

Forestry Commission Key Performance Indicators

Report for 2019-20

Forestry Commission Key Performance Indicators

Report for 2019-20 (First Release)

Report Part	Contents	Page
	Introduction	3
	Short term trends in the indicators	4
1	Forestry Commission headline indicators, also <u>reported quarterly</u>	11
2	Other Forest Services indicators	25
3	Other Forestry England indicators	63
Annex 1	Internal Audit Certificate of Assurance	76

No	List of maps	Page
1	Percentage of private sector woodland in management, 31 March 2020	18
2	<i>Chalara</i> dieback of ash (<i>Hymenoscyphus fraxineus</i>) confirmed infection sites, 14 May 2020	27
3	<i>Phytophthora ramorum</i> confirmed infection sites as at 31 March 2020	28
4	Interceptions of Oak Processionary Moth as at 31 March 2020	29
5	Locations of felling licenses issued in England, 2019-20	36
6	Woodland Sites of Special Scientific Interest managed by Forest Services via partnership working in target condition, April 2020	44
7	Places within 30 minutes drive time of accessible land in the nation's forests, 2018	64
8	Woodland Sites of Special Scientific Interest managed by Forestry England in target condition, April 2019	70
9	Distribution of all woodland, and woodland managed by Forestry England, March 2020	77

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. As such they show part of how we are contributing to delivery of the government's 25 Year Environment Plan¹.

Our use of indicators 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. We publish:

- Updates on the six headline indicators quarterly².
- Reports on *Government supported new planting of trees in England* twice a year, and presented separately².
- Reports on our full suite of about 60 indicators in this *Indicators Report* annually.

This *Indicators Report 2020* provides the ninth annual monitoring report on indicators we first named in our Corporate Plan 2011-15 and have developed and reported since.

- Part 1 provides the six headline key performance indicators, from page 11.
- Part 2 contains the other Forest Services indicators, from page 25.
- Part 3 has the other Forestry England indicators, from page 63.

Most of the indicators are based on statistical and geographical analysis of Forestry Commission administrative data, the National Forest Inventory, surveys conducted for us by the Forest Research Statistics team, and data available from other parts of Defra Group. Throughout the report we show the statistical sources drawn upon and signpost to undergirding geospatial data on our map-based Forestry Commission Open Data site.

Reports in this statistical series are available from the [Forestry Commission Key Performance Indicators web pages on GOV.UK](#).

The outturns of the indicators have been assured by the Government Internal Audit Agency (see Annex 1). We also acknowledge with thanks the wide range of contributions made by the Forestry Commission senior managers, indicator managers and data managers, and the statistical and geospatial analysts who made this report possible.

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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 Available from the Forestry Commission 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* 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 using a set of 'traffic lights'. The traffic lights 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: Traffic light categories and what they represent

Traffic light	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 and this is shown by the use of grey text for the assessment at the end of the relevant indicator report. 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, 2017, 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 indicators¹

Key Performance Indicator	Short term trend ¹	Page
<u>Part 1. Headline Performance Indicators</u>		11
FOREST SERVICES		
PROTECT		
Number of high priority forest pests in the UK Plant Health Risk Register (UKPHRR)		11
Percentage of known tree felling that is carried out with Forestry Commission approval		16
IMPROVE		
Percentage of woodland in active management (including in the nation's forests)		17
EXPAND		
Area of woodland and rate of new planting of trees		19
FORESTRY ENGLAND		
ORGANISATIONAL		
Cost of managing the nation's forests (per hectare)		23
ECONOMY		
Number of businesses operating in the nation's forests managed by Forestry England		24

 = Improving
  = Little or no overall change
  = Deteriorating
 = Not assessed due to insufficient or no comparable data

Note 1: See page 4 for the method of assessment of short term trends in the indicators.

Table 2: Short term trends in the indicators¹ (continued)

Key Performance Indicator	Short term trend ¹	Page
<u>Part 2. Forest Services Indicators other than Headline Indicators</u>		
FOREST SERVICES		
PROTECT		
Pests and diseases		
Number of additional tree pests and diseases becoming established in England within a rolling 10-year period		25
Other protection indicators		
Measure of woodland resilience to climate change based on the size and spatial configuration of woodland patches within the landscape		30
IMPROVE		
Economic and environmental gain		
Area of woodland in England that is certified as sustainably managed		31
Number apprentices, those with work based diplomas, and university students entering forestry	Apprentices and those with work based diplomas 	32
	University students 	32
Annual increment in England's forests		34
Area of felling licenses issued		35
Gross Value Added from domestic forestry		37
Percentage of the annual growth of trees in English woodlands that is a harvested		38
Volume of timber brought to market per annum from English sources other than from the nation's forests		39
Places for wildlife to prosper		
Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in woodland other than in the nation's forests	PAWS in woodland other than in the Nation's forests 	40
	Open habitat in woodland other than in the Nation's forests 	40

Note 1: See page 4 for the method of assessment of short term trends in the indicators.

Table 2: Short term trends in the indicators¹ (continued)

Key Performance Indicator	Short term trend ¹	Page
<u>Part 2. Forest Services Indicators other than Headline Indicators</u> (continued)		
IMPROVE		
Places for wildlife to prosper (continued)		
Measure of what is happening to the number and variety of species that live in woodland; using Woodland Birds data		41
Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition on land other than in the nation's forests	Favourable or unfavourable recovering condition 	43
	Favourable condition 	43
Woodland ecological condition in England using information from the National Forest Inventory		45
People's health and enjoyment of woodland		
Percentage of people in Priority Places close to accessible woodland other than that in the nation's forests	 (Note 2)	48
Number of visits to woodland from Natural England's Monitor of Engagement with the Natural Environment survey (MENE)		49
Percentage of people actively engaged in woodland		50
EXPAND		
<u>Government supported new planting of trees in England</u> ^(Note 3)	 (Note 2)	51
Net change in woodland area, based on the balance between new planting of woodland, and woodland removal	 (Note 2)	52
Contribution to carbon abatement		
Carbon captured by English woodlands		55
Projected carbon capture in 2050 by Woodland Carbon Code woodland creation projects		56
 = Improving  = Little or no overall change  = Deteriorating  = Not assessed due to insufficient or no comparable data		

Note 1: See page 4 for the method of assessment of short term trends in the indicators.

Note 2: The short term trend assessment of this indicator covers less than 5 years; treat with more caution.

Note 3. Published separately at: Forestry Commission (2020) *Government supported new planting of trees in England: Report for 2019-20*, Bristol: Forestry Commission England, 10 pages.

Table 2: Short term trends in the indicators¹ (continued)

Key Performance Indicator	Short term trend ¹	Page
<u>Part 2. Forest Services Indicators other than Headline Indicators</u> (continued)		
CUSTOMER SERVICE AND BUSINESS METRICS		
Percentage of grant and felling license transactions completed on time or early		57
Percentage of Forest Services grants and felling license customers who report their customer satisfaction as either very satisfied or satisfied	 (Note 2)	58
Number of employees (full-time equivalents (FTEs)) in Forest Services and the Forestry Commission Director's Office		59
Average number of training days organised by the England internal training teams attended per employee (FTE) in Forest Services	 (Note 2)	60
Number of work-related accidents per 100 employees in Forest Services	 (Note 2)	61

 = Improving
  = Little or no overall change
  = Deteriorating
 = Not assessed due to insufficient or no comparable data

Note 1: See page 4 for the method of assessment of short term trends in the indicators.

Note 2: The short term trend assessment of this indicator covers less than 5 years; treat with more caution.

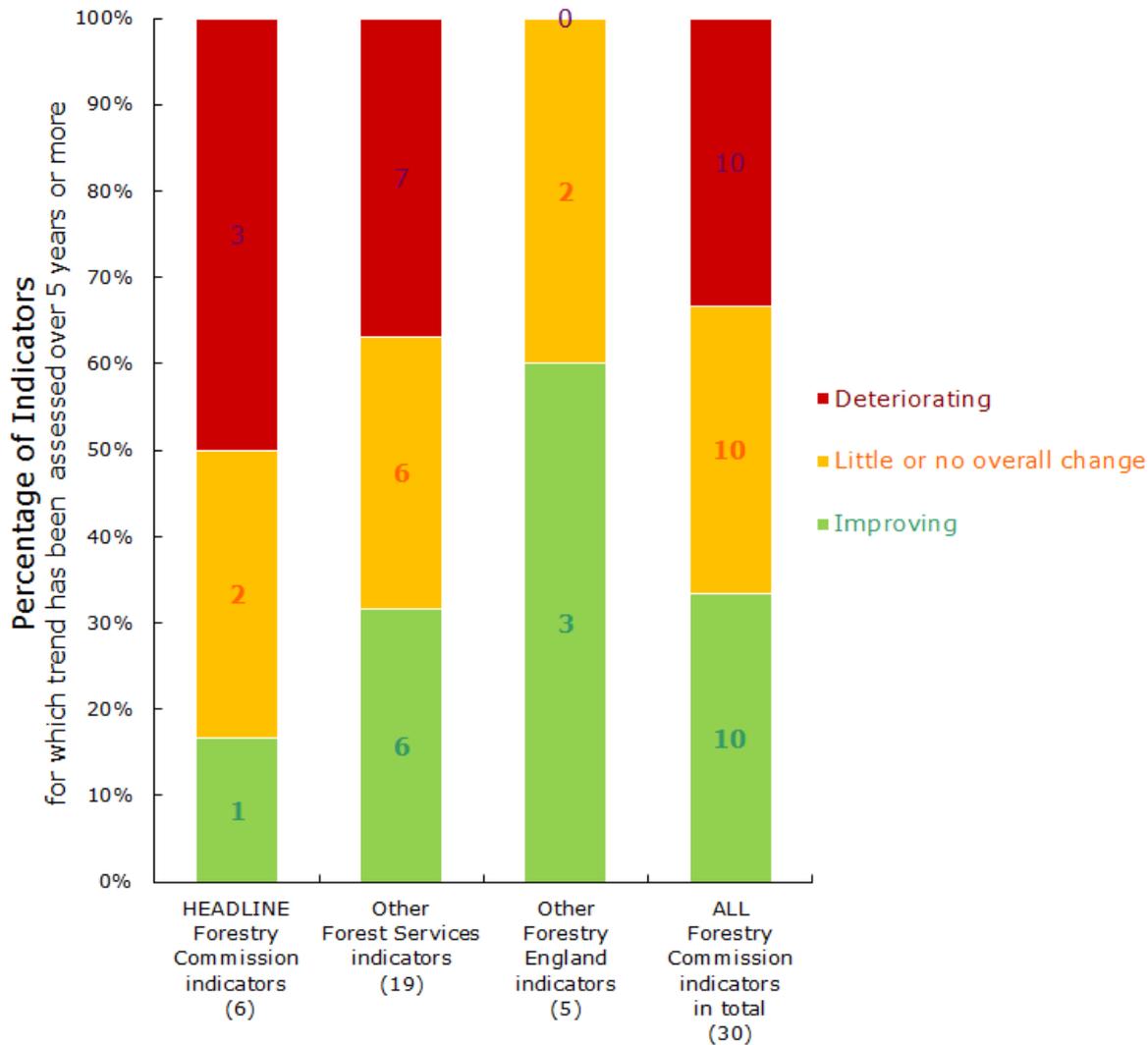
Table 2: Short term trends in the indicators¹ (continued)

Key Performance Indicator	Short term trend ¹	Page
Part 3. Forestry England Indicators other than Headline Indicators		
PEOPLE		
People's health and enjoyment of woodland		
Percentage of people in Priority Places close to accessible woodland in the nation's forests	 (Note 2)	63
Number of people engaged in permitted locally led events and activities in the nation's forests		65
Number of households in the Discovery Pass scheme for the nation's forests		66
Maintain UK Woodland Assurance Standard certification for the nation's forests		67
NATURE		
Places for wildlife to prosper		
Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in the nation's forests	PAWS in the nation's forests  (Note 2)	68
	Open habitat in the nation's forests  (Note 2)	68
Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition in the nation's forests	Favourable or unfavourable recovering condition 	69
	Favourable condition 	69
ECONOMY		
Economic and environmental gain		
Percentage of woodland in active management (Forestry England contribution)	 (Note 2)	71
Volume of timber brought to market per annum from the nation's forests	 (Note 2)	72
ORGANISATIONAL		
Customer service and business metrics		
Number of employees (full-time equivalents (FTEs)) in Forestry England		73
Average number of training days organised by the England internal training teams attended per employee (FTE) in Forestry England	 (Note 2)	74
Number of work-related accidents per 100 employees in Forestry England	 (Note 2)	75

Note 1: See page 4 for the method of assessment of short term trends in the indicators.

Note 2: The short term trend assessment of this indicator covers less than 5 years; treat with more caution.

Figure 1: Summary of assessment of short term trends (of five years or more) in Forestry Commission Key Performance Indicators as at 31 March 2020



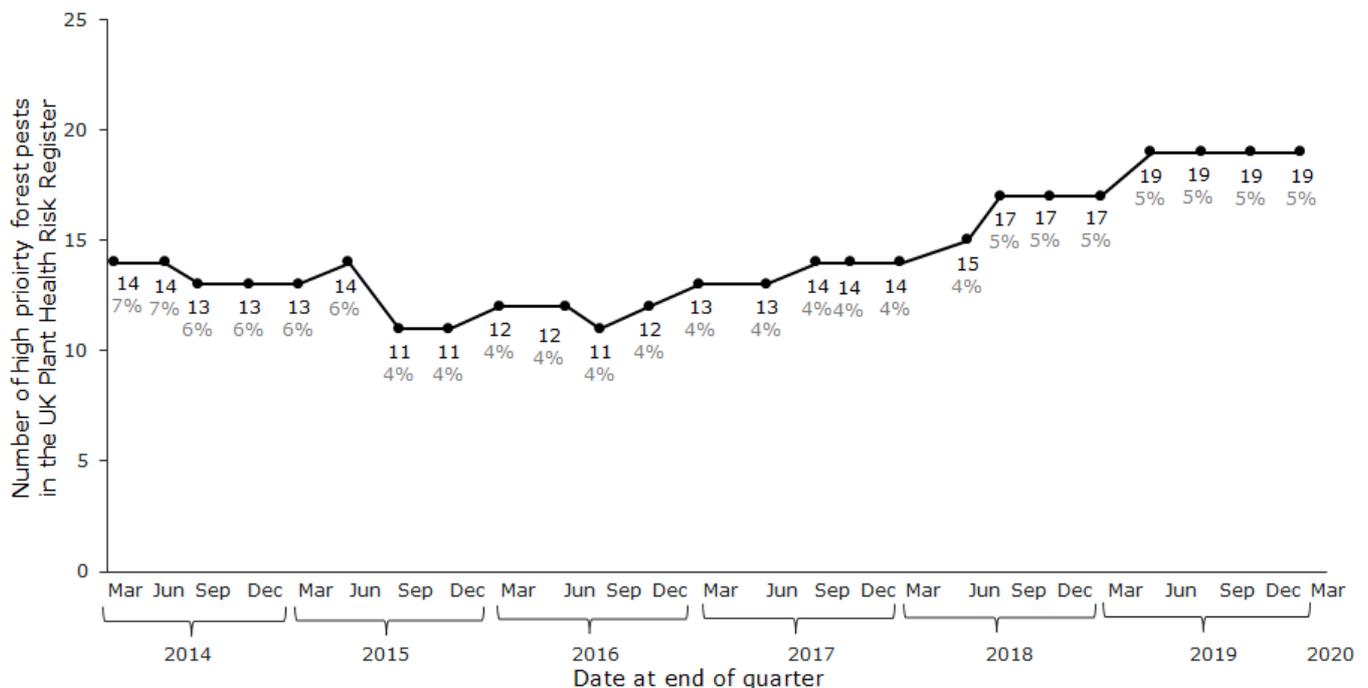
This graph includes only those 30 Forestry Commission England indicators (out of 47 indicators in total) which trend has been assessed over a period of 5 years or more, and for which this simple assessment is more useful. See page 4 for the method of assessment of short term trends in the indicators. 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.

Part 1. Headline Performance Indicators

Forest Services

Protection

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 2020: There are now 361 forest pests on the [UK Plant Health Risk Register \(UKPHRR\)](#), **19 (5%) of which are considered high priority.**

Pests are ranked as high priority if they have 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.

There has been no increase in the number of high priority forest pests in the UK Plant Health Risk Register since 30 June 2019.

Of the 19 pests and diseases listed, nine are currently present in England, with only two being classed as widespread; namely *Phytophthora alni* which affects all alder species in

Great Britain and *Pseudomonas syringae* pv. *aesculi*, that causes horse chestnut bleeding canker.

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 particular³.

Table 3: The 19 high priority forest pests in the UK Plant Health Risk Register with a relative risk rating (mitigated) of 15 or more at end March 2020

Common name	Latin name	Type of pest	Present in the UK?	Mitigated Likelihood score	Mitigated Impact rating	Mitigated Likelihood multiplied by Impact risk rating
Alder rust	<i>Melampsorium hiratsukanum</i>	Fungus	Present: limited	5	4	20
Bleeding canker of horse chestnut	<i>Pseudomonas syringae</i> pv. <i>aesculi</i>	Bacterium	Present: widespread	5	4	20
Shoot blight on cedar/Tip blight on eastern hemlocks	<i>Sirococcus tsugae</i>	Fungus	Present: limited	5	4	20
n/a	<i>Agrilus fleischeri</i>	Insect	Absent	4	5	20
Two-lined chestnut borer	<i>Agrilus bilineatus</i>	Insect	Absent	4	5	20
Sudden oak death; ramorum dieback	<i>Phytophthora ramorum</i>	Oomycete	Present: limited	4	4	16
Chalara ash dieback	<i>Hymenoscyphus fraxineus</i>	Fungus	Present: limited	4	4	16

³ 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>

Common name	Latin name	Type of pest	Present in the UK?	Mitigated Likelihood score	Mitigated Impact rating	Mitigated Likelihood multiplied by Impact risk rating
Red-necked longhorn beetle	<i>Aromia bungii</i>	Insect	Absent	4	4	16
Phytophthora disease of alder	<i>Phytophthora alni</i>	Oomycete	Present: widespread	4	4	16
Thousand cankers disease	<i>Geosmithia morbida</i>	Fungus	Absent	4	4	16
Walnut twig beetle	<i>Pityophthorus juglandis</i>	Insect	Absent	4	4	16
Zigzag elm sawfly	<i>Aproceros leucopoda</i>	Insect	Present: unknown distribution	5	3	15
Emerald ash borer	<i>Agilus planipennis</i>	Insect	Absent	3	5	15
Acute oak decline	<i>n/a</i>	Other	Present: limited	3	5	15
Two spotted oak buprestid	<i>Agilus biguttatus</i>	Insect	Present: limited	3	5	15
Butternut canker	<i>Ophiognomonia clavignenti-juglandacearum</i>	Fungus	Absent	3	5	15
Sachalin fir bark beetle	<i>Polygraphus proximus</i>	Insect	Absent	3	5	15
Cypress jewel beetle or juniper buprestid	<i>Lamprodila festiva</i>	Insect	Absent	5	3	15
A leaf gall nematode	<i>Litylenchus crenatae</i>	Nematode	Absent	3	5	15

Unmitigated risk ratings

The number of forest pests with an unmitigated risk rating of 15 or more at the end of March 2020 is 60 (17%) of those on the UKPHRR.

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) **'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 Guide⁴ (page 6).

C) **'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).

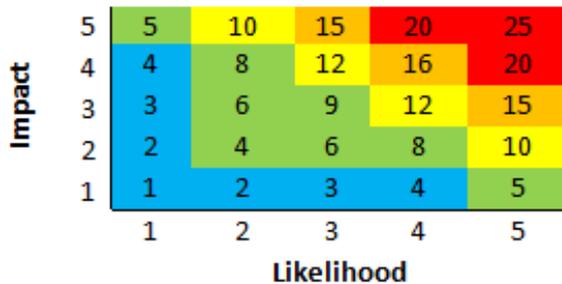
D) **'Value at risk'**. Value at risk is not taken into account in this indicator.

E) **'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.

F) **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.

⁴ <https://secure.fera.defra.gov.uk/phiw/riskRegister/Summary-of-Guidance-for-phase-1-Public-Ver2.pdf>

Possible Relative Risk Ratings:



G) **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.

H) **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 and 31 March 2020.

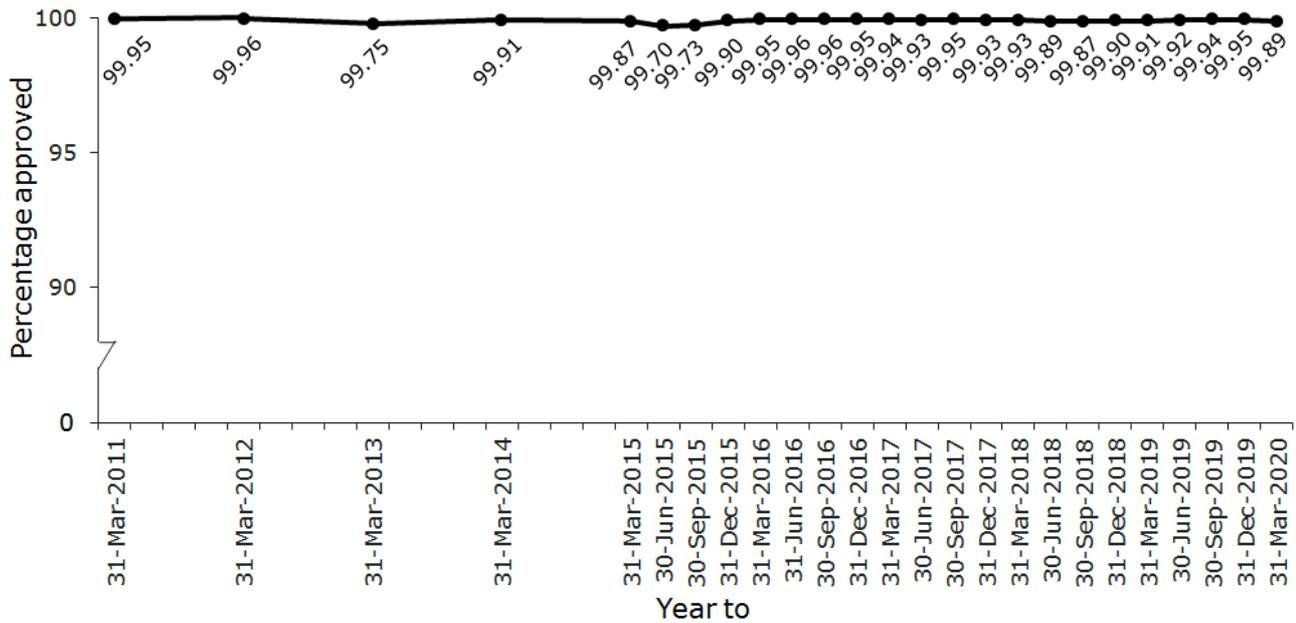
Open Data: Source spreadsheet data is available from the [UK Plant Health Risk Register \(UKPHRR\)](#).

Assessment of change in: Number of high priority forest pests in the [UK Plant Health Risk Register \(UKPHRR\)](#)

Five year trend, Mar-20 compared to Mar-15

Deteriorating 

Percentage of known tree felling that is carried out with Forestry Commission approval (i.e. the % of felling that is licensable by the Forestry Commission that is not illegal felling. This excludes felling with development approval)



Source: Forestry Commission administrative data.

Report for year to 31 March 2020: **99.89% of known tree felling was carried out with Forestry Commission approval.**

The overall figure of legal felling remains at a consistently very high level.

Source: Forestry Commission administrative data

Open Data: Locations of approved felling license applications in England are available from the [Forestry Commission Open Data site](#).

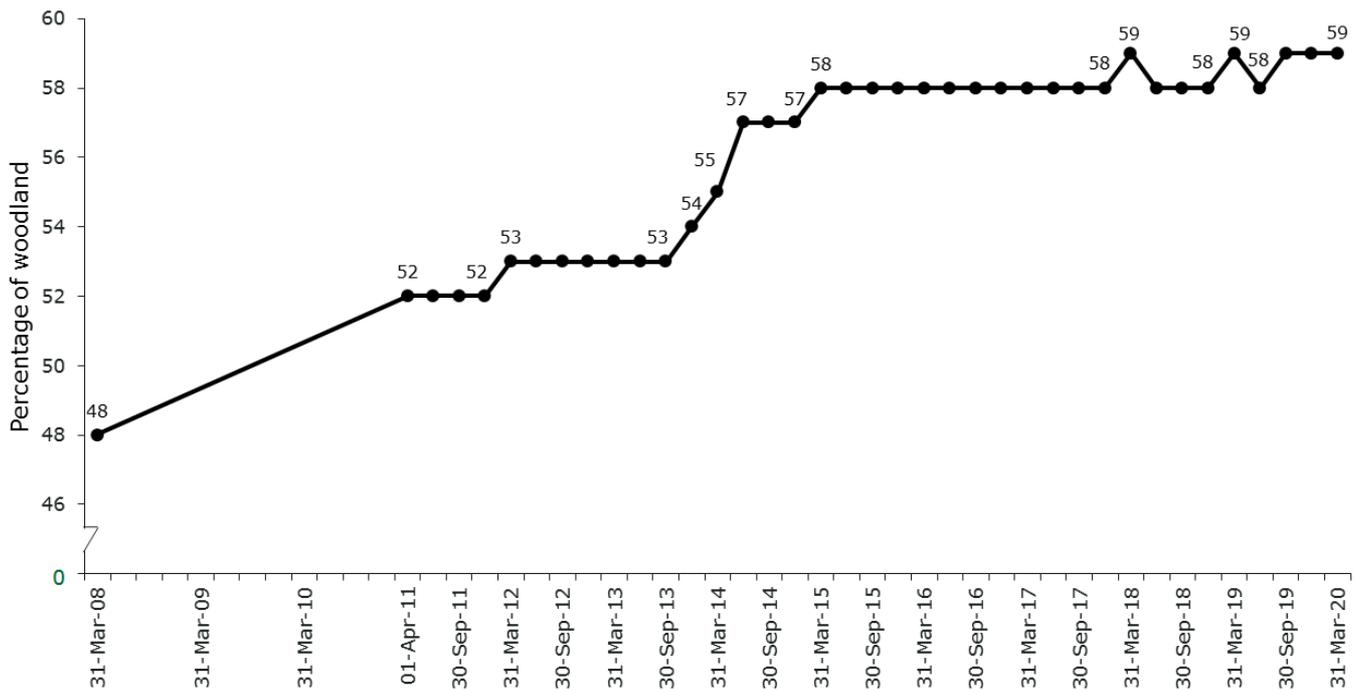
Assessment of change in: Percentage of known tree felling that is carried out with Forestry Commission approval

Five year trend, 31-Mar-20 compared to 31-Mar-15

Little or no overall change 

Improvement

Percentage of woodland in active management (including in the nation's forests managed by Forestry England)



Source: Forestry Commission administrative data and the [National Forest Inventory](#).

Position at 31 March 2020 is that **59 out of every 100 hectares of English woodland are actively managed, totalling 772,000 hectares of woodland in management** (at this date, when rounded).

The percentage of woodland that is actively managed is 59%. Evidence suggests markets remain relatively strong although prices have softened a little.

Source: Forestry Commission administrative data and the [National Forest Inventory](#).

