Department
for Environment
Food & Rural Affairs

25 Year Environment Plan Annual Progress Report

April 2022 to March 2023

Date: July 2023

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for Environment
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Presented to Parliament pursuant to Section 9 of the Environment Act 2021

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We are the Department for Environment, Food and Rural Affairs. We are responsible for improving and protecting the environment, growing the green economy, sustaining thriving rural communities, and supporting our world-class food, farming, and fishing industries.

We work closely with our 33 agencies and arm's length bodies on our ambition to make our air purer, our water cleaner, our land greener and our food more sustainable. Our mission is to restore and enhance the environment for the next generation, and to leave the environment in a better state than we found it.

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Ministerial Foreword

This year's Annual Progress Report is the final one in the series that reports on action taken to deliver the 25 Year Environment Plan, published in 2018. In this plan we set out our vision, through a set of ten goals and our plan for a quarter of a century of action, to leave the environment in a better state than we found it. Since then, we have seen significant progress in protecting nature on land and at sea, including the landmark 2021 Environment Act.

This year's reporting cycle runs from April 2022 to March 2023, although the collection date of the data is often much earlier. We will explore publishing more timely data in future years' reports, so that it corresponds better to the actions set out in the report.

It is a year that has seen the delivery of some of the government's biggest environmental milestones to date. In January we built on the vision with our plan for delivery in the second statutory Environmental Improvement Plan.

We put stretching new environmental targets into law. These targets will drive forward action by successive governments to protect and enhance our natural world. The most critical of these is to halt the decline of nature by the end of this decade. We embedded nature at the heart of every decision that government will take through our strengthened biodiversity duty guided by our Environmental Principles Policy.

Across our 10 environmental goals we took action to restore nature and improve the environmental quality of the air, our waters, and our land. Our top achievements include:

- Awarding £8.6 million through the Farming Equipment and Technology Fund for over 1,350 low emission slurry spreaders, helping farmers cut ammonia emissions and improve nutrient use efficiency.
- Emissions for all 5 key air pollutants in England have fallen over the latest 15 years, for which annual, country-level data are available.
- Announcing that funding from fines and penalties handed out to water companies that pollute our rivers and seas will be invested in schemes that benefit our natural environment through the Water Restoration Fund.
- Awarding funding under the Landscape Recovery Scheme to 22 projects that aim to restore over 400 miles of rivers and protect and enhance 263 species.
- Helping to secure the new Global Biodiversity Framework, including a shared global commitment to protect at least 30% of the world's ocean and land by 2030.
- Better protecting over 26,000 properties in 2022/23 and nearly 60,000 properties (cumulative since March 2021) through the Flood and Coastal Defence Programme.
- Awarding more than £24 million to over 100 projects through the UK Seafood Fund that supports collaborative research and technology development.

- Awarding a National Trail status for Coast-to-Coast walking route stretching 197-miles from St Bees in Cumbria to Robin Hoods Bay in the North York Moors National Park.
- Committing £68 million through the £270 million Farming Innovation Programme to facilitate the development and adoption of emerging farming technologies that reduce greenhouse gas emissions.
- Announcing that a range of polluting single-use plastics will be banned in England from October.
- Publishing the Invasive Non-Native Species Strategy that sets a new framework for tackling the existing and growing threat posed by non-native species.

Although this past year has seen progress, I recognise there is much more to do to deliver for nature. We need everyone to play their part, from big business to local government to individual households, and together we will achieve our targets and improve the environment within a generation.

We will continue to look at ways to improve our monitoring of the natural environment. The development of the Natural Capital Ecosystem Assessment will enhance our scientific knowledge. Over the next year, we will also review our outcome data ensuring it is up to date making best use of latest data sources and methods.

Trudy Harrison MP, Minister for Natural Environment and Land Use, Department for Environment, Food and Rural Affairs

Executive summary

This is the government's 5th and final annual report on the 25 Year Environment Plan that was published in 2018. This report spans a year in which the second statutory Environmental Improvement Plan was published, setting out the actions that will drive us towards reaching our long-term targets and goals.

In January 2023, as committed in the Environment Act 2021, we published our first revision of the 25 Year Environment Plan (25 YEP), the statutory Environmental Improvement Plan (EIP23). The EIP23 builds on the 25 YEP vision with an ambitious delivery plan across ten environment goals and cross-cutting areas. It sets out how we will work with landowners, communities, and businesses to improve the environment, restore nature, reduce environmental pollution, and increase the prosperity of our country.

