

Forestry Commission Key Performance Indicators

Report for 2023-24



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Introduction

This Forestry Commission Key Performance Indicators (KPIs) report contains our annual report on our corporate performance for 2023-24.

The Forestry Commission are government's forestry and woodland experts and increase the value of woodlands to society and the environment. This report provides updates on the Forestry Commission's ten headline indicators, Forestry England's six headline indicators and 23 further indicators for Forest Services. Produced with a view to adhering to the standards of the Code of Practice for Statistics this is an Official Statistics publication. Further information is available from the <u>Forestry Commission key performance indicators web pages</u> on gov.uk.

Economics, Evidence and Analysis Strategy and Transformation Forest Services Forestry Commission

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Summary

A proper review of this Indicators Report 2023-24 is best made by reading each report in full. However, we also provide a simple assessment of short-term trends over time for each indicator. An assessment has been made by comparing the difference between the value of the indicator in the most recent single year for which data are available with the data from five years earlier. This methodology is like a key part of that developed for the UK Biodiversity Indicators (JNCC, 2023). Table 1 provides the assessment criteria.

Table 1: Indicator trend assessment criteria

Category	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

The assessments do not account for outliers in the data nor fluctuations in intervening years. For indicators where we do not yet have a time series covering at least 5 years the assessment the threshold is 1% per annum for the longest time period available, and these assessments should be treated with more care.



Table 2: Summary: short term trends in each indicator

Indicator	Trend	Page
Forestry Commission headline indicators		
New planting of woodland and trees in England	Improving	8
Proportion of woodland in England sustainably managed	Little change	11
Number of additional tree pests and diseases becoming established in England	Improving	12
Percentage of known tree felling carried out with Forestry Commission approval	Little change	13
Carbon sequestered by England's woodland	Deteriorating	14
Natural capital value of England's forests and woodland	Not assessed	15
Ecological condition of woodland in England	Not assessed	16
Proportion of adults in England who visited a forest or woodland	Little change	19
Gross Value Added of forestry sector for the economy in England	Improving	20
Forestry England headline indicators		
Land area of the nation's forests held by Forestry England	Little change	21
Total natural capital value of the nation's forests	Improving	22
Public engagement: Number of visits per annum to the nation's forests managed by Forestry England	Improving	23
Percentage of Forestry England's income that is self-generated	Deteriorating	24
Health and safety: Number of work-related accidents per 100 employees in Forestry England	Improving	25
Health and safety: Number of accidents per 100,000 visits to the main visitor hubs in the nation's forests	Improving	26

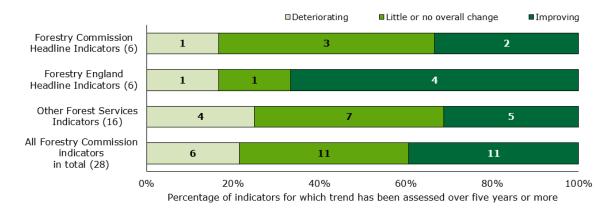


 Table 2: Summary: short term trends in each indicator continued

Indicator		Trend	Page
Forest Services indicators			
Area of woodland in England		Little change	27
Area of tree cover outside woodland in Engla	and	Improving	29
Percentage of new planting of woodland in E woodland	England that is broadleaved	Improving	30
Net change in woodland area, based on the of woodland, and woodland removal	balance between new planting	Improving	31
Connectivity of woodland in England		Little change	34
Area of woodland in England that is certified	,	Deteriorating	35
Number of high priority forest pests in the UK Plant Health Risk Register (UKPHRR)		Improving	36
Area of felling licences issued		Little change	40
Number of apprentices, those with work- based diplomas, and university students	Apprentices and those with work-based diplomas	Improving	41
entering forestry	University students	Little change	41
Forest Services' training support for the English forestry sector (hours of training events)		Improving	42
Projected carbon capture in 2050 by Woodland Carbon Code woodland creation projects		Little change	43
Percentage of the annual growth of trees in English woodlands that is a harvested		Deteriorating	44
Volume of timber brought to market per ann	-	Deteriorating	45
Percentage of woodland Sites of Special Scientific Interest in desired condition in	Favourable or unfavourable recovering condition	Little change	46
England	Favourable condition	Little change	46
Hectares of restoration of plantations on	PAWS	Deteriorating	47
ancient woodland sites (PAWS) and of open habitat in woodland in England	Open habitat	Little change	47
Measure of what is happening to the numbe live in woodland; using Woodland Birds data	Deteriorating	48	
Percentage of people in Priority Places close to accessible woodland in England		Little change	49
Percentage of grant and felling licence transactions completed on time or early		Little change	50
Percentage of Forest Services grants and fel report their customer satisfaction as either v		Not assessed	51
Number of work-related accidents per 100 e Forest Services	employees (headcount) in	Improving	52

A precis of the short-term trend assessments is also provided. This is for 28 out of the 38 Forestry Commission indicators where the trend has been assessed over a period of five years or more (see Figure 1).

Figure 1: Precis of short-term trends in the Forestry Commission Key Performance Indicators, 2023-24



Forestry Commission headline indicators

New planting of woodland and trees in England



Note: Statistics until 2021-22 are for planting of new woodland and from 2022-23 onwards for planting of new woodland and trees outside woodland.

Source: Forestry Statistics 2023 (Forest Research) and Forestry Commission Key Performance Indicators.

In 2023-24, 4,547 hectares of new woodland was established in England, of which 4,164 hectares received government funding, mostly through the Nature for Climate Fund. The Forestry Commissions 'England Woodland Creation Offer' and England's Community Forests 'Trees for Climate programme' were the largest contributors. Woodland creation rates in 2023-24 were 45% higher than in 2022-23 and more than double those achieved in 2021-22.

In addition, 546,000 trees were planted outside woodland, equivalent to 982 hectares, bringing the total area of tree canopy established and numbers of trees planted to 5,529 hectares and 7.1 million trees, respectively. This is a 52% increase in tree planting and woodland creation combined compared to the previous year.

Table 3: New planting of woodland and trees in England, 2023-24

New planting of woodland by type of support	Area of woodland newly planted, 2023-24 (hectares)	Area of woodland newly planted, 2023-24 (equivalent in number of trees)	
Woodland			
Government-supported			
Countryside Stewardship woodland	32	55,000	
England Woodland Creation Offer	1,648	2,574,000	
High Speed 2 Woodland Fund	7	14,500	
Forestry England	170	518,000	
Countryside Stewardship: other tree planting options	69	111,000	
Environment Agency	91	122,000	
Northern Forest	238	226,000	
National Forest Company	101	83,000	
Community Forests	1,660	2,225,000	
Woodland Creation Partnerships	59	119,000	
Green Recovery Challenge Fund	89	80,000	
Sub-total Government-supported	4,164	6,127,000	
Other support and non-governmental organisations			
Woodland Carbon Guarantee	187	154,000	
Woodland Trust	197	264,000	
Sub-total	383	418,000	
Total woodland	4,547 hectares of woodland	6,545,000 trees within woodland	



Table 3 continued:

New planting of trees outside woodland by type of support	Approximate area equivalent, 2023-24 (hectares)	Number of individual trees newly planted, 2023-24 (number)	
Trees outside woodland			
Government-supported			
Countryside Stewardship single trees	18	14,000	
England Woodland Creation Offer	105	11,000	
Forestry England	6	16,000	
Environment Agency	83	20,000	
Northern Forest	34	35,000	
National Forest Company	116	10,000	
Community Forests	316	193,000	
Coronation Living Heritage Fund	18	14,000	
Woodland Creation Partnerships	13	55,000	
Green Recovery Challenge Fund	115	50,000	
Local Authority Treescapes Fund	138	110,000	
Urban Tree Challenge Fund	21	17,000	
Total trees outside woodland	Approx. 982 hectares	546,000 trees outside woodland	
Total woodland and trees outside woodland	Approx. 5,529 hectares within and outside woodland	7,091,000 trees within and outside woodland	

Notes:

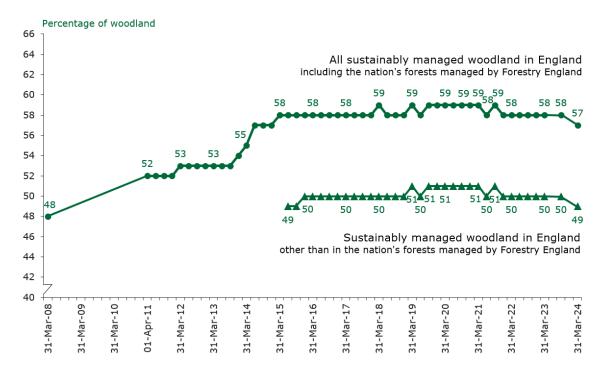
- 1. Statistics for woodland are for planting that is estimated to meet the National Forest Inventory (NFI) definition of woodland, namely as land with a minimum area of 0.5 hectare under stands of trees, and tree crown cover of at least 20%, or the potential to achieve this. The minimum width for woodland is 20 metres. Where necessary estimates for trees outside woodland have been converted to an approximate equivalent area in hectares based on the Trees and Woodland Scientific Advisory Group's advice of an assumed stocking density of 800 trees per hectare.
- 2. Returns for the Urban Trees Challenge Fund and Local Authority Treescapes Fund are based on numbers claimed and in some cases verification may not be complete. Green Recovery Challenge Fund statistics are for the scheme as a whole and may include new planting for previous years.
- 3. The density of tree planting in numbers of trees planted per hectare of land varies between planting schemes. Areas of woodland are rounded to the nearest hectare and tree numbers are approximate and rounded to the nearest 1,000 trees. Statistics in the table may not sum due to rounding.
- 4. This indicator at present includes returns received for new planting either supported by government or that facilitated by the Woodland Carbon Guarantee or supported by the Woodland Trust. It is anticipated that future reports will include other new planting in England.

Assessment of change in: New planting of woodland and trees in England

Five-year trend, 2023-24 compared to 2018-19



Proportion of woodland in England sustainably managed



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

As at 31st March 2024, 57% of all woodland in England was considered sustainably managed; totaling 760,000 hectares of woodland in management (at this date, when rounded). The equivalent figure for woodland other than in the nation's forests was 49%, totaling 545,000 hectares of woodland in management (at this date, when rounded).

Our definition of 'sustainably managed' is woodland managed to the UK Forestry Standard that has a Woodland Management Plan, or for which we have provided a grant or a felling licence in the last 15 years. It also includes all woodland in the nation's forests managed by Forestry England, and all woodland on the Defence Infrastructure Organisation training areas. It is recognised that other woodland might be considered as managed as well.

Demand for timber and timber products remains high, and there is scope to further increase the area of woodland sustainably managed to meet demand for UK grown timber. This will help improve woodland resilience, manage tree pests and diseases, and reduce England's reliance on timber imports in the face of global supply-chain uncertainties.

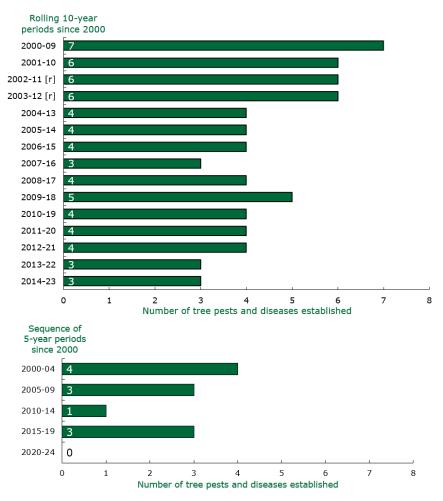
Assessment of change in: Proportion of woodland in England sustainably managed

Five-year trend, 31-Mar-24 compared to 31-Mar-19

Little or no overall change



Number of additional tree pests and diseases becoming established in England



Source: Forestry Commission administrative data.

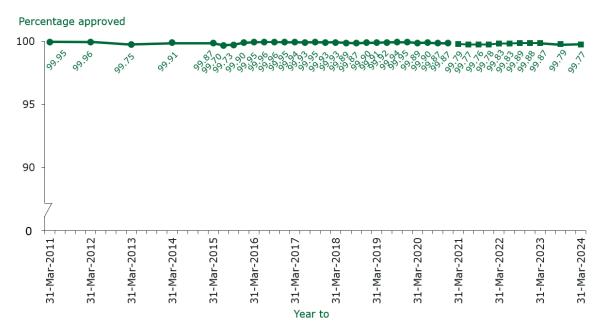
In the most recent ten-year period (2013-22), three tree pests and diseases became 'established' in England. These are Oriental chestnut gall wasp, elm zigzag sawfly and sweet chestnut blight (SCB). Sweet chestnut trees are monitored through a surveillance programme and in 2023 about 22,440 sweet chestnut trees were surveyed across 160 survey sites in England and about 2,954 trees were surveyed at a further 16 fixed observation plots in England and Wales. Any sites infected with SCB are subject to appropriate management action including monitoring and the approach remains one of containment and supporting steps towards eradication wherever practical to do so.

Assessment of change in: Number of additional tree pests and diseases becoming established in England

Five-year trend, 2014-2023 compared to 2009-2018



Proportion of known tree felling in England carried out with Forestry Commission approval



Source: Forestry Commission administrative data.

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

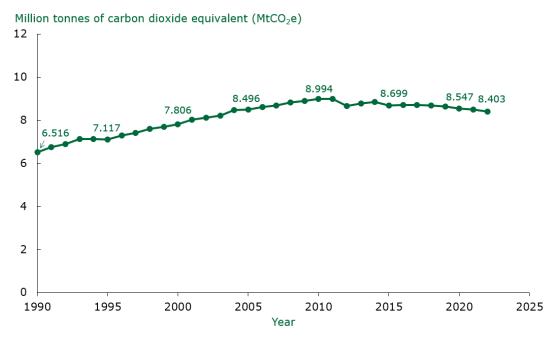
Assessment of change in: Proportion of known tree felling in England carried out with Forestry Commission approval

Five-year trend, 31-Mar-24 compared to 31-Mar-19

Little or no overall change



Carbon sequestered by England's woodland



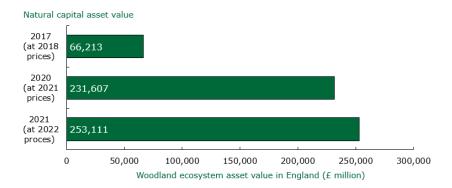
Source: Data from the UK greenhouse gas emissions statistics (Department for Energy Security and Net Zero).

