

Forestry England

Natural capital account

2025/26



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Foreword from the Chief Executive

Good stewardship means leaving something in a better condition than we found it. That principle guides how Forestry England cares for the nation's forests, managing them not only for the needs of today, but for the generations who will depend on them in the future.

The nation's forests are working landscapes that deliver benefits on many levels. They produce sustainable materials like timber, support wildlife and nature recovery, improve public health and wellbeing, help regulate our environment, and provide places where millions of people can connect with the natural world. As demand for these benefits continues to grow, understanding their full value has never been more important.

Our natural capital accounts provide that perspective. They help us understand the contribution the nation's forests make to society and the value they generate over time. This year, the estimated net present value of the natural capital held within the nation's forests has increased to £109.2 billion, a 9% increase on the previous year. This continues a strong long-term upward trend, reflecting both the growing value delivered across the estate and our ongoing efforts to enhance the scope, evidence base and methodology underpinning the accounts. Together, these improvements provide an increasingly comprehensive picture of the benefits that forests deliver to people, nature and the economy.

The figures presented in this report demonstrate the scale of those benefits. Across England, the nation's forests welcomed 326 million visits, including 168 million active visits that supported healthier lifestyles and improved wellbeing. The forests also captured and stored 1.5 million tonnes of carbon, removed more than 1.14 million kilograms of harmful particulate pollution from the atmosphere, and retained 78 million cubic metres of water, helping communities adapt to environmental pressures and build resilience for the future.

These outcomes have significant social and economic value. During the year, forest ecosystem services generated an estimated £2.2 billion in benefits to society. Recreation and wellbeing, improved health outcomes, climate regulation, air quality improvement and flood mitigation all contribute measurable value to people's lives and to the wider economy. Collectively, they demonstrate that investment in nature delivers returns that extend well beyond the forest boundary.

Alongside these public benefits, the nation's forests remain productive and forward-looking assets. Forestry England produced 7.1 million trees and managed forests with a forecast annual sustainable timber growth of 1.9 million cubic metres, supporting the transition to a low-carbon economy while helping meet demand for renewable materials. At the same time, we continue to protect and restore important habitats, manage extensive areas of native woodland and open habitat, and improve the condition of ancient woodland sites across the nation's forests.

The account also highlights the remarkable accessibility of the nation's forests. With 99.97% of England's population living within a 60-minute drive of an accessible forest site, these landscapes represent one of the country's most widely available natural assets, providing opportunities for recreation, learning and engagement with nature on an extraordinary scale.

Natural capital accounting is helping to shape the way we plan for the future. By bringing together environmental, social and economic evidence, it enables better-informed decisions and a deeper understanding of the role forests play in supporting national prosperity and wellbeing. This year's account has been prepared in accordance with the BS ISO 14054:2025 Natural Capital Accounting standard and independently audited, providing a robust and trusted basis for measuring progress and guiding future investment.

As we look ahead, our ambition is not simply to maintain these benefits, but to increase them. By continuing to invest in the resilience, accessibility and environmental quality of the nation's forests, we can ensure they deliver even greater value for people, nature and the economy in the years ahead.



Mike Seddon,
Chief Executive

Our natural capital account at a glance

Report highlights

£109.2 billion

Long-term natural capital value created by the nation's forests

Physical flows

326 million
visits

78 million
cubic metres of water stored, helping reduce flood risk

168.1 million active visits
to the nation's forests

1.14 million kilograms
of particulate matter removed from the atmosphere

7.1 million plants
produced

1.5 million tonnes
of carbon captured and stored by the nation's forests

* The forecast used in the account is an increment forecast, which estimates the annual volume of timber growth (in cubic metres) across the nation's forests, prior to adjusting for natural losses or removals through forest operations.



Monetary flows

Delivered total benefits from forest ecosystem services to society worth

£2.2b

Provided benefits to society worth

£448.9m
in removing CO_2 from the atmosphere

£44.6m
in prevented flooding

Provided recreational and wellbeing benefits to society worth

£988m

Provided physical health benefits amounting to

£713m
in avoided medical costs

Provided air quality regulation benefits to society worth

£91.5m
through removal of particulate matter from the air



Natural Capital register

nation's forests maintained within urban communities

16,253 ha

Plantations on Ancient Woodland Sites (PAWS) under active restoration and management

42,695 ha

99.97 %
of England's population within a 60-minute drive of an accessible nation's forest site

254,385 ha
of land managed

of published recreational routes across the nation's forests

3,832 km

50,028 ha
of open habitat supporting nature recovery and biodiversity

54,262 ha
priority habitat protected

52,223 ha
area native woodland



Summary

Purpose of the Natural Capital Account

Forestry England's Natural Capital Account provides a systematic assessment of the natural capital assets within the nation's forests and the ecosystem services they provide. Prepared in accordance with the new BS ISO 14054:2025 standard, the account identifies, measures and reports Forestry England's dependencies and impacts on natural capital within a consistent accounting framework. By integrating environmental and economic information, the account provides a robust evidence base for monitoring performance, assessing changes in natural capital over time, and supporting informed management and investment decisions.

Organisational Scope

Forestry England is the nation's largest land manager, responsible for the management of the public forest estate. The account covers the forests managed by Forestry England and the activities undertaken within its operational control during the reporting period.

The account reports the extent, condition and value of natural capital assets based on the ecosystem services they provide. The scope includes the principal ecosystem services delivered by the nation's forests, including timber production, carbon sequestration and storage, biodiversity enhancement, water regulation, air quality improvement, recreation, health and wellbeing, and cultural and educational benefits.

The account is based on the best available evidence, data and valuation methodologies and has been prepared in accordance with the BS ISO 14054:2025 principles of relevance, transparency, consistency and credibility. Natural capital values are estimated as the present value of future benefit flows over a 50-year assessment period, with a residual value applied thereafter into perpetuity. Present values are calculated using HM Treasury discount rates, with lower discount rates applied to health and wellbeing benefits where appropriate.

In addition to the Natural Capital Balance Sheet, the account includes a Natural Capital Income Statement, which reports the positive and negative impacts of Forestry England's activities on natural capital during the reporting period. By recording annual increases and decreases in natural capital value associated with organisational activities, the statement provides insight into how operational decisions influence natural capital performance over time.

Implications of the Natural Capital Account

The Natural Capital Account provides insight into both the current value of Forestry England's natural capital assets and the annual changes in value arising from their management. Together, the Natural Capital Balance Sheet and Natural Capital Income Statement provide a comprehensive picture of the stock of natural capital held within the public forest estate and the changes in value generated through its management.

Future value projections are based on Forestry England's current management approach, planned activities and known risks. The valuation assumes the continuation of appropriate management interventions and investment to maintain and enhance the condition of natural capital assets and the benefits they provide. Whilst future maintenance requirements and external risks cannot be predicted with complete certainty, the account represents Forestry England's best estimate of long-term natural capital value under the assumed management scenario.

The account provides a robust framework for assessing future opportunities, risks and trade-offs associated with alternative management approaches, supporting a more integrated understanding of environmental, social and economic outcomes.

It also strengthens Forestry England's ability to incorporate natural capital considerations into strategic planning, investment appraisal and long-term decision-making.

Key Message

The Natural Capital Account provides a robust and transparent framework for understanding, measuring and reporting the value of the nation's forests. By applying a consistent methodology aligned with BS ISO 14054:2025, the account supports the integration of natural capital considerations into decision-making and provides a foundation for future scenario analysis. This will enable Forestry England to better understand the trade-offs and synergies between nature recovery, sustainable timber production and benefits for people, supporting more informed long-term planning and investment decisions.