We introduced 13 long-term statutory targets alongside interim targets to tackle some of the biggest environmental pressures and make tangible progress over the next five years. These targets will ensure progress on clean air, clean and plentiful water, less waste and more sustainable use of our resources, a step change in tree planting, a better marine environment, and a more diverse, resilient, and healthy natural environment.

The targets are stretching and will require action across Government, business, and society. In turn this will support action to tackle climate change, restore our natural capital and protect our landscapes and green spaces.

As the targets only came into force earlier this year, we will begin to report on them from next year. In terms of data, for many targets this will be done annually, although some have a longer reporting cycle. To satisfy the requirements of the Act and in line with the current approach, we will also summarise actions delivered towards achieving the targets.

We also announced and laid in Parliament the final version of the Environmental Principles Policy Statement. This sets out how to interpret and apply five environmental principles, putting the environment at the heart of policy making across government. The legal duty commences on 1 November, and Ministers of the Crown must have due regard to the Environmental Principles Policy Statement when making policy.

On halting and reversing the decline in nature, we have already made progress in creating and restoring habitats, reducing pressures, and targeting the species that need bespoke action. Further progress has been made through setting an apex target to halt species decline by 2030, coupled with EIP23 that sets out a delivery plan towards our goal.

This progress report covers the period from April 2022 to March 2023 and has been structured in the following sections:

- An overview of progress on the 25 YEP and EIP23 across legislation, policy design and delivery towards our goals.

- Delivery action for each of the 25 YEP Goals and global leadership, setting out the ambition and summary of progress over the past year.

Progress over the past year

Delivery of the 25 Year Environment Plan is monitored and assessed across a range of measures. These assessments are used as part of government management of performance against each of the 25 YEP Goals through the Defra Environment Committee and cross-government 25 Year Environment Plan Board, alongside delivery boards for all the major projects and programmes in place.

Table 1 provides a summary of the actions we have taken over the past year. These have been grouped to reflect their contribution towards our long-term ambitions. This covers actions having an impact on environmental improvement now, and those actions that are enabling environmental improvement in the future.

Table 1: Summary of key progress by goal

Goal	Key progress over the period April 2022 – March 2023
Clean air	Actions having an impact on environmental improvement now: • Awarded £8.6 million through the Farming Equipment and Technology Fund for over 1,350 low emission slurry spreaders, helping farmers cut ammonia emissions and improve nutrient use efficiency. • Awarded more than £10 million to 44 projects through the Air Quality Grant to implement measures that reduce the impact of air quality on people's health. • Invested over £850 million in active travel between 2020/21 and 2022/23 and committed to spend at least a further £100 million capital into active travel over the period to 2024/25 as part of a total of around £3 billion investment in active travel over this Parliament. • Established a Best Available Techniques (BAT) strategy to prevent and reduce emissions and environmental impacts from industrial activities. • Introduced the second phase of the Domestic Solid Fuels Regulations (2020) meaning that small foresters are required to comply with the regulations associated with wood moisture content. • Established the waterways grant scheme to enable local authorities to bid for funding if they are planning to bring waterways into smoke control areas, enabling

Goal	Key progress over the period April 2022 – March 2023
	boat owners to be reimbursed for upgrading their appliances to meet smoke control area requirements. Actions enabling environmental improvement in the future: • Published the revised National Air Pollution Control Programme that sets out the policies and measures being considered to achieve compliance with 2030 emissions targets. • Designated National Highways as a Relevant Public Authority with a requirement to collaborate with local authorities on measures for inclusion in Air Quality Action Plans where such actions are needed to meet local air quality objectives. • Updated our Local Air Quality statutory guidance introducing a new escalation process for those local authorities behind on their reporting duties for the action plans and status reports.
Clean and plentiful water	Actions having an impact on environmental improvement now: • Doubled the budget of the Catchment Sensitive Farming advice partnership to £15 million per year to provide expert advice to 7,300 farmers. • Launched the Slurry Infrastructure Grant and nearly trebled our first-round budget to £34 million. The grant will support farmers to bring their capacity up to six months of covered storage to help manage their resources whilst protecting the environment. • Improved bathing water standards: 97% of bathing waters in England passed water quality standards after tests at over 400 designated sites. In 2022, 93% of bathing waters in England met the highest standards of 'good' or 'excellent', up from just 76% in 2010. • Announced that funding from fines and penalties handed out to water companies that pollute our rivers and seas will be invested in schemes that benefit our natural environment through Water Restoration Fund. Actions enabling environmental improvement in the future: • Published Integrated Plan for Water to deliver a healthy water environment, and a sustainable supply of water for people, business, and nature.

