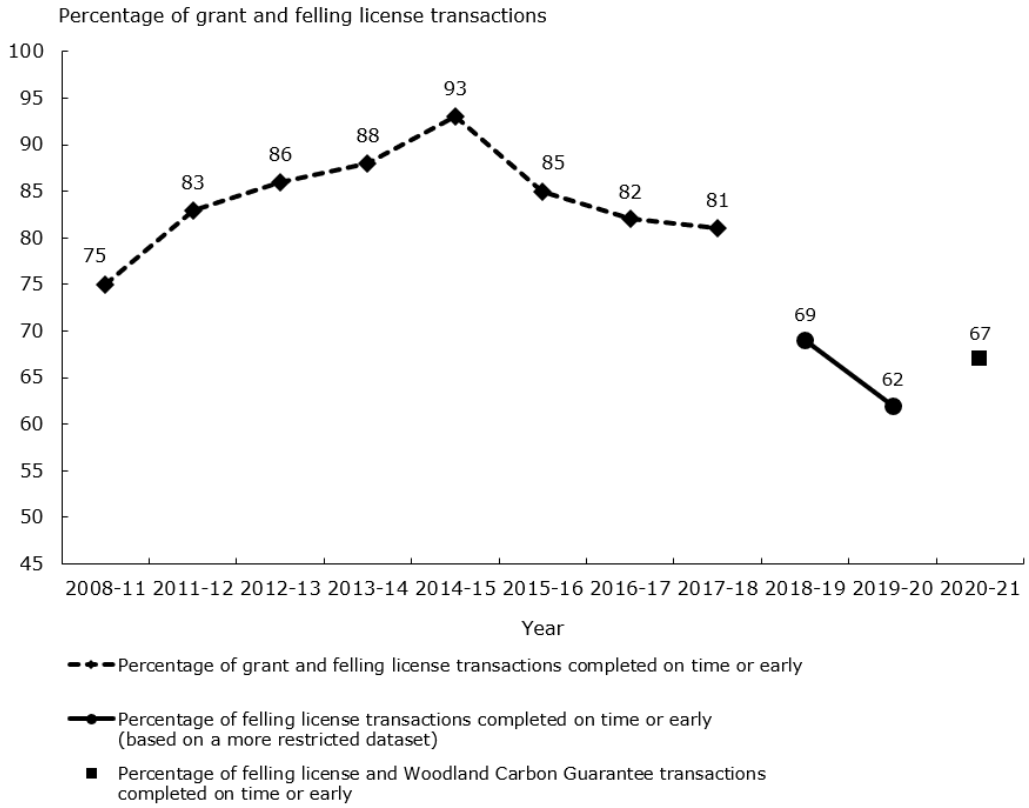
The latest data for March 2021 shows a gradual decline in access to woodlands close to where priority populations live. This could be due to the fact that the key dataset (Woods for People) used for the analysis no longer contains England Woodland Grant Scheme supported permissive access arrangements. However, this dataset also does not include other forms of legal access such as public rights of way (PRoW). Work is underway to address these concerns through the England Trees Action Plan 2021-2024 action of developing a Woodland Access Implementation Plan, as well as developing more attractive options to support public access through the new England Woodland Creation Offer.

Note: Priority Places are defined as those within the most deprived 40% of places on the Index of Multiple Deprivation also in built up areas of >10,000 population. Access is defined as residence within 4 kilometres (2.5 miles) of one or more accessible woodlands >20 hectares in size.

Assessment of change in: Percentage of people in Priority Places close to accessible woodland other than that in the nation's forests	
Five-year trend, Mar-21 compared to Mar-16	Deteriorating