Natural capital balance sheet

This is a summary statement of the account. It is populated from the reporting schedule R1.1. See notes below.

	2025/26		
Produced at 31-03-2026	**Value to the organisation PV £m**	**Value to the rest of society PV £m**	**Total Value PV £m**
Natural Capital			
1 Baseline Value	1,927	54,472	56,399
2 Cumulative Gains/(Losses)	446	42,195	42,641
3 Additions/(Disposals)	-	-	-
4 Revaluations and Adjustments	(221)	12,212	11,991
Gross natural capital value	**2,152**	**108,879**	**111,031**
Costs			
Production costs	(2,548)		(2,548)
5 Legal Maintenance Obligations			-
6 Other Maintenance Provisions	1,690	(3,244)	(1,555)
Gross cost value	**(858)**	**(3,244)**	**(4,103)**
Retained net contribution to natural capital benefits	**(15)**	**2,256**	**2,241**
Total Net Natural Capital	**1,279**	**107,891**	**109,170**

Notes:

a. All values (except note 'o' below) are expressed at 2025/26 prices (£m) in present value terms, rounded to the nearest £1m.

b. Present values are calculated as discounted flow of annual value in perpetuity. A 3% discount rate is used. Annual values are forecast over 50 years and from year 51 to perpetuity it is assumed that the annual value is constant (i.e. a constant flow assumption).

c. The baseline value represents the value of natural capital at the baseline date (31 March 2014).

d. Cumulative gains/losses show the net change in natural capital values (compared to the baseline date). The change is normally due to a change in the condition of the natural capital, either through natural improvement/deterioration or through management intervention.

e. Additions show the increase in natural capital values associated with the acquisition, realisation or discovery of new natural capital since the baseline date.

f. Disposals disclose the reduction in natural capital values associated with the disposal or extraction (for non-renewable resources) of natural capital.

g. Revaluations and adjustments calculate the natural capital value changes arising from changes in external factors and key assumptions (e.g. market prices).

h. Gross natural capital values are for the reporting year (2025/26) and are calculated after the deduction of production costs (i.e. value of benefits minus costs of production) as reported in the monetary account.

i. Negative values are reported with brackets (e.g. for cumulative losses between the baseline and reporting year).

j. Private value is to the reporting entity (Forestry England). The external value is to the rest of society.

k. Private value of costs are the costs of continuing natural capital maintenance borne by Forestry England. The external value of costs are the costs of natural capital maintenance borne by society (e.g. from volunteering).

l. Renewables currently includes timber, climate regulation, recreation, plants and seeds and food. See 'Asset value summary' (SR1.2). Non-renewables currently includes minerals. See 'Asset value summary' (SR1.2).

m. Legal maintenance obligations discloses the costs associated with those activities that flow from a legal obligation to protect or maintain the in-scope natural capital.

n. Other maintenance provisions evaluates the costs of all other activities necessary to preserve the long term output of the natural capital at the benefit levels assumed in the natural capital values section of the balance sheet.

o. Natural capital values shown in column 'Land and biological natural capital reported in annual report and accounts' are the financial net book value (NBV) of the forest estate (land) and the stock of biological natural capital (trees). The baseline value is the NBV at 31 March 2015, and the reporting year value is taken at 31 March 2017. There are no costs reported in the Forestry England financial accounts that correspond to the natural capital costs represented in the natural capital account.



Detailed natural capital balance sheet

Summary of major outcomes, present value of perpetuity (£m). It is populated from the reporting schedule R1.2.

	2025/26		
Reporting date: 31-03-2026 Natural capital accounting period: Perpetuity Price year: 2025-26	**Value to the organisation PV £m**	**Value to the rest of society PV £m**	**Total Value PV £m**
Natural capital values			
Timber [a]	1,068	-	1,068
Food [b]	28	-	28
Plant & Seeds [c]	-	19	19
Carbon Sequestered [d]	-	21,358	21,358
Flood Risk Mitigated [e]	-	1,384	1,384
Air Quality Regulated [f]	-	2,438	2,438
Recreation and Public Access [g]	1,052	30,701	31,753
Minerals [h]	4	-	4
Physical Health [i]	-	52,979	52,979
Total gross natural capital values	**2,152**	**108,879**	**111,031**
Costs			
Production costs			
Timber [j]	(1,169)	-	(1,169)
Food [k]	(53)	-	(53)
Recreation and Public Access [l]	(1,326)	-	(1,326)
Natural capital maintenance costs			
Government Payment for Ecosystem Services Funding [m]	3,172	(3,172)	-
Maintenance Costs [n]	(1,482)	(72)	(1,555)
Total costs	**(858)**	**(3,244)**	**(4,103)**
Retained net contribution to natural capital benefits	**(15)**	**2,256**	**2,241**
Net natural capital value (monetised)	**1,279**	**107,891**	**109,170**
Natural capital values (non-monetised)			
Renewable energy, education, water quality, property value and mental health			

Notes:

Note 1: Brackets denote a negative number, i.e. a cost or a loss in natural capital benefits. This follows the notation used in financial accounts.

Note 2: Natural capital values (monetised) are the aggregated flows over the next 50 years, plus a residual value assumption thereafter into perpetuity. Present values are calculated using a standard time preference discount rate of 3.5% (declining to 3.0%) (HM Treasury, 2026). The recommended lower discount rates (starting at 1.5 %, declining to 1.29%) are used for health impacts. Where possible, future values take into account expected trends in the quantity and/or value of the benefit. Where this information is not available, values are assumed to be constant over time.

Note 3: Columns and rows may not add up due to rounding.

a. **Timber:** Forestry England forecast projection of timber production (conifers and broadleaves) for the coming 50 years. Average timber prices are estimated as £27.5/ m^3 (source Forestry England) and assumed constant.

b. **Food:** Forestry England forecasts constant revenues from wild game (£0.9 million) and rents from wild game culled from Deer Control Licences and leases (£0.03 million), based on accounts for the accounting period.

c. **Plant & Seed:** Forestry England forecast production of external plant and seed mark-up values at a constant rate over the next 50 years.

d. **Carbon sequestration:** For woodland, carbon sequestration is based on Forestry England's, 50-year forecast projection of net volume increment change in cubic metres. It is assumed that the nominal specific gravity for timber biomass is 0.36 times the volume increment for conifers and 0.53 for broadleaves. The expansion factors used to convert timber biomass to above ground biomass are 1.29 for conifers and 1.26 for broadleaves. The expansion factors used to convert timber biomass to below ground biomass are 0.37 for conifers and 0.34 for broadleaves. The coefficient used to convert total biomass (above ground and below ground biomass) to total carbon is 0.5. Total carbon is then converted to total CO_2e using a conversion factor of 3.67. These factors are provided by Forestry Commission, and the annual net increment was forecasted by Forestry England over the next 50 years. Habitats which are assessed as net emitters of GHG are blanket bog and woodland on deep peats soils of emissions factors) of bog are -1.08 tCO_2/m^3 for near natural bog, -2.54 tCO_2/m^3 for modified bog, -4.54 tCO_2/m^3 for drained bog (Peatland Code, 2015). The area of nation's forest bog was assumed to the constant. Tonnes of CO2e sequestered is valued using the UK central non-traded carbon value (DESNZ, 2023). The unit non-traded carbon value changes in line with the published data series up until 2050, thereafter a 1.5% adjustment is included in line with UK Government carbon appraisal guidance (DESNZ, 2023).