The net greenhouse gas sink strength of England's woodlands has decreased slightly from 8.505 MtCO₂e in 2021 to 8.403 MtCO₂e in 2022 (based on the updated time-series), but remains 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. A removal (or sink) of 8.403 MtCO2e is equivalent to 2.1% of total UK greenhouse gas emissions for 2022, or 17.6% of agricultural emissions (see Table 1.2 of the Final UK greenhouse gas (GHG) emissions national statistics 1990-2022 for total GHG emissions and agricultural emissions).

Assessment of change in: Carbon sequestered by England's woodland



Natural Capital Value of England's forests and woodlands



Source: Woodland natural capital accounts, UK: 2024 (Office for National Statistics, 2024).

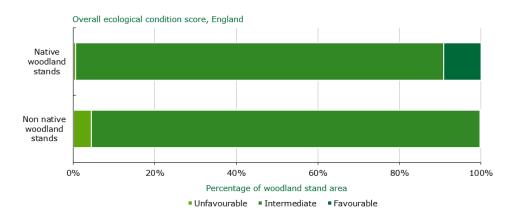
The Office for National Statistics' woodland natural capital accounts 2024 identify that as a result of changing methods and an expanding portfolio of natural services measured, this latest account cannot be compared with previous years' accounts on a like-for-like basis. The overall value of natural capital from England's woodlands is estimated at £253bn, an increase of 9% on last year's report and over three times higher than the 2017 estimate. The change in methodology, and inclusion of a wider set of services, account for most of this change. Forestry Statistics 2023 (Forest Research) indicate an increasing area of woodland in England, associated with new planting. Increased services from new woodland creation contribute to a positive trend in ecosystem service value.

Assessment of change in: Natural Capital Value of England's forests and woodlands

This indicator

Not assessed due to no comparable data

Ecological condition of woodland in England



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

There are 914 thousand hectares of native woodland in England (around 68% of all woodland) and 398 thousand hectares of non-native woodland (30%) and 29 thousand hectares near native and fragments (2%) plus a small amount not determinable. 99.5% of native woodland, and 95.6% of non-native woodland, is in favourable or intermediate condition, based on the latest available National Forest Inventory (2010-15) survey cycle data (Figure 8).

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

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

Figure 2: The proportion of each woodland ecological condition (WEC) class, for each WEC indicator type in native woodland stands in England

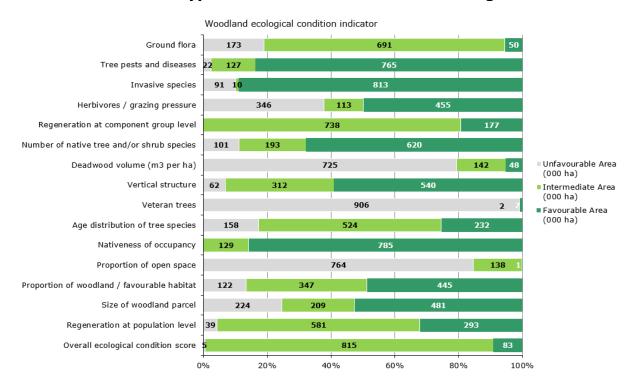
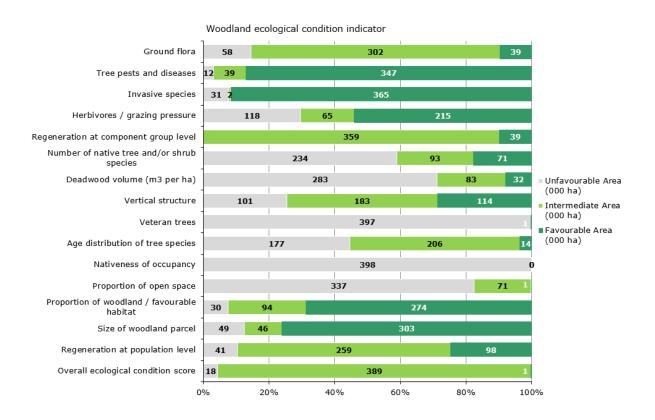


Figure 3: The proportion of each woodland ecological condition (WEC) class, for each WEC indicator type in non-native woodland stands in England





Notes on woodland ecological condition in England

Note 1: Native woodland

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

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

Note 2: Non-native woodland

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

Note 3: Definition of the indicators:

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

Note 4: Classifications for each indicator and overall scoring

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

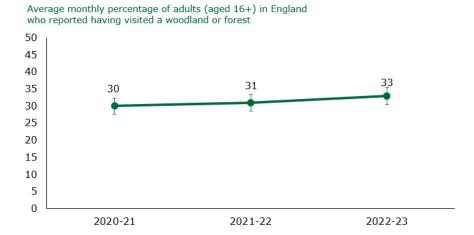
Assessment of change in: Ecological condition of woodland in England

This indicator

Not assessed due to no comparable data



Proportion of adults in England who visited a forest or woodland



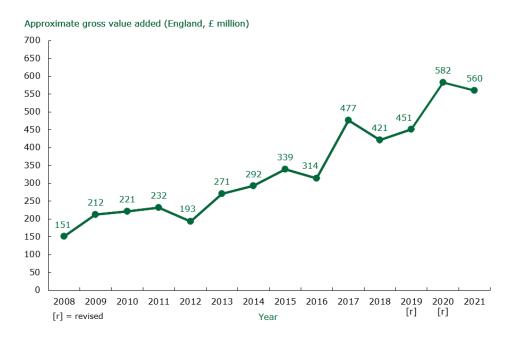
Source: People and Nature Survey for England (Natural England).

The estimate of the proportion of adults in England who visited a woodland or forest is a slight increase in 2022-23 compared to 2020-21 although this change is not statistically significant. A positive trend over this time was reported in the Public Opinion of Forestry Survey 2023 (Forest Research).

Assessment of change in: Proportion of adults in England who visited a forest or woodland



Gross Value Added of forestry sector for the economy in England



Source: Annual Business Survey 2021 and quality measures (Office for National Statistics).

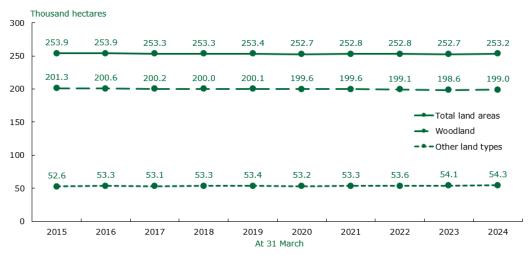
Strong ongoing demand for domestic timber to offset reduced imports in a buoyant timber market has contributed to a general upward trend in Gross Value Added since 2008.

Assessment of change in: Gross Value Added of forestry sector for the economy in England



Forestry England headline indicators

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



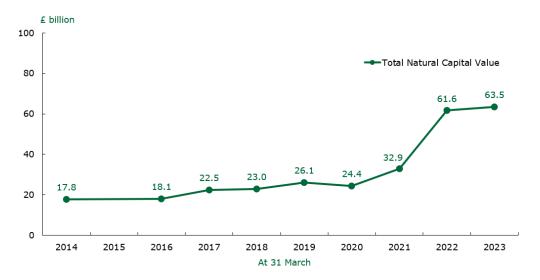
Source: Forestry England administrative data.

The total area of the nation's forests - those forests which are owned freehold or through leasehold by Forestry England - has been maintained, with a slight increase since last year due to our proactive woodland creation programme. 'Woodland' is broadly maintained, with a small increase this year in line with longer term trends, but this KPI rarely sees substantial annual change, and has broadly remained the same since 2014.