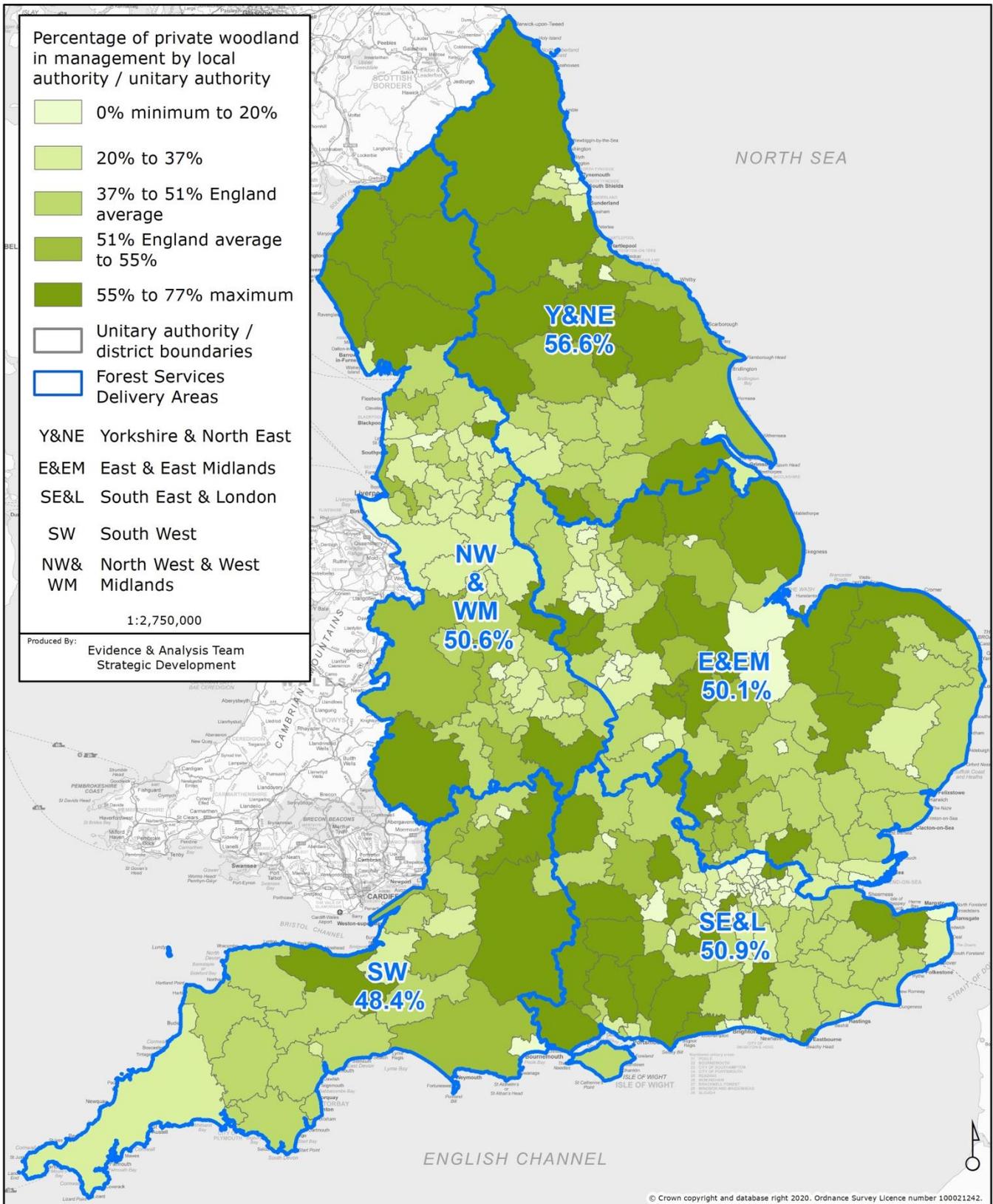
Open Data: Locations of 'managed woodland' in England are available from the [Forestry Commission Open Data site](#).

Assessment of change in: Percentage of woodland in active management (including the nation's forests managed by Forestry England)

Five year trend, 31-Mar-20 compared to 31-Mar-15

Improving 

Map 1: Percentage of private sector woodland in management, 31 March 2020

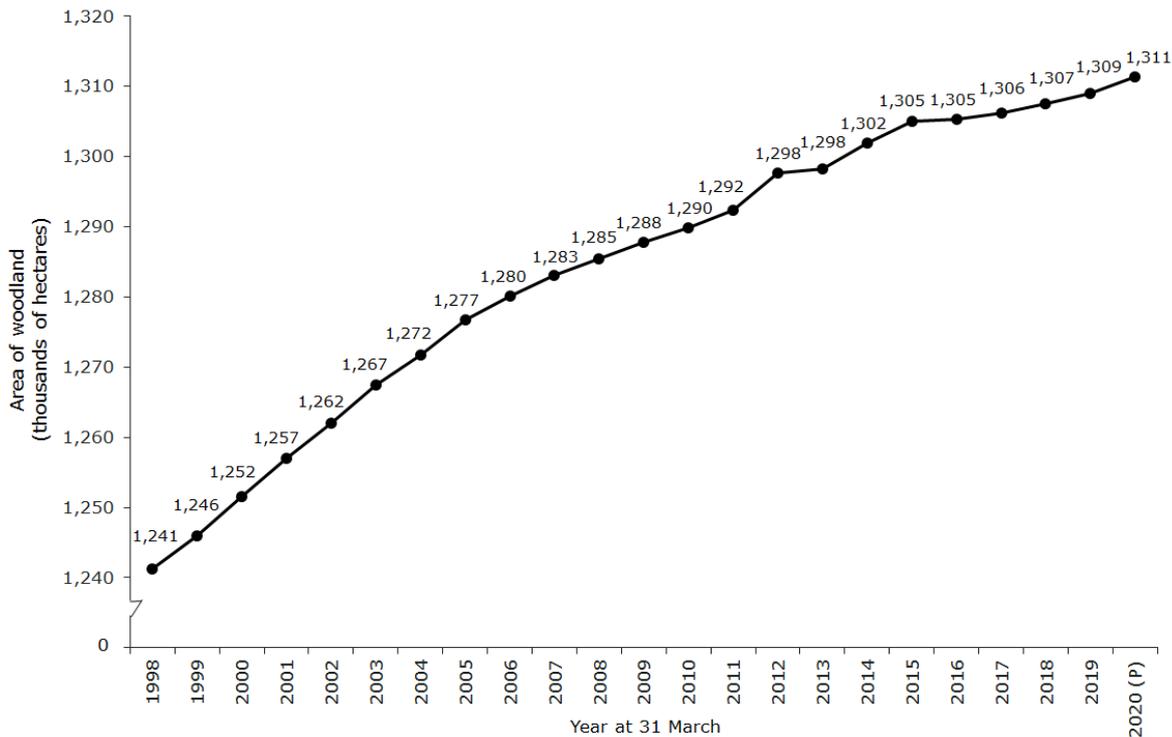


Note: Private sector woodland is defined as all woodland other than the nation's forests managed by Forestry England.

Expansion

Area of woodland, and rate of new planting of trees

A. Area of woodland in England headline indicator: updated annually



Source: *Provisional Woodland Statistics 2020* (Forest Research).

Provisional figure at 31 March 2020: **1,311 thousand hectares (ha) of woodland in England** that equates to 10.05% of the area of England. This is an increase of 2 thousand hectares over the position a year before.

This indicator includes all woodland in England and is reported on an annual basis. This provisional figure is the most up-to-date information available. Confirmation or revision of the 2020 figure is scheduled to be published in *Forestry Statistics 2020* (Forest Research) on 24 September 2020.

Over the last 10 years the area of woodland has increased by an average of 2.1 thousand ha per year. Over the 20 year period from 1999 to 2019 the area of woodland has increased from 9.59% to 10.05% of the area of England.

Note: Figures are based on data obtained from the National Forest Inventory (NFI) and adjusted for new planting, but at present no adjustment is made for woodland recently converted to another land use. Figures at 2018 and 2019 have been revised from those provided in *Forestry Statistics 2019* to take account of updates to the NFI woodland area map.

Assessment of change in: Area of woodland

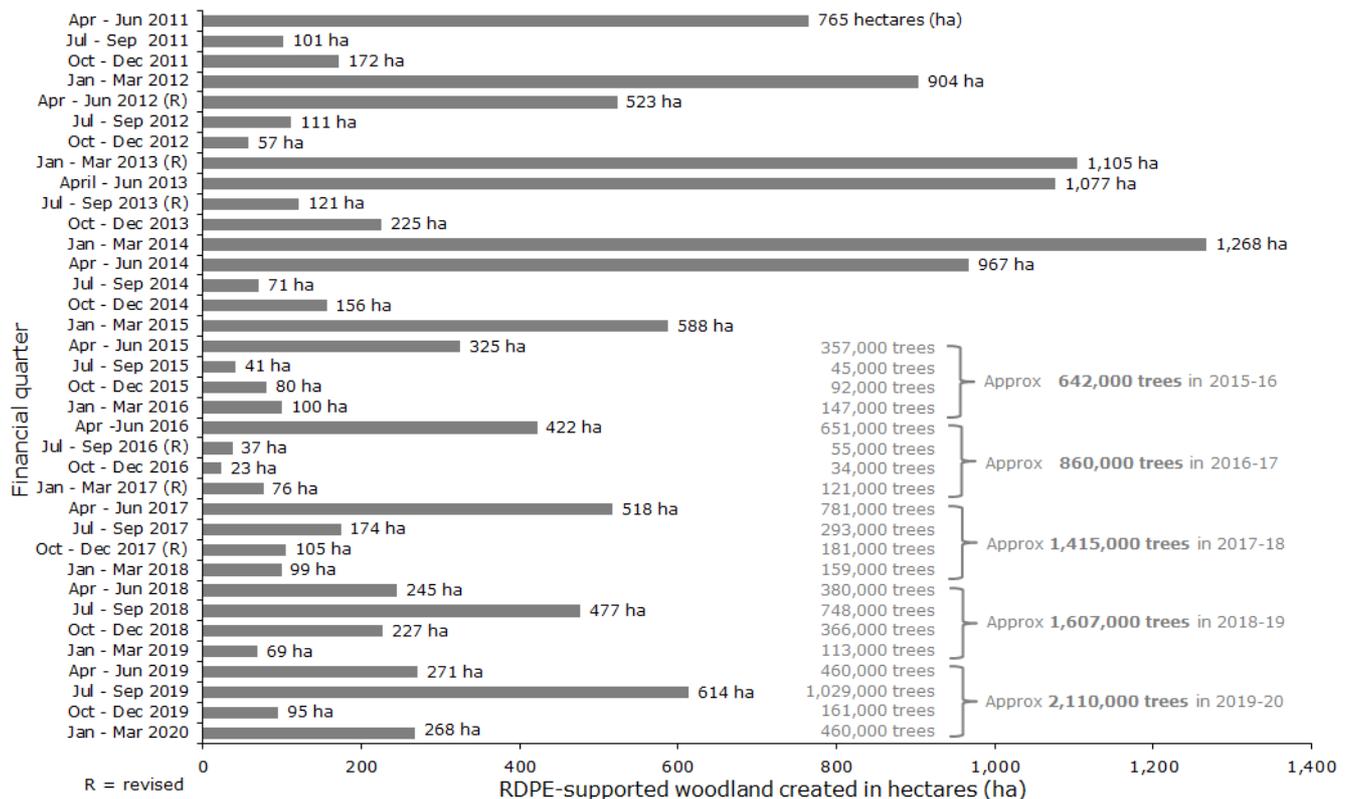
Five year trend, 31-Mar-20 compared to 31-Mar-15

Little or no overall change 

B. Hectares of woodland created (gross) specifically with the grant support of the Rural Development Programme for England – updated quarterly

The statistics in this section report on area of new planting of woodland in England supported by the Countryside Stewardship (CS) Woodland Creation Grant (WCG) incentives, that are a part of the Rural Development Programme for England (RDPE). They are based on the area (in hectares) of grant claims for payment, that have been both a) submitted by or on behalf of the woodland owner, and b) sent for payment in each quarter. Due to most new planting of trees taking place in the winter and the timing of paying the claims, a seasonal trend has been observed in the statistics with more payments made and counted a few months after the winter planting season (as can be seen in the bar chart below). We expect greater levels of new planting to be reported for the April to June, and July to September quarters.

i) RDPE-supported new planting by quarter (in hectares)



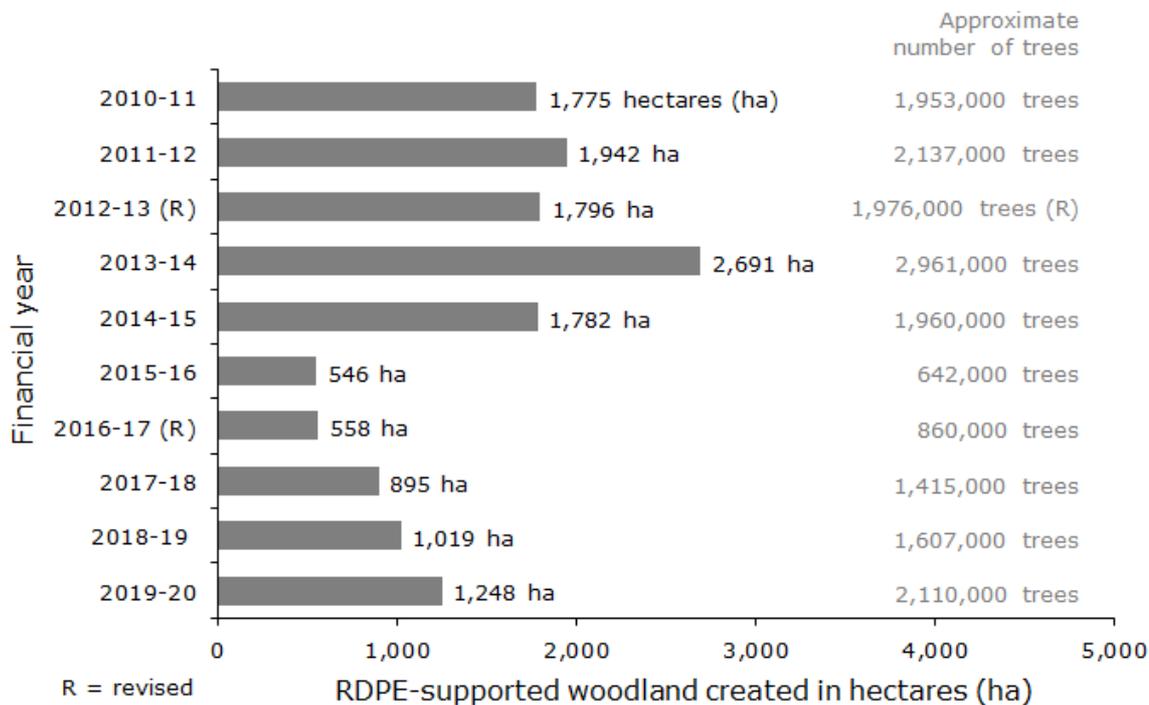
Source: Based on Forestry Commission administrative data. Figures may not sum to annual and year-to-date totals due to rounding.

Woodland creation with RDPE grant support claims approved from January to March 2020 inclusive: **268 hectares (ha)**.

The area of woodland creation claims approved in this quarter is nearly four times the area reported as newly planted with trees in the same quarter of 2018-19 (69 ha), compensating for the relatively smaller area reported as planted in the third quarter of this year.

This brings the total area of claims approved for new planting this year to 1,248 hectares; this is 229 ha more than last year, the largest area planted since 2014-15 and represents an estimated 2.11 million trees planted this year, half a million more than in 2018-19.

ii) RDPE-supported new planting: summary by financial year (in hectares)



Source: Based on Forestry Commission administrative data.

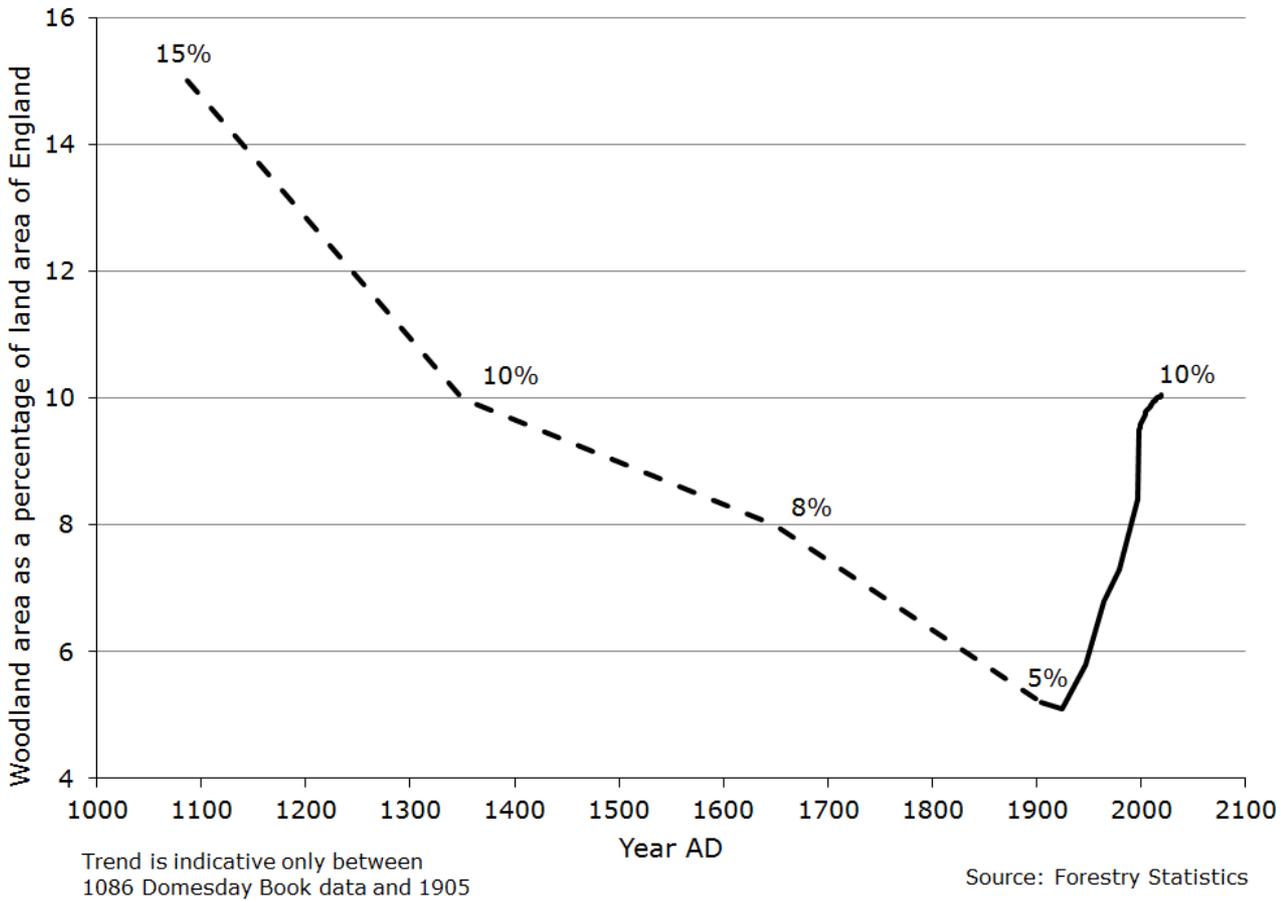
C. Government supported new planting in England

Statistics on new planting of woodland with RDPE support - as shown in sections B i) and B ii) above) - plus the nine other forms of central government support counted, are reported separately in the Forestry Commission's *Government supported new planting of trees in England* statistical series. The latest report available is the *Interim update for the half year April to September 2019-20* (including data available at the mid-year point). Publication of the next update, a full report on new planting in the 2019-20 year is scheduled for publication on GOV.UK on the [Forestry Commission's Key Performance Indicators webpage](#) on 11 June 2020.

D. Total new planting of trees in England

The most recent statistics giving the total new planting of woodland in England in 2019-20 (and previous years), including that with, and without, central Government support, were published in *Forestry Statistics 2019* (Forest Research) on the [new planting and restocking webpage](#). The next report will be in *Provisional Woodland Statistics: 2020 Edition* scheduled for publication on 11 June 2020.

E. Long term trend in woodland as a percentage of land area of England



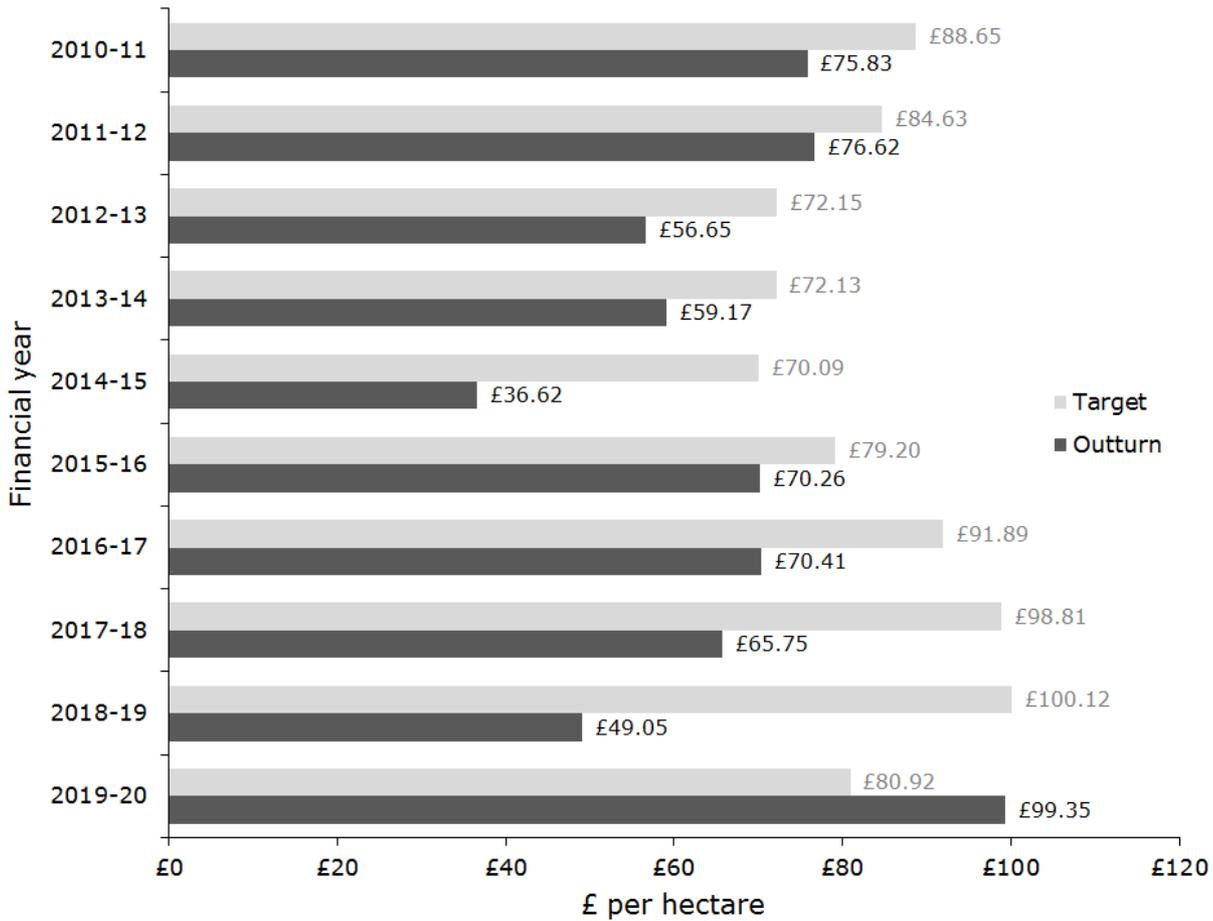
F. Future releases of these statistics

Government has committed to increase tree planting across the UK to 30,000 hectares per year by 2025, to work towards net zero greenhouse gas emissions by 2050 and protect and restore the environment. Hectares of land use change is the industry-accepted measure for woodland creation, as used by forestry investors, land managers applying for grant funding, NGOs creating woodland for biodiversity or recreation, and government organisations administering grants or regulating land use. We will therefore measure delivery of this target in hectares rather than individual tree numbers, and this will be reflected in future releases of these statistics.

Forestry England

Organisational

Cost of managing the nation's forests (per hectare)



Source: Forestry England accounts.

The outturn for 2019-20 financial year is **£99.35 per hectare**, subject to audit and finalization, against a target of £80.92 per hectare.

This additional net cost is largely explained by cancellation of the 2020 Forest Live music concerts due to coronavirus, plus technical accounting adjustments.

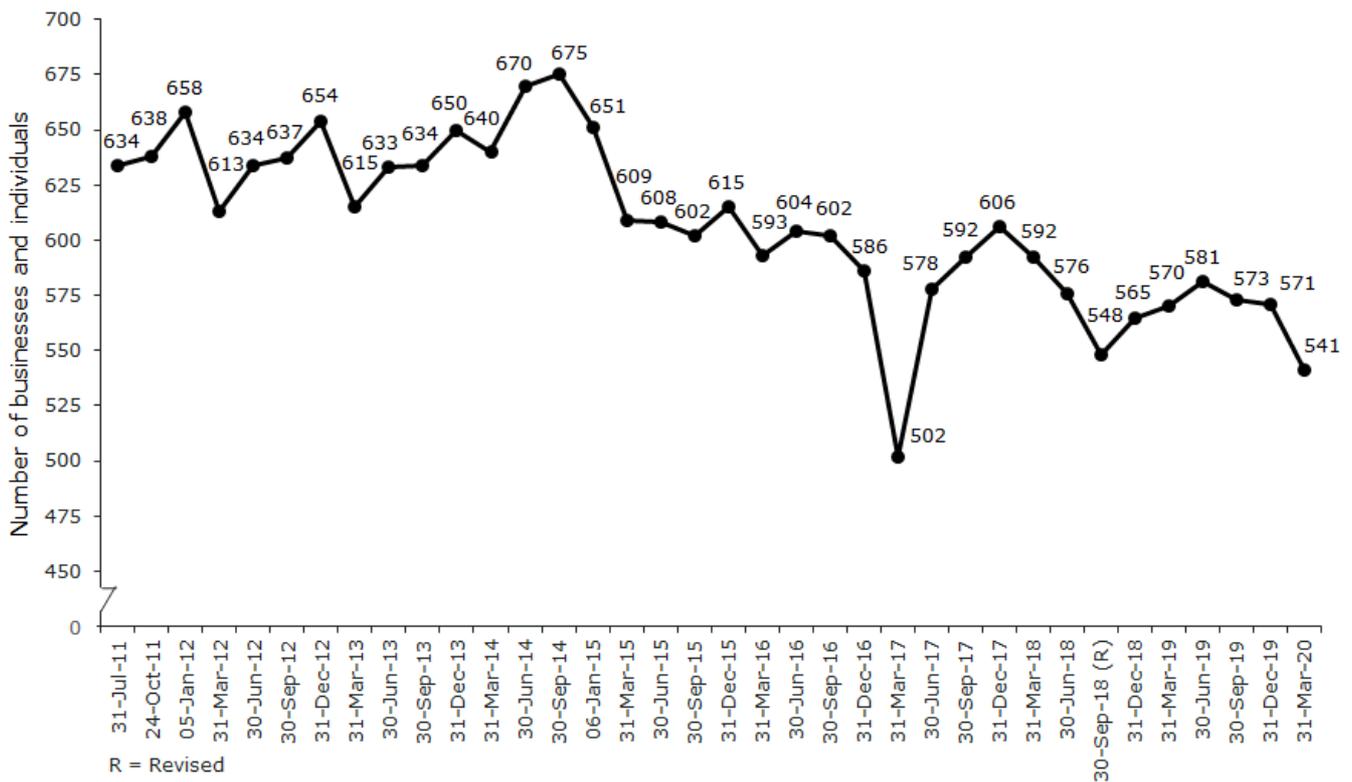
Assessment of change in: Cost of managing the nation's forests (per hectare)

Five year trend, 2019-20 compared to 2015-16

Deteriorating 

Economy

Number of businesses operating in the nation's forests managed by Forestry England



Source: Forestry England administrative data.