e. **Flood Risk Mitigated:** The total flood storage volumes for conifers and broadleaves are assumed to remain constant over the next 50 years, at values of 54 million m^3 and 24 million m^3 respectively, as provided by Forestry England. The storage value is estimated to remain constant at £0.57 per m^3 (Broadmeadow et al., 2018).

f. **Air Quality Regulated:** The quantity of fine particulate matter (PM2.5) removal from the air by woodland cover in the assessment boundary is valued using a calculated £PV 60 per ha of associated avoided medical treatment costs by local authority (eftec and UKCEH, 2025). Future benefits decline in line with the trend of falling emissions and are discounted at the lower health discount rates.

g. **Recreation and Public Access:** Value to Forestry England is assumed to be constant over the next 50 years (£34 million, income from Forestry England accounts). The value to the public, is calculated by multiplying the estimated value of each recreational visit by the total number of visits and assumed constant. It is assumed that each recreational visit is valued at £3.03 (Willis et al., 2003). The total number of visits was estimated at 326 million per year from Forestry England's survey and is assumed to remain constant.

h. **Minerals:** This is the present value of royalties and rents from aggregates.

i. **Physical health benefits:** 51.5% of recreation visits are estimated as 'active', where an 'active visit' is defined as those who met recommended daily physical activity guidelines either fully, or partially, during visits (White et al.,2016). Estimated avoided medical treatment costs due to improvement in QALY, £4.24/ active visit, (Claxton et al., 2015; Beale, Bending and Trueman, 2007) from active visits to natural environment in the previous week. Future benefits are discounted at the lower health discount rates.

j. **Timber production costs:** Timber costs are estimated based on forecast timber production (source Forestry England) over the next 50 years, and the proportion of timber production to timber costs observed in 2025/26. It is assumed the production costs are 100% variable with timber production.

k. **Food production costs:** This includes the costs on deer production sourced from Forestry England accounts, and assumed to be constant over the next 50 years.

l. **Recreation and public access costs:** These are the costs of producing recreational benefits based on Forestry England accounts and assumed to be constant over the next 50 years.

m. **Government Payment for Ecosystem Services Funding:** This is based on the current level of funding from the Central Government to Forestry England and assumed constant over the forecast horizon.

n. **Maintenance Costs:** This includes all estimated maintenance costs to Forestry England (sourced from accounts) for activities such as forest regeneration, forest maintenance operation, species management, habitat management, plant health. This is assumed to be constant over the next 50 years.



Natural capital income statement

This reporting statement discloses the value of the positive and negative impacts of Forestry England's operations on natural capital over the reporting year.

Positive impacts are reported as increases and negative impacts as decreases in value.

This is the first year Forestry England has produced this statement in accordance with ISO:14054, and this initial statement includes organisational scope impacts, that is impacts on any natural capital due to the organisations own operations. In future years the scope may be expanded, which may include impacts on natural capital through the organisation's entire value chain (both supply chain and consumer impacts).

	2025/26		
Reporting date: 31-03-2026 Price year: 2025-26	**Private Value £m/yr**	**External Value £m/yr**	**Total Value £m/yr**
Increases in natural capital benefits			
Timber produced [a] [b]	(5)		(5)
Food produced [c]	(1)		(1)
Carbon sequestration [d]		449	449
Air pollution removal by woodland [e]		91	91
Recreation provision [f]	(9)	988	979
Physical health benefits [g]		713	713
Water storage [h]		45	45
Plant & Seed Supply [i]		0	0
Total increases	**(15)**	**2,286**	**2,272**
Deteriorations to Natural Capital (own operations)			
GHG emissions from all habitats [j]		(29)	(29)
GHG emissions from own energy use [k]		(1)	(1)
Total decreases	**-**	**(30)**	**(30)**
Net contribution to natural capital benefits	**(15)**	**2,256**	**2,241**



Notes:

Note 1: Brackets denote a negative number, i.e. a cost or a loss in natural capital benefits. This follows the notation used in financial accounts.

Note 2: Market values of natural capital benefits are also stated in the financial income statement. If increases and decreases in the market values are also stated in the natural capital income statement, there is a risk of double counting when interpreting them jointly.

Note 3: Columns and rows may not add up due to rounding.

a. **Timber produced:** Revenue of £52.2 million less production cost of £57.2 million generate net loss of £5.0 million, both sourced from Forestry England accounts.

b. The private value of timber production includes the output and cost growth driven by our Woodland Creation and Nature Recovery programmes but does not include the Government funding that is paying for and driving this increased cost. This issue will be resolved in the next Natural Capital accounts and prior years will be restated.

c. **Food produced:** Revenue from wild game (£0.9 million), and rents from wild game culled from Deer Control Licences and leases (£0.03 million), less costs of deer production (£1.7 million) produce net loss of £0.8 million, all sourced from Forestry England accounts.

d. **Carbon sequestration:** For woodland, carbon sequestration is based on Forestry England's 50-year forecast of net volume increment change in cubic metres. Other habitats are assumed negligible, or net emitters (see decreases below). It is assumed that the nominal specific gravity for timber biomass is 0.36 times the volume increment for conifers and 0.53 for broadleaves. The expansion factors used to convert timber biomass to above ground biomass are 1.29 for conifers and 1.26 for broadleaves. The expansion factors used to convert timber biomass to below ground biomass are 0.37 for conifers and 0.34 for broadleaves. The coefficient used to convert total biomass (above ground and below ground biomass) to total carbon is 0.5. Total carbon is then converted to total CO_2e using a conversion factor of 3.67. These factors are provided by Forestry Commission. Tonnes of CO2e sequestered is valued using the UK central non-traded carbon value for impact horizon (DESNZ, 2023).

e. **Air pollution removal by woodland:** The quantity of fine particulate matter (PM2.5) removal from the air by woodland cover in the assessment boundary is valued using associated avoided medical treatment cost in a local authority per ha of woodland multiplied by the area of Forestry England woodland in each local authority (eftec and UKCEH, 2025).

f. **Recreation provision:** Revenue of £34 million less the production cost of £43 million sourced from Forestry England accounts. The value to the public is calculated by multiplying the estimated value of each recreational visit by the total number of visits. It is assumed that each recreational visit is valued at £3.03 (Willis et al., 2003). The total number of visits was 326 million based on Forestry England's survey.

g. **Physical health benefits:** 51.5% of recreation visits are estimated as 'active', where an 'active visit' is defined as those who met recommended daily physical activity guidelines either fully, or partially, during visits (White et al., 2016). Estimated avoided medical treatment costs due to improvement in QALY, £4.24/ active visit (Beale, Bending and Trueman, 2007; Claxton et al., 2015).

h. **Water storage:** The total flood storage volume of conifers and broadleaves are 54 million m^3 and 24 million m3 respectively provided by Forestry England. The storage value is estimated as £0.57/ m3 (Broadmeadow et al., 2018).

i. **Plant & Seed Supply:** Plant and seed sales are counted as a benefit to society as the actual value of plants and seeds is much higher than their sale value when they are sold at cost of production. The margin of public benefits is 10% of the total Forestry England sales (£0.1m sourced from Forestry England accounts) – too small to appear in the table above.

j. **GHG emissions from all habitats:** Habitats which are assessed as net emitters of GHG are blanket bog in poor condition, and woodland planted on deep peat soils. Emissions factors of bog are -1.08 tCO_2/m^3 for near natural bog, -2.54 tCO_2/m^3 for modified bog, -4.54 tCO_2/m^3 for drained bog and woodland on peat soils (Cricton Carbon Centre, 2015). These factors are multiplied by the area of each category of bog (sourced by Forestry England) to calculate the total GHG emissions. Emissions are then valued at the unit non-traded carbon value for the natural capital accounting period (DESNZ, 2023).

k. **TBD** – sourced by Forestry England and includes scope 1 and 2 emissions from operations (that match the organisation scope for the natural capital account).