Goal	Key progress over the period April 2022 – March 2023
	• Published Storm Overflows Discharge Reduction Plan, requiring water companies to deliver £56 billion of capital investment by 2050 - the largest infrastructure programme in water company history • Announced that water companies face new unlimited penalties to help bring quicker enforcement action against water companies for causing pollution. • Published River Basin Management Plans setting out objectives and measures to tackle the main challenges facing the water environment in 8 river basin districts. To help deliver this £5.3 billion worth of action by 2027 is planned and funded. • Required water companies to set an action plan on every storm overflow in England, prioritising those that are spilling more than a certain number of times a year; into bathing waters; and high priority nature sites.

Thriving plants and wildlife	Actions having an impact on environmental improvement now:
	
	• Declared 3 New National Nature Reserves:
	  ○ Somerset Wetlands which protect 6,140 hectares of precious habitats.
	  ○ Wild Ennerdale which covers 3,000 hectares of landscape comprising water, forests, and mountains.
	  ○ Flashes of Wigan and Leigh which covers 738 hectares of wetland, meadows, and woodlands close to major urban areas that provide access to nature for over 300,000 people.
	• Published final evaluation report for round 1 of the Green Recovery Challenge Fund. Projects delivered activities at 930 locations, benefiting 326,000 hectares of land; while 1.1 million trees have been planted, exceeding original targets by 37%; more than 170,000 people have been engaged through more than 9,400 in-person and online events; and funding has directly supported 653 posts during the life of the projects.
	• Awarded funding under the Landscape Recovery Scheme to 22 projects that aim to restore over 400 miles of rivers and protect and enhance 263 species.
	• Committed £30 million to the Big Nature Impact Fund to help unlock private investment into nature projects.

Goal	Key progress over the period April 2022 – March 2023
	• Introduced first four byelaws in offshore Marine. Protected Areas, which prohibit damaging fishing activity over sensitive habitats. The byelaws will bring in management measures on fishing within these four Marine Protected Areas in English waters. Actions enabling environmental improvement in the future: • Published Green Finance Strategy that sets out how the government will green the financial sector to align investment with net zero and environmental targets. • Published the first Nature Markets Framework to encourage green finance for nature-based solutions, such as tree planting and peatland restoration. • Set a target to raise at least £500 million in private finance to support nature's recovery every year by 2027 in England, rising to more than £1 billion per year by 2030. • Announced Trees and Woodland Strategy Toolkit to support local authorities in developing and delivering a local tree strategy to harness the long-term benefits that trees can bring to local communities, including access. • Through the Kunming-Montreal Global Biodiversity Framework (GBF), agreed alongside the other parties to 4 global goals and 23 global targets. This includes a global commitment to halt and reverse biodiversity loss by 2030, to protect at least 30% of the land and of the ocean and to ending human-induced extinctions of known threatened species by the same date.
Reduced risk of harm from environmental hazards	Actions having an impact on environmental improvement now: • Better protected over 26,000 properties in 2022/23 and nearly 60,000 properties (cumulative since March 2021) through the Flood and Coastal Defence Programme. • Awarded more than £26 million from the £100 million Frequently Flooded Allowance, better protecting more than 2,300 households and businesses in England. Actions enabling environmental improvement in the future: • Published a flood hydrology roadmap, which sets out a vision to help scientists and practitioners better predict future flood events and improve UK flood resilience.