Assessment of change in: Land area of the nation's forests held by Forestry England



Total natural capital value of the nation's forests



Source: Forestry England Natural Capital Accounts (Forestry England, 2023).

The total calculated natural capital value for the reporting year 2023-24 is £63.5 billion. This is the calculated net present value of the ecosystem services that our natural habitats have delivered this year and will deliver into the future – they are not a 'price tag' or market price for the nation's forests. Natural capital is a way of showing the extent of the positive impact they have on our lives, helping us to better understand and value these natural assets so that we can protect them. They are an attempt at showing the value to society of natural habitats and processes that are not captured under the historical cost convention modified to account for the revaluation of property, plant and equipment, inventories and available-for-sale financial assets. Approximately £24.281 billion of this is due to recreation and public access, and £17.5 billion due to carbon sequestration. Due to the timing of producing our natural capital accounts, this NCA figure is based on data from the previous financial reporting year (2022-23), and so is always one year behind the rest of the Annual Report and Accounts.

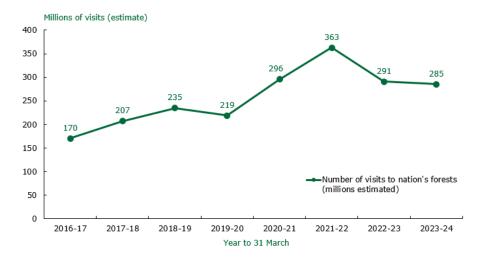
NOTE: The natural capital accounts include monetary flow figures for each ecosystem service. The total natural capital value is the net present value projected across the next 50 years. The net value of the annual monetary account is £1.8 billion this year.

Assessment of change in: Total natural capital value of the nation's forests

Five-year trend, March 2024 compared to March 2019



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



Source: Surveys conducted for Forestry England.

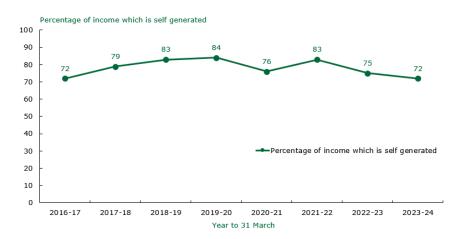
Visits to the nation's forest were very close to 2022-23 levels and remain significantly higher than pre-pandemic (up 21% compared to 2018-19 visits).

Assessment of change in: Number of visits per annum to the nation's forests managed by Forestry England

Four-year trend only, 2023-24 compared to 2018-19



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



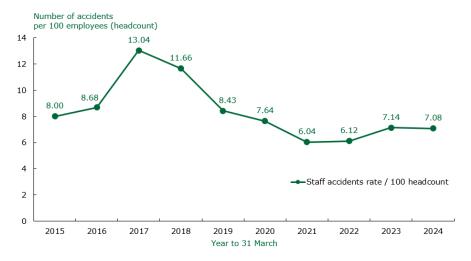
Source: Forestry England accounts.

This indicator shows how much of our income is self-generated and indicates the relative level of our reliance on government funding. In 2023-24 our self-generated income increased by £4.0 million, mainly due to increased income from grants and Service Level Agreement. In the same term, we received higher than usual amounts of non-recurrent funding from Defra in support of our capital programmes and continuing plant health work. Whilst government funded programmes (including Nature for Climate) continue, self-generated income is anticipated to be below 80%, as we deliver the benefits associated with these additional government funded programs.

Assessment of change in: Percentage of Forestry England's income that is self-generated



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



Source: Forestry Commission administrative data.

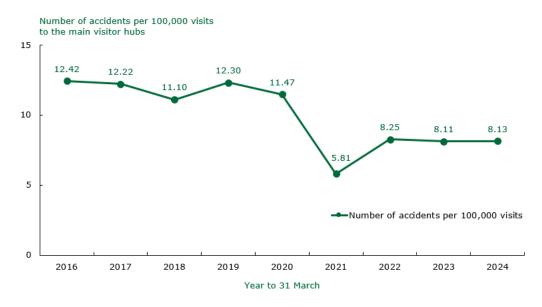
The number of accidents per 100 employees (headcount) for the financial year 2023-24 was 7.08. Staff headcount is approximately 2% higher than it was at the end of 2022-23, and so is relatively stable, whereas accidents reported are up to 93 from 90. The proportional increase in accidents reported (3%) is slightly higher than the proportional increase in headcount, but overall the accident rate has decreased by 0.85%. Work is underway to improve accident reporting and investigation to ensure that lessons and corrective actions are implemented. The long-term trend shows a general decline in the accident rate since 2018-19. Further work is underway to improve the categorisation of data that is collected, and the statistical analysis generated, to develop targeted improvements.

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

Five-year trend, 2023-24 compared to 2018-19



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



Source: Forestry England administrative data.

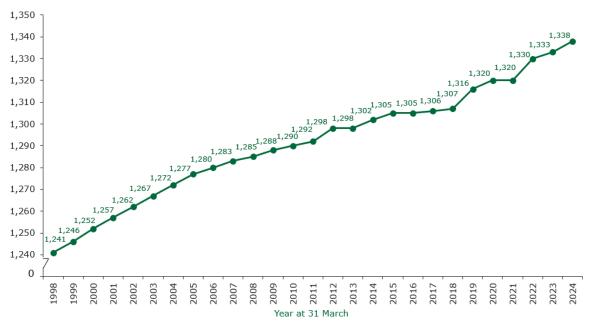
The public accident rate is calculated from the total number of accidents over the financial year, divided by the total visits to main hubs. The rate is then shown as accidents per 100,000 visits. The accident rate for 2023-24 was 8.13 per 100,000 visits. This is a slightly higher accident rate compared to the previous reporting year (0.25%). There have been more visits to hubs this year (5.2%) and a 6.65% increase in the total number of accidents.

Assessment of change in: Number of accidents per 100,000 visits to the main visitor hubs in the nation's forests

Five-year trend, 2023-24 compared to 2018-19

Forest Services indicators

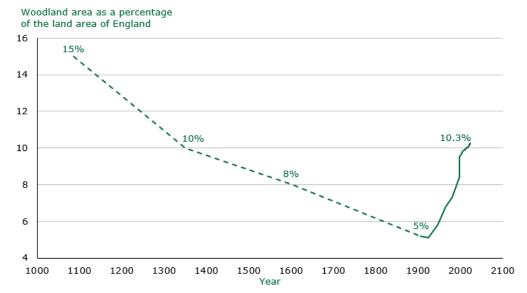
Area of woodland in England



Source: Forestry Statistics and Provisional Woodland Statistics (Forest Research).

The area of woodland in England is 1,338 thousand hectares (10.3% of the land area) at 31 March 2024 (provisional statistics). This statistic is scheduled to be confirmed in Forestry Statistics 2024 (published by Forest Research) later in the year. The March 2024 figure is an increase of five thousand hectares on the previous year.

Figure 4: Woodland area as a percentage of land area of England



Source: Forestry Statistics.

Assessment of change in: Area of woodland



Area of tree cover outside woodland in England



Source and methodology for these estimates: Tree cover outside woodland in Great Britain reports (Forest Research, 2017) and Forestry Statistics 2023 (Forest Research).