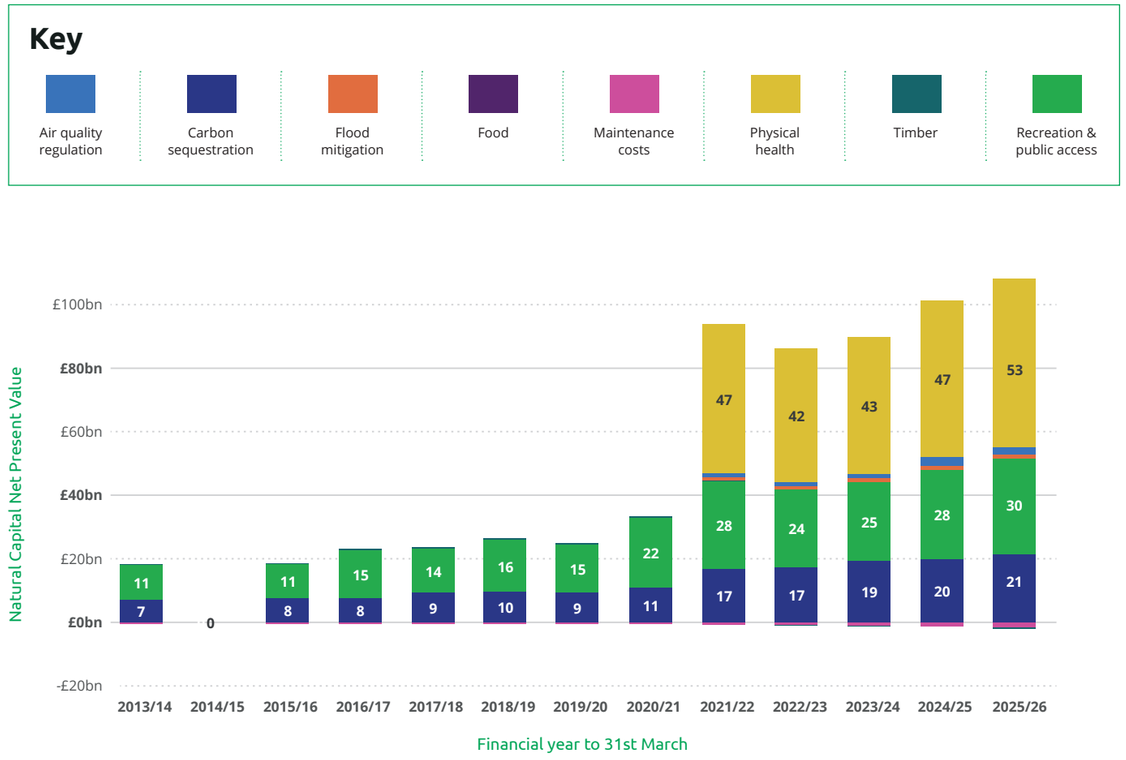


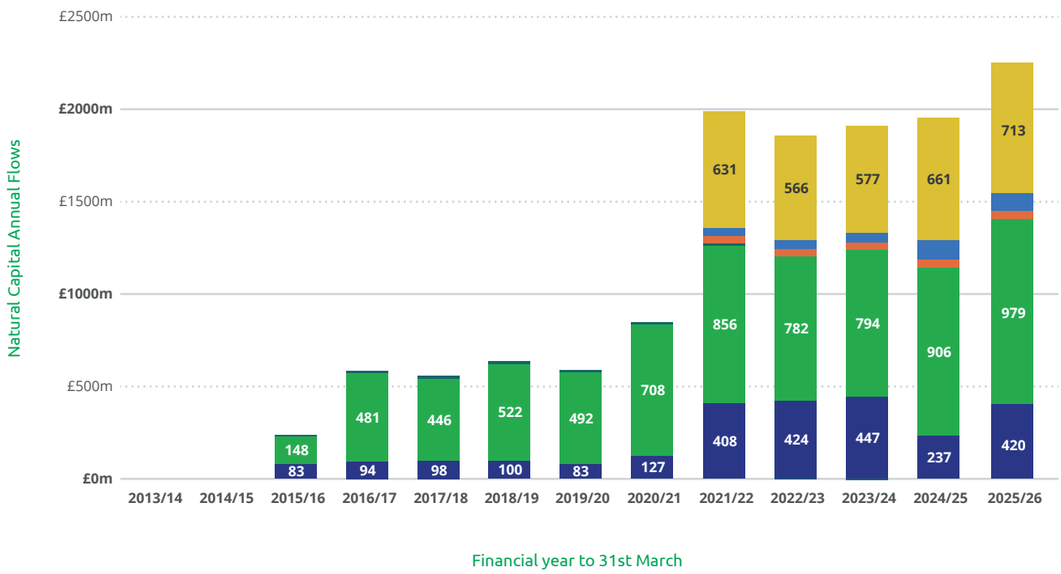
Natural capital through the years

Breakdown by year of ecosystem services delivered, monetary value (£ billions)

Forestry England's natural capital account continues to demonstrate the significant value that the nation's forests provide to society. In 2025/26, the estimated **net present value** reached **£109.2 billion**, while annual ecosystem service benefits reached a record **£2.2 billion**, highlighting the growing contribution of England's public forests to environmental, social and economic wellbeing.

Recreation and public access remained the largest contributor to annual value, generating approximately **£979 million**, followed by **physical health benefits (£713 million)** and **carbon sequestration (£449 million)**. Additional value was generated through flood mitigation, air quality regulation and sustainable timber production. The increase in both annual flows and net present value reflects Forestry England's ongoing stewardship of the nation's forests through sustainable management and investment. It also reflects enhancements to the natural capital account, including the expansion of ecosystem services and improvements to valuation methodologies, providing a more comprehensive assessment of the wide-ranging benefits forests deliver to people, nature and the economy.





Annex 1: Natural capital register

The natural capital register is an inventory of the status of the natural capital that make up the Public Forest Estate, including evidence of their extent, condition, and spatial configuration. Other forms of capital (e.g. car parks) that may influence natural capital benefits are also included. More detail on priority habitats is provided in S1.1.