Goal	Key progress over the period April 2022 – March 2023
	• Published the review of making sustainable drainage systems mandatory in new developments through the implementation of Schedule 3 to the Flood and Water Management Act 2010.
Using resources from nature more sustainably and efficiently	Actions having an impact on environmental improvement now: • Awarded more than £24 million to over 100 projects through the UK Seafood Fund that supports collaborative research and technology development. • Announced £20 million of funding to improve tree planting stocks, woodland resilience, domestic timber production and accelerate tree planting across England. • Awarded almost £4 million through the Woods into Management Forestry Innovation Funds and the Tree Production Innovation Fund to further support expansion and management of our nation's trees and forests and futureproof them against stresses. • Introduced our initial Sustainable Farming Incentive offer which rewards which focused on actions farmers could do to improve soil health. Actions enabling environmental improvement in the future: • Published the Joint Fisheries Statement to set out our policies for achieving, or contributing to the achievement of, the Fisheries Act's requirements. • Set out in the Joint Fisheries Statement the timetable for delivery of the 43 Fisheries Management Plans. The first six were published on 17 July. • Introduced measures to curb illegal tree felling in England, including unlimited fines for offenders. The changes will deliver more proportionate, impactful, and enduring enforcement against illegal tree fellers. • Published a comprehensive prospectus of all actions we will invest in through Environmental Land Management schemes to support sustainable food production and nature recovery.
Enhanced beauty, heritage, and engagement with the natural environment	Actions having an impact on environmental improvement now: • Awarded a National Trail status for Coast-to-Coast route stretching from St Bees in Cumbria to Robin

Goal	Key progress over the period April 2022 – March 2023
	Hoods Bay in the North York Moors National Park. The 197-mile walking route will improve access to nature. • Announced £14.5 million 'Access for All' programme to make targeted access improvements in our protected landscapes, national trails, and forests. • Continued to provide funding support across the Urban Trees Challenge Fund, Local Authority Treescapes Fund and via England's Community Forests to support tree planting and regeneration in urban and peri-urban areas, including those with high levels of social and tree canopy deprivation. • Launched the £9 million Levelling Up Parks Fund to create new and improved parks in urban areas, helping communities to come together and enjoy the outdoors. Actions enabling environmental improvement in the future: • Launched the Green Infrastructure Framework to help improve access to good quality green and blue space close to home; increase the amount of green cover to 40% in urban residential areas; increase urban tree canopy cover; and increase the number and quality of Local Nature Reserves and Local Wildlife sites. • We will publish the response to the Landscapes Review before the end of 2023.
Mitigating and adapting to climate change	Actions having an impact on environmental improvement now: • Awarded £11 million through the Nature for Climate Fund Peatland Restoration Grant to support restoration works on over 7,000 hectares of peatland, adding to more than 8,000 hectares funded through round one. • Committed £68 million through the £270 million Farming Innovation Programme to facilitate the development and adoption of emerging farming technologies that reduce greenhouse gas emissions. • Announced that six nature projects across England have received funding to trial the most effective ways to capture carbon and mitigate the impacts of climate change. Operating at a scale of over 500 hectares each, the projects will restore landscapes and assess how carbon is captured and stored across habitats such as grasslands, forests, wetlands, and hedgerows.

Goal	Key progress over the period April 2022 – March 2023
	• Announced that millions of trees are set to be planted through £44.2 million in funding for Community Forests and woodland creation partners. The investment will create larger, well-designed, and more diverse woodlands which will be more resilient to climate change, as well as natural hazards such as wildfires. Actions enabling environmental improvement in the future: • Announced that all sales of peat to amateur gardeners in England will be banned by 2024, contributing to efforts to restoring 35,000 hectares of peatlands by 2025 and wider efforts to achieve net zero. • Published the cross-Government Net Zero Growth Plan, which included Defra sectors as part of an overall reduction across the economy of approximately 77% by Carbon Budget 6.
Minimising waste	Actions having an impact on environmental improvement now: • Issued civil sanctions for 3 companies following failure to comply with the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended). This ensures that businesses fund the recycling of the packaging waste that they place on the UK market. Actions enabling environmental improvement in the future: • Announced that a range of polluting single-use plastics will be banned in England from October. The ban will include single-use plastic plates, trays, bowls, cutlery, balloon sticks, and certain types of polystyrene and food and drink containers, including cups. • Announced that a new cash incentive system, placing deposits on drinks bottles and cans, will boost recycling from 2025. New plans set out in a consultation response detail that, through small financial deposits placed on single-use drinks containers, people will be incentivised to recycle their plastic drinks bottles and metal cans, reducing litter and plastic pollution. • Published a delivery plan that sets out how decarbonisation of the waste sector will contribute to delivering net zero as part of the cross-government Net Zero Growth Plan publication.