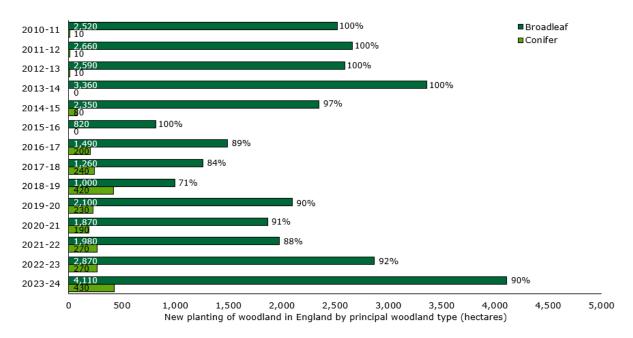
The area of tree canopy cover outside woodland in England at 31 March 2022 was 610,000 hectares comprising 586 thousand hectares of tree canopy and 24 thousand hectares of traditional orchards. This represents an increase of 45,000 hectares compared with the previous figure of 565,000 hectares. The increase is made up from 24,000 hectares of traditional orchards that were not previously included in the metric and 21,000 hectares of tree canopy that had not previously been detected. Together with woodland cover (1,330 thousand hectares or 10.2% of land area) the total area of tree canopy cover is 1,940 thousand hectares equivalent to 14.9% of England's land area and establishes the revised baseline for the statutory target, set under the powers of the Environment Act, to increase tree canopy and woodland cover to 16.5% of land area in England by 2050.

Assessment of change in: Area of tree cover outside woodland in England

Five or more year trend, Mar-22 compared to Jan-16



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



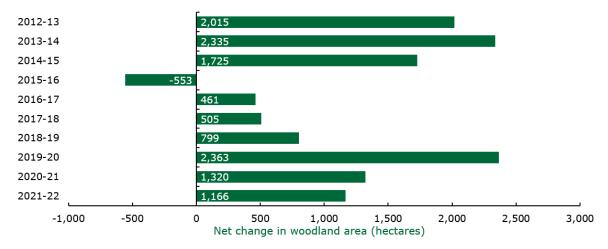
Source: Forestry Statistics 2023 and Provisional Woodland Statistics 2024 (Forest Research)

The majority (90%) of the woodland reported as planted in England in 23/24 was broadleaf, with the remainder conifer species. This continues the trend reported over the previous five years with the continuing dominance of broadleaf planting supporting Government's nature recovery commitments. The percentage of conifer planted, as an average over the past five years is 10% helping to increase softwood timber stocks and improve timber security in the longer term.

Assessment of change in: Percentage of new planting of woodland in England that is broadleaved woodland

This indicator Improving

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



Sources: Forestry Commission administrative data and statistics.

In 2021-22, the most recent year for which data are available, there was a net increase in woodland area of 1,166 hectares once woodland removal for open habitat restoration and woodland loss to development is accounted for. The net increase was broadly similar to that reported for 2020-21 (1,320 ha) and the average over the preceding five years (1,086 ha). The area of woodland lost to development (282 hectares) was 26% less than the average over the preceding five years (381 hectares), while the area reported as restored to open habitat in the nation's forests (777 hectares) was the highest in the time series and nearly double the area restored last year.

Table 4: Components of net change in woodland area in England

Contribution to change in woodland area (Hectares)	2012-13	2013-14	2014-15	2015-16	2016-17
Woodland creation (+)					
a. Total new planting ¹	2,595	3,361	2,426	824	1,159
Woodland removal (-)					
Open habitat restoration other than in the nation's forests ²	341	693	273	434	200
Open habitat restoration in the nation's forests ²	119	213	70	116	85
Attributable to development ³	120	120	358	827	413
b. Total woodland removal	580	1,026	701	1,377	698
c. Total net change in woodland area (a. minus b.)	2,015	2,335	1,725	-553	461

Contribution to change in woodland area (Hectares)	2017-18	2018-19	2019-20 [r]	2020-21	2021-22
Woodland creation (+)					
a. Total new planting ¹	1,501	1,413	2,340	2,052	2,255
Woodland removal (-)					
Open habitat restoration other than in the nation's forests ²	197	286	89	9	30
Open habitat restoration in the nation's forests ²	138	-105	-169	399	777
Attributable to development ³	661	433	75	324	282
b. Total woodland removal	996	614	-5	732	1,089
c. Total net change in woodland area (a. minus b.)	505	799	2,363	1,320	1,166

[[]r] = revision

Sources:

^{1.} Forestry Commission (2023) Forestry Statistics 2023, Edinburgh: Forestry Commission.

^{2.} Forestry Commission (2024) Key Performance Indicators: Report for 2023-24, Bristol: Forestry Commission.

^{3.} Forestry Commission (2016) Preliminary estimates of the changes in canopy cover in British woodlands between 2006 and 2015, Edinburgh: Forestry Commission, National Forest Inventory, and updates from the National Forest Inventory team.



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

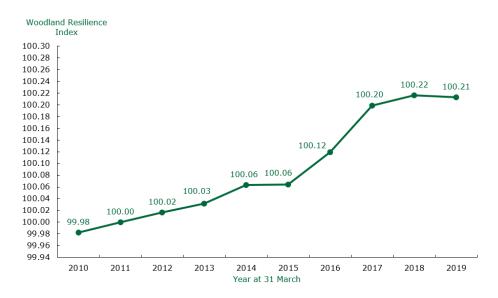
The indicator generally reports woodland creation and loss in England that conforms to the National Forest Inventory definition of woodland (of at least 0.5 hectares in area with a minimum width of 20 metres, and that have at least 20% canopy cover, or the potential to achieve this). Creation of integral 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 months 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

Connectivity of woodland in England



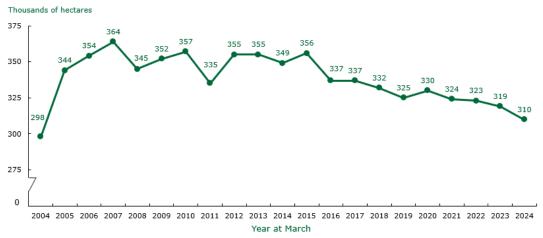
Source: Forestry Commission administrative data and National Forest Inventory woodland map (Forest Research).

Maintaining and improving connectivity is important in promoting nature recovery in fragmented habitats, especially under a changing climate. When habitats are more connected, species populations can expand or migrate at different rates in response to threats and pressures. Greater connectivity makes it easier for woodland ecological communities to gradually adapt to changes in climate. Connectivity of woodland is measured according to the size and distribution of patches of forests and woodlands, relative to a value of 100 assigned to 2011. This indicator shows an increase in connectivity for forests and woodlands in England between 2011 and 2019, which is the last date for which data is available.

Assessment of change in: Connectivity of woodland in England



Area of woodland in England that is certified as sustainably managed



Source: Provisional Woodland Statistics 2024 (Forest Research).

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

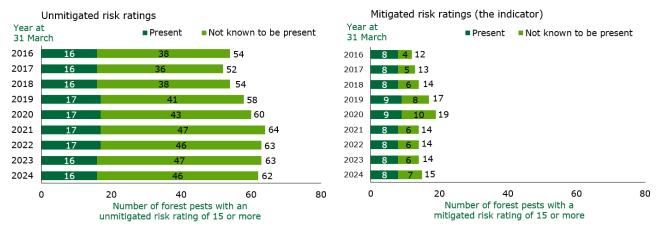
Assessment of change in: Area of woodland in England that is certified as sustainably managed

Five-year trend, 31-Mar-24 compared to 31-Mar-19

Deteriorating



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 2024: There are now 408 pests identified as a threat to trees on the UK Plant Health Risk Register (UKPHRR), 15 (4%) of which have been assessed and are considered high priority (Table 6).