Position at 31 March 2020: **541 businesses and individuals.**

The figures show a net decrease of 30 businesses or individual agreements since the last quarter.

This change is primarily as a result of sporting licenses that have ended since the last quarter and are in the process of renewal.

Assessment of change in: Number of businesses operating in the nation's forests

Five year trend, 31-Mar-20 compared to 31-Mar-15

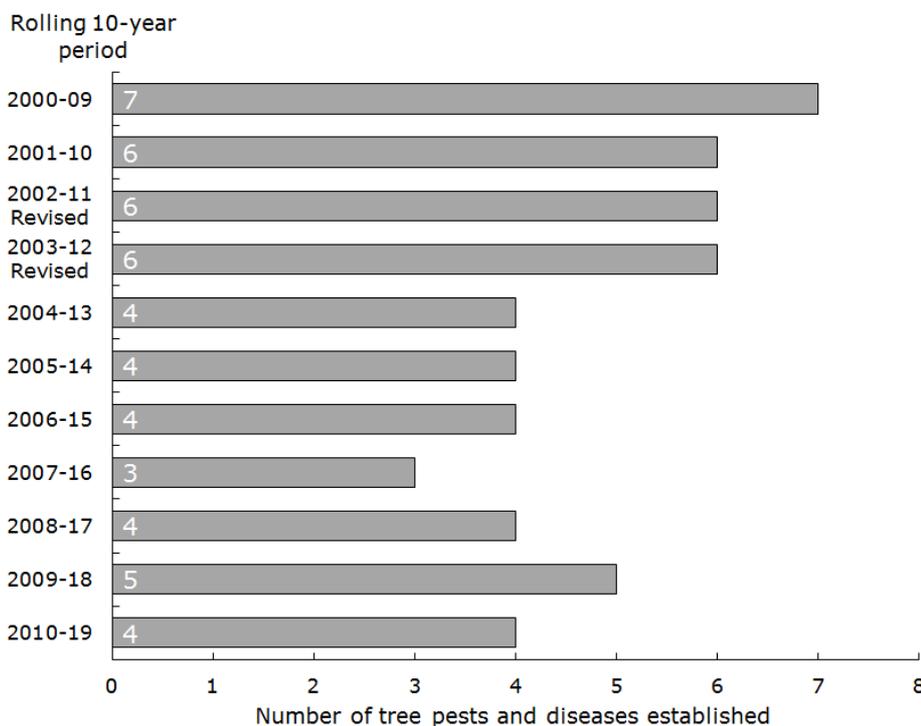
Deteriorating 

Part 2. Other Forest Services Indicators

Protection

Pests and Diseases

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



Source: Forestry Commission administrative data.

Four tree pests and diseases became 'established' in England in 2010-19, namely:

1. **Chalara dieback of ash** (*Hymenoscyphus fraxineus*) considered established in 2012. Ash dieback is present in most parts of the United Kingdom (see Map 3). Its effects are most visible in regions where the fungus has been present for the longest time, and where local conditions are most suitable for the fungus. Forest Research has produced [guidance](#) that describes the disease, summarises current advice, and signposts to additional resources.
2. **Oriental chestnut gall wasp** considered established in 2016. This is a larval pest of sweet chestnut trees. The 'grubs' cause abnormal growths, called galls, to form on the buds, leaves, and petioles (leaf stalks). In high numbers the galls can weaken the trees and make them more vulnerable to other pests and diseases. Severe attacks can result in tree decline. It is known to be present on over 100 sites across southern England and the Midlands.

3. **Sweet chestnut blight** caused by the fungus *Cryphonectria parasitica*, and considered established in 2017. As part of ongoing surveillance activity by Forestry Commission and the Animal and Plant Health Agency, new outbreak sites have been detected in London, Buckinghamshire, Derbyshire, West Sussex, Devon and Cornwall and infection appears to have re-emerged on several sites previously subject to statutory destruction measures. Surveillance is ongoing at new and historic sites (42 in total) to determine the extent of the disease, with a view to removing infected trees where possible.
4. **Elm zigzag sawfly** (*Aproceros leucopoda*), considered established in 2018. First identified near Dorking in Surrey in 2017, it has subsequently spread across a wide area of south east England and the east Midlands. The full extent of the sawfly's distribution is not known, but it is expected that it will continue to spread. Elm zigzag sawfly has the potential to become a major competitor of other foliage-feeding species on elm.

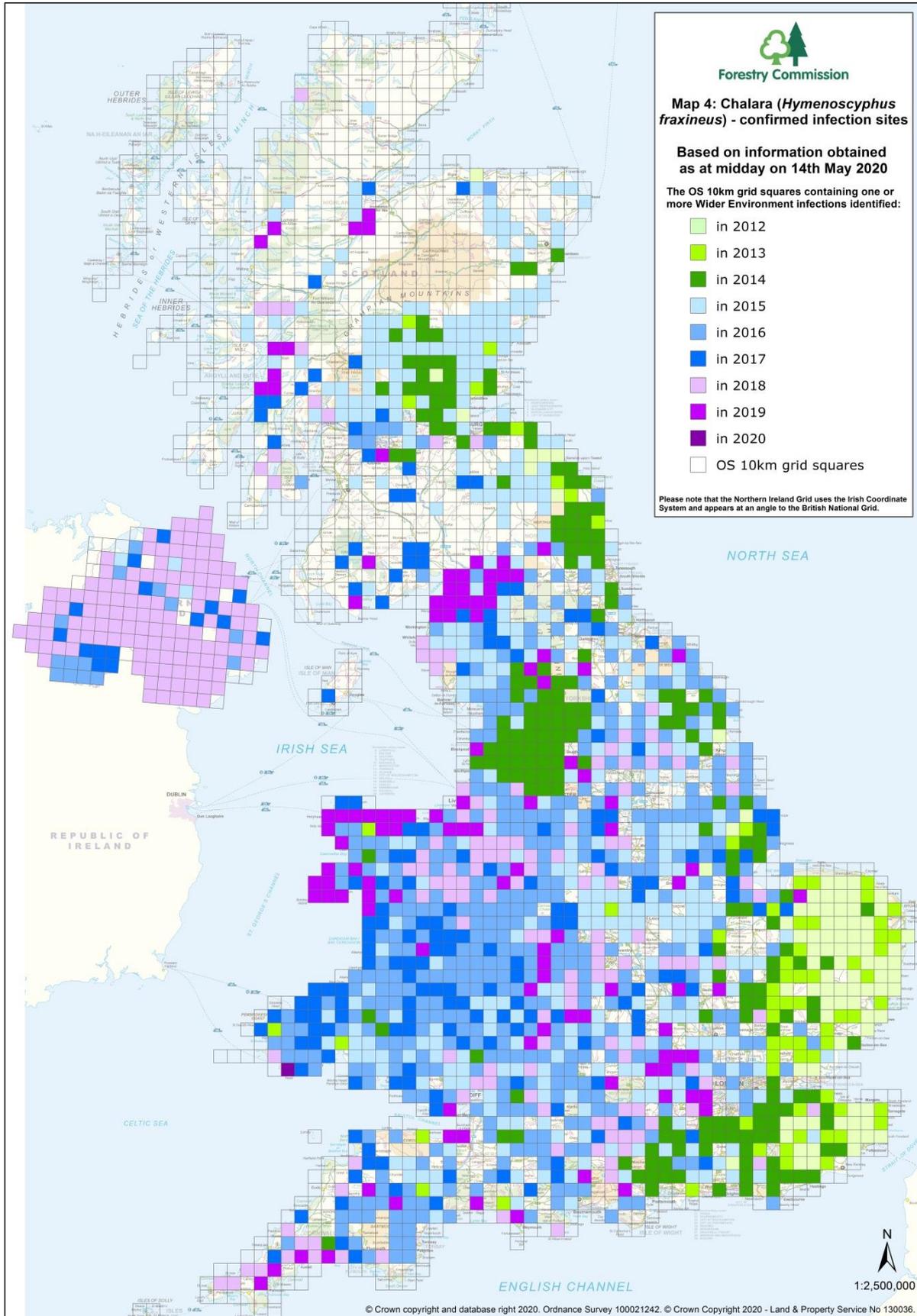
A range of other trees pests and diseases are considered established in England. These include for example *Phytophthora ramorum* considered established in 2003. Its confirmed infection sites are shown at Map 4. In addition Map 5 shows the interception sites of the Oak Processionary Moth considered established in 2006.

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

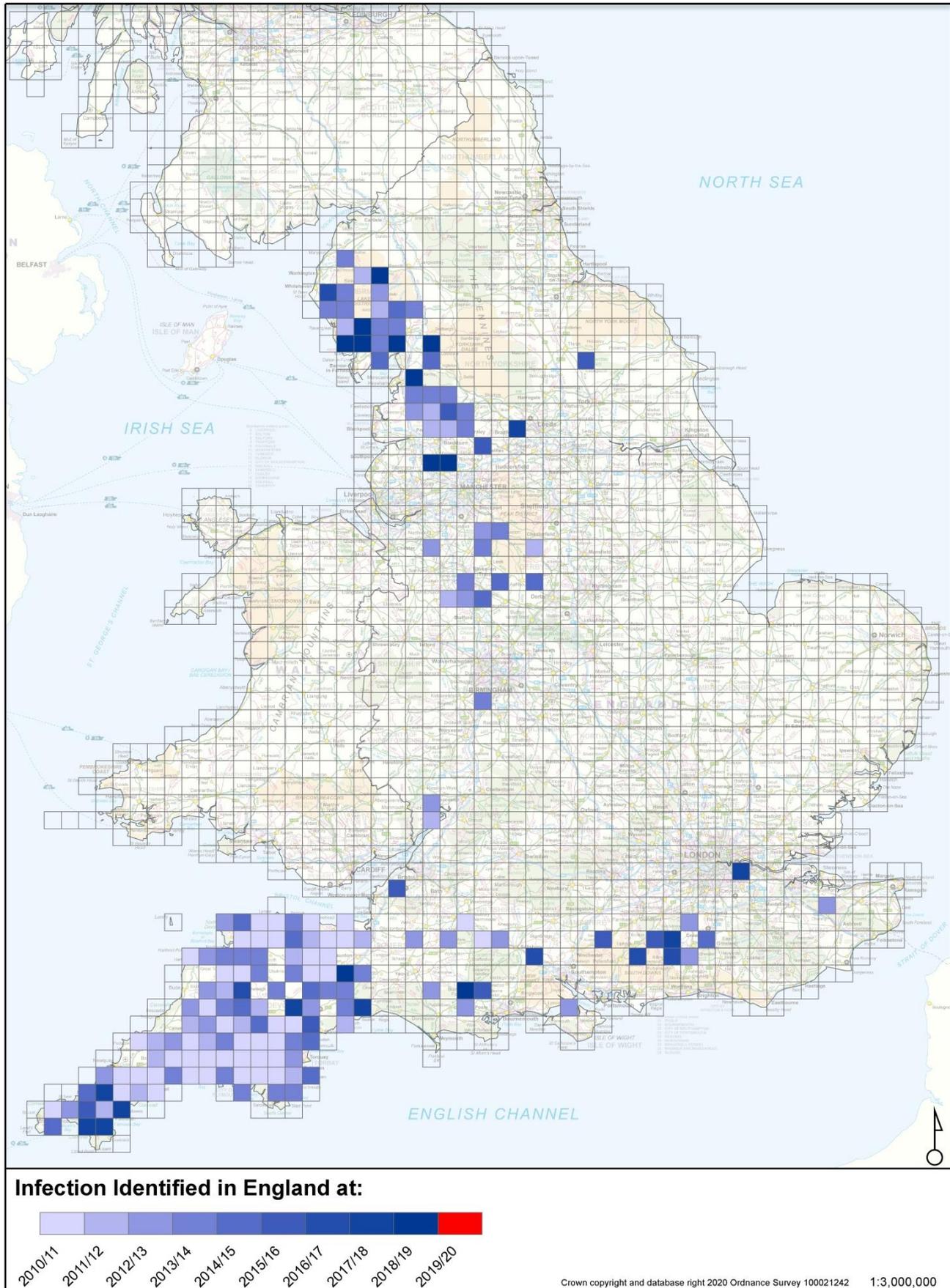
Five year trend, 2010-19 compared to 2005-2014

Little or no overall change 

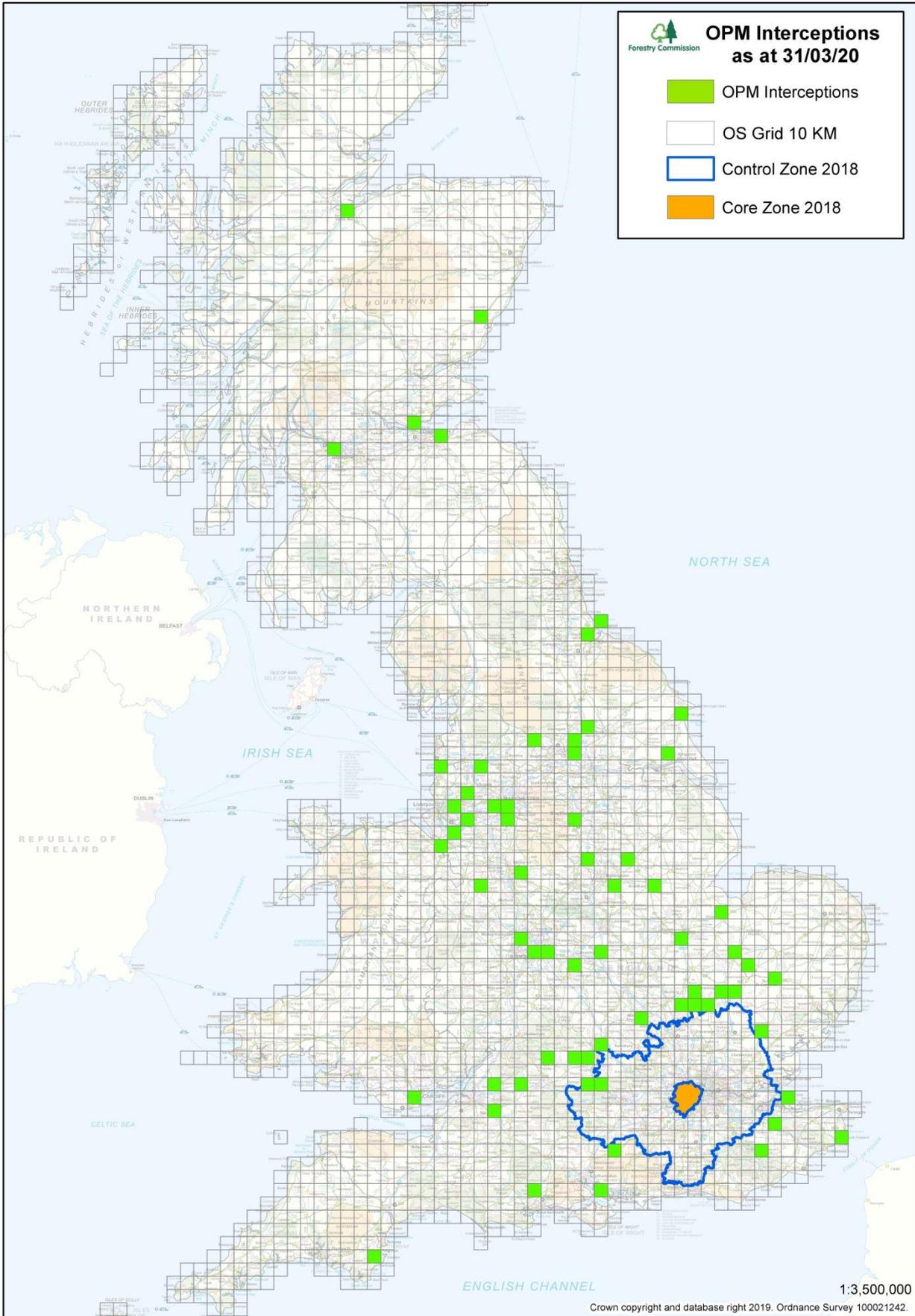
Map 2: Chalara dieback of ash (*Hymenoscyphus fraxineus*) confirmed infection sites, 14 May 2020



Map 3: *Phytophthora ramorum* confirmed infection sites as at 31 March 2020

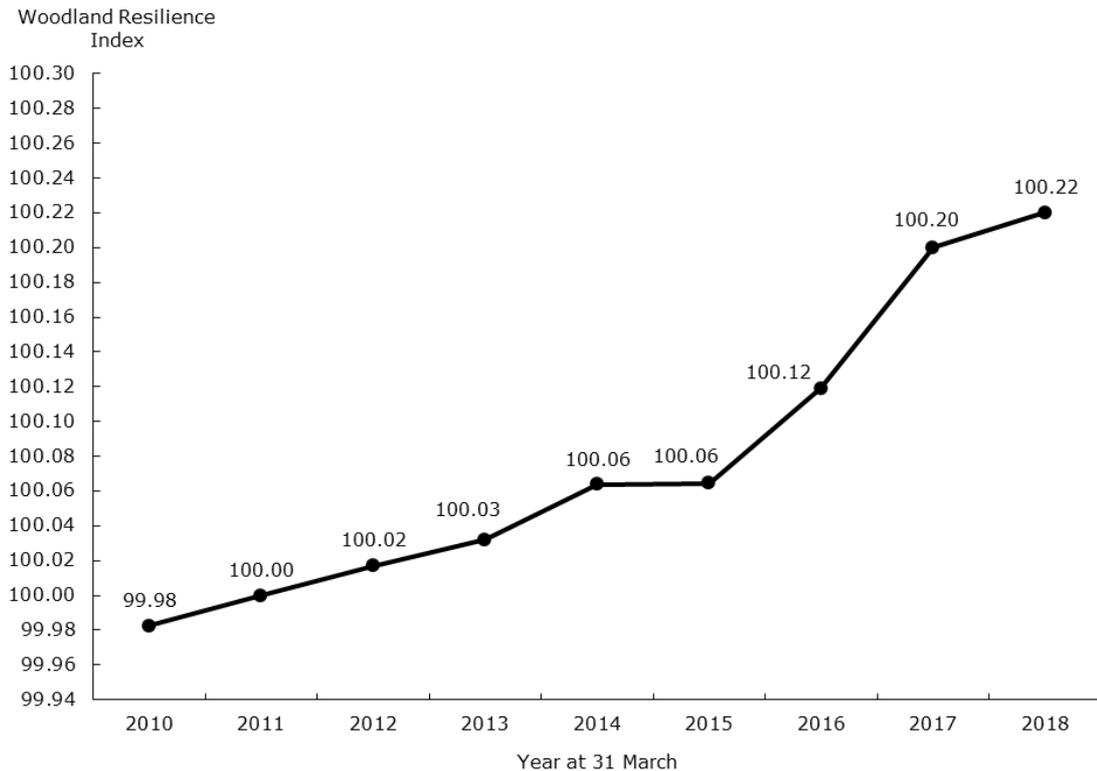


Map 4: Interceptions of Oak Processionary Moth as at 31 March 2020



Other Protection Indicators

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 biodiversity in a fragmented landscape, especially under a changing climate. In this indicator, connectivity is a measure of 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 is the last date for which data is available.

Open Data: The National Forest Inventory woodland map is available from the [Forestry Commission Open Data site](#).

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

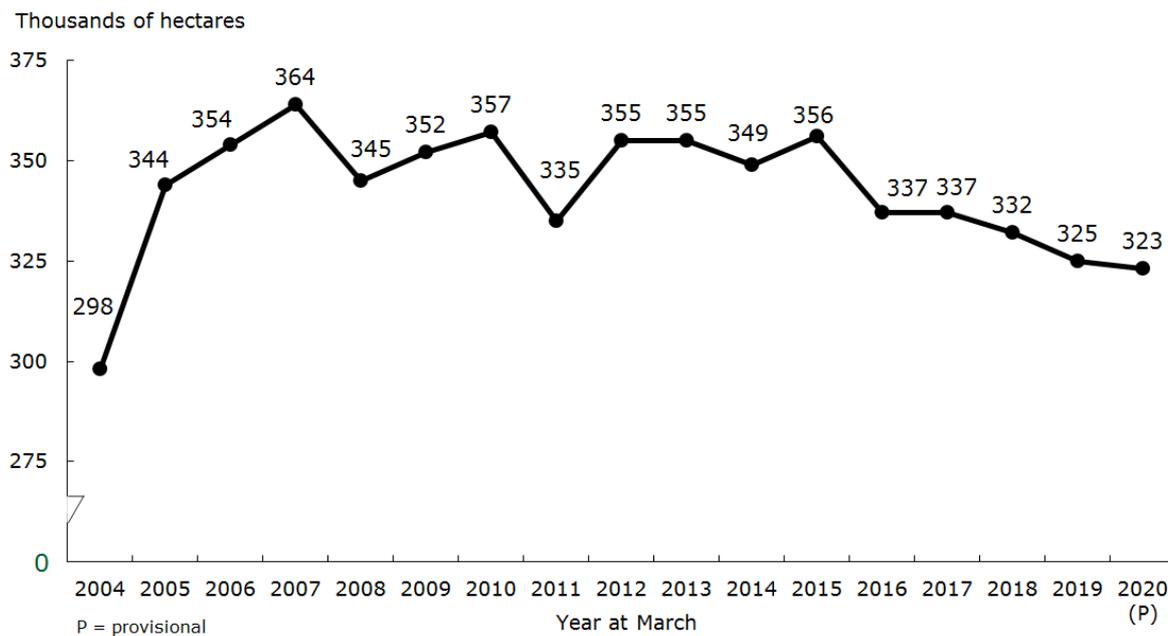
Five year trend, 31-Mar-18 compared to 31-Mar-13

Little or no overall change 

Improve

Economic and environmental gain

Area of woodland in England that is certified as sustainably managed



Source: [Provisional Woodland Statistics 2020](#) (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.

Open Data: More detail on certified woodland areas is available from the [Forestry Statistics](#) webpages of the Forest Research website.

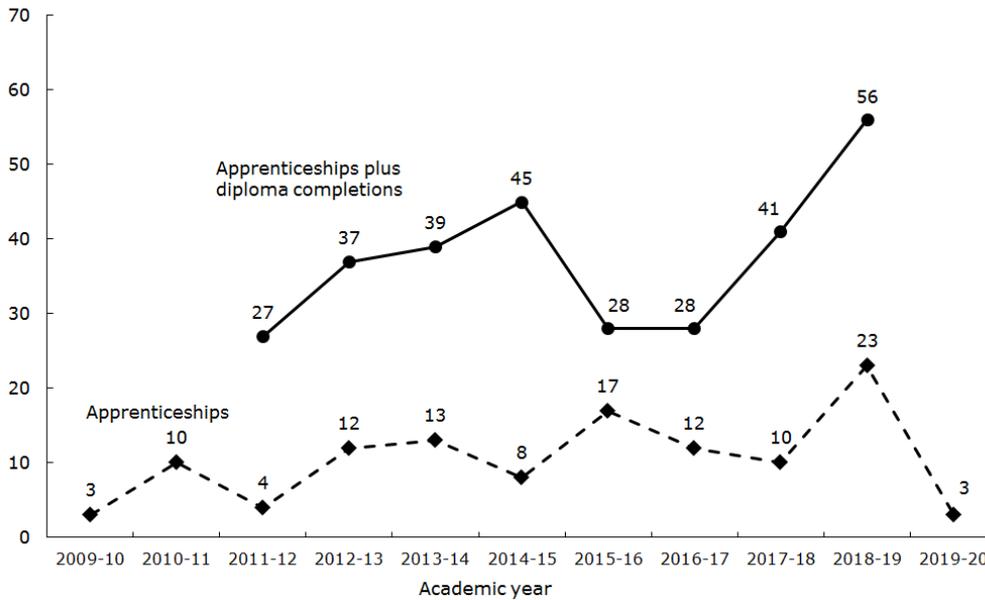
Assessment of change in: Area of woodland in England that is certified as sustainably managed

Five year trend, 31-Mar-20 compared to 31-Mar-15

Deteriorating 

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

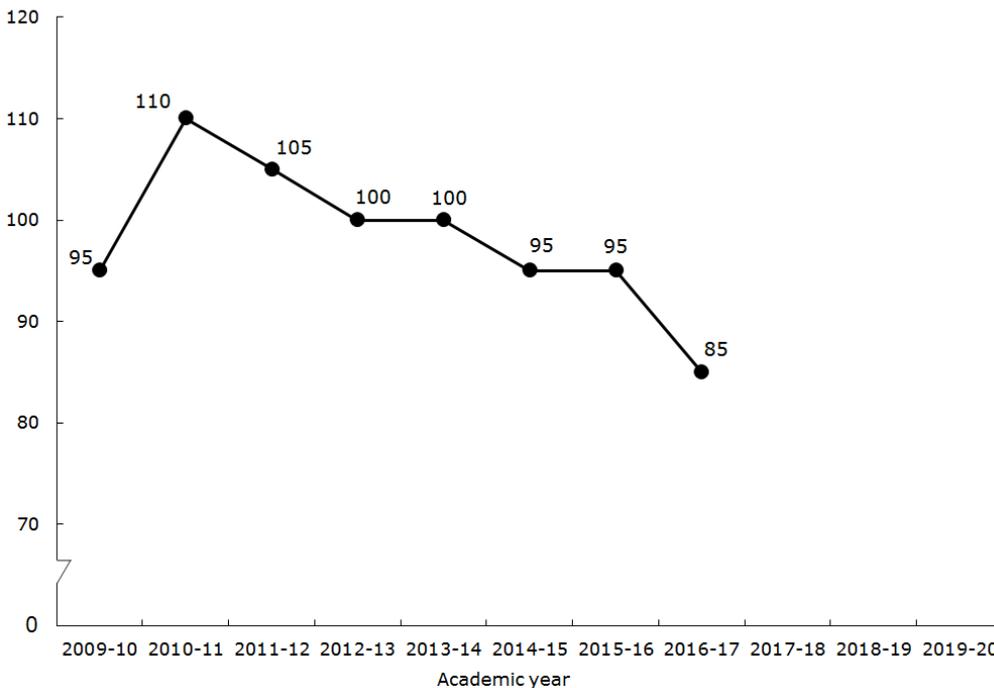
Number of forestry apprenticeships and diploma completions



Source: [LANTRA](#).

Note: Data on diploma completions was unavailable to us for the 2019-20 year.

Number of university leavers entering forestry and logging



Source: [Higher Education Statistics Agency \(HESA\)](#) Destination of Leavers of Higher Education survey.

Note: Data for 2017-18 is due to become available in HESA's forthcoming [Higher Education Graduate Outcomes Statistics: UK, 2017-18](#).

The forthcoming discontinuation of the Trees and Timber Framework and the transition to the new Forest Operative standard has been reflected in the small number of apprenticeship completions in 2019-20. The transition continues to be slow, with few training providers yet offering the new standard. Additionally there is at present limited availability of assessment to validate successful completion of apprenticeships.

There is no additional data to report yet on the number of university leavers with forestry qualifications entering forestry and logging; there were 85 in 2016-17.