Value change	Key
Increase (>3%)	↑
Minimal change	↔
Decrease (>3%)	↓

Impact of change	Key
Planned or positive	
Minimal impact	
Unplanned or negative	
No available data	

Indicator			Baseline year (2013/14)	Reporting Year (2025/26)	Trend	% change	Units
Ecological communities and species							
Extent	**Broad and priority habitat area**		**Full list of priority habitat areas given in S1.1**				**ha**
	Broad habitat area	Woodland area	207,876	203,618	↔	-2.0%	
		Grassland area	12,748	17,208	↑	35.0%	
		Mountain, moors and heathlands area	28,564	29,581	↑	3.6%	
		Enclosed farmland	724	1,718	↑	137.3%	
		Freshwater	265	329	↑	24.2%	
		Urban area	742	823	↑	10.9%	
		Coastal margins area	17	23	↑	35.3%	
		Total area	**250,936**	**253,300**	↔	**0.9%**	
	Priority habitat area	Broadleaved, mixed and yew woodland	22,757	22,529	↔	-1.0%	
		Lowland dry acid grassland and lowland heath	14,628	14,981	↔	2.4%	
		Other priority grassland	522	888	↑	70.1%	
		Lowland raised bog	782	881	↑	12.7%	
		Blanket bog	6,793	6,908	↔	1.7%	
		Upland heathland	6,881	6,937	↔	0.8%	
		Other	364	1,634	↑	348.9%	
		Total area	**52,727**	**54,262**	↔	**2.9%**	ha
	Woodland area[a]	Plantation	164,199	148,703	↓	-9.4%	
		Native	38,890	52,223	↑	34.3%	
		Non-intervention	13,275	13,535	↑	2.0%	
		Wood pasture	735	736	↔	0.1%	
	Total land area holdings	Freehold	198,883	205,496	↔	3.3%	
		Leasehold	53,341	47,972	↓	-10.1%	
		Total area	**252,223**	**254,385**	↔	**0.9%**	
	Total Agricultural land use		**3,284**	**6,691**	↑	**103.7%**	
Extent	Area land under statutory designations	SSSI	68,192	68,260	↔	0.1%	
		AONB	29,832	29,678	↔	-0.5%	
		SAM	969	1,004	↑	3.6%	
		National Parks	85,230	85,221	↔	0.0%	
		Total area (designations overlap so no additive)	**147,982**	**184,163**	↑	**24.4%**	ha

Indicator				Baseline year (2013/14)	Reporting Year (2025/26)	Trend	% change	Units
Ecological communities and species								
Extent	**Area of open habitat [a]**			**43,060**	**50,028**	↑	16.20%	
	PAWs--area by semi-naturalness score	1 (over 80 % native)		13,817	16,228	↑	17.40%	
		2 (between 50 to 80 % native)		3,612	4,272	↑	18.30%	
		3 (between 20 to 50 % native)		6,417	6,382	↔	-0.50%	
		4 (under 20 % native)		19,704	14,883	↑	-24.50%	
		0 (no trees)		981	930	↑	-5.20%	
		Total area		**44,531**	**42,695**	↓	**-4.10%**	ha
	Ancient semi natural woodland--area by semi-naturalness score	1 (over 80 % native)		27,241	29,512	↑	8.30%	
		2 (between 50 to 80 % native)		4,336	5,225	↑	20.50%	
		3 (between 20 to 50 % native)		6,922	6,983	↔	0.90%	
		4 (under 20 % native)		20,600	15,532	↑	-24.60%	
		0 (no trees)		1,698	1,622	↑	-4.50%	
		Total area		**60,797**	**58,874**	↓	**-3.20%**	
Condition	Condition of SSSIs	% in favourable condition		35.6	36.72	↑	3.1%	%
		% in unfavourable recovering condition		63.9	55.72	↓	-12.8%	
		% in unfavourable no change or declining condition		0.5	4.60	↑	820.0%	
		% part destroyed or destroyed condition		-	2.96	↔	0.0%	
	Site condition of non-SSSI priority woodland habitat	Ancient & semi-natural woodland	Favourable	1422	-	-	-	
			Recovering	2667	-	-	-	
			Declining	170	-	-	-	
			Unfavourable	763	-	-	-	
			Not known	92	-	-	-	
		Priority ancient woodland	Favourable	2061	-	-	-	
			Recovering	10,850	-	-	-	
			Declining	1364	-	-	-	
			Unfavourable	791	-	-	-	
			Not known	14793	-	-	-	
		Broadleaved (non-ancient woodland)	Favourable	3130	-	-	-	
			Recovering	7634	-	-	-	
			Declining	1077	-	-	-	
			Unfavourable	1898				
		Broadleaved (non-ancient woodland)	Not known	2458				%

Indicator				Baseline year (2013/14)	Reporting Year (2025/26)	Trend	% change	Units
Ecological communities and species								
Condition	Site condition of non-SSSI priority woodland habitat	Wood pasture	Favourable	283				%
			Recovering	192				
			Declining	0				
			Unfavourable	260				
			Not known	0				
		Non-intervention	Favourable	679				
			Recovering	1352				
			Declining	330				
			Unfavourable	573				
			Not known	10340				
		Open	Favourable	1679				
			Recovering	3582				
			Declining	1176				
			Unfavourable	738				
			Not known	175				
	Woodland Ecological Calculator Index	Deadwood volume (native woodland)		6.0%				% ha favourable
		Vertical structure (native woodland)		42.0%				
		Ground flora (native woodland)		9.0%				
		Veteran trees (native woodland)		0.0%				
		Nativeness of occupancy (native woodland)		89.0%				
		Invasive species (native woodland)		95.0%				
		Tree pests and diseases (native woodland)		89.0%				
		Herbivores/grazing pressure (native woodland)		49.0%				
		Regeneration at component group level (native woodland)		20.0%				
		Number of native tree/shrub species (native woodland)		46.0%				
		Age distribution of tree species (native woodland)		18.0%				
		Proportion of Open Space (native woodland)		5.0%				
		Proportion of woodland/open habitat (native woodland)		76.0%				
		Size of woodland parcel (native woodland)		97.0%				
		Regeneration at population level (native woodland)		41.0%				
		Overall ecological condition score (native woodland)		18.0%				
		Overall ecological condition score (non-native woodland)		0.5%				
	Trees of Interest	**Total**		**6922**	**6922**	↔	**0.0%**	
		Notable		562	562	↔	0.0%	
		Ancient		1,271	1,271	↔	0.0%	
		Veteran		5,089	5,089	↔	0.0%	

Indicator			Baseline year (2013/14)	Reporting Year (2025/26)	Trend	% change	Units
Ecological communities and species							
Condition	Wildlife management	Fallow	3,347	4,954	↑	48.0%	
		Muntjac	2,228	6,739	↑	202.5%	
		Red	544	597	↔	+9.7%	
		Roe	4,967	6,153	↑	23.9%	
		Sika	301	327	↔	8.6%	
		Boar	196	174	↓	-11.2%	
		Chinese Water Deer	-	27	↑	n/a	
		Goat	-	14		n/a	
		Total	**11,583**	**18,985**	↑	**63.9%**	
	Carbon stock in...	...living biomass	11,295	12,654	↑	12.0%	thousand metric tonnes
				-	-	-	
				-	-	-	
	CO_2e stock in...	...living biomass	41,414	46,399	↑	12.0%	
			–	-	-	-	
			–	-	-	-	
	Biomass stock...	...total above and below ground	22,589	25,309	↑	12.0%	thousand metric tonnes oven-dry weight
		...above ground	17,634	19,764	↑	12.1%	
		...below ground	4,955	5,545	↑	11.9%	
	Standing timber volume (overbark standing)	Coniferous	26,148	27,817	↑	6.4%	thousand m3
		Broadleaved	8,147	10,166	↑	24.8%	
	Location of nation's forests by ONS land classification	Rural town and fringe	27,954	28,174	↔	0.8%	ha
		Rural village and dispersed	206,223	207,607	↔	0.7%	
		Urban city and town	16,517	16,253	↔	-1.6%	
		Urban conurbation	2,201	1,968	↓	-10.6%	
		Total	**252,895**	**254,002**	↔	**0.4%**	
	Woodland Accessibility						
	Percentage of people in 'Priority Places' close to accessible woodland in the nation's forests		9	7.4	↓	17.8%	%
	Percentage of people within 10 km (about 6 miles) of the nation's forests		49.1	48.7	↔	-0.8%	
	Percentage of people within a 15/30/60-minute drive of the accessible nations' forests:	15 minutes	40.3	37.7	↓	-6.6%	
		30 minutes	85.8	84.28	↔	-1.8%	
		60 minutes	99.9	99.97	↔	0.1%	
	Soil						
	Area of woodland on deep peat soils	Yield Class > 6	16,405	15,875	↓	-3.2%	ha
		Yield Class ≤ 6	3,118	2,458	↓	-21.2%	
	Area of woodland on shallow peat soils and peaty pockets	Yield Class > 6	45,737	44,473	↔	-2.8%	
		Yield Class ≤ 6	7,164	6,845	↓	-4.5%	