Pests are ranked as high priority if they are assessed as having a mitigated relative risk rating of 15 or more. 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 a slight increase in the overall number of forest pests and diseases of concern from last year.

Eight of the fifteen consider high risk pests are currently present in England, three being classed as widespread - *Hymenoscyphus fraxineus* (ash dieback), *Phytophthora alni* (affects all alder species), and *Pseudomonas syringae pv. Aesculi* (Horse chestnut bleeding canker).

Unmitigated risk ratings

The number of forest pests assessed as having an unmitigated risk rating of 15 or more at the end of March 2024 is 62 (15%) of pests identified as forest pests on the UKPHRR.

Table 5: The 15 high priority forest pests in the UK Plant Health Risk Register with a relative risk rating (mitigated) of 15 or more at end March 2024.

Pest or disease: common name	Pest or disease: Latin name	Type of pest or disease	Present in the UK?	Mitigated likelihood score	Mitigated impact rating	Mitigated likelihood multiplied by impact risk rating
Bleeding canker of horse chestnut	Pseudomonas syringae pv. aesculi	Bacterium	Present: widespread	5	4	20
Shoot blight on cedar/Tip blight on eastern hemlocks	Sirococcus tsugae	Fungus	Present: unknown distribution	5	4	20
Two-lined chestnut borer	Agrilus bilineatus	Insect	Absent	4	5	20
<i>Chalara</i> ash dieback	Hymenoscyphus fraxineus	Fungus	Present: widespread	4	4	16
Eight-toothed spruce bark beetle	Ips typographus	Insect	Absent	4	4	16
Sudden oak death; ramorum shoot dieback	Phytophthora ramorum	Oomycete ¹	Present: limited	4	4	16
Alder <i>Phytophthora</i> root disease	Phytophthora alni	Oomycete ⁶	Present: widespread	4	4	16
n/a	Lonsdalea populi	Bacterium	Absent	4	4	16
Emerald ash borer	Agrilus planipennis	Insect	Absent	3	5	15
Zigzag elm sawfly	Aproceros leucopoda	Insect	Present: unknown distribution	5	3	15
Sachalin fir bark beetle	Polygraphus proximus	Insect	Absent	3	5	15
Acute oak decline	n/a	Other	Present: limited	3	5	15
Two spotted woodborer	Agrilus biguttatus	Insect	Present: limited	3	5	15
Cypress jewel beetle or juniper buprestid	Lamprodila festiva	Insect	Absent	5	3	15
Fan-leaf virus nematode ²	<i>Xiphinema</i> index	Nematodes	Absent	5	3	15

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

¹ An oomycete is an algae-like fungus.

² A nematode is a very small elongated roundworm.



Notes

- A) **Definition, source and summary:** This indicator seeks to report trends in forest pests from the UK Plant Health Risk Register (UKPHRR) that records and rates risks to UK crops, trees, gardens and ecosystems from plant pests and pathogens. 'High priority' pests and diseases are defined for the purposes of this indicator as those with a mitigated relative risk rating (the mitigated likelihood score multiplied by the mitigated impact score) of 15 or more. The individual ratings for likelihood and impact are each on a scale from 1 to 5. Relative risk ratings therefore can have values from a minimum of 1 to a maximum of 25. Taking into account the economic, environmental and social importance of the host species, these risk scores are used to help prioritise additional actions to combat the threats posed by the pests. It should be noted that the data are for the UK. Nearly all listed forest pests present in the UK will also be present in England and listed forest pests absent from the UK are very likely to pose a threat to England.
- B) **Pests included in the scope of this indicator:** This indicator only includes pests listed on the UK Plant Health Risk Register that have been professionally assessed and where the assessment provides the information needed to identify which are forest pests, and of those which are high priority according to the indicator definition.
- C) **Likelihood** provides an assessment of the probability of entry and establishment of a pest for those pests that are absent from the UK which, when combined, can result in the introduction of the threat to a new area. Some pests on the UKPHRR are already present in the UK. In these cases the risk is that of the pest spreading to its maximum extent in the UK. The likelihood scale has a minimum value of 1 (lowest risk) through to 5 (highest risk). There is more information on the factors taken into account in the Phase 1 UK Plant Health Risk Register Summary Guide (page 6).
- D) **Impact** is an indication of the relative consequence of the pest for the host plant or sector, should the risk materialise. It does not take account of the size or value of the host or sector. Where the pest is already present, the impact is that caused by further spread, against a baseline of damage already occurring. Thus for a pest which is already widespread, the additional impact of it spreading to its full potential distribution may be limited, even if the pest itself is very damaging or expensive to control. The impact scale has a minimum value of 1 (lowest risk) through to 5 (highest risk). There is more on the factors taken into account in the Phase 1 UK Plant Health Risk Register Summary Guide (page 6-7).
- E) Value at risk: Value at risk is not taken into account in this indicator.
- F) **Mitigations:** can reduce likelihood, impact or both and the risks remaining after mitigation provide the basis for this indicator. Mitigations may reduce risk by enhancing regulation, surveillance, awareness and research, or by providing an industry scheme or a contingency plan. The difference between unmitigated and mitigated risk represents an expert judgement of the effectiveness of the current mitigations. See Phase 1 UK Plant Health Risk Register Summary Guide (page 4) for details.
- G) **Possible relative risk ratings:** Relative risk ratings can take values from a minimum of 1 (lowest risk) through to 25 (highest risk). For the purposes of this indicator 'high priority' pests have been defined as those with a relative risk rating of 15 or more.



Table 6: Possible Relative Risk Ratings

Impact

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

Likelihood

- H) Other forest pests and diseases affecting English woodland. The indicator is only based on the pests included in the UKPHRR. In so doing it effectively captures the major non-native pests threatening UK forestry together with a limited selection of native pests that are the subject of major Government campaigns of action. There are many native and non-native forest pests that are not included in the UKPHRR.
- I) Precise end of year report dates are: 9 April 2014, 30 March 2015, 29 December 2015, 30 December 2016, 30 March 2017, 31 March 2018, 31 March 2019, 31 March 2020, 6 April 2021, 31 March 2022, 31 March 2023, 17 April2024.

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

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

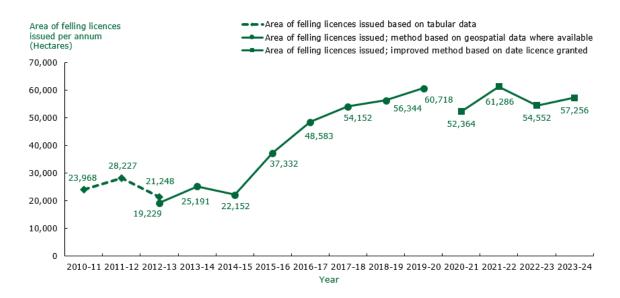
Assessment of change in: Number of high priority forest pests in the UK Plant Health Risk Register (UKPHRR)

Five-year trend, Mar-24 compared to Mar-19

Improving



Area of felling licences issued



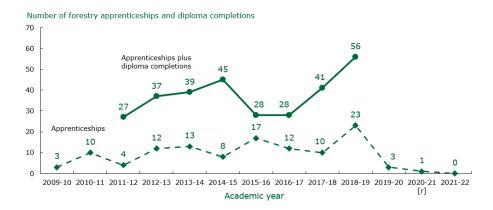
Source: Forestry Commission administrative data.