Assessment of change in: Number of apprentices, those with work based diplomas, and university students entering forestry

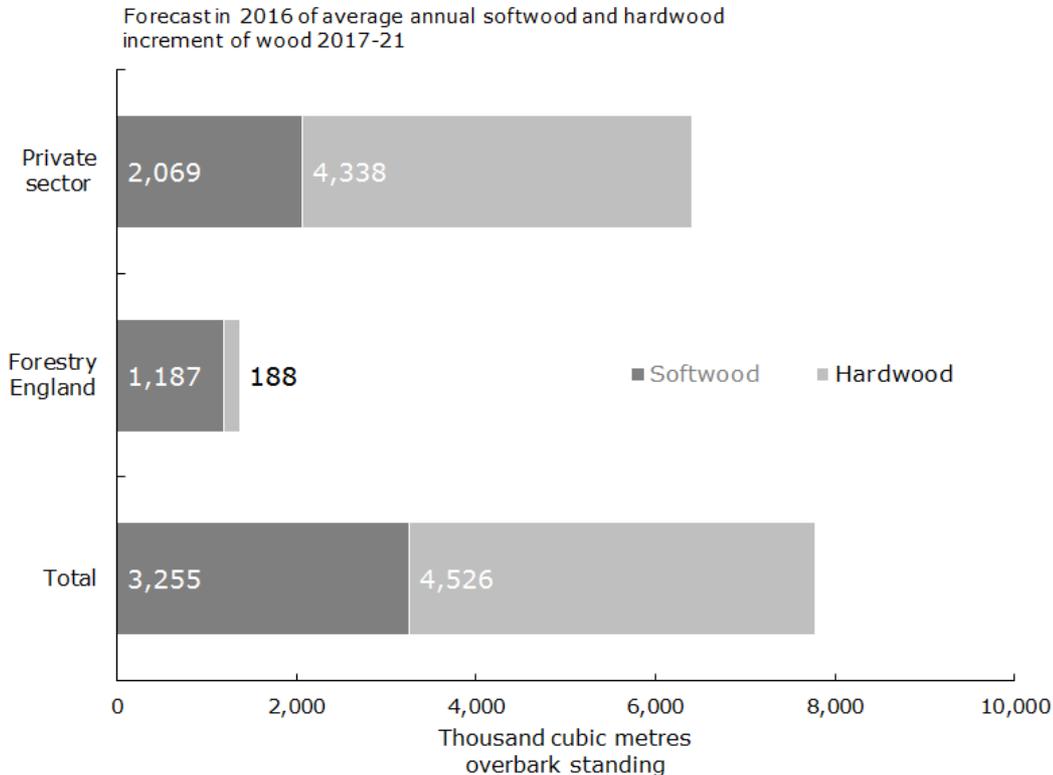
Apprentices and diploma completions, five year trend, 2018-19 (latest data) compared to 2013-14

Improving 

University leavers, five year trend, 2016-17 (latest data) compared to 2011-12

Deteriorating 

Annual increment of volume of wood in England's forests



Source: [National Forest Inventory forecasts](#) (Forest Research). The softwood and hardwood estimates shown use consistent assumptions about woodland management.

The average annual softwood increment, i.e. growth of wood, is forecast for the period 2017-21 to be 3.3 million cubic metres overbark standing. This is made up of 1.2 million cubic metres from the nation's forests managed by Forestry England and 2.1 million cubic metres from 'private' woodland (i.e. woodland not within the nation's forests).

The average annual hardwood increment is forecast for the period 2017-21 to be 4.5 million cubic metres overbark standing. This is made up of 0.2 million cubic metres from the nation's forests and 4.3 million cubic metres from 'private' woodland.

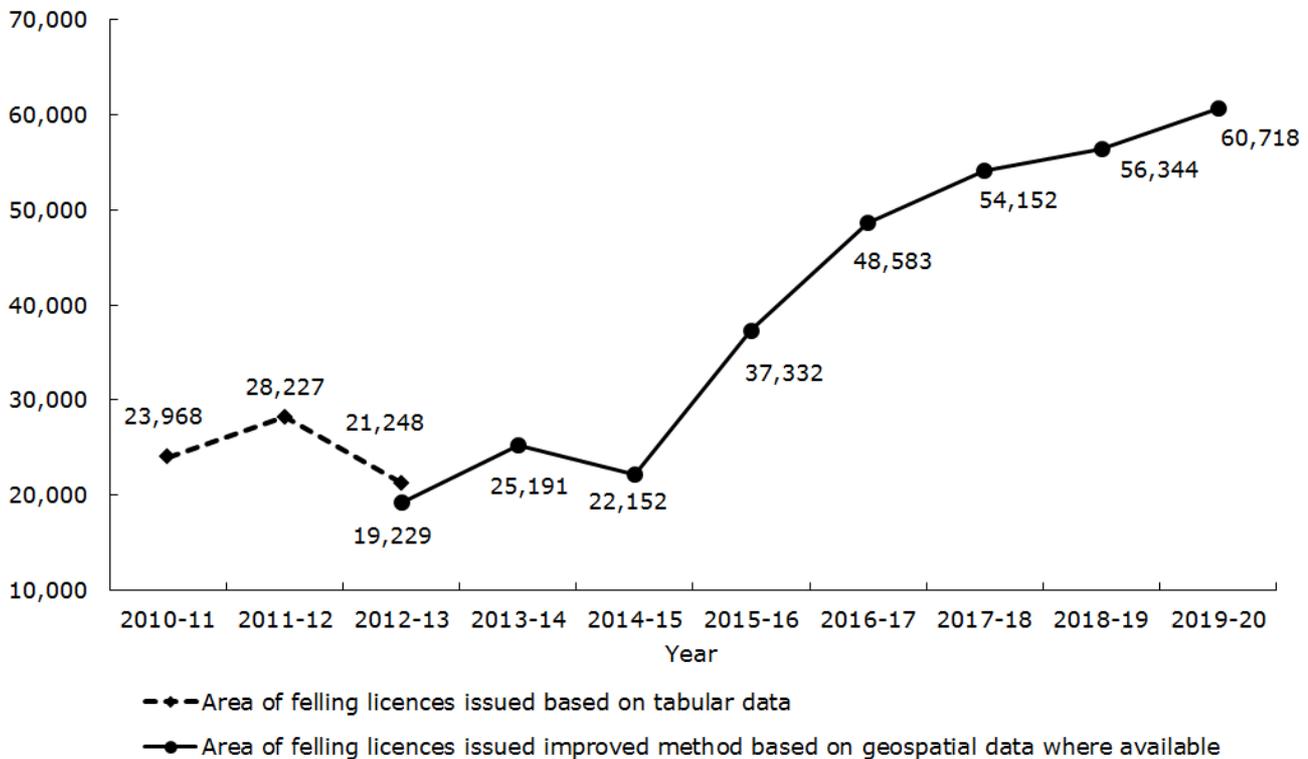
Assessment of change in: Annual increment of volume of wood in England's forests

This indicator

Not assessed due to insufficient comparable data ⋮

Area of felling licenses issued

Area of felling licences issued per annum (Hectares)



Source: Forestry Commission administrative data.

This indicator is one way of measuring woodland owners' intent to actively manage their woodland. It shows a continued improvement with an 8% increase in the area of woodland (in hectares) granted a license for tree felling in 2019-20 compared to the previous year.

The number of felling licenses granted has also increased from 2,680 in 2018-19 to 3,096 in 2019-20 of which 520 licenses (17%) were associated with an approved [Woodland Management Plan](#). Of the remaining 2,576 licenses approved in 2019-20, some 70% were submitted online through our [Felling License Online](#) service.

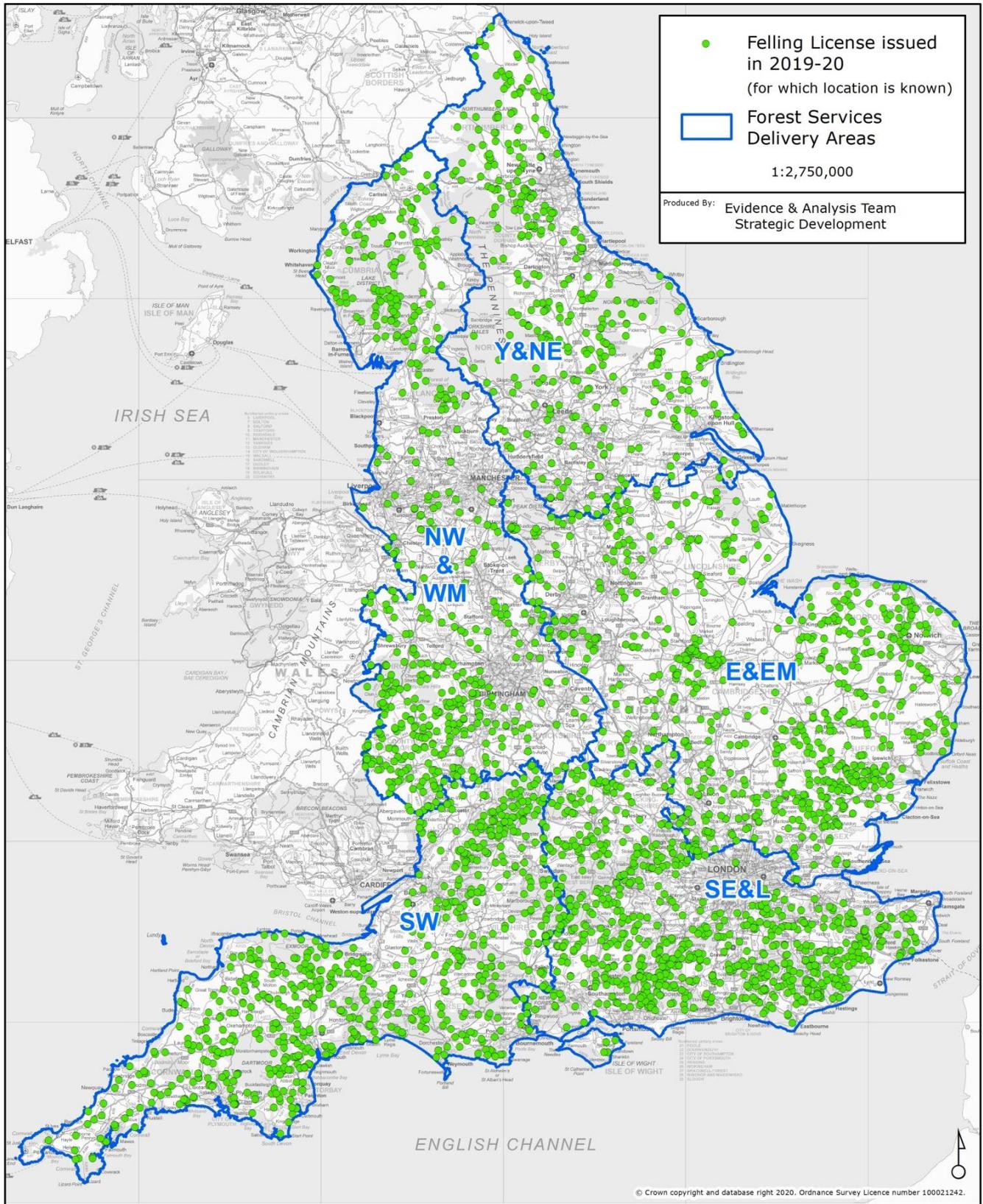
Open Data: Locations of approved felling license applications are available as geospatial data from the [Forestry Commission Open Data site](#).

Assessment of change in: Area of felling licenses issued

Five year trend, 2019-20 compared to 2014-15

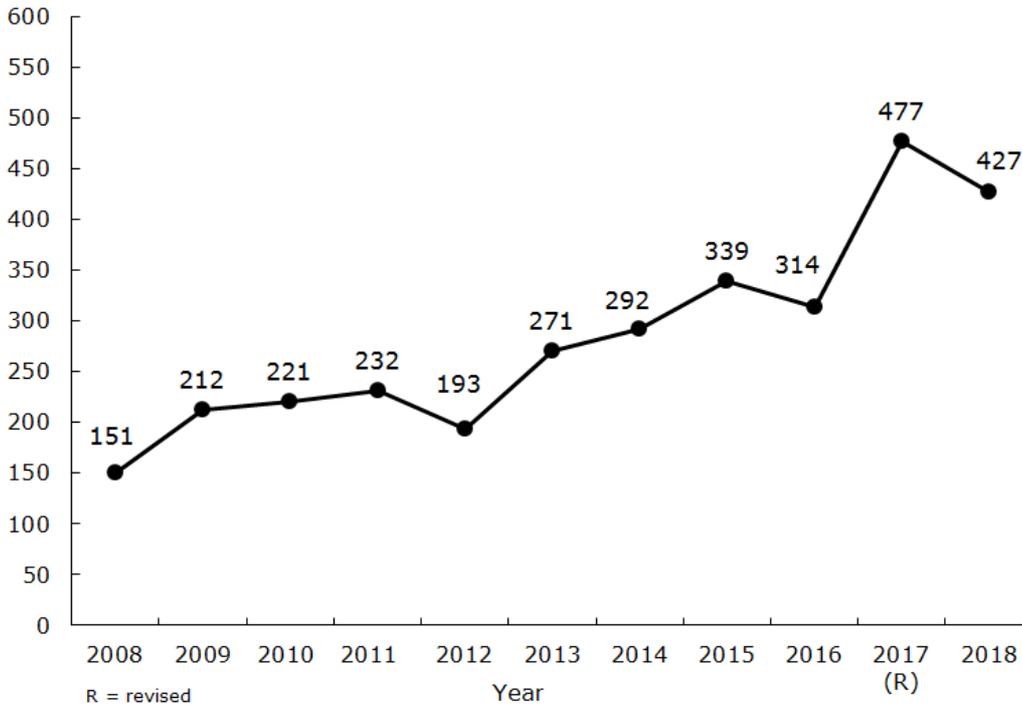
Improving 

Map 5: Locations of felling licenses issued in England, 2019-20



Gross Value Added from domestic forestry

Approximate gross value added (England, £ million)



Source: [Annual Business Survey 2018 regional results](#) (Office for National Statistics).

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.

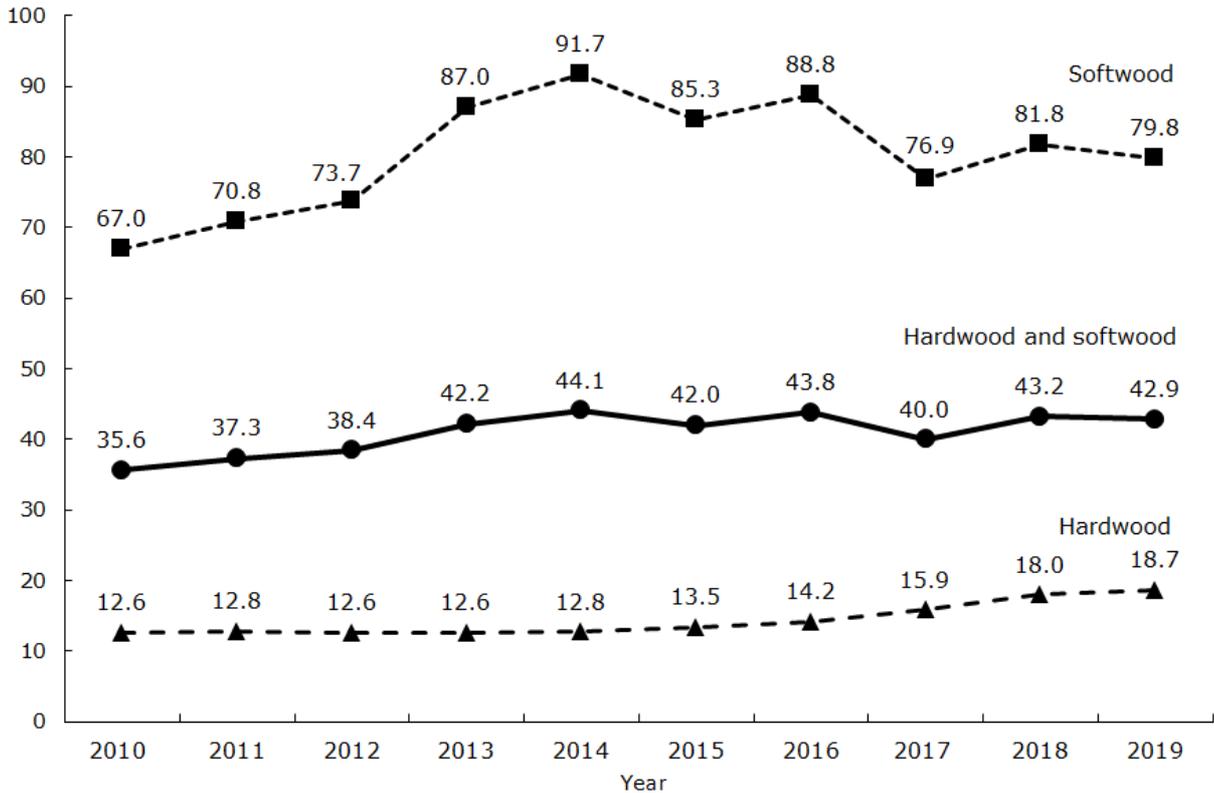
Assessment of change in: Gross Value Added from domestic forestry

Five year trend, 2018 compared to 2013

Improving 

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

Percentage of annual growth of trees in English woodland that is harvested



Note: Figures for 2010 to 2018 have been revised to reflect late updates reflect late updates to administrative or survey data.

Source: Forest Research statistics on [UK wood production and trade](#) and [National Forest Inventory team forecasts](#).

Although greater levels of harvesting of timber have yet to be reached, the market demand for timber is being met. There is an opportunity to considerably increase the hardwood harvesting if new markets are developed. Strong demand for softwood persisted through 2019 and into 2020.

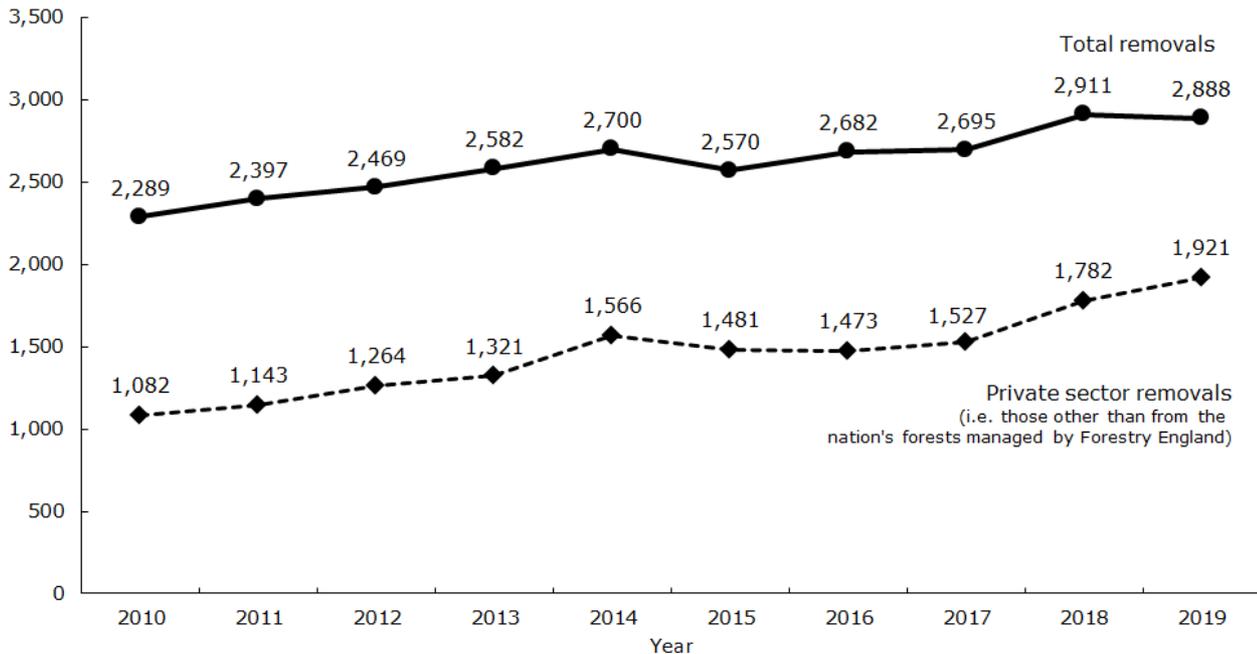
Assessment of change in: Percentage of the annual growth of trees in English woodlands that is harvested

Five year trend, 2019 compared to 2014
(hardwood and softwood element)

Little or no overall change 

Volume of timber brought to market per annum from English sources other than the nation's forests

Total softwood and hardwood removals (thousand green tonnes)



Note: Figures for 2010 to 2018 have been revised to reflect late updates to administrative or survey data.

Source: Forest Research statistics on [UK wood production and trade](#).

Demand for softwood remains strong and prices are very high, maintaining relatively high levels of production in privately owned conifer woodlands. There is some uncertainty around 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 other than the nation's forests

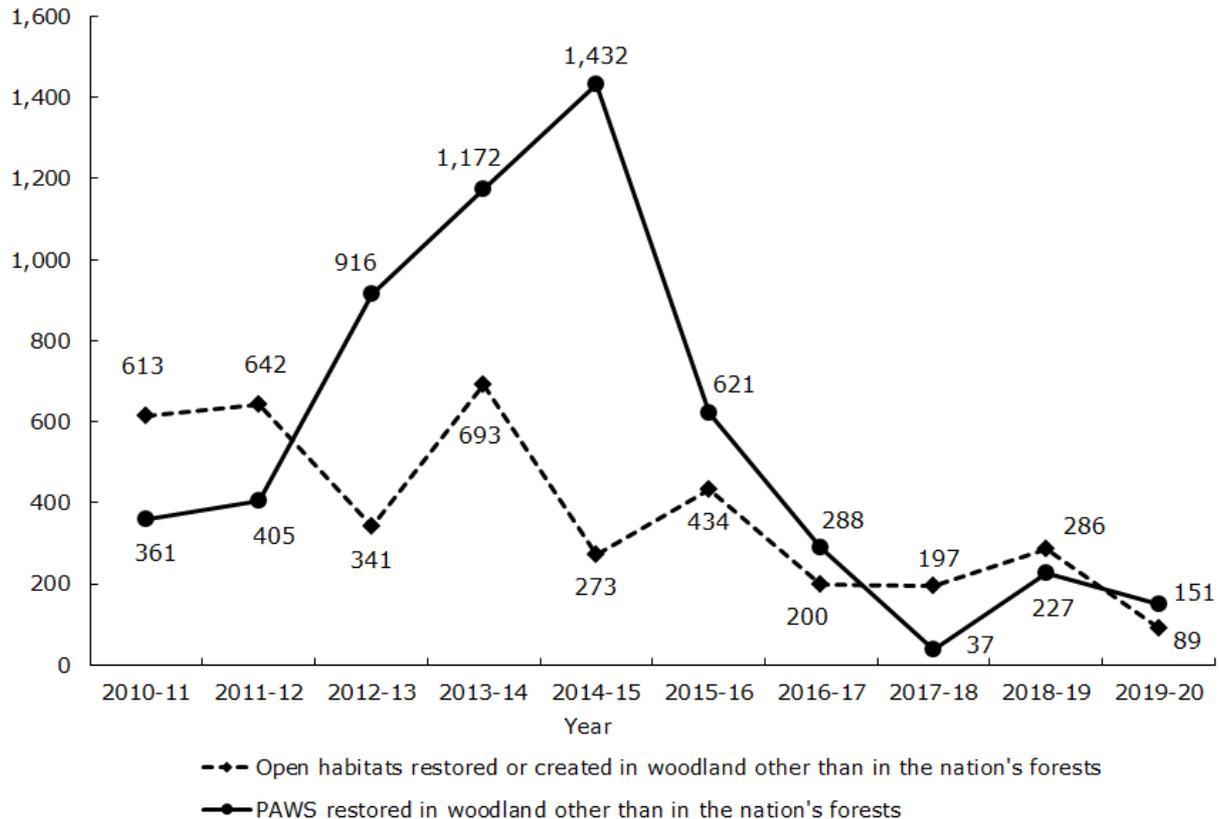
Five year trend, 2019 compared to 2014

Improving 

Places for wildlife to prosper

Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in woodland other than in the nation's forests

Hectares restored or created



Source: Forestry Commission administrative data.

The restoration rates of Plantations on Ancient Woodland Sites (PAWS) remains low on land outside the nation's forests managed by Forestry England. Countryside Stewardship as the key grant does not have a specific capital grant to support this.

Open habitat restoration remains at a low rate in balance with the current woodland creation rate and in line with the open habitat policy.