Indicator			Baseline year (2013/14)	Reporting Year (2025/26)	Trend	% change	Units
Ecological communities and species							
Condition	**Air**						
	Area of woodland in areas of differing air quality	Urban	15,433	15,316	↔	-0.8%	ha
		Peri-urban	25,152	25,366	↔	0.9%	
		Rural	160,141	157,713	↔	-1.5%	
		Total	200,727	198,395	↔	-1.2%	
	Other forms of capital						
	Area of land by accessibility status	CRoW Access	150,430	149,119	↔	-0.9%	ha
		Other accessibility based on deeds	86,228	89,334	↑	3.6%	
	Km of published recreational routes across the estate	Walking	1,095	1,234	↑	12.7%	km
		Cycling	1,303	1,307	↔	0.3%	
		Other (e.g. equestrian, rally)	497	1,263	↑	154.1%	
		Total	2,895	3,832	↑	32.4%	
	Trees of notable interest						
	Ancient trees	Ancient trees	460	492	↑	7.0%	number of trees
		Veteran trees	4,043	4,308	↑	6.6%	
		Total	4,503	4,800	↑	6.6%	
	Active Forests Programme						
	Total visitors		**865,618**	**4,528,069**	↑	**423.1%**	%
	Gender of visitors	Female	479,892	2,605,570	↑	442.9%	number of visitors
		Male	383,834	1,906,637	↑	396.7%	
		Other	1,892	15,862	↑	738.4%	
	Activities	Cycling	247,134	1,771,842	↑	617.0%	number of visitors
		Running	174,181	387,994	↑	122.8%	
		Walking	207,719	2,222,705	↑	970.1%	
		Other	236,584	177,158	↓	-25.1%	

Notes:

a. **Area of open habitat:** Figures use an updated methodology in contrast to previous Natural Capital Accounts. The primary change is that this now recognises beech and hornbeam as native species across England.



Annex 2: Habitat area and condition

This worksheet provides more detailed information on priority habitat area, potential area, and condition than that set out in S1. This is relevant because Forestry England manages each of these priority habitats with a view to Government targets for NERC s41 habitats.

Value change	Key
Increase (>3%)	↑
Minimal change	↔
Decrease (>3%)	↓

Impact of change	Key
Planned or positive	
Minimal impact	
Unplanned or negative	
No available data	

			Baseline year	Reporting Year	Trend	% change	Prior year
UKNEA Habitat	Broad Habitat	Priority Habitat	2013	2025/26			2024/25
Woodland	**Broadleaved, mixed and yew woodland**		42,720	50,614	↑	18.5%	51,291
		Traditional orchard	6	6	↔	0.0%	6
		Wood pasture & parkland	161	140	↓	-13.0%	120
		Upland oakwood	804	687	↓	-14.6%	792
		Lowland beech/yew woodland	914	1,155	↑	26.4%	1,167
		Upland mixed ashwoods	308	264	↓	-14.3%	272
		Wet woodland	571	648	↑	13.5%	662
		Lowland mixed deciduous woodland	19,802	19,436	↔	-1.8%	20,053
		Upland birchwoods	191	193	↔	1.0%	182
	Coniferous woodland		142,397	130,070	↓	-8.7%	133,027
		Native pine woodlands	-	-			1
		Non HAP native pinewood	2	2	↑	13.0%	2
Grassland	**Acid grassland**		7,149	11,419	↑	59.7%	10,991
		Lowland dry acid grassland	2,993	2,985	↔	-0.3%	2,978
	Calcareous grassland		69	117	↑	69.6%	102
		Lowland calcareous grassland	185	421	↑	127.6%	429
		Upland calcareous grassland	187	185	↔	-1.1%	185
	Neutral grassland		609	836	↑	37.3%	838
		Lowland meadows	113	247	↑	118.6%	249
		Upland hay meadows	37	35	↓	-5.4%	35
	Improved grassland		1,406	1,321	↓	-6.0%	1,401
Mountains, moors and heaths	**Bracken**		1,363	1,702	↑	24.9%	1,668
	Bogs		496	481	↓	-3.0%	513
		Lowland raised bog	782	881	↑	12.7%	833
		Blanket bog	6,793	6,908	↔	1.7%	6,877
	Dwarf shrub heath		**21**	**51**	↑	142.9%	44
Mountains, moors and heaths		Lowland heathland	11,635	11,996	↑	3.1%	11,887
		Upland heathland	6,881	6,937	↔	0.8%	6,992
	Fen; marsh & swamp		27	21	↓	-22.2%	22
		Upland flushes, fens & swamps	5	11	↑	120.0%	10
		Purple moor grass/rush pastures	34	83	↑	144.1%	45
		Lowland fens	116	120	↑	3.4%	128
		Reedbeds	10	9	↓	-10.0%	9
	Mountain habitats		-	-			-
		Mountain heaths and willow scrubs	-	5			3
	Inland rock		338	419	↑	24.0%	441
		Inland rock outcrop and scree habitats	18	21	↑	16.7%	21
		Open mosaic habitats on previously developed land	-	55			55
		Limestone pavements	45	33	↓	-26.7%	33
Enclosed farmland	**Arable/horticulture**		497	990	↑	99.2%	1,177
		Arable field margins	4	4	↔	-3.0%	4
	Boundary & linear features		222	581	↑	161.7%	535
		Hedgerows	1	2	↑	100.0%	2
Freshwater	**Rivers & streams**		42	38	↓	-9.5%	38
		Rivers	2	3	↑	50.0%	3
	Standing water/canals		111	111	↔	0.0%	79
		Ponds	14	99	↑	607.1%	100
		Mesotrophic lakes	28	19	↓	-32.1%	22
		Eutrophic standing waters	68	54	↓	-20.6%	86
		Aquifer fed naturally fluctuating water	-	1	↑		1
Urban	**Built up areas and gardens**		742	808	↑	8.9%	822
	Urban		-	1			1
Coastal margins	**Supralittoral rock**		-	-			-
		Maritime cliff/slopes	16	16	↔	0.6%	16
	Littoral sediment		-	-			-
		Coastal saltmarsh	1	2	↑	60.7%	2
		Estuarine Rocky Habitats	-	5	↔		5
	Total		**250,936**	**253,243**			

Annex 3: Case study

We are changing the way we restore Plantation on Ancient Woodland Site (PAWS)

We are working to improve all our PAWS by 2044 and this includes having 20% native species across all of them. Our recent approach has relied heavily on standard thinning, and it is not delivering restoration as fast as we want.

So as well as thinning, we are increasing small-scale felling, replicating the historical coppice-management, which we believe will be quicker and more effective in the long term.