The area of woodland under felling licence remains at a high level. We continue to see a modest trend over recent years towards an increase in the area of felling licences issued.

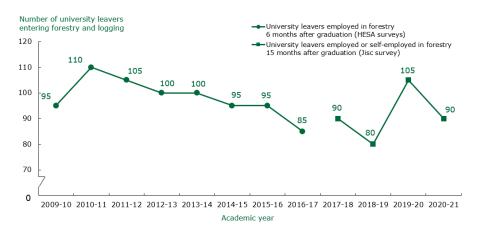
Assessment of change in: Area of felling licences issued



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



Source: LANTRA.



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

The development of an improved indicator utilising a metric based on starts and completions of the new forestry apprenticeships being offered by training providers, plus potential inclusion of apprenticeships currently under development, will begin to provide an accurate measure of apprentices actually entering the forest industry later in 2024-25.

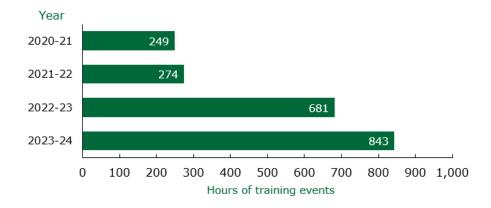
Assessment of change in: Number of apprentices, those with work-based diplomas, and university students entering forestry

Apprentices and diploma completions, five-year trend, 2018-19 (latest data) compared to 2013-14 University leavers, three-year trend only, 2020-21 (latest comparable data) compared to 2017-18

Improving



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



Source: Forestry Commission administrative records.

Note: Estimates from returns received.

Over 840 hours of training were provided for the sector, to over 17,000 attendees, covering a wide range of topics including woodland creation, grants, regulations, tree health, deer and squirrel management, the use of plastics in forestry, peat and soils and wildfire management.

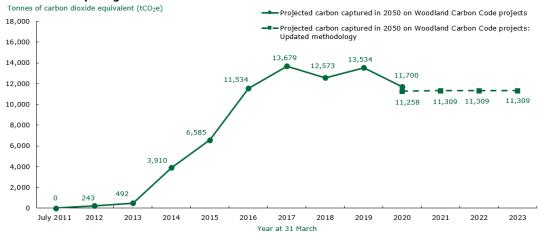
Assessment of change in: Forest Services' training support for the English forestry sector (hours of training events)

Three-year trend only, 2023-24 compared to 2020-21

Improving



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



Source: Provisional Woodland Statistics 2024 (Forest Research)

At March 2024, 148 projects were validated to the Woodland Carbon Code in England, compared to 123 in 2023. 25 validations in a year is the highest ever completed, up on 15 in the previous year. The 148 projects validated by March 2024 are expected to sequester 11,309 tCO $_2$ e in 2050 and a total of 512,641 tCO $_2$ e by 2050 at March 2024 (compared with 450,000 tCO $_2$ e in March 2023). Of the validated projects, 46 have also been verified/checked at year 5 to ensure they are well established and on track to deliver the predicted carbon savings (no net increase on last year – one project was verified, but one verified project has been removed from the registry). Verified projects had sequestered 2,292 tCO $_2$ e by March 2024. This is the same as March 2023 due to little change in verified projects.

Registration of new projects with the WCC in England continues - 697 projects are currently registered and going through the validation process compared to 596 in 2023 and 443 in 2022. The registration rate has slightly decreased (overall 168 new projects this year, although 42 were removed resulting in net 126 new projects) compared to 168 (net) new projects last year; however, it's still comparable to the rate before the 'bulge' in registrations in 2021-22 and 2022-23 due to changes to eligibility (in 2020-21 there were 130 (net) registrations). Increases in EWCO grant rates and the changes to the additionality test could both be having an impact.

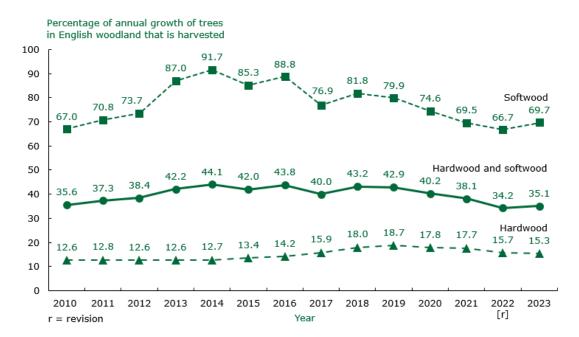
This means total project numbers (registered, validated and verified) are now at 845, up from 719 in 2023 and 551 in 2022. It is anticipated that a larger proportion of these projects will be validated over the next year. All projects registered/validated by March 2024 in England are predicted to sequester 4.5 million tCO₂e over their lifetime of up to 100 years (compared to 4.0 million in March 2023 and 3.3 million in March 2022), and create 10,774 hectares of new woodland (compared to 9,106 hectares in March 2023 and 7,392 hectares in March 2022).

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

Three-year trend only, 31-Mar-24 compared to 31-Mar-21



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



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

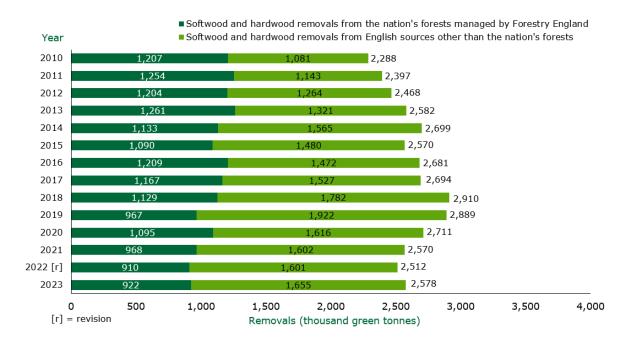
Strong demand for softwood timber is reflected in a significant proportion of annual increment being brought to market each year. Demand for hardwood remains low and a significant proportion of available hardwood timber is unutilised. This is reflected by the small proportion of annual increment being brought to market each year.

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

Five-year trend, 2023 compared to 2018 (hardwood and softwood element)



Volume of timber brought to market per annum from English sources



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

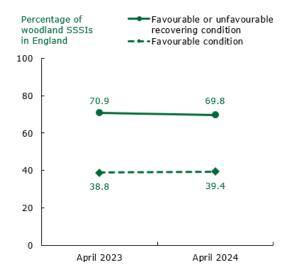
Market demand for softwood remains strong and prices fluctuate but continue to be relatively high, maintaining relatively good levels of production in privately owned conifer woodlands. Global events continue to affect timber supply and demand. Uncertainty remains around estimated hardwood production, especially volumes of hardwood delivered to energy markets, particularly in light of increasing levels of management of ash dieback.

Assessment of change in: Volume of timber brought to market per annum from English sources (Total)

Five-year trend, 2023 compared to 2018



Percentage of woodland Sites of Special Scientific Interest in desired condition in England



Source: Natural England.

This indicator up until April 2023 showed the percentage of all woodland Sites of Special Scientific Interest (SSSIs) which were in either favourable or unfavourable recovering status by area (hectares). From April 2023, Natural England (NE) moved to recording SSSI condition by features at the Whole Feature level and all NE SSSI national statistics are based on features. As such, condition category figures and breakdowns by area are becoming increasing unreliable and out of date. Our KPI has now been revised to report the condition of woodland SSSIs by the percentage of woodland features that are in each condition category, where the result figures indicate the percentage of woodland Sites of Special Scientific Interest (by feature) in desired condition in England.