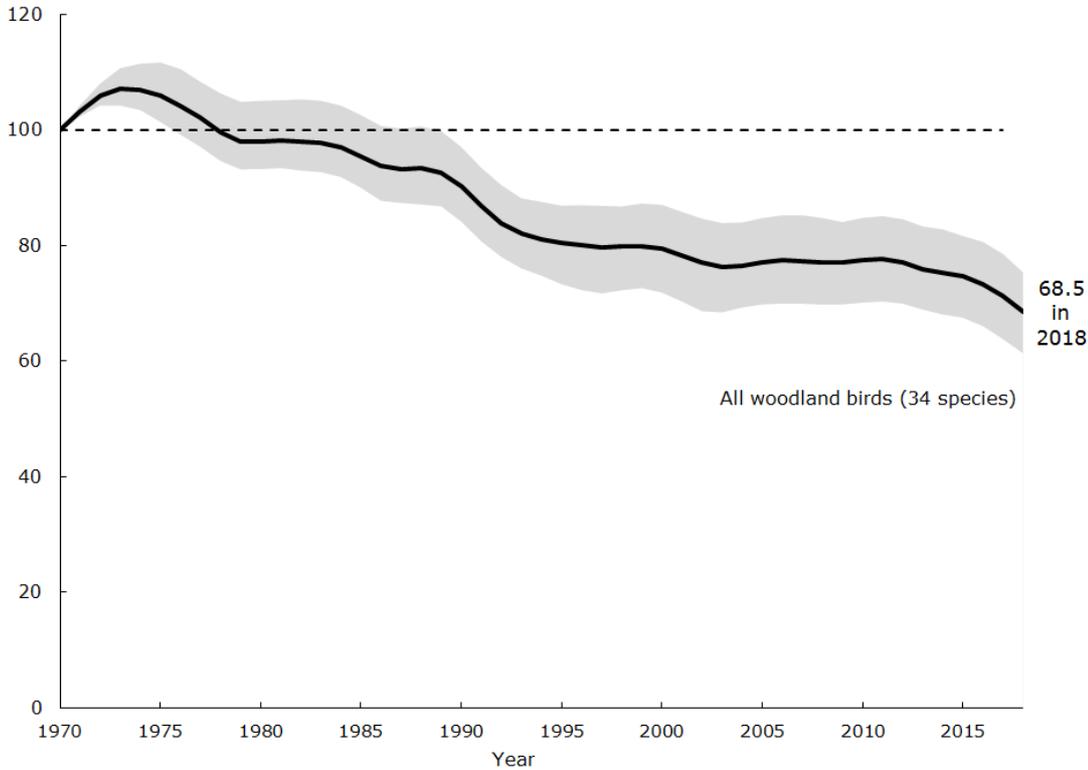
Assessment of change in: Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in woodland other than the nation's forests – Five year trends, 2019-20 compared to 2014-15

PAWS: in woodland other than in the nation's forests Deteriorating 

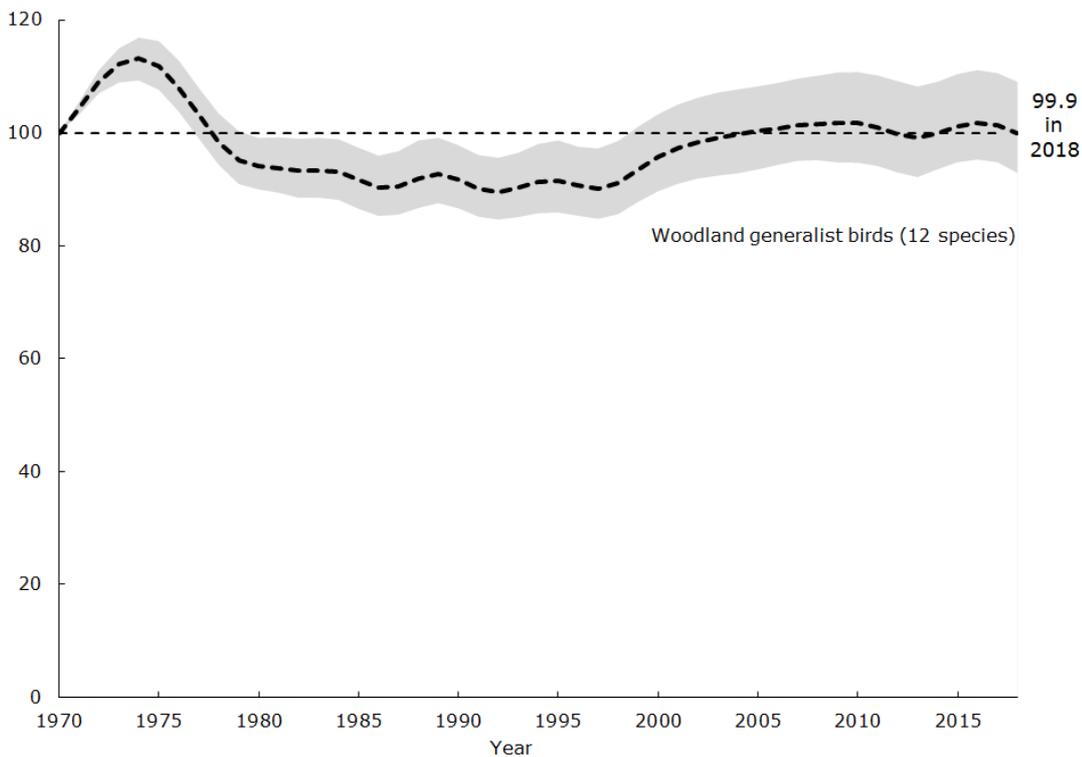
Open habitats: in woodland other than in the nation's forests Deteriorating 

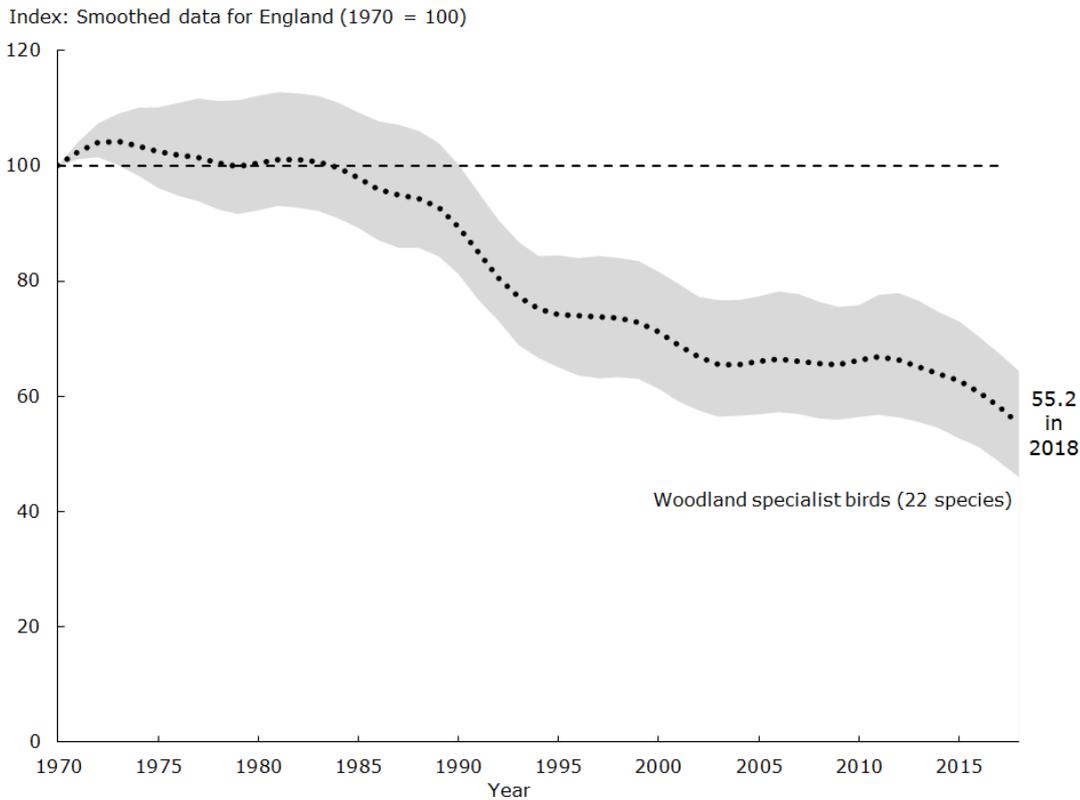
Measure of what is happening to the number and variety of species that live in woodland; using Woodland Birds data

Index: Smoothed data for England (1970 = 100)



Index: Smoothed data for England (1970 = 100)





Source: Data for England related to the report: [Wild bird populations in the UK, 1970 to 2018](#) (Defra, 2019).

Note: Each of the three graphs shows a smoothed, unstandardised woodland bird index for England and its 95% confidence interval.

In 2018 the all woodland bird index for England was 31.5% lower than in 1970 (smoothed data). The greatest decline occurred between the early 1980s and the mid-1990s. All three indexes show some slight variation compared to the 2017 figures (decrease for all woodland birds, specialist birds and generalist birds), but none of those are statistically significant.

Open Data: [Wild bird populations in England](#) statistical data set (Defra)

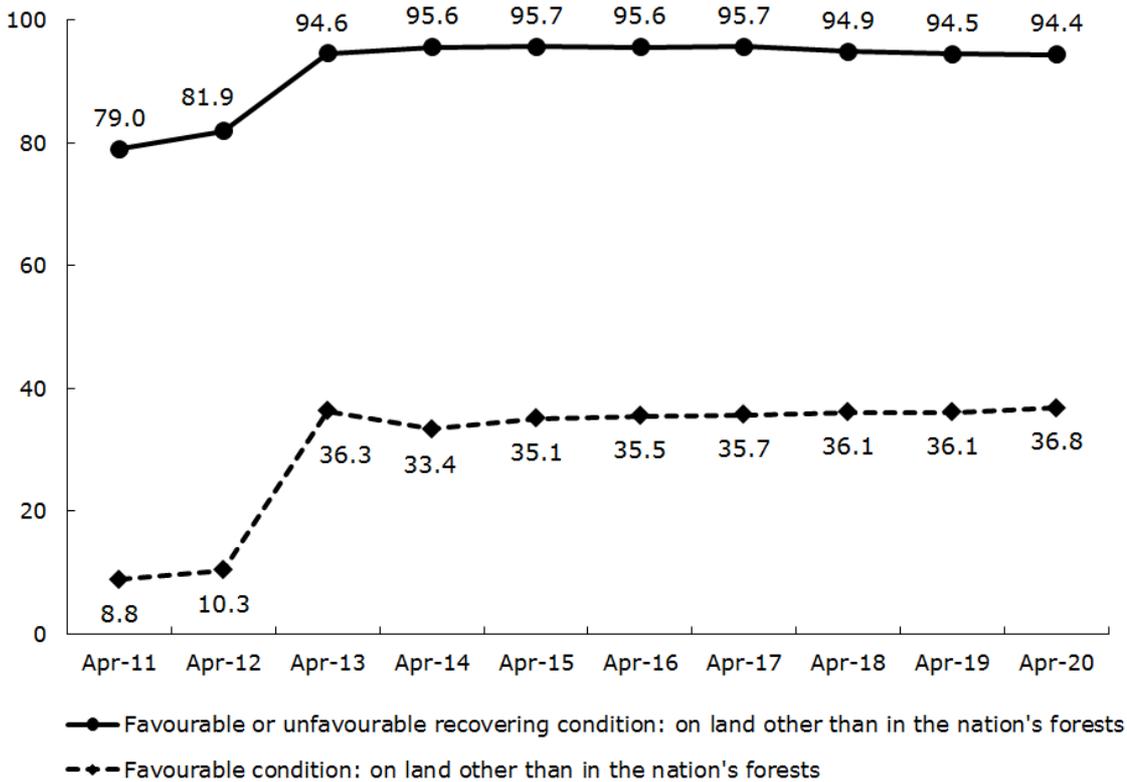
Assessment of change in: Measure of what is happening to the number and variety of species that live in woodland; using Woodland Birds data

All woodland birds index (England),
fifteen year trend, 2018 compared to 2003

Deteriorating 

Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition on land other than in the nation's forests

Percentage of SSSIs by land area



Source: Forestry Commission administrative data on grant schemes and [Natural England](#) data on SSSIs.

The percentage of woodland Sites of Special Scientific Interest (SSSIs) in either favourable or unfavourable recovering status has slightly decreased whilst the percentage of woodland SSSIs in favourable condition has increased slightly. These changes are due to a 2.0% increase in the area in favourable condition (about 1,700 hectares) and a 1.4% decrease in the area in unfavourable recovering condition (about 1,900 hectares). 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 on land other than in the nation's forests

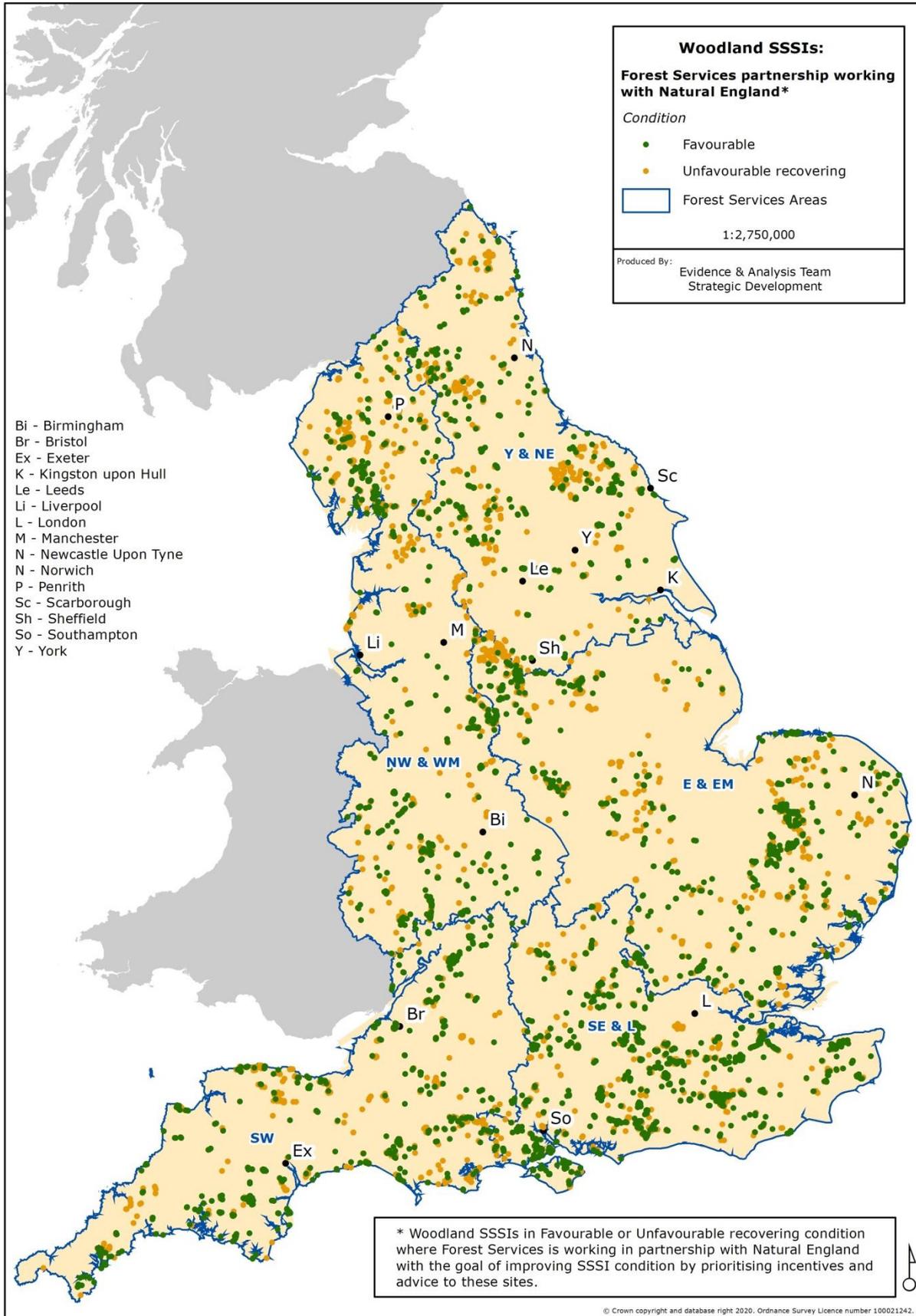
Favourable or unfavourable recovering condition, five year trend, Apr-20 compared to Apr-15

Little or no overall change 

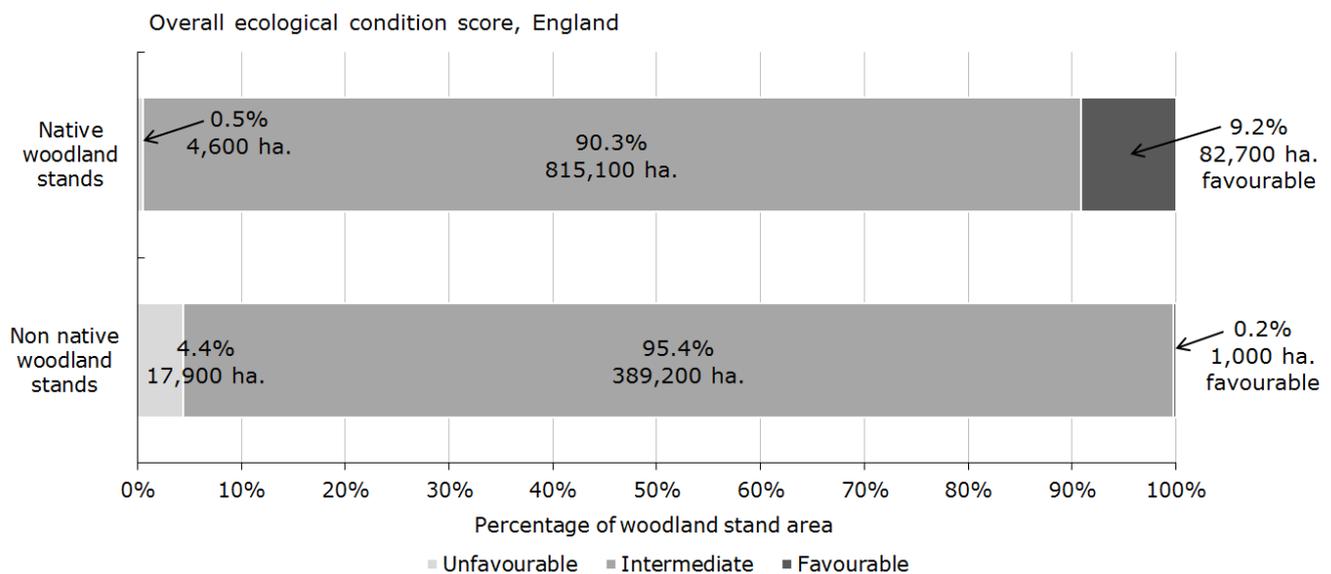
Favourable condition, five year trend, Apr-20 compared to Apr-15

Improving 

Map 6: Woodland Sites of Special Scientific Interest managed by Forest Services via partnership working, in target condition, April 2020



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 this year 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 have been published 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 2: The proportion of each woodland ecological condition (WEC) class, for each WEC indicator in native woodland stands in England

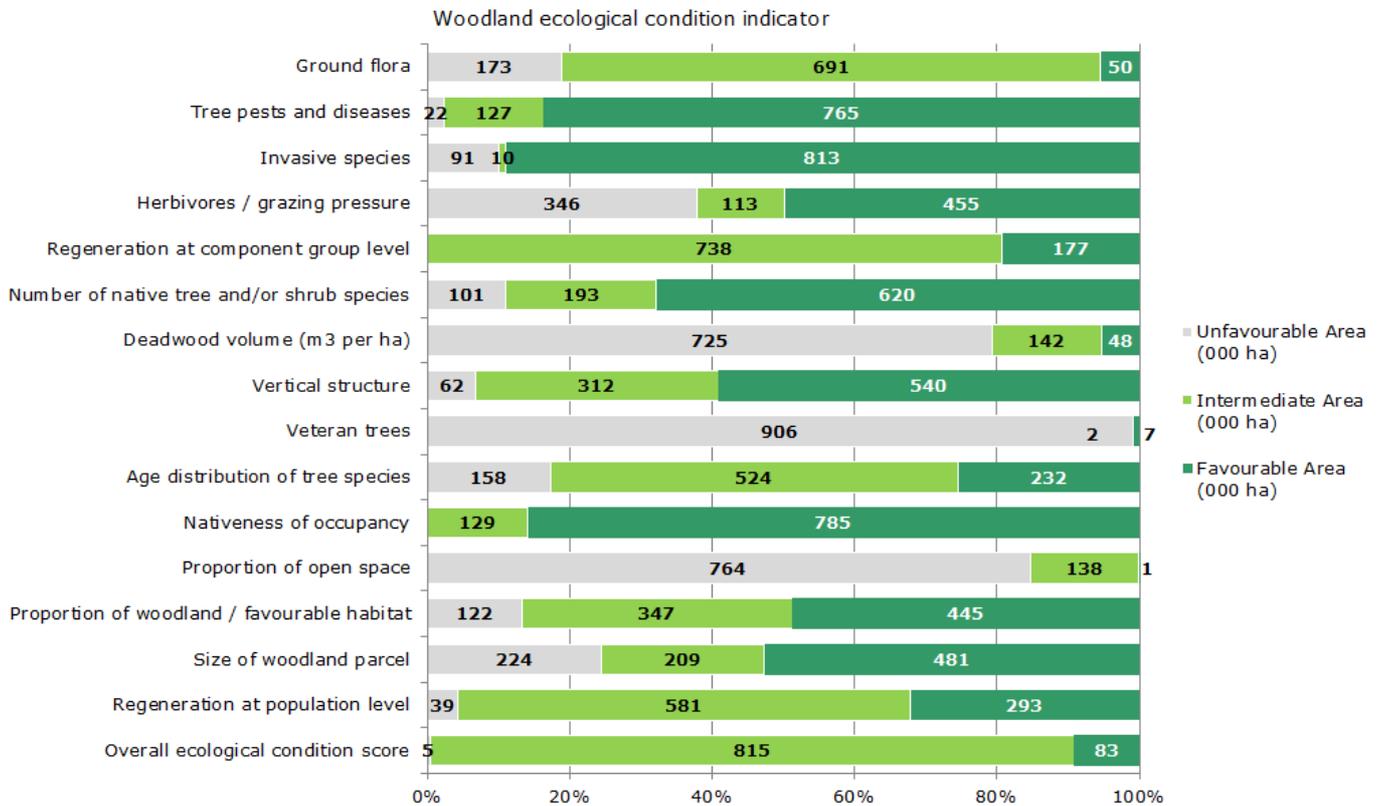
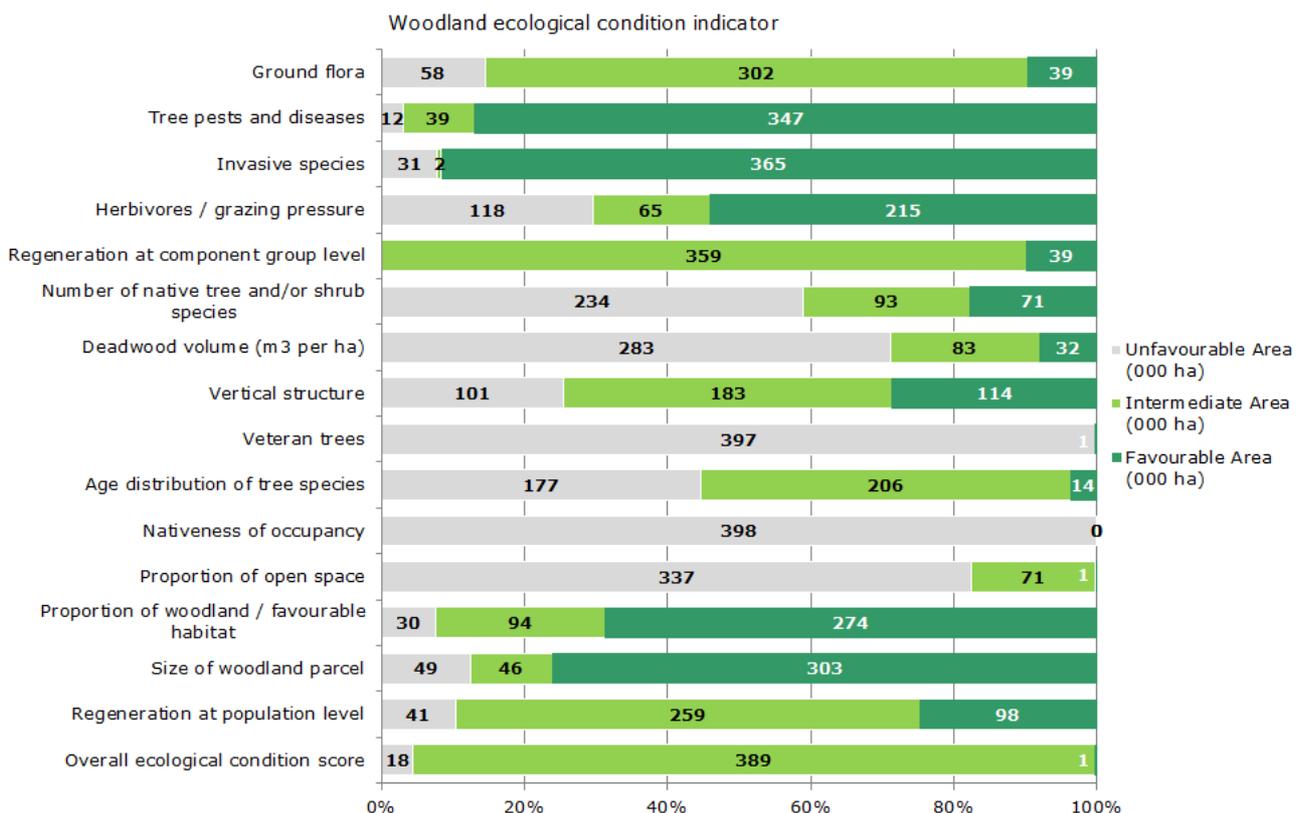


Figure 3: The proportion of each woodland ecological condition (WEC) class, for each indicator type in non-native woodland stands in England



Notes on woodland ecological condition in England

Note 1: Native woodland

Native woodland is defined as stands with 50% or more native tree species¹ 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 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.

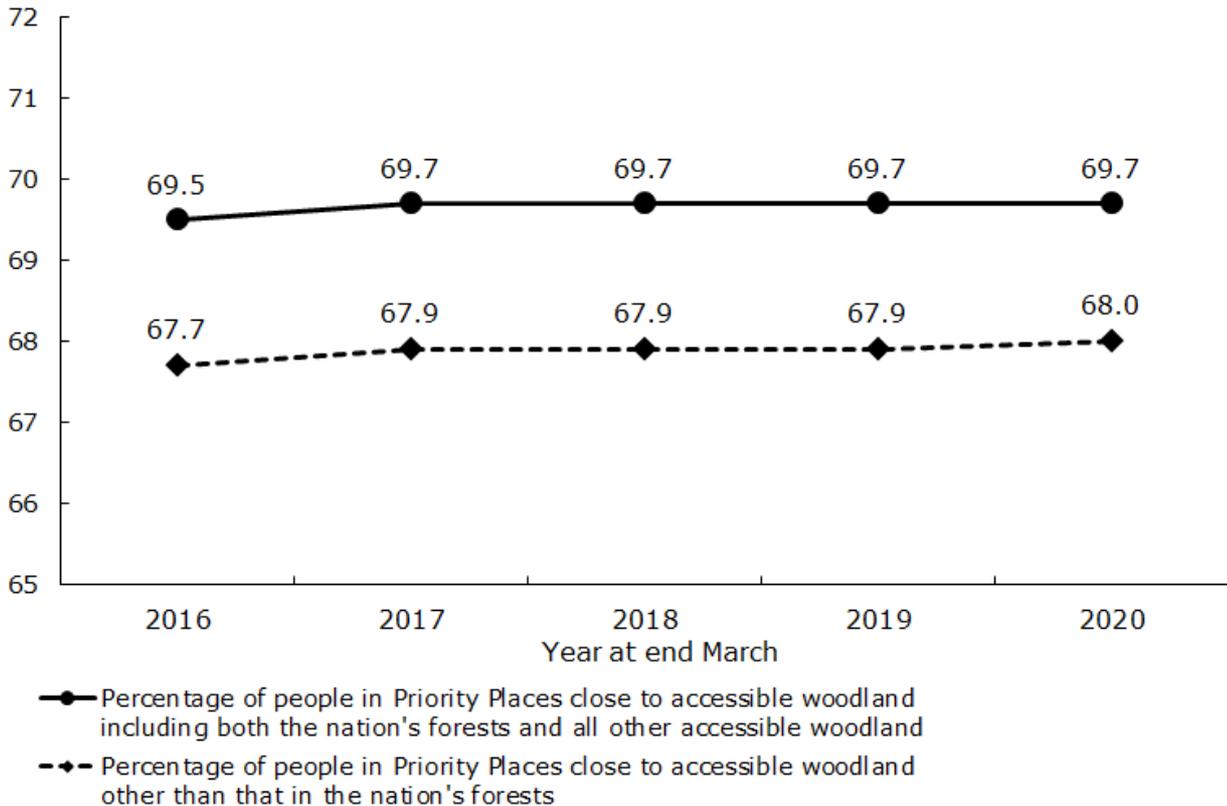
Note 4: Classifications for each indicator and overall scoring

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.

People's health and enjoyment of woodland

Percentage of people in Priority Places close to accessible woodland other than that in the nation's forests

Percentage of people in Priority Places close to accessible woodland



The percentage of people living in Priority Places with access to woodland other than in the nation's forests managed by Forestry England remains stable.

The specific contribution of the nation's forests, is shown on page 63 of this report, but the total including them is also shown above for reference.

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.

Source: Based on Woods for People dataset (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).