While thinning will remain important, we are adopting a more varied approach to restoration. Activities are tailored to individual sites, and in some cases interventions such as small-scale clear-felling, group fells or strip-felling may deliver greater restoration benefits.

In 2025/26, the biggest focus for using our nature recovery Defra funding was on beginning to make that change. We delivered our largest-ever felling programme on PAWS and invested heavily in access improvements for vehicles and machinery.

We are also relying more on natural regeneration. We expect this approach to deliver better ecological outcomes, however the results take much longer to see after management interventions such as thinning or clearfelling.

As a result, because a lot of our work has been to prepare woodland for restoration activity we have not seen as much reduction in the area classified as SN4 (>80% non-native trees).

As we change our approach we will improve our data and reporting so the benefits are clearer and easier to understand. To support this, we will:

- increase transparency by publishing a PAWS dashboard that will show restoration progress geographically across the nation's forests.
- compare our field-collected data with remote sensing data, such as aerial imagery, to improve confidence in our reporting and better understand when and where woodlands are improving.





Annex 4: Physical flow account

This schedule reports the flow of annual natural capital benefits that are produced on the nation's forests in the baseline year and the reporting year. This includes production by Forestry England itself, contractors and tenants. It is relevant to report all these aspects because total (annual) production relates to Forestry England management decisions.

This physical flow account is only a partial reflection of all the benefits produced by the nation's forests because we are not yet able to quantify many of them, for example improving air quality and mitigation of flooding are not yet measured here.

Spatial accounting unit by natural capital benefit	Indicator	Units	Baseline year	Reporting year
			2013/14	2025/26
Timber provision				
Woodland	Total nation's forests timber production	m^3/yr	1,520,129	1,898,677
Climate regulation[a]				
Woodland	Carbon sequestered / (emitted)	tCO_2/yr	1,645,657	1,454,046
Bogs			(11,663)	(11,950)
Grassland			–	–
Heathland			–	–
Woodland on Deep Peat Soils			(88,569)	(83,171)
Woodland	Carbon embodied in environmental goods (timber)[b]	tCO_2/yr	1,029,787	1,379,886
GHG emissions from own energy use	Operational Carbon Emissions (Scope 1 and 2)	tCO_2/yr		(3,318)
Flood mitigation				
Woodland	Total volume of water stored	m^3/yr	78,334,513	78,334,513
Air quality				
Woodland	Volume of PM2.5 removed	kg	1,289,984	1,140,242
Recreation				
Whole estate	Visits to nation's forests[c]	visits/yr	BL 2016/17 165,000,000	326,338,011
	Visitors to nation's forests[c]	visitors/yr	BL 2016/17 21,000,000	28,521,091
	Volunteers	hours/yr	201,337	266,291
Plant and seed supply				
Whole estate	Plant production number	number/yr	14,961,000	7,100,000
	Seed production weight	kg/yr	–	–
Food provision				
Whole estate	Wild game carcass numbers	number/yr	11,586	18,895
	Livestock production from tenant farmers	number/yr	7,309	6,283
	Crop production from tenant farmers	kg/yr	381	597
Minerals				
Whole estate	Mineral production volume	tonnes/yr	1,295,850	1,023,741
Physical health				
Whole estate	Active visits to nation's forests	visits/yr	84,975,000	168,064,076

Notes:

a. All GHG emissions are grossed out by expressing them all in terms of the same 'language': Carbon Dioxide Equivalents. Bogs on the nation's forests, for example, are net emitters of GHGs in the form of methane, nitrous oxide and carbon dioxide, depending on condition. nation's forests bogs are assumed to be 75% near natural and 25% modified.

b. Carbon embodied in environmental goods does not represent a release of carbon to the atmosphere. It represents carbon locked up in harvested timber, which leaves the estate for commercial uses in the reporting year. It does not include non timber biomass (such as brash and roots), which is left on site after felling. This flow is of a slightly different nature to the other flows in the accounts, as it does not take into account what that subsequent use is, and in order to avoid double counting alongside the carbon sequestered figure, does not contribute to the monetary account or the balance sheet.

c. The total figure for visit numbers quoted for 2016/17 is reduced from that published in last year's CNCA. This is the result of refined methodology which has also been used to calculate the 2017/18 visits total, ensuring consistency of approach across these two reporting cycles.



Annex 5: Monetary flow account

This schedule collates the estimated total annual value (£) of natural capital benefits that are produced from the nation's forests in both the baseline year and the reporting year. These values are calculated after the deduction of production costs (but not maintenance costs, which cannot be attributed to individual benefits but are netted off the gross value of natural capital in the balance sheet R1).

Spatial accounting unit by natural capital benefit	Indicator	Units	Baseline year	Reporting year
			2013/14	2025/26
Timber provision				
Woodland	Net asset value for timber produced	£/yr	£11,377,537	£(4,978,532)
Climate regulation				
Woodland	Carbon sequestration value	£/yr	£134,592,857	£448,970,554
Bogs			£(953,845)	£(3,689,888)
Grassland				
Heathland				
Woodland on Deep Peat Soils			£(7,243,794)	£(25,680,896)
GHG emissions from own energy use	Operational Carbon Emissions (Scope 1 and 2)	£/yr	£/yr	£(1,024,510)
Flood mitigation				
Woodland	Flood mitigation value	£/yr	£44,558,106	£44,558,106
Air quality				
Woodland	Air quality regulation	£/ha	£53,386,497	£91,493,123
Recreation				
Whole estate	Net asset value for recreation	£/yr	£485,712,513	£979,267,296
	Value to Forestry England	£/yr	£(13,883,174)	£(8,836,114)
	Public Value	£/yr	£499,595,686	£988,103,410
	Volunteers	£/yr		
Plant and seed supply[b]				
Whole estate	Plant and seed revenues	£/yr	£466,659	£123,790
Food provision				
Whole estate	Wild game carcass value[c]	£/yr	£12,677	£(792,406)
	Livestock production value	£/yr	-	-
	Crop production value	£/yr	-	-
Minerals[d]				
Whole estate	Mineral sales value	£/yr	£925,504	£495,387
Physical health				
Whole estate	Avoided medical treatment costs	£/yr	£360,617,356	£713,231,216
Total annual value of ecosystem services delivered		£/yr	£1,569,164,580	£2,241,973,241

Notes:

a. The monetary account reports the value to the reporting entity (private value from rents) and to wider society (external value from the direct consumption of benefits only). It does not include the indirect or 'downstream' value to farmers and aggregates/timber contractors from the sale of their produce. This is because these sales are based on decisions outside of the control of Forestry England and exist further along the value chain). Values reported above are the sum of annual private and external value.

b. Our plant and seed sales are counted as a benefit to society as the actual value of plants and seeds is much higher than their sale value when they are sold at cost of production.

c. Although the number of wild carcasses has increased against baseline, the huge decline in wild boar value from £2.50 in October 2017 to £0.75 in November 2017, as well changes in Forestry England venison contracts, has meant the revenues to Forestry England have fallen sharply alongside an increase in the cost of production. Wild game income is a by product of culling for forest management purposes, rather than done primarily for profit.



Annex 6: Risk register

This schedule presents the risk register for Forestry England NCA. It uses an asset pressure-benefit relationship to indicate risk status.