Organisational health

Percentage of grant and felling license transactions completed on time or early



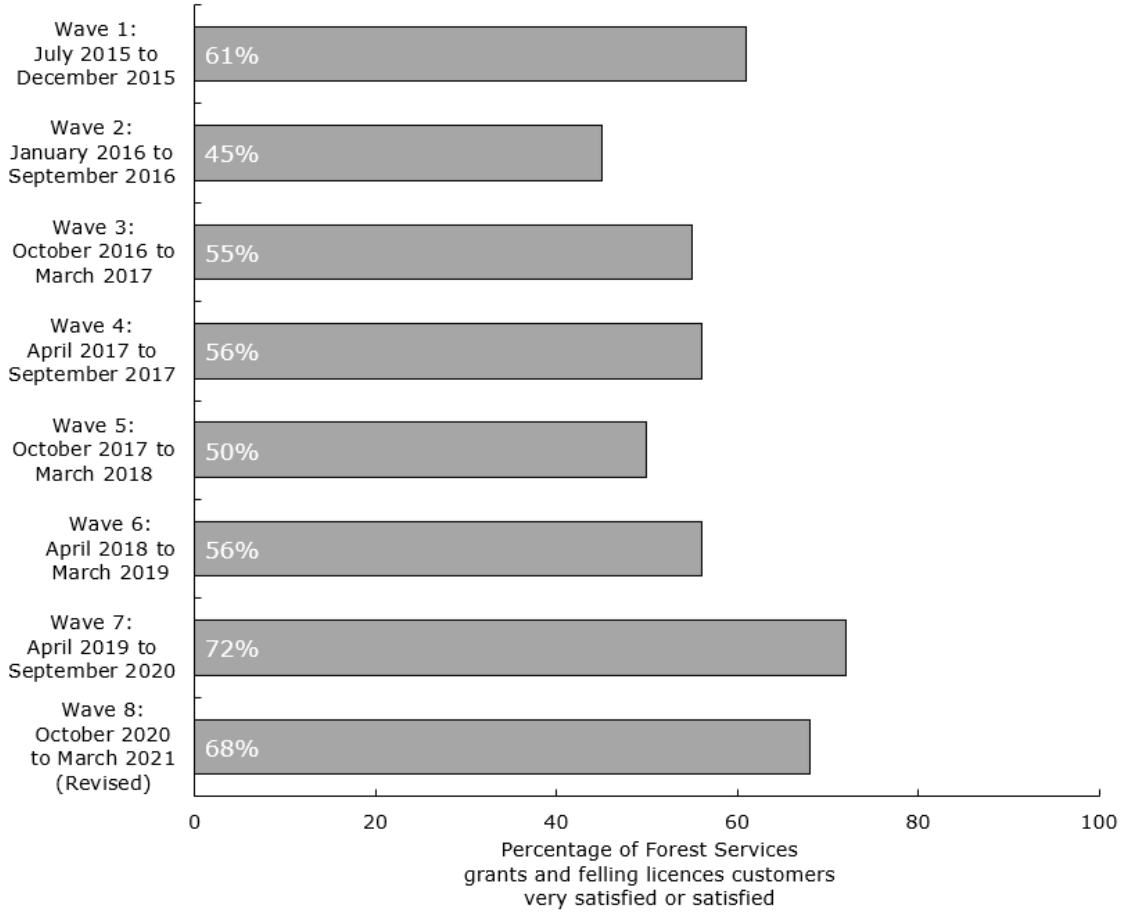
Source: Forestry Commission administrative data

There has been some improvement in the percentage of felling license transactions meeting the Charter standard*, but this is still short of the target of 85%. Increasing volumes of felling applications are being addressed in part by recruitment of additional Woodland Officers. Movement restrictions due to Coronavirus over the past 12 months have resulted in a slower pace of assessment and approval of felling applications.

* based on the percentage of felling licenses 'granted' in 77 days or less and the percentage of Woodland Carbon Guarantee decisions issued within 14 days of the close of the auction.

Assessment of change in: Percentage of grant and felling license transactions completed on time or early	
Five-year trend, 2020-21 compared to 2015-16	Deteriorating

Percentage of Forest Services grants and felling license customers who report their customer satisfaction as either very satisfied or satisfied