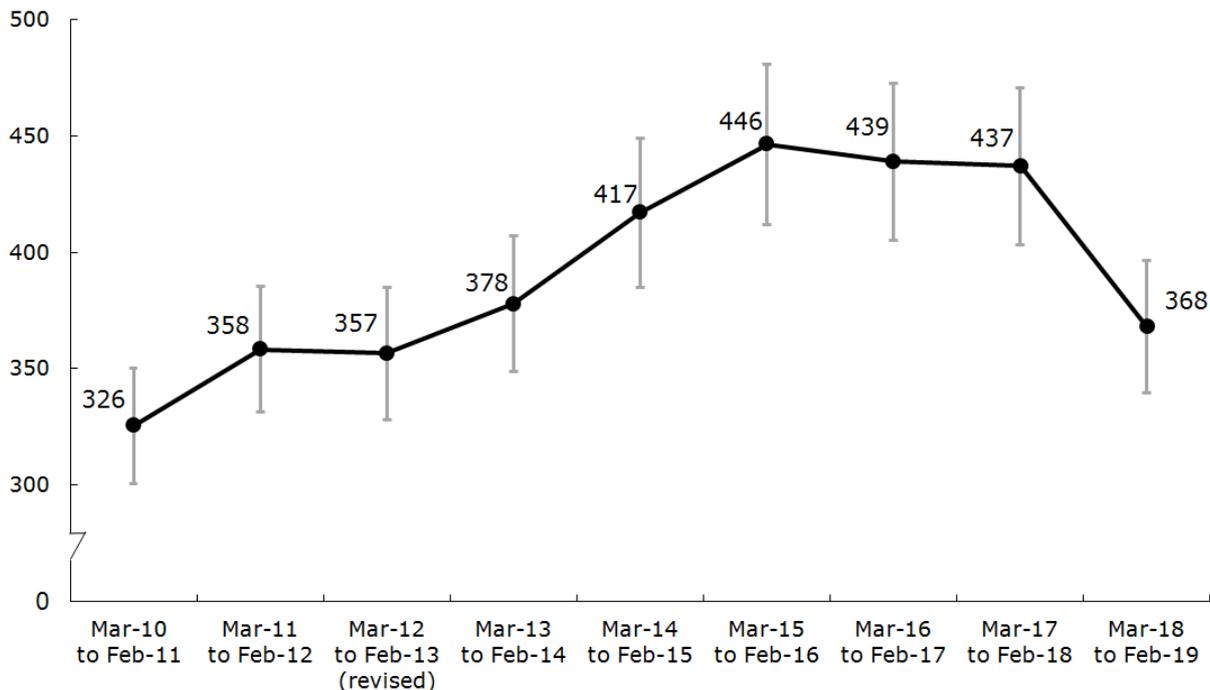
Assessment of change in: Percentage of people in Priority Places close to accessible woodland other than that in the nation's forests

Four year trend **only**, Mar-20 compared to Mar-16

Little or no overall change 

Number of visits to woodland from Natural England's Monitor of Engagement with the Natural Environment survey (MENE)

Millions 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 MENE survey results show that the number of visits to woodlands in England has declined in 2018-19 compared to recent previous years. The factors causing that decline are not clear at this stage. In contrast, information on the number of visits to the nation's forests managed by Forestry England show an increase over that period, though it is not certain whether the increase is a statistically significant one.

The MENE face-to-face survey which has been used for this indicator will no longer be taking place and a new [People and Nature Survey for England](#) is being undertaken that is an online panel survey. The new survey will cover similar topics such as people's enjoyment of, and access to, the natural environment. We are reviewing the form of this indicator in response to both the change to survey data available and to policy.

Open Data: [MENE datasets and metadata](#) (Natural England).

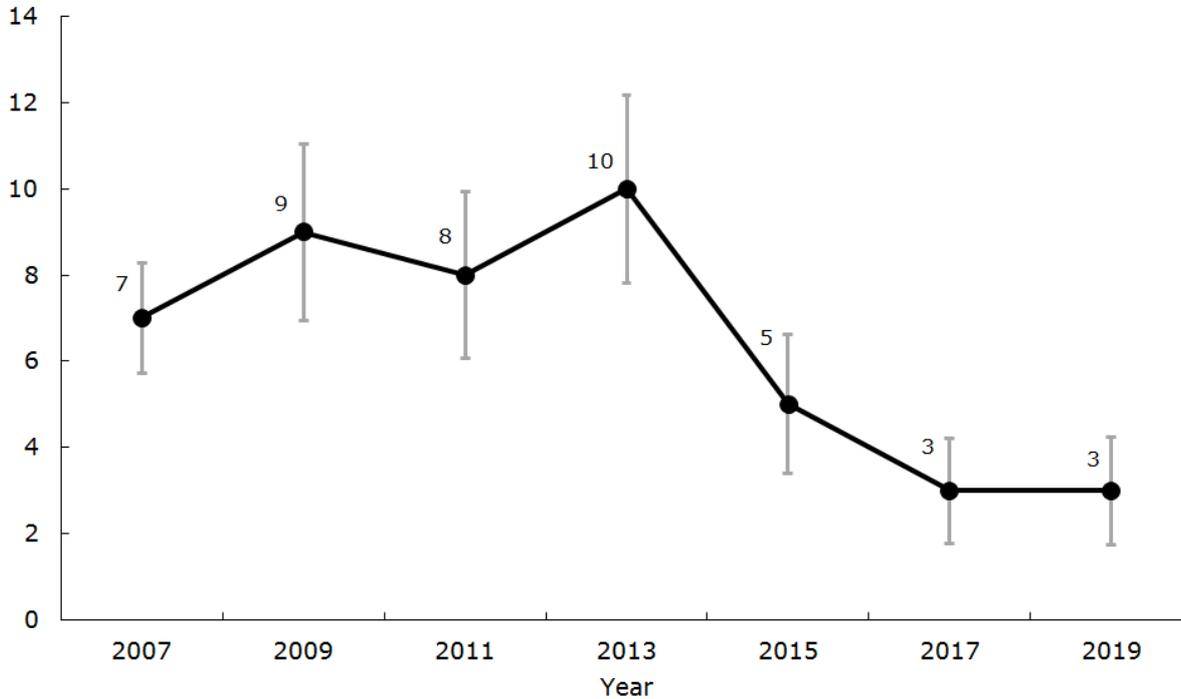
Assessment of change in: Number of visits to woodland from Natural England's Monitor of Engagement with the Natural Environment survey (MENE)

Five year trend, Mar-18/Feb-19 compared to Mar-13/Feb-14

Little or no overall change 

Percentage of people actively engaged in woodland

Percentage of people actively engaged



Source: [Public Opinion of Forestry Survey](#) (Forestry Commission).

This indicator draws on data from the Public Opinion of Forestry Survey (POFS) and measures active engagement with *all* woodland by the adult residents of England. This covers these particular types of involvement:

- a) voluntary work in connection with a woodland;
- b) an organised tree planting event;
- c) membership of a community based woodland group;
- d) being involved or consulted about plans for creating/managing or using woodlands.

The latest figure for 2019 remains the same from previous year of reporting in 2017. This is still a relatively small percentage figure. The levels of engagement across the nation's forests managed by Forestry England are good – see page 65.

The [Public Opinion of Forestry Surveys](#) showed that the percentage of people who made visits to woodland for walks, picnics or other recreation in the few years to the survey was much greater; estimated at 63% in 2019.

Assessment of change in: Percentage of people actively engaged in woodland

Six year trend, 2019 compared to 2013

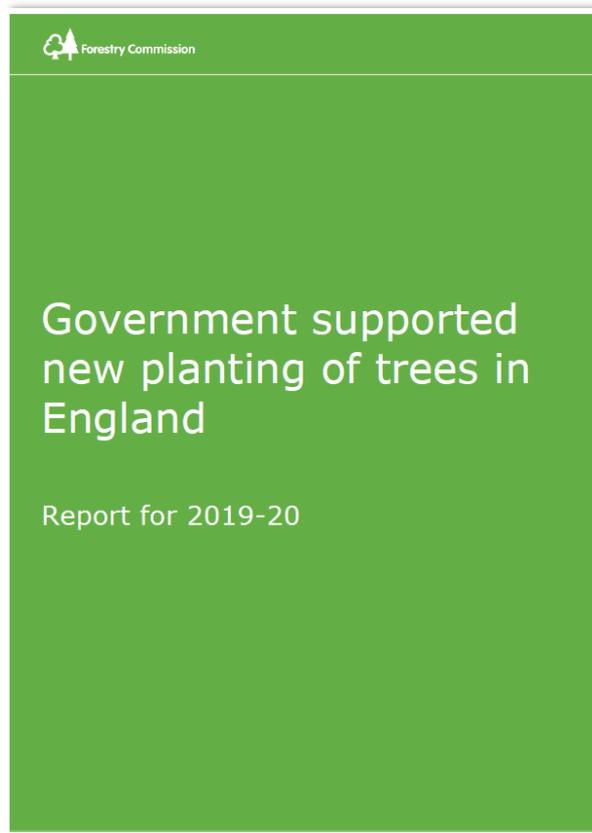
Deteriorating 

Expand

Government supported new planting of trees in England

Please see the separate full report for this indicator published as:

Forestry Commission (2020) *Government support new planting of trees in England: Report for 2019-20*, Bristol: Forestry Commission, 10 pages.



Source: Data from the [Forestry Commission](#), [Natural England](#), the [Environment Agency](#), [Woodland Trust](#), and the [National Forest Company](#).

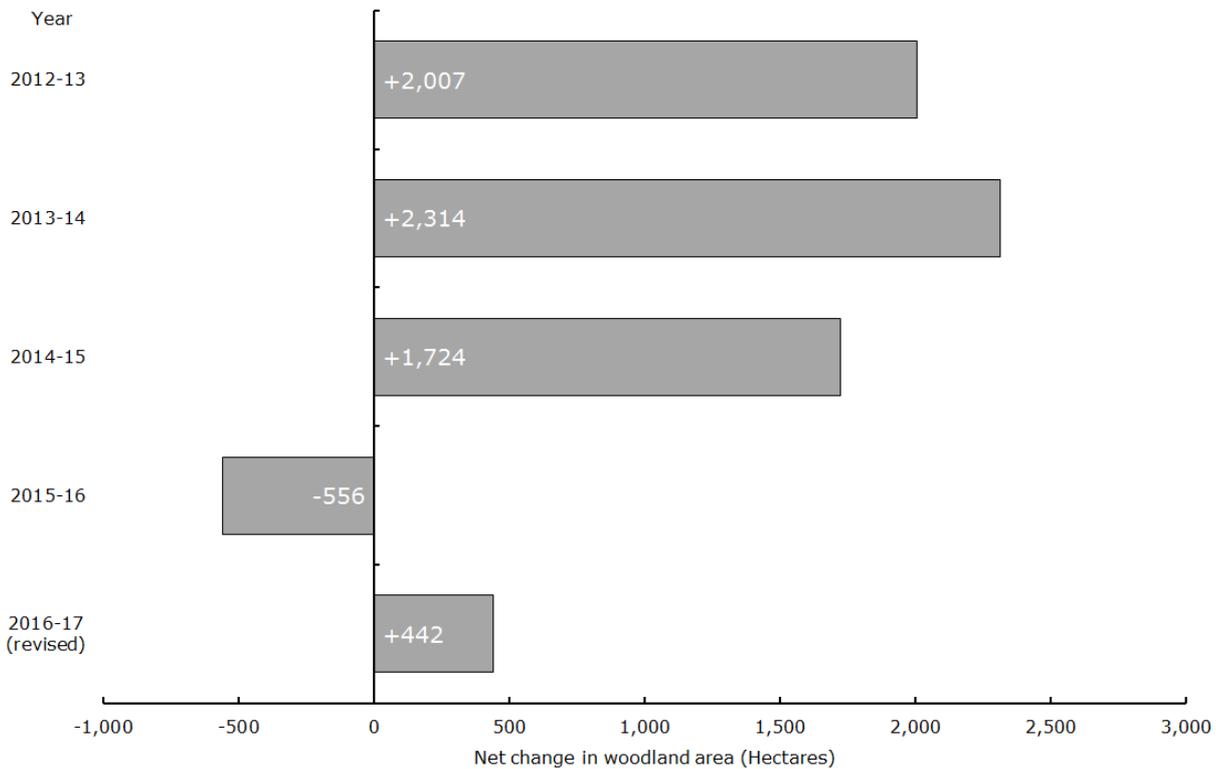
This report is available from the [Forestry Commission Key Performance Indicators webpage on GOV.UK](#).

Assessment of change in: Government supported new planting of trees in England

Two year trend **only**, 2019-20 compared to 2017-18

Improving 

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 4 for detailed sources.

There is no update yet available for 2017-18, but the provisional figures for net change in woodland area for 2016-17 have been improved following further analysis from +318 hectares reported in last year's report (pages 51 and 52) to +442 hectares, once the figures shown for woodland removal for open habitat restoration and woodland loss to development are accounted for.

As reported in 2019, this reverses the short term position of net deforestation reported for 2015-16 and the revised data bring the total area of net increase in woodland over the five most recent years reported to 5,931 hectares (an average of 1,186 hectares per annum).

Table 4: Components of net change in woodland area in England, 2012-13 to 2016-17 (Experimental Statistics)

Contribution to change in woodland area (Hectares)	2012-13	2013-14	2014-15	2015-16	2016-17 (revised)	Average per annum over the five years 2012-13 to 2016-17
Woodland creation (+)						
a. Total new planting of trees in England (Source 1)	2,587	3,340	2,425	821	1,140	2,063
Woodland removal (-)						
Open habitat restoration other than in the nation's forests (Source 2)	341	693	273	434	200	388
Open habitat restoration in the nation's forests (Source 2)	119	213	70	116	85	121
Attributable to development (Source 3, Note 1, Note 2)	120	120	358	827	413	368
b. Total woodland removal	580	1,026	701	1,377	698	876
c. Total net change in woodland area (a. minus b.)	2,007	2,314	1,724	-556	442	5-year total: 5,931 hectares
d. Average net change in woodland area per annum 2012-13 to 2016-17 (revised) (c÷5)						Average per annum over these 5 years: 1,186 hectares

Sources

1. Forestry Commission (2019) *Forestry Statistics 2019*, Edinburgh: Forestry Commission.
2. Forestry Commission (2020) *Key Performance Indicators: Report for 2019-20* Bristol: Forestry Commission, 78 pages.
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 (and the average per annum over the five years 2012-13 to 2016-17) has been revised to incorporate improved estimates of woodland loss to development revised from 822 hectares to 413 hectares.

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)

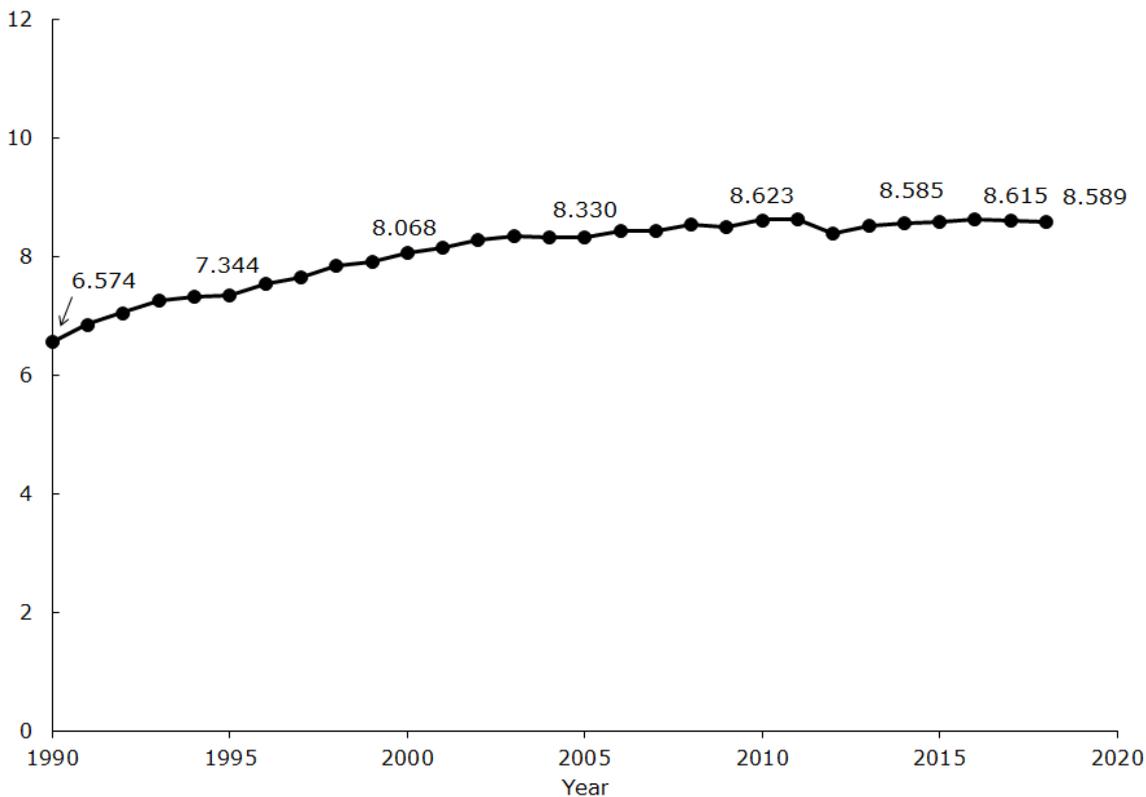
Four year trend **only**, 2016-17 compared to 2012-13

Deteriorating 

Contribution to carbon abatement

Carbon captured by English woodlands

Million tonnes of carbon dioxide equivalent (MtCO₂e)



Source: Data from the [Department for Business, Energy & Industrial Strategy](#).

Note: 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.

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.

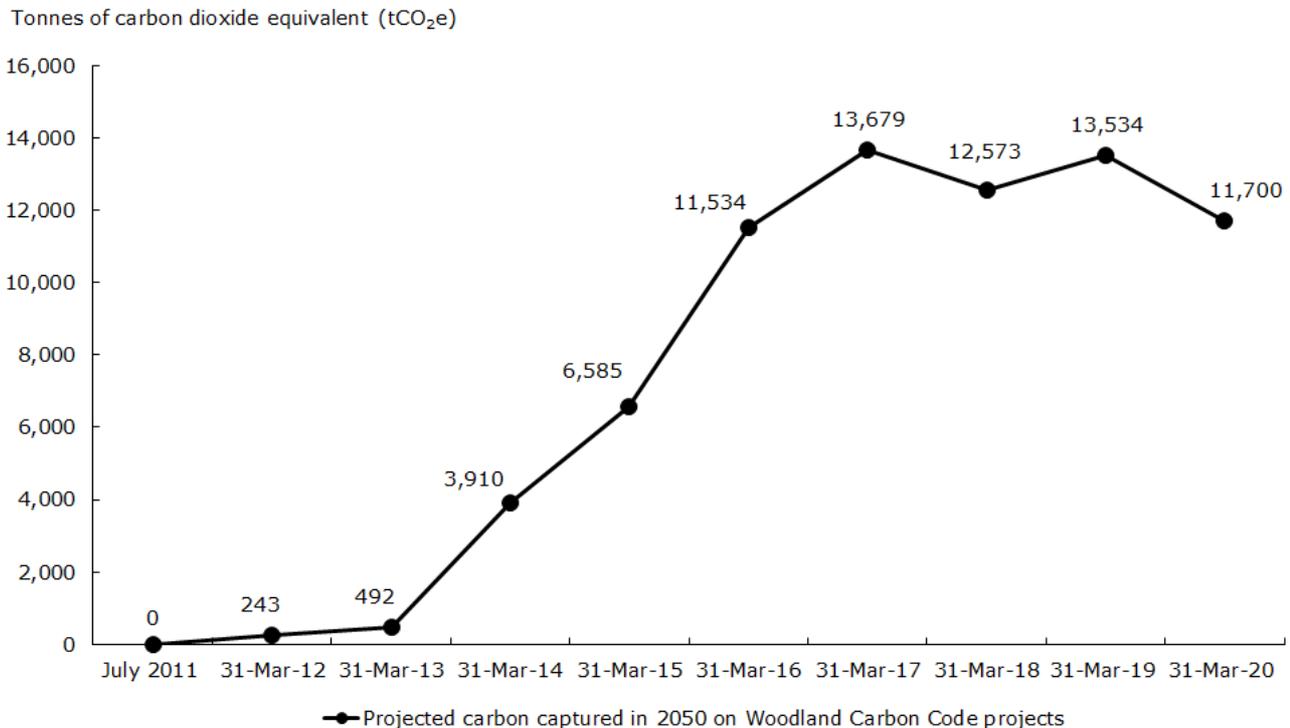
The net greenhouse gas sink strength of England’s woodlands has decreased slightly from 8.615 MtCO₂e in 2017 to 8.589 MtCO₂e in 2018, remaining broadly stable; however, it is expected to decline in the medium term as the greenhouse gas sink strength is dominated by past planting rates and subsequent harvesting activity.

Assessment of change in: Carbon captured by English woodlands

Five year trend, 2018 compared to 2013

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 2020, 87 projects were validated to the [Woodland Carbon Code](#), compared to 78 in March 2019. Some 14 projects were validated in the 2019-20 year, but 5 validated projects were removed from the registry and the size of these exceeded that of the projects added. The 87 projects are expected to sequester 11,700 tCO₂e in 2050 (compared with 13,534 tCO₂e reported in 2019). Of the validated projects, 36 have also been verified/checked at year 5 to ensure they are well established and on track to deliver the predicted carbon savings. A further 47 projects are currently registered and going through the validation process. Together the projects registered and validated are predicted to sequester 1.2 million tonnes of CO₂e over their lifetime (of up to 100 years).

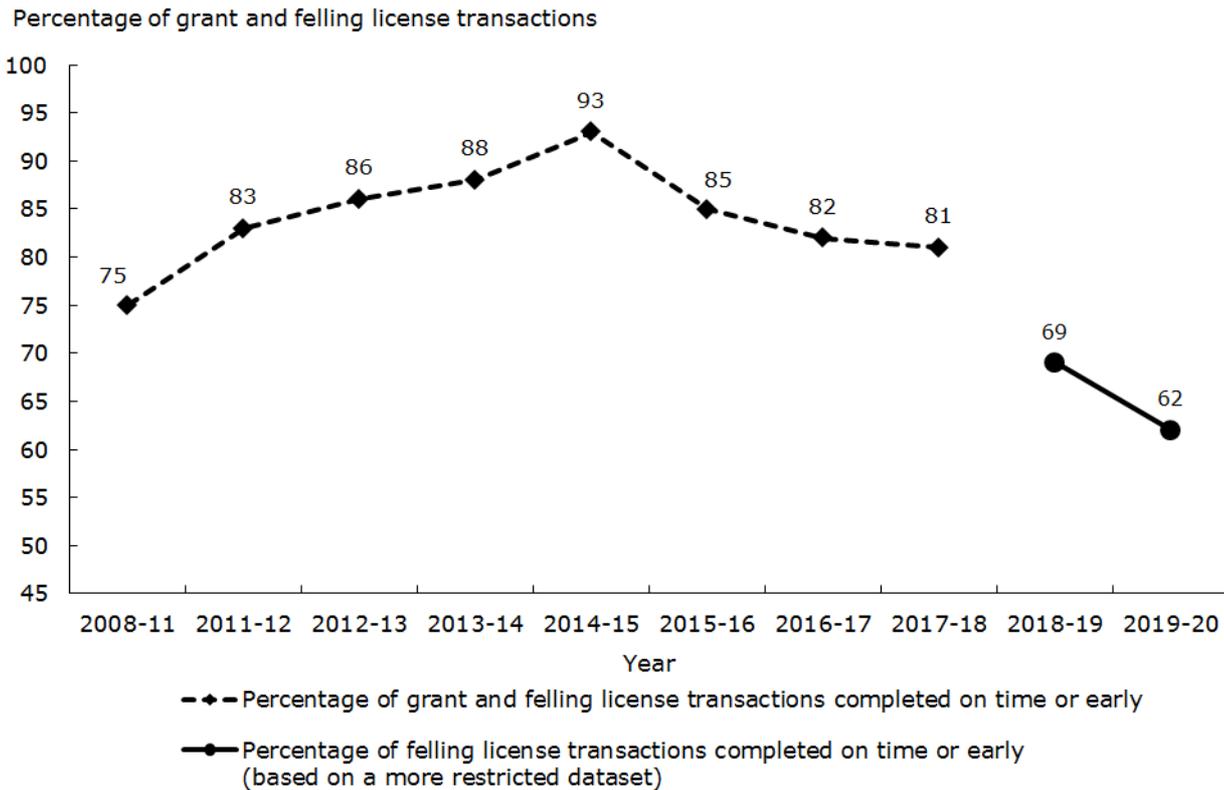
Assessment of change in: Projected carbon capture in 2050 on Woodland Carbon Code woodland creation projects

Five year trend, 31-Mar-20 compared to 31-Mar-15

Improving 

CUSTOMER SERVICE AND BUSINESS METRICS

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



Source: Forestry Commission administrative data

In 2019-20 some 62% of the measured felling license transactions were completed on time or early, a slight drop from 69% the year before. During 2019-20 system improvements were put in place to improve operational performance.

Since 2018-19 this indicator no longer measures performance for the payment of Title 2 (annual revenue) or Title 4 (capital) grant claims by the Forestry Commission. Changes in payment processes mean that they do not support meaningful measurement. This indicator is currently being reviewed.

Note:

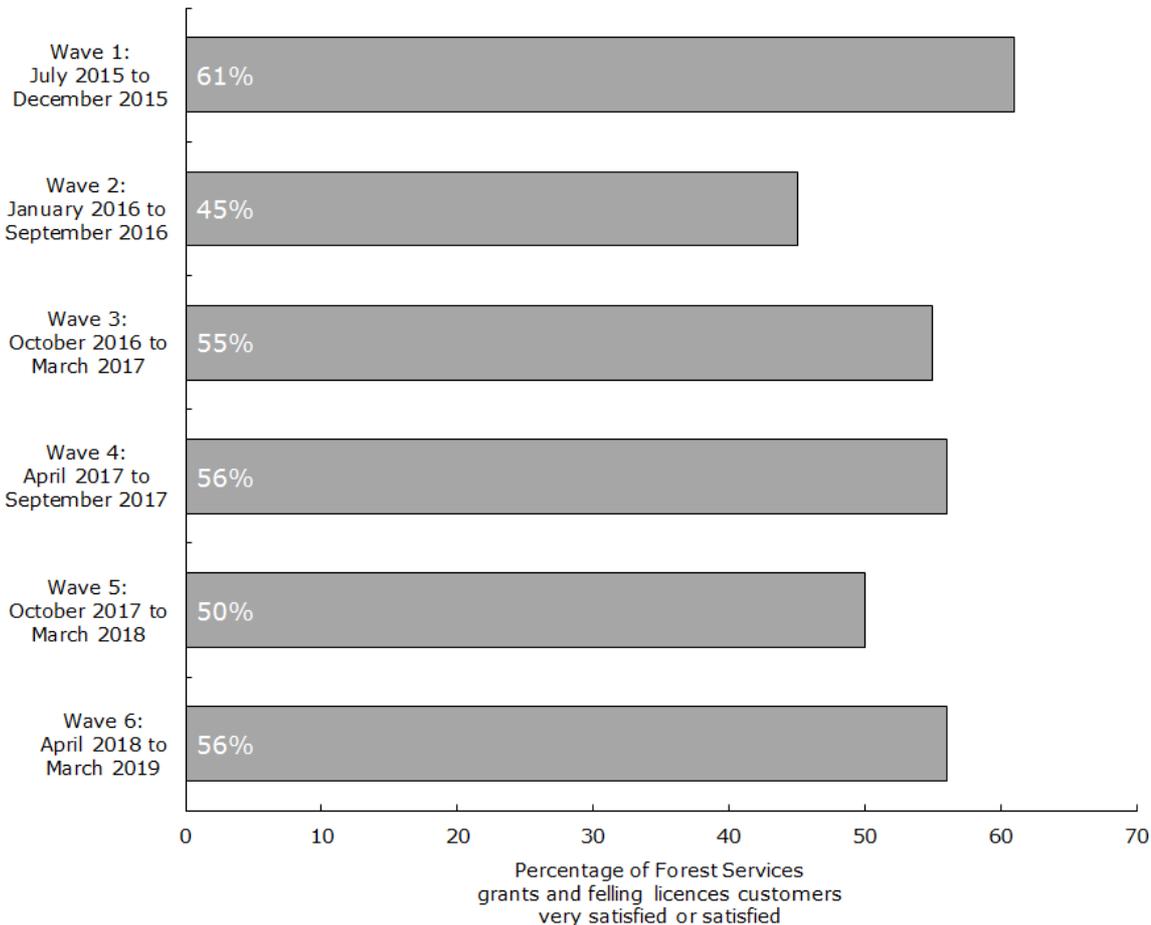
Title 2 claims are for payments made annually for maintenance work or agricultural income forgone.
Title 4 claims are for payments for completed capital works.