Risk	Mitigation measures
"Climate change & extreme weather"	Shifts in climate present a substantial challenge to the long-term viability of forestry operations, land management practices, and the overall health of ecosystems and communities. Forestry England is actively embedding climate adaptation strategies into national policies, strategic frameworks, and forest management plans. Leveraging our forestry expertise, we are working collaboratively with partners and the public to raise awareness and drive action on how forestry can contribute to addressing climate change.
Pests & diseases	Forestry England is deploying advanced biodiversity monitoring tools such as eDNA sampling and bioacoustic sensors to detect early signs of ecological stress. These technologies enable rapid identification of species and ecosystem changes, guiding targeted interventions. Traditional surveillance and research partnerships complement these efforts to manage the growing threat of pests and diseases exacerbated by climate change.
Economic pressures	Inflation and economic uncertainty pose risks to income from timber, recreation, and investment delivery. A temporary programme, Securingthe future, is in place to develop sustainable financial strategies. Budget reviews are conducted monthly across all business units to ensure financial resilience
Health & safety	Forestry and land management activities carry inherent risks. The Look Out and Look After (LOLA) programme has strengthened the organisation's health and safety culture, reducing incidents and improving risk awareness across teams.



Annex 7: Maintenance cost schedule

This table summarises the costs involved in maintaining and enhancing the quality of the nation's forests' natural capital assets. We've grouped these costs into five key categories to highlight the proportional differences between them and show where investment is focused.

Across all levels of our organisation, we continually review decision-making to ensure resources are directed effectively. This is achieved by prioritising investment in sustaining and improving the assets themselves and strengthening their capacity to deliver increasing benefits to society.

	2013/14	2025/26
Forest regeneration and maintenance	£11,160,569.67	£12,948,509.92
Habitat and species management	£3,821,704.34	£12,624,324.71
Infrastructure	£2,841,512.36	£17,459,230.88
Community and learning	£1,772,842.31	£4,670,428.14
Volunteering	£2,011,356.63	£2,455,131.97
Total	**£21,607,985.31**	**£50,157,625.62**



Annex 8: Materiality statement

This schedule summarises the scope of the natural capital for the account boundary using an asset-service matrix. Where habitats are natural capital. Cells shaded green reflect material and relevant service provision.

Description	Key
Not included	0
Partially included	1
Included	2
Data unavailable or no method	-
Significant	

		Natural capital assets			
Ecosystem service	**Private & public benefits**	Freshwater	Grassland	Mountain, moorland and heath	Woodland
Provisioning	Food provision		2	2	2
Provisioning	Fishing (commercial)				
Provisioning	Timber				2
Provisioning	Fibre and materials			0	2
Provisioning	Water supply				
Provisioning	Renewable energy	0			0
Provisioning	Minerals				2
Regulating	Carbon sequestration	0	0	1	2
Regulating	Air quality regulation				2
Regulating	Flood risk management			0	2
Cultural	Recreation	1	1	1	1
Cultural	Education	0	0	0	0
Cultural	Volunteering	1	1	1	1
Bundled	Water quality	0	0	0	0
Bundled	Property value	0	0	0	0
Bundled	Biodiversity	1	1	1	1
Cultural	Mental health	0	0	0	0
Cultural	Physical health	2	2	2	2

Audit trail and references

Below is a breakdown of the ecosystem services included within this natural capital account, alongside a brief explanation of where the data and values come from. NCA information, values and quantities are drawn from a wide range of internal and external sources. All of these methods are under review and will be refined/revised as needed in future.

Timber

Our timber data is based on production forecasts developed by Forest Research's Inventory, Forecasting and Operational Support (IFOS) team. Ultimately, the raw inventory data is sourced from the Forestry England Geographic Information System database, 'ForesterWeb' which is used to estimate timber production (thinning and felling) in m^3 overbark standing, within the reporting period. Monetary values are taken from direct production and standing sales figures that also feed into Forestry England's annual report and accounts.

Food

The quantity of food produced and its monetary value and costs are recorded in our internal Wildlife Management System. These accounts show both the overall quantity of food produced (based on number of carcasses sold) and the net financial income of our wildlife management programme. Carcasses are sold and valued at market price, and so this benefit is subject to potentially quite large variations in per kilo prices of boar and venison.

Plant & seeds

Forestry England's Plant and Seed Supply (PSS) team provide the NCA with an estimate of what quantity and weight of seeds and plants are produced by our nurseries. Monetary values within the NCA are calculated based on revenues from the sale of our seeds and plants, which are then subject to an assumed margin of external value (14.46% for the reporting year) based on PSS analysis.

Carbon sequestered

Like the timber data, our carbon sequestration figures come from Forest Research's National Forest Inventory team. This time they use Forestry England's forest plans to forecast 'net volume increments' (the volume of tree growth in m^3). This is then converted into tonnes of CO_2 in the accounts, based on sequestration models developed by Forest Research. The value per tonne of sequestered CO_2 is updated each year for inflation and forecast into future flows. This value is taken directly from government guidance on the non-trade value of carbon, the Department for Business, Energy & Industrial Strategy's (BEIS) 'Valuation of energy use and greenhouse gas'.

Mitigation of flooding

The valuation for flood mitigation draws on the Forest Research report, 'Revised valuation of flood regulation services of existing forest cover to inform natural capital accounts.' (2023). Using the values within this report, we applied the same discount rate as to the other services to estimate the value over 50 years based on 2022 prices.

Air quality regulation

Air quality benefit arises from the ability of different types of vegetation to remove pollutants from the air. This benefit is estimated for the amount of PM2.5 removed by woodland. Jones et al. (2017) modelled this benefit for the UK national accounts reflecting the variety of different levels of PM2.5 concentration, types and extent of vegetation and density of human population across the country. An update to this study has produced estimates of PM2.5 removal per hectare of woodland by local authority. The economic value of this service is estimated through the resulting avoided healthcare cost at local authority level (eftec and CEH, 2019).

Recreation and public access

Forestry England's NCA recreation figures are sourced from quarterly surveys conducted with Kantar (previously Kantar TNS) – a demographically representative sample of the English population fills in a series of questions asking them to estimate how many woodland visits they have made to the nation's forests over the previous three months. This data is then input into statistical models (also developed by Kantar), which give us annual estimates for how many recreational visits we have.

We then apply a per recreational visit value, which is updated annually for inflation. The original value is taken from 'The Social and Environmental Benefits of Forests in Great Britain' (2003).

Minerals

Mineral production information is sourced directly from internal Forestry England databases – our civil engineering function collate estimates for mineral and aggregate volumes extracted within each calendar year. Monetary values are also collated by the same team, based primarily on rents from mineral and aggregate extraction.

Physical health

In addition to improving the general welfare of visitors, if people are active during their visits, recreation can also have measurable physical health benefits. White et al. (2016) estimate that 51.5% of recreation visits are 'active', where an 'active visit' is defined as those who met recommended daily physical activity guidelines either fully, or partially, during visits.

The benefit is valued as the health benefits of active recreation (in terms of improvements in Quality Adjusted Life Years – QALYs) and the economic value of health improvement (in terms of the avoided health cost due to improvement in QALY). Beale et al. (2007) analysed Health Survey for England data, estimating that 30 minutes a week of moderate-intense physical exercise, if undertaken 52 weeks a year, would be associated with 0.0106768 QALYs per individual per year. Beale et al. (2007) assume this relationship between physical activity and QALYs is both cumulative and linear.

Claxton et al. (2015) estimate a cost effectiveness threshold of a QALY to be roughly £12,900/QALY in 2008 prices. This figure is used as a proxy for health costs, reflecting the avoided health costs when QALY is improved by one unit. Based on this information, the avoided health cost is estimated using current year's prices. The monetary unit value is assumed to remain constant over time.

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