Assessment of change since in: Percentage of woodland Sites of Special Scientific Interest in desired condition in England

One-year trend, favourable or unfavourable recovering condition

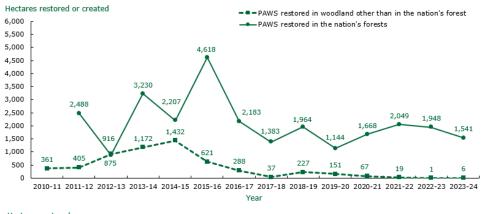
Little change

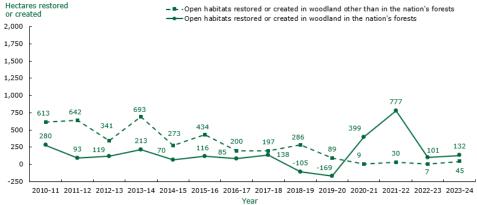
One-year trend, favourable condition

Little change



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





Source: Forestry Commission administrative data.

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

This indicator shows the number of hectares of Plantations on Ancient Woodland Sites (PAWS) restored or worked each year, alongside the number of hectares of open habitat created or restored through woodland agreements. The latest figures show an increase of 1,547 hectares of PAWS worked in 2023-24. The figures also show an increase of 177 hectares of open habitats created or restored in 2023-24.

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

PAWS restored in England

Five-year trend, totals for 2023-24 compared to totals for 2018-19

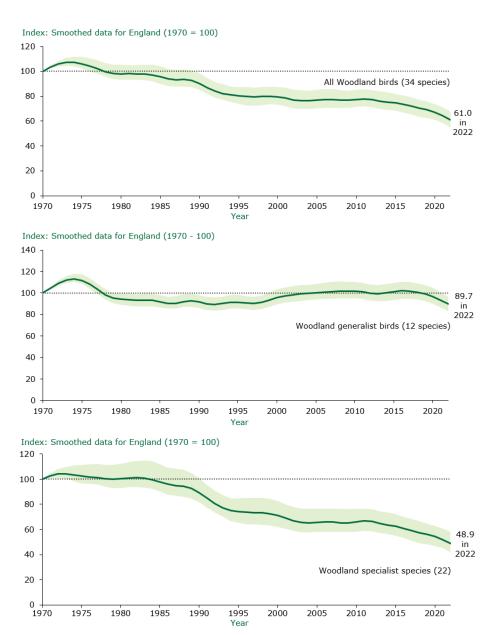
Open habitats restored or created in England

Five-year trend, totals for 2023-24 compared to totals for 2018-19

Little or no change



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



Source: Data for England related to the report: Wild bird populations in England, 1970 to 2022 (Defra, 2023). Note: Each of the three graphs shows a smoothed, unstandardised woodland bird index for England and its 95% confidence interval.

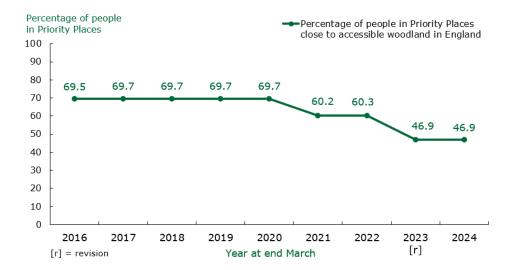
In 2022 the "all woodland bird index" for England was 39.0% lower than in 1970 (smoothed data). The greatest decline occurred between the early 1980s and the mid-1990s. All three indexes show some slight variation compared to the 2021 figures (decrease for all woodland birds, specialist birds and generalist birds), but none of those are statistically significant.

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

All woodland birds index (England), fifteen year trend, 2022 compared to 2007



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



Source: Forestry Commission based on official data and Woodland Trust data.

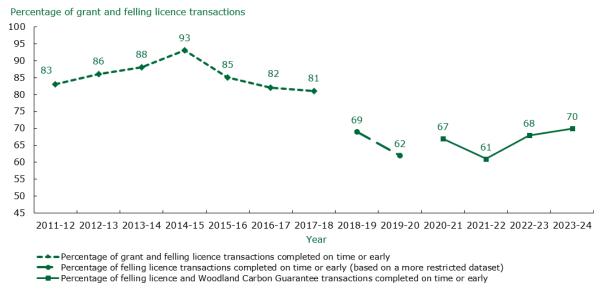
The publishing of the government's Woodland Access Implementation Plan in November 2023 has meant that we have undertaken a more comprehensive approach to the data gathering of accessible woodland. We have refreshed the existing Woods for People data which has been previously used for analytical purposes and added statutory access rights into the data. We have also looked at the census data and refined how we measure the priority places. So this year we have created a new and better informed baseline to report on in future years.

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

One-year trend, Mar-24 compared to Mar-23



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



Source: Forestry Commission administrative data.

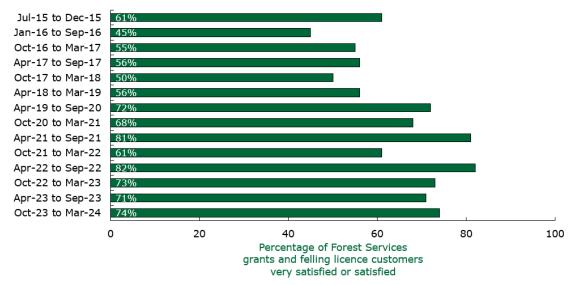
We continue to struggle to meet the Charter target of 85% for felling licence transactions; however there has been an improvement since 2022-23 (70 opposed to 68%). Significant vacancies in some Area team's field staff roles and delays in training new recruits in processing felling applications continue to hamper efforts in this area.

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

Five-year trend, 2023-24 compared to 2018-19



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



Source: Forestry Commission customer survey.

Note: The indicator shows estimates based on relatively small samples.

The overall trend in these estimates is positive. We aim to continuously improve delivery effectiveness and efficiency driven by organisational change.

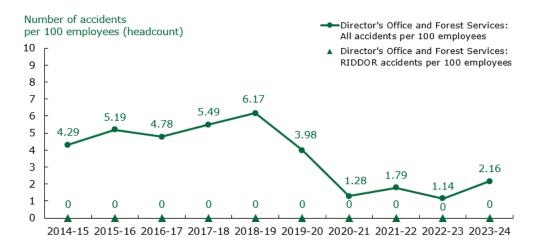
Assessment of change in: Percentage of Forest Services grants and felling licence customers who report their customer satisfaction as either very satisfied or satisfied.

Trend for five years: Estimate for Oct-23/Mar-24 compared to that of Oct-18/Mar-19

Not assessed due to insufficient comparable data



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



Source: Forestry Commission administrative data.

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

The total number of injury incidents have increased since last year. The incident level remains lower than pre-pandemic levels despite following an increase to staffing levels and changes to working practices. Positive health and safety practices remain a priority as well as maintaining an overall downwards incident rate trend.

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

Five-year trend: 2023-24 compared to 2018-19

Improving



Annex 1: Internal Audit Certificate of Assurance





INTERNAL AUDIT CERTIFICATE OF ASSURANCE

Forestry Commission (FC) Performance Indicators for the year ended 31 March 2024 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, <u>calculation</u> 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 2024, to be appropriate.

Sally Flett

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Head of Internal Audit, Forestry Commission
Government Internal Audit Agency
12 June 2024



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