Assessment of change in: Percentage of grant and felling license transactions completed on time or early

Five year trend, 2019-20 compared to 2014-15

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.

The findings of the most recent customer survey covering the April 2018 to March 2019 period show similar levels of customer satisfaction to recent surveys. Work is ongoing to improve the experience of customers when they apply for either a grant or felling license, including work with the Rural Payments Agency.

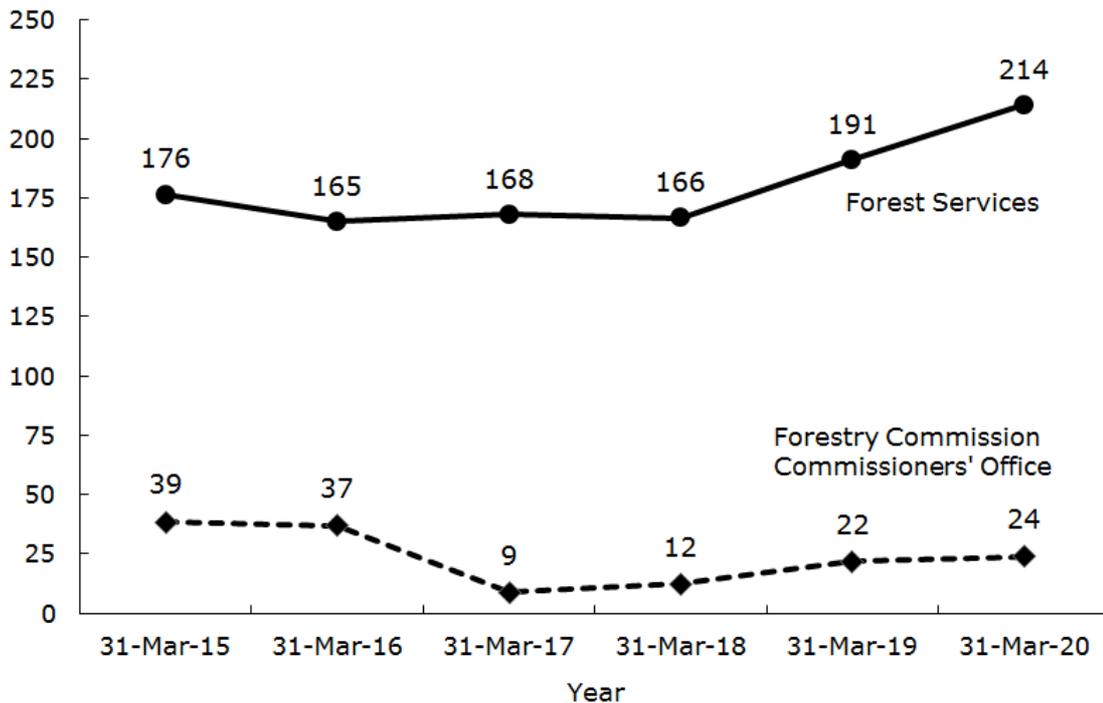
Assessment of change in: Percentage of Forest Services grants and felling license customers who report their customer satisfaction as either very satisfied or satisfied.

Trend for around three years **only**:
Apr-18/Mar-19 compared to Jul-15/Dec-15

Little or no overall change 

Number of employees (full-time equivalents) in Forest Services and the Forestry Commission Commissioners' Office

Number of employees (full-time equivalents)



Source: Forestry Commission administrative data.

Note: The Commissioners' Office was formed in April 2019 incorporating the Director's Office and other central corporate governance.

The number of employees within Forest Services has increased from last year by 23 full time equivalents. These increases have occurred across a number of teams to enable essential regulatory and other functions to continue, to manage new work (including the design and management of new grants and work on EU Exit) and to manage newly established corporate services.

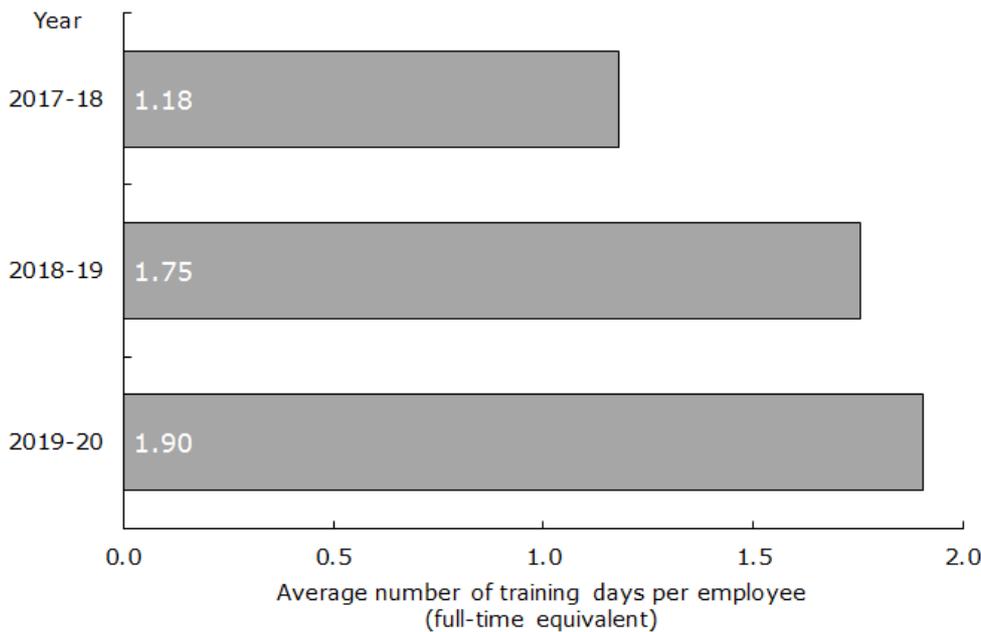
The Commissioners' Office increased by net 2 FTEs during 2019-20, as a result of the inward transfer of the HR Director and supporting team from Forestry England, partially offset by reductions in the Centenary Team as the project moved towards completion early in 2020-21.

Assessment of change in: Number of employees (full-time equivalents) in Forest Services and the Forestry Commission Commissioners' Office

This indicator

Not assessed due to insufficient comparable data 

Average number of training days organised by the England internal training teams attended per employee (FTE) in Forest Services



Source: Forestry Commission administrative data.

The average number of training days organised by the England internal training and development teams in Forest Services was 1.90 days in 2019-20, an increase of 9% over the year before. We have had a busy year with training and these figures only reflect some of the training opportunities we have been involved in providing for staff. The indicator includes training arranged by Forest Services' Business Support, Human Resources Leadership Development and by the Health and Safety and Technical training team.

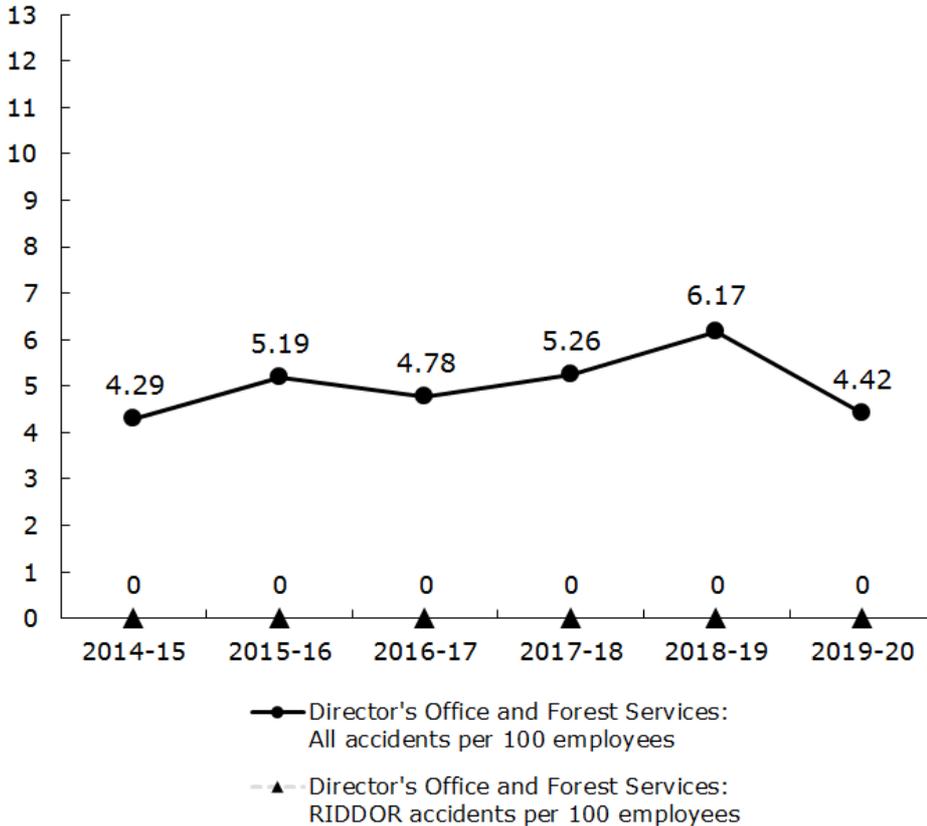
Assessment of change in: Average number of training days organised by the internal training teams attended per employee (FTE) in Forest Services

Two year trend **only**: 2019-20 compared to 2017-18

Improving 

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

Number of accidents per 100 employees



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 total number of accidents, and the accident rate per 100 employees, has fallen by over 28% from last year. RIDDOR reportable accidents remain at zero. This reflects continuing commitment to, and investment in, Health and Safety management.

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

Five year trend: 2019-20 compared to 2014-15
(all accidents element)

Deteriorating ⊗

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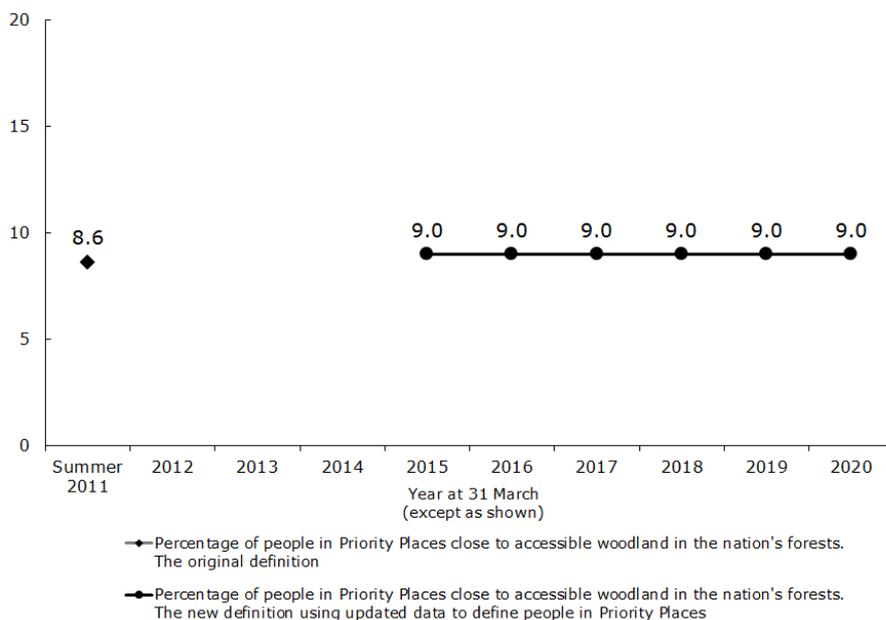
Part 3. Other Forestry England Indicators

People

People's health and enjoyment of woodland

Percentage of people in Priority Places close to accessible woodland in the nation's forests

Percentage of people in Priority Places with access



Source: Woods for People dataset (The Woodland Trust and Forestry Commission England), [Census of Population \(Office for National Statistics\)](#) and the [Index of Multiple Deprivation \(Ministry of Housing, Communities & Local Government\)](#).

Some 9% of the people living in Priority Places are close to accessible woodland in the nation's forests managed by Forestry England, as at 31 March 2019. This figure reflects both the extent and locations of the accessible woodlands managed by Forestry England. The figure remains static.

Looking more widely about 85% of the entire population of England lives within a 30 minute drive time of accessible parts of the nation's forests (see Map 7).

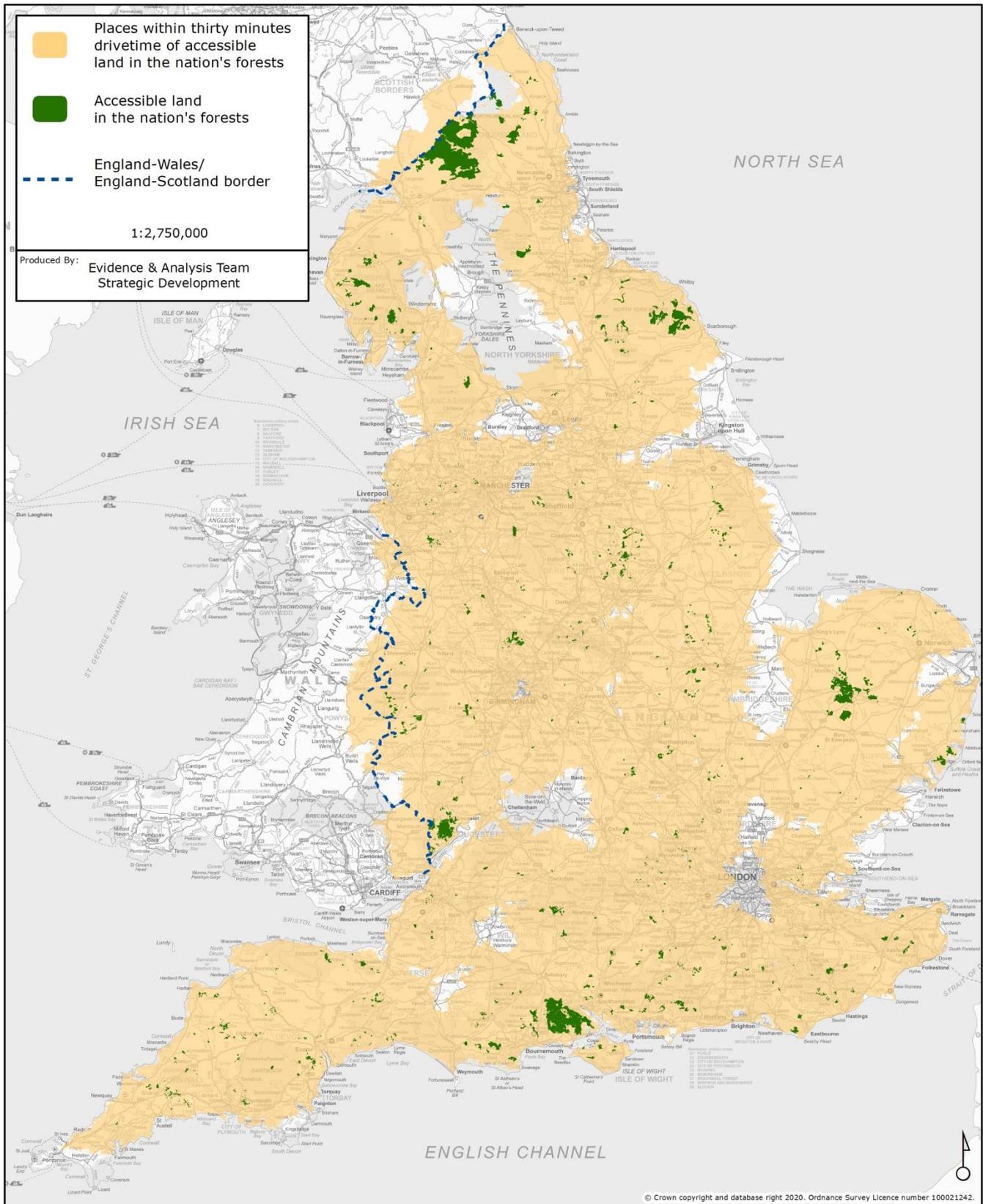
Notes

1. The contribution of woodland other than in the nation's forests managed by Forestry England, and of all accessible woodland, is shown in the Other Forest Services Indicators part of this report.
2. 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.

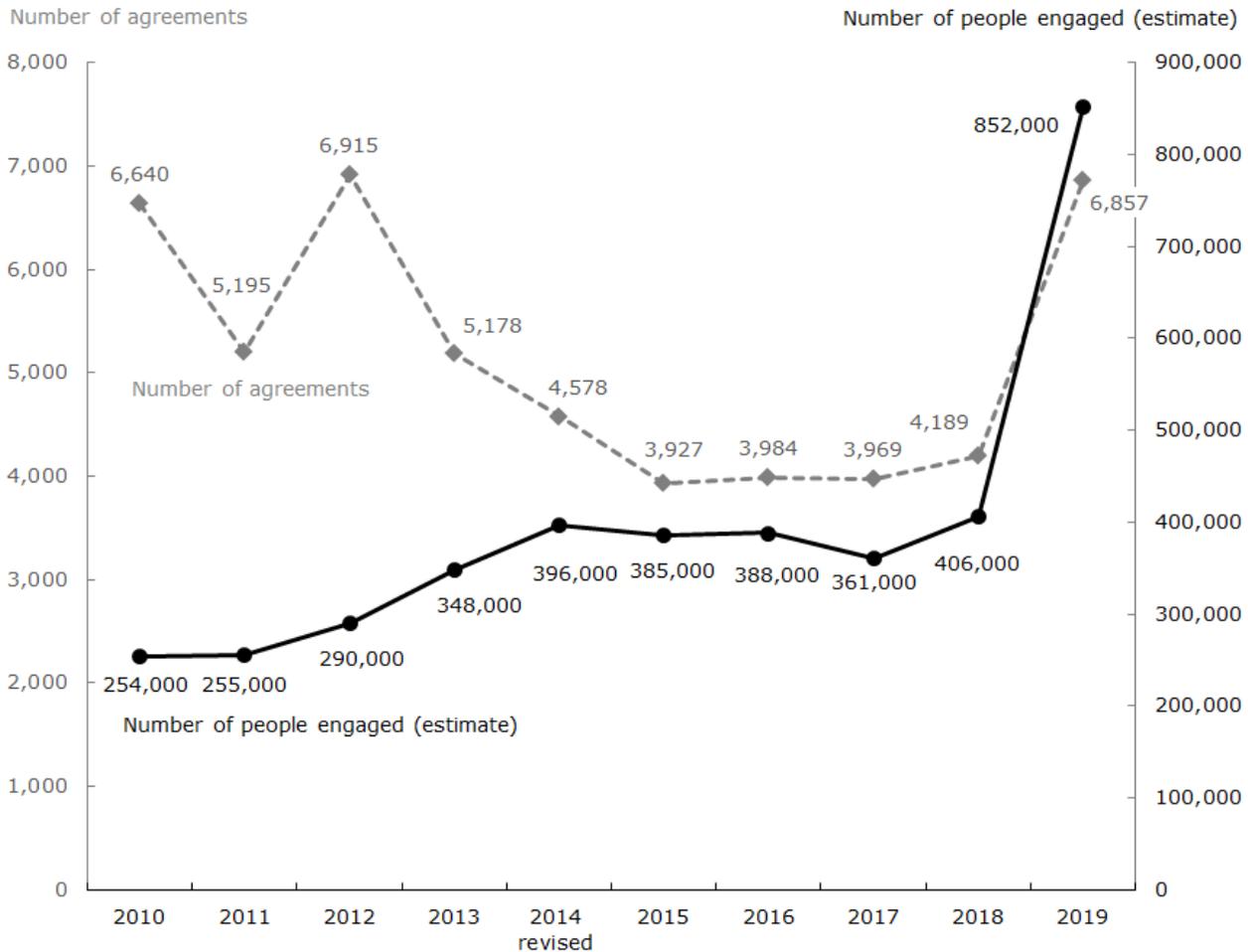
Assessment of change in: Percentage of people in Priority Places close to accessible woodland in the nation's forests

Five year trend: 31-Mar-20 compared to 31-Mar-15 Little or no overall change 

Map 7: Places within 30 minutes drive time of accessible land in the nation's forests, 2018



Number of people engaged in permitted locally led events and activities in the nation's forests



Source: Forestry England administrative data.

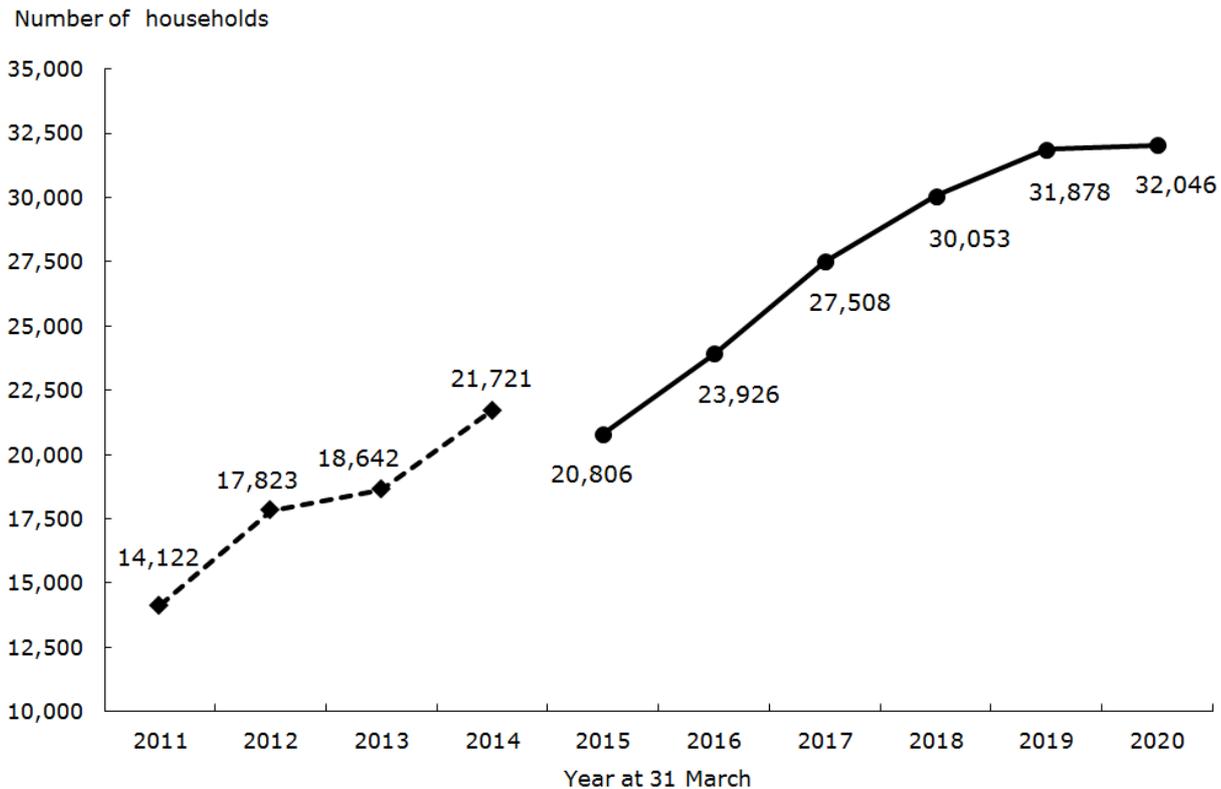
There was a significant rise in the number of permissions issued for locally led events and activities in the nation's forests; an increase of nearly 2,700 in 2019 compared to from the previous year. This increase is due to several factors including the proactive work of the Active Forests programme, the tightening of permissions issued to wildlife and conservation groups, and an emphasis on standardising the permissions process across the organisation.

Assessment of change in: Number of people engaged in permitted locally led events and activities in the nation's forests

Five year trend, 2019 compared to 2014
(number of people)

Improving 

Number of households with a Forestry England Membership for the nation's forests



Source: Forestry England administrative data.

Note: The figures for year-end 2015 onwards are shown without the inclusion of Bedgebury as that is now a [Friends of Bedgebury Pinetum](#) Membership.

The former Discovery Pass scheme became the new Forestry England membership from April 2019. Membership levels have been sustained, with a 0.5% increase within 2019-20 compared to the previous year, 2018-19. The trend of growth in numbers in preceding years may have been slowed by storms in many parts of the country through the mid-winter and the lock down that reduced prospects for visiting in the spring. Overall through 2019-20 most of the participating visitor centres and key sites saw increases in membership. During the year we introduced an ANPR parking management system (vehicle recognition) at one further main visitor site and this is one example of how we have encouraged people to take up the benefits of membership at these locations. These local activities, combined with an increased presence in popular campaigns, and highlighting the opportunities afforded by membership on the Forestry England website, are all attracting more people towards the membership.

Assessment of change in: Number of households with a Forestry England Membership for the nation's forests

Five year trend, 31-Mar-20 compared to 31-Mar-15

Improving 

Maintain UK Woodland Assurance Standard certification for the nation's forests

UKWAS certification held?

										Year at 31 March
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Yes										

Source: Based on the [UK Woodland Assurance Standard](#).

The Forestry Commission was the world's first state forest service to have its entire estate certified by the [Forest Stewardship Council](#) (FSC) in 1999, and we have maintained this certification since. We also hold, from 2010, [Programme for the Endorsement of Forest Certification](#) (PEFC) certification for the entire area of the nation's forests managed by Forestry England. All our timber and venison is dual certified and Christmas trees are FSC certified.

All Corrective Action Requests (CARs) (7) and all but 1 of the 6 observations from the previous year's audit were successfully addressed and completed. The observation carried over related to restocking and simply could not be closed due to the time of year the audit took place. One new CAR relating to plans for addressing redundant materials (such as previously used fences and tree shelters) and some new observations were raised. The latter were mainly technical in nature and have either already been addressed or Forestry England is well on track to complete them.