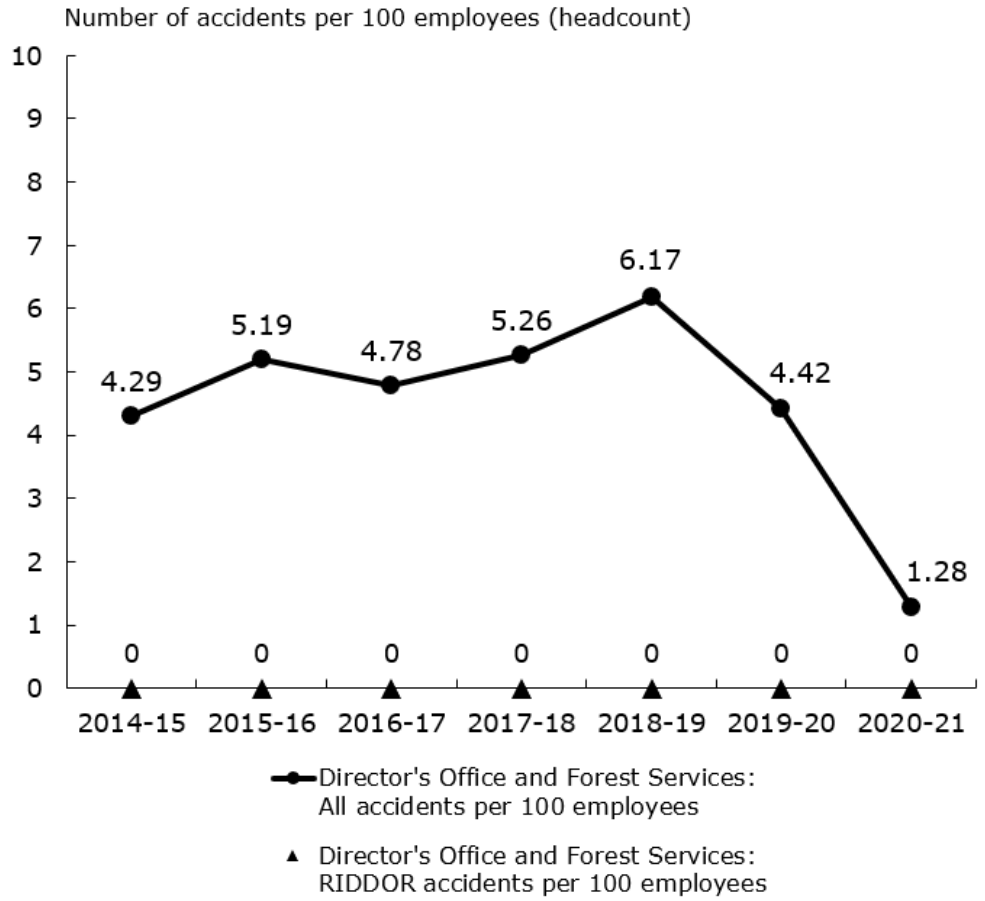


Source: Forestry Commission customer survey conducted with the help of the Rural Payments Agency Customer Insight team. Figures shown are sample based estimates.
Note 1: The indicator figure for Wave 8 of the survey has been revised to 68% since first release.
Note 2: Estimates for Wave 8 are based on a relatively small number of respondents in that survey wave.

The findings of the most recent customer survey covering the October 2020 to March 2021 period are positive and indicate a sustained improvement in performance. This reflects the improvements we are making in our own businesses processes and positive feedback about our staff.

Assessment of change in: Percentage of Forest Services grants and felling license customers who report their customer satisfaction as either very satisfied or satisfied.	
Trend for around five years: Oct-20/Mar-21 compared to Jan-16/Sep-16	Improving

Number of work-related accidents per 100 employees in Forest Services



Source: Forestry Commission administrative data.

Note: 'RIDDOR accidents' are incidents of a type that must be reported to the Health and Safety Executive under the Health and Safety at Work etc. Act 1974 and the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013

The accident rate per 100 employees (headcount) has fallen significantly since last year, from 4.42 to 1.28. This most likely reflects changing working practices during the Coronavirus pandemic, with staff working from home wherever possible.

Assessment of change in: Number of work-related accidents per 100 employees (headcount) in Forest Services	
Five-year trend: 2020-21 compared to 2015-16 (all accidents element)	Improving

Annex 1: Internal Audit Certificate of Assurance

Government Internal Audit Agency

Forestry Commission

INTERNAL AUDIT CERTIFICATE OF ASSURANCE

Forestry Commission (FC) Performance Indicators for the year ended 31 March 2021 have been subject to independent audit by the Government Internal Audit Agency.

We have reviewed the overall governance, risk and control framework for the preparation of the indicators. For each headline indicator, and a sample of other indicators, we have:

- conducted interviews to obtain an understanding of the systems and controls used to generate, aggregate and report on the key data; and
- reviewed the completeness and accuracy of the key data by:
  - assessing relevant supporting documentation used to report the indicators;
  - assessing significant assumptions and judgements where used;
  - testing the documentation which supports the measurement, calculation and estimation; and
  - assessing and testing the source data used to generate the indicators where available.

For the indicators based on information from outside of the FC, we relied on information supplied by other organisations such as Defra and the Environment Agency. We did not carry out any independent verification procedures on the information provided to the FC other than conducting interviews to obtain an understanding of the external information used and the level of information available to support the indicators.

As a result of the procedures carried out and evidence provided, we have obtained reasonable assurance that the indicators are free from material misstatement, and we consider the overall arrangements for the production of the Performance Indicators in the year ended 31 March 2021, to be effective and appropriate.

Sally Flett

Sally Flett FCPFA, ACFS, IIA(Aff)
Head of Internal Audit, Forestry Commission
Government Internal Audit Agency
11 June 2021

Official Statistics

This is an Official Statistics publication, produced with a view to meeting the standards of the *Code of Practice for Statistics* (Office for Statistics Regulation and UK Statistics Authority, 2018) available from https://www.statisticsauthority.gov.uk/code-of-practice/. More information about Official Statistics is available from www.statisticsauthority.gov.uk.

Forestry Commission

Forestry Commission Key Performance Indicators: Report for 2020-21

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