Assessment of change in: Maintain UK Woodland Assurance Standard certification for the nation's forests

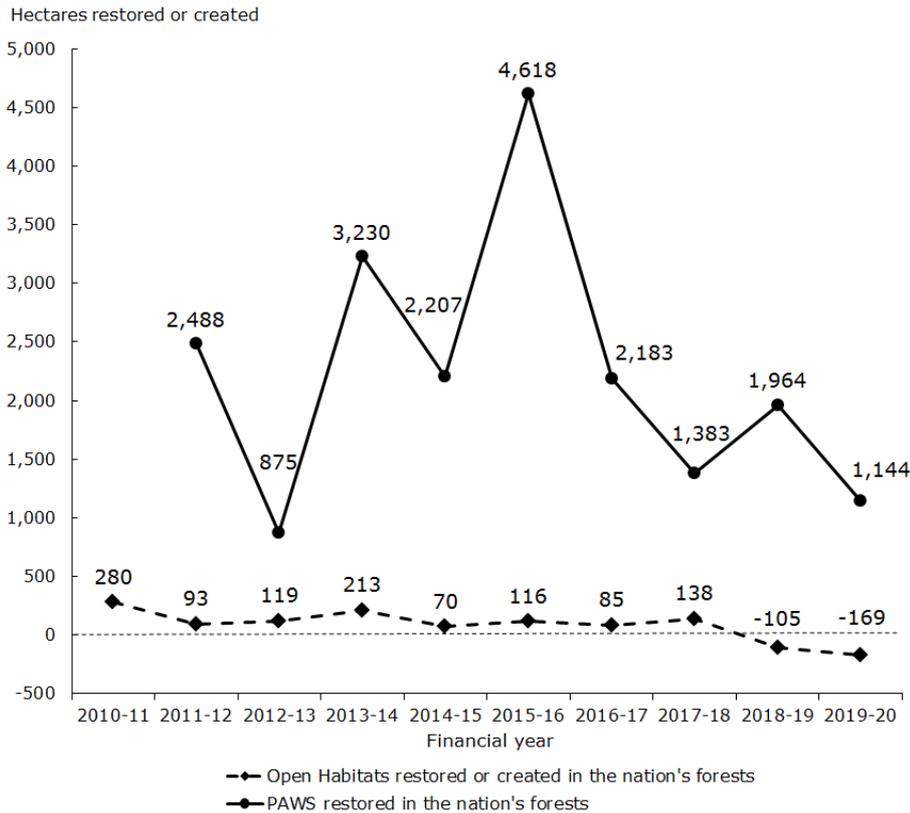
Five year trend, Mar-20 compared to Mar-15

Little or no overall change 

NATURE

Places for wildlife to prosper

Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in the nation's forests



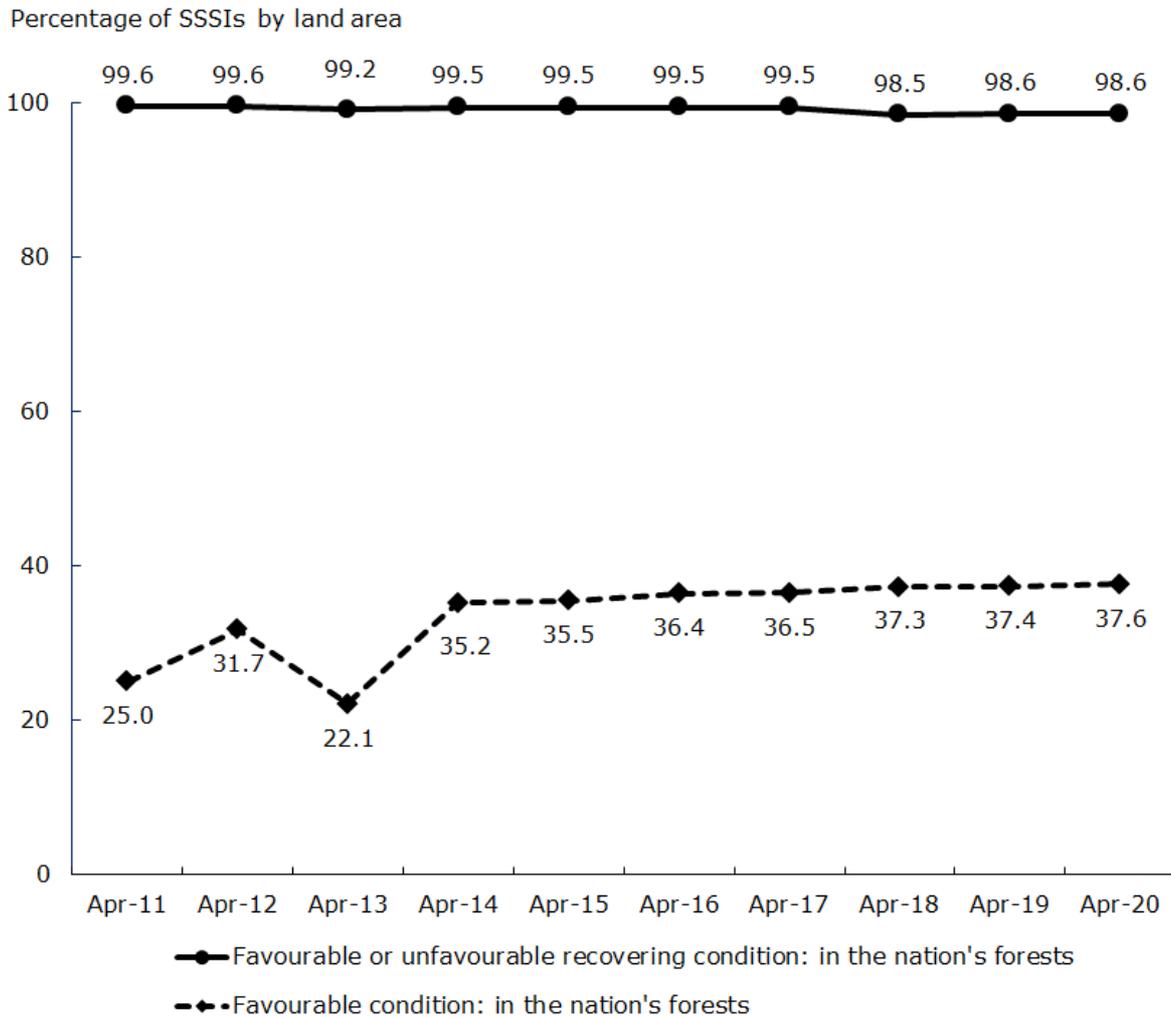
Source: Forestry England administrative data.

Work continues steadily on the thinning and restoration work across the Plantations on Ancient Woodland Sites (PAWS) managed by Forestry England. There was a reduction of 169 hectares of priority open habitat across the nation's forests. This was primarily due to a land transfer from Forestry England to Forestry and Land Scotland, with 173 ha of blanket bog transferred. The overall trend is for a slowing of priority open habitat creation over recent years in line with approved felling plans. The quantity of all open habitats has increased from 16.9% to 17.7% of the nation's forests since 2013, with greater than 2,000 hectares of open habitats created.

Assessment of change in: Hectares of restoration of plantations on ancient woodland sites (PAWS) and of open habitat in the nation's forests revised so in comparison with Forest Design Plans

PAWS: in the nation's forests	On track: Little or no overall change 
Open Habitats: in the nation's forests	On track: Little or no overall change 

Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition in the nation's forests



Source: Forestry Commission analysis of Natural England data on SSSIs.

Forestry England's continues work aimed at maintaining and improving the condition of the 68,000 hectares of woodland Sites of Special Scientific Interest (SSSI) within the nation's forests. In the last year we have seen a small increase in these SSSIs in favourable condition (up 85 hectares to 25,690 hectares). There has been a small decrease (down 217 hectares to 67,301 hectares) since last year in the total area of woodland SSSIs in either favourable or recovering condition.

Assessment of change in: Percentage of woodland Sites of Special Scientific Interest (by land area) in desired condition in the nation's forests

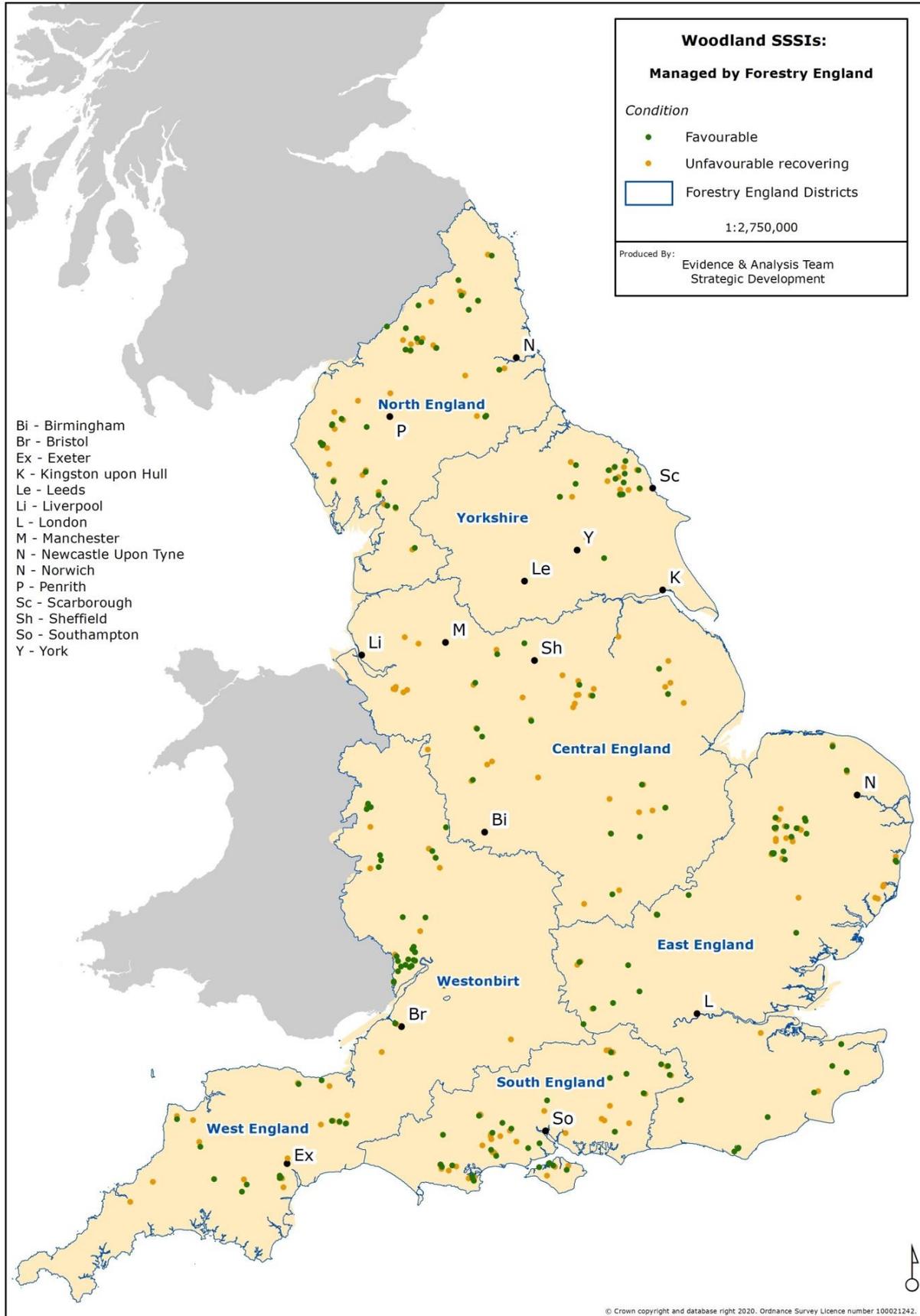
Favourable or unfavourable recovering condition:
Five year trend, Apr-20 compared to Apr-15

Little or no overall change 

Favourable condition:
Five year trend, Apr-20 compared to Apr-15

Improving 

Map 8: Woodland Sites of Special Scientific Interest managed by Forestry England in target condition, April 2020

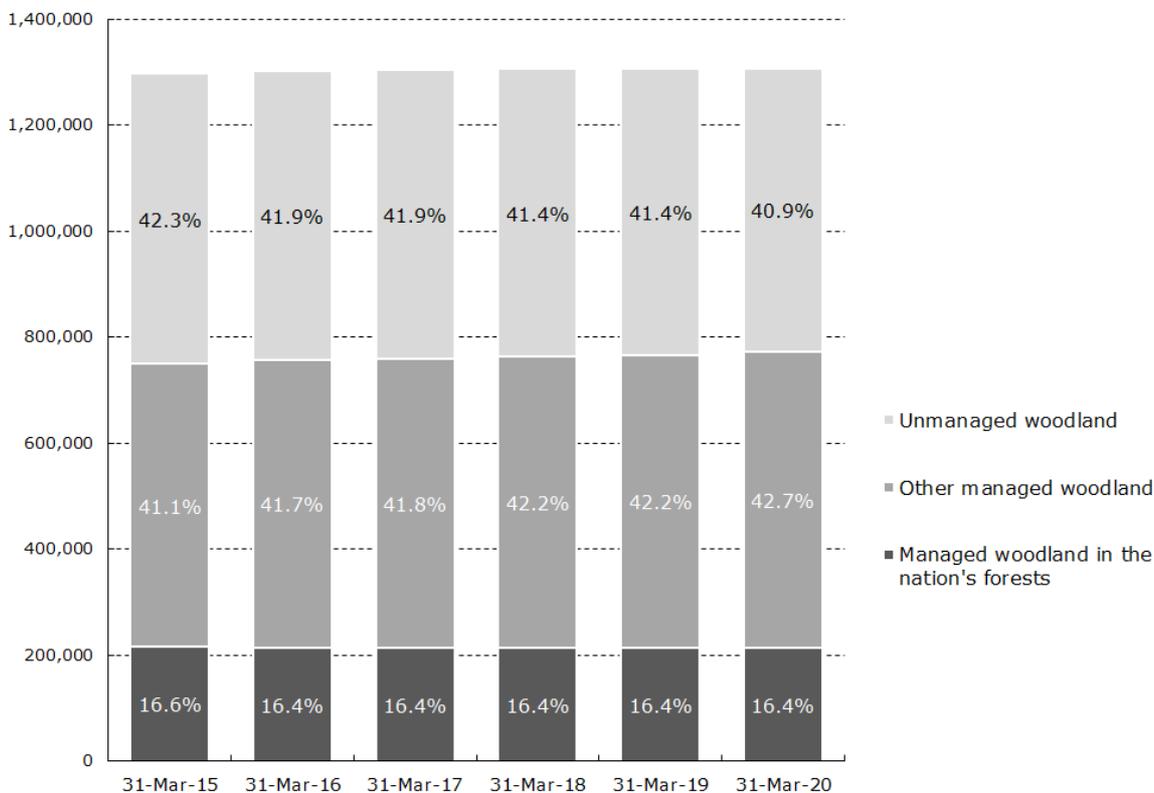


ECONOMY

Economic and environmental gain

Percentage of woodland in active management (Forestry England contribution)

Hectares of woodland in England



Source: Geospatial data underlying the Forestry Commission's [managed woodland headline indicator](#) (Forest Services), and that showing the location and extent of the nation's forests (Forestry England).

Some 16.4% of all woodland in England is managed in the nation's forests cared for by [Forestry England](#) as at 31 March 2020. They are independently certified under the [UK Woodland Assurance Standard \(UKWAS\)](#) and are therefore classified as in active management (a small proportion of the nation's forests are not classified as 'forestry' and are therefore not certified under UKWAS). This area in management represents about 28% of all the woodland in management in England.

Open Data: The [National Forest Inventory](#) and geospatial data showing the landholding managed by Forestry England are available from the [Forestry Commission Open Data site](#).

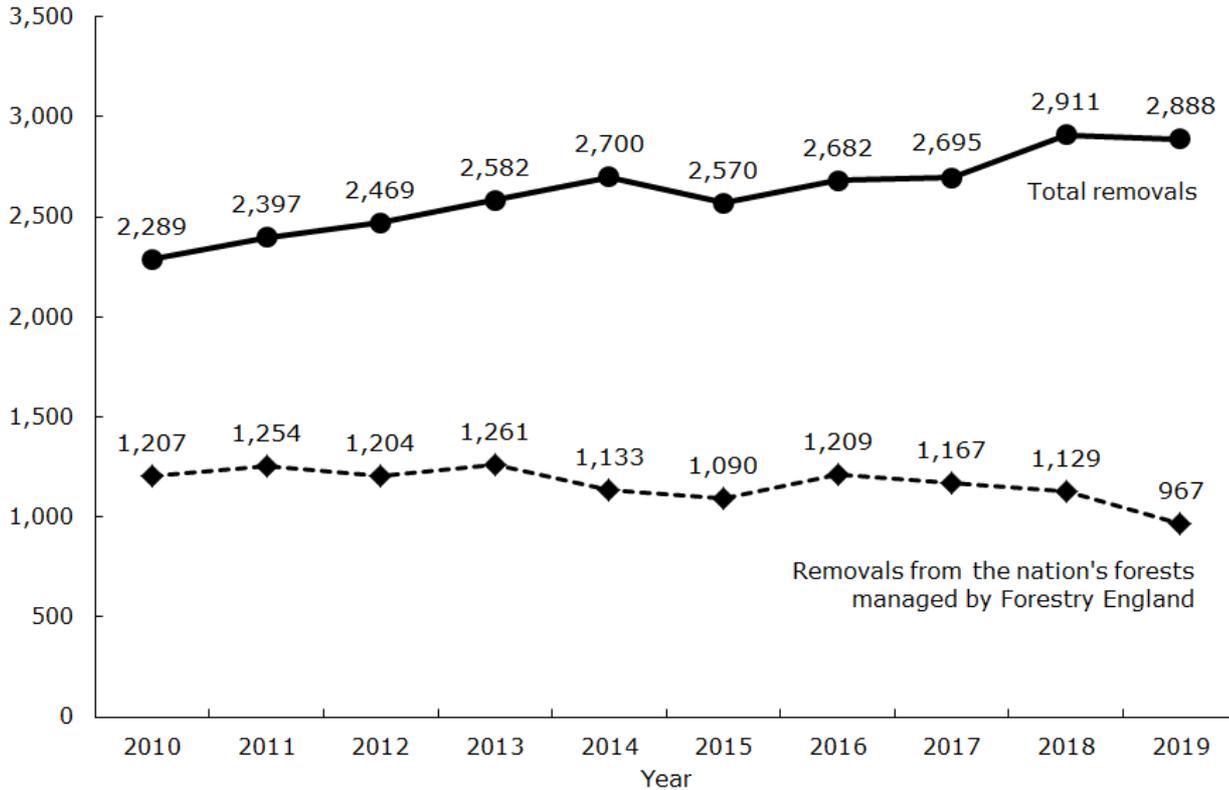
Assessment of change in: Percentage of woodland in active management (Forestry England contribution)

Five year trend: 31-Mar-20 compared to 31-Mar-15

Little or no overall change 

Volume of timber brought to market per annum from the nation's forests

Total softwood and hardwood removals (thousand green tonnes)



Note: Figures for 2010 to 2018 have been revised to reflect late updates to administrative or survey data.

Source: Forest Research statistics on [UK wood production and trade](#).

Forestry England offered to market the volume of wood from its production forecast and retained independent certification. The reduction in total removals from the nation's forests in 2019 is partly explained by a downturn in the market in the summer and autumn of that year.

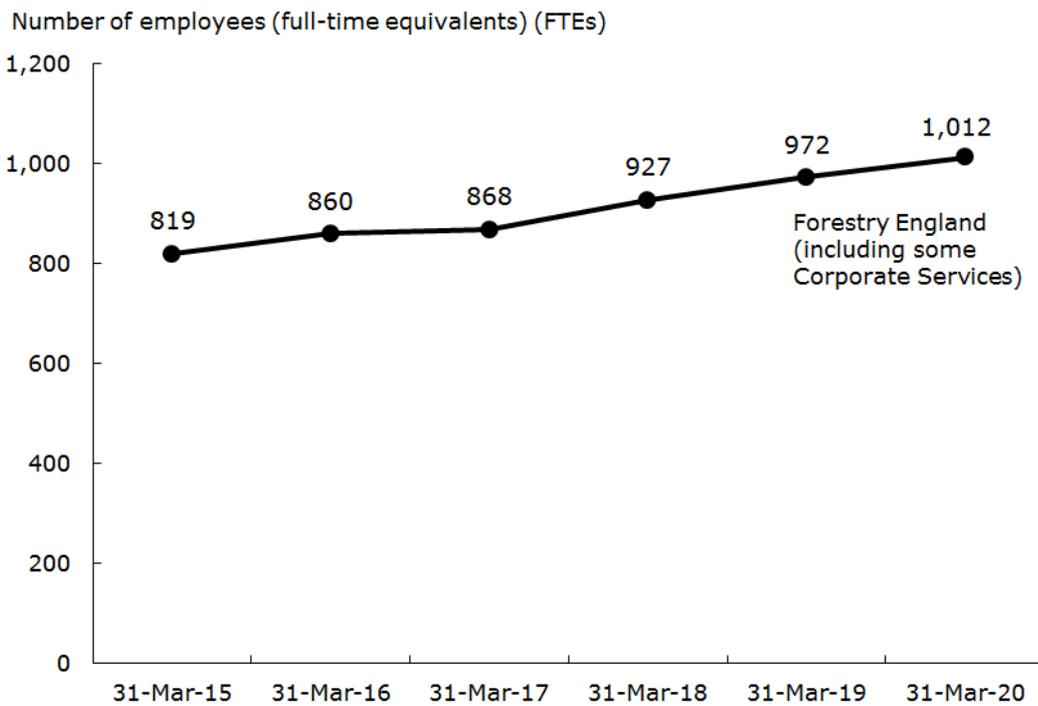
Assessment of change in: Volume of timber brought to market per annum from the nation's forests

This indicator compared to Forestry England timber production plan

Little or no overall change 

ORGANISATIONAL

Number of employees (full-time equivalents) in Forestry England



Source: Forestry Commission administrative data.

The number of employees (full-time equivalents) in Forestry England has increased by 40 since 31 March 2019. This is a slightly smaller increase than the previous year.

Forestry England concluded the transfer of all its corporate services to our National Office from Silvan House Central Services in 2019 and saw 21 people leave the organisation due to the restructure.

The subsequent increase in headcount (and FTEs) was contributed to by the establishment and further development of the corporate functions within National Office and National Operations Teams.

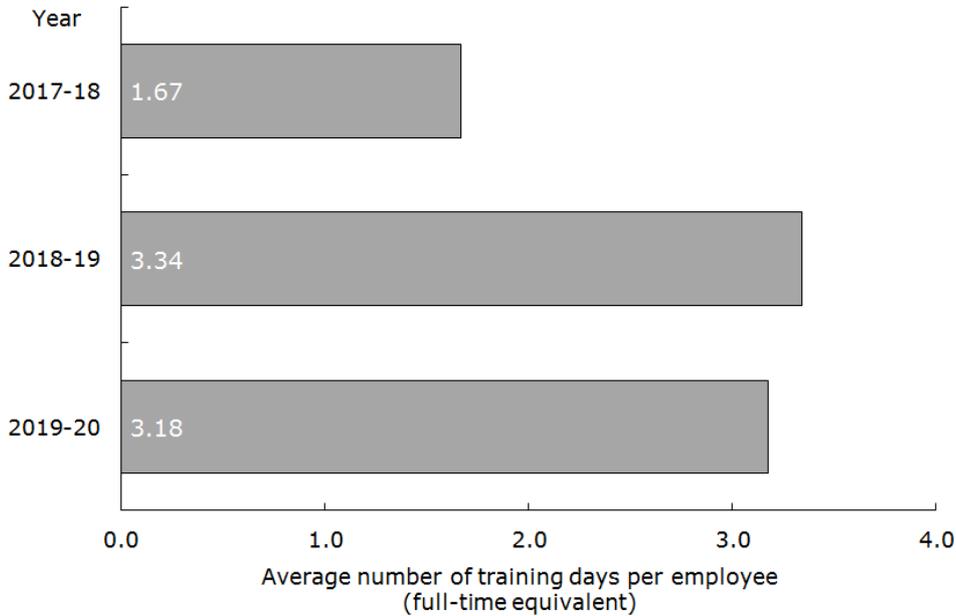
This year has seen an increased intake of 2 graduate trainees; one in our South District and the other in our East District. The Apprentice and Graduate programmes are planned to continue on a year by year basis rather than every other year. This fits in with Forestry England's long term aim to ensure organisational resilience in the face of an aging workforce with many forestry and wildlife employees nearing retirement system age.

Assessment of change since baseline in: Number of employees (full-time equivalents) in Forestry England

This indicator

Not assessed due to insufficient comparable data 

Average number of training days organised by the England internal training teams attended per employee (FTE) in Forestry England



Source: Forestry Commission administrative data.

The number of training days per actual employee (full-time equivalent) in Forestry England was 3.18 days in 2019-20, a small reduction of 5% compared to 2018-19. The indicator includes training arranged by the Human Resources Leadership Development team, by the Health & Safety and Technical training team, and by Forest Services' Business Support.

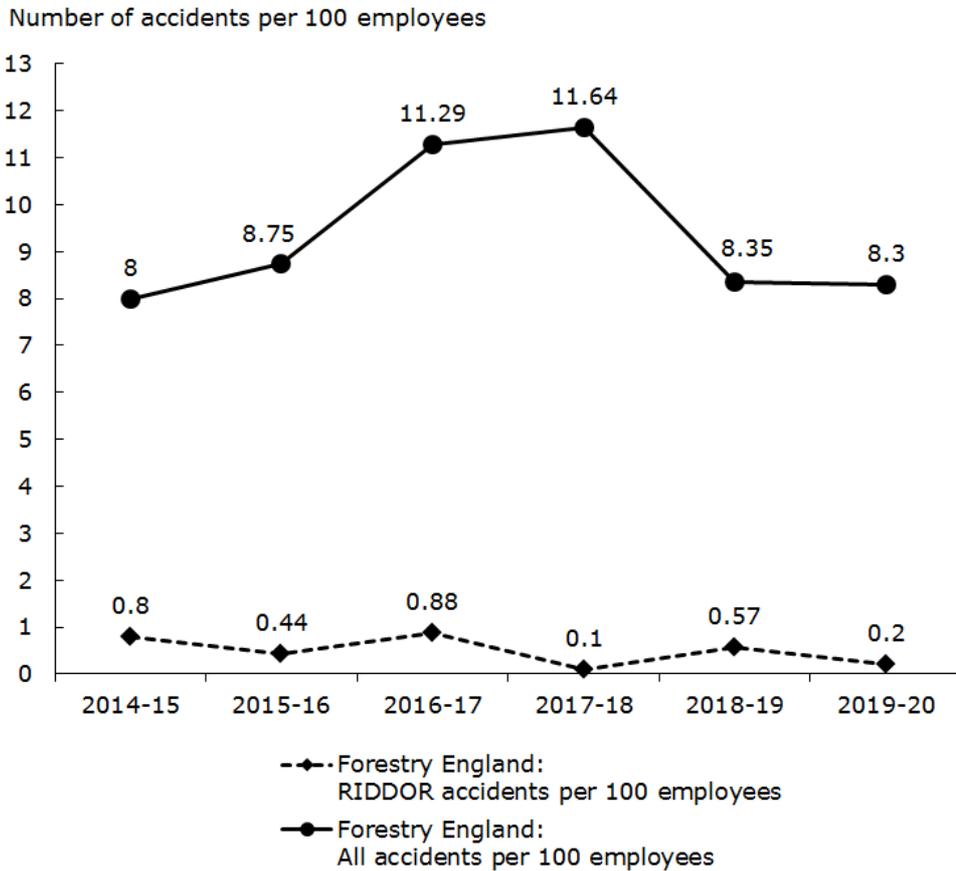
The continued development and refinement of a Quality Management System within Technical Training continues to pay dividends, allowing quantifiable continuous improvement. Overall, this has resulted in increased quality of training, and greater efficiency both from industry partners and internal training resources.

Assessment of change in: Average number of training days organised by the central internal training teams attended per employee (FTE) in Forestry England

Two year trend **only**: 2019-20 compared to 2017-18

Improving 

Number of work-related accidents per 100 employees in Forestry England



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

There has been a small reduction in the number of accidents reported in 2019-20, compared to the previous year. A number of projects are currently underway that respond to our staff survey and recent Health and Safety (H&S) audit that will further develop our H&S management system and the culture of the organisation.

Assessment of change in: Number of work-related accidents per 100 employees in Forestry England

Five year trend: 2019-20 compared to 2014-15

Deteriorating 



Government
Internal Audit
Agency



INTERNAL AUDIT CERTIFICATE OF ASSURANCE

Forestry Commission (FC) Performance Indicators for the year ended 31 March 2020 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 2020, to be effective and appropriate.

Sally Flett

Sally Flett FCPFA, ACFS, IIA(Aff)
Head of Internal Audit, Forestry Commission
Government Internal Audit Agency
29 May 2020

Official Statistics

This is an Official Statistics publication, produced to meet 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 Key Performance Indicators: Report for 2019-20

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This report is available online at:
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