Goal	Key progress over the period April 2022 – March 2023
	• Played a leading role in the adoption of an amendment to the Basel Convention that means all exports of e-waste will be subject to greater controls and only exported if the destination country agrees. • Published details of reporting requirements for Extended Producer Responsibility for packaging.
Managing exposure to chemicals and pesticides	Actions having an impact on environmental improvement now: • Funded Pesticide Enforcement Officers at the Health and Safety Executive (HSE) to carry out visits to ensure compliance with pesticides legislation and target proactive support to where it is needed most. Actions enabling environmental improvement in the future: • Accepted the Health and Safety Executive's Regulatory Management Options Analysis on perfluoroalkyl and polyfluoroalkyl substances (PFAS), which include reducing PFAS emissions by developing UK REACH restrictions, beginning with a restriction on PFAS in fire-fighting foams, and exploring further restrictions covering a wide range of industrial and consumer uses. • Published a consultation on a government proposals and policy options relating to domestic management of Persistent Organic Pollutants (POPs). • Published guidance on how to manage Waste Upholstered Domestic Seating containing POPs.
Enhanced biosecurity	Actions having an impact on environmental improvement now • Received Royal Assent for the Animal Health and Welfare Act further strengthening the UK's position as a world leader for animal health and welfare. • Opened the £5.8 million Forest Research Holt Laboratory that undertakes leading research on pests and pathogens which could be detrimental or seriously damaging to our forests. • Launched the Centre for Forest Protection, with a mission to protect forests, woodlands, and trees from environmental and socioeconomic threats now and in the future.

Goal	Key progress over the period April 2022 – March 2023
	• The TB eradication strategy is working. TB herd incidence and prevalence in England is on the downward trajectory. Actions enabling environmental improvement in the future: • Published the Invasive Non-Native Species Strategy that sets a new framework for tackling the existing and growing threat posed by non-native species with a commitment to reduce establishments of non-native species by at least 50% compared to 2000. • Published a new Plant Biosecurity Strategy for Great Britain that sets out a new vision for plant health through a series of joint commitments, building upon the work achieved under the previous 2014 strategy. • Published the mitigation strategy for avian influenza in wild birds in England and Wales. • Published the draft Border Target Operating Model.

Environmental Outcome Indicators

As part of our annual reporting on progress toward the 25 Year Environment Plan, we produce an Outcome Indicator Framework. The framework is a comprehensive set of indicators describing environmental change that relates to the 10 goals within the 25 Year Environment Plan.

The framework is presented as an online, interactive dashboard to improve transparency and enable a greater degree of user interaction by offering direct access to the underlying indicator data.

The 2023 update includes data for 56 of 66 indicators including statistics for 6 indicators which were newly reported this year. The latest Outcome Indicator Framework update was published in May 2023. This year for the first time we have data for indicators across all 10 themes, with a new indicator being published within the Resilience Theme.

In this year's Outcome Indicator Framework, we update trends for 42 of the indicators reported in 2022, reflecting the most recent available data. The remaining 8 indicators presented in 2022 have not been updated as no new data were available for inclusion in the 2023 report at the time of analysis. This year's update also includes data for 6 additional indicators newly reported in 2023:

- B6 - Natural functions of water and wetlands ecosystems.
- C9 - Healthy seas: seafloor habitats functioning.
- D1 - Quantity, quality, and connectivity of habitats.
- D5 - Conservation status of our native species.
- F3 - Distribution of unwanted impacts caused by drought.
- K3 - Status of endemic and globally threatened species in the UK Overseas Territories

Outcome Indicators – quantitative progress assessment

As part of improving our understanding of changes to the natural environment, the 2023 update to the Outcome Indicator Framework includes an assessment of indicator data categorising direction of environmental changes observed over different historical time periods. The assessment categories state whether change is in a favourable direction for meeting environmental goals but does not consider whether any improvements seen are on a sufficient scale for meeting targets.

The short-term assessment reflects an assessment of change over the most recent 5-year period for which data are available. Assessment results are only included in the indicator component tables below where new data points were published in the 2023 update to the Outcome Indicator Framework. Summary results for all indicators for which data are available are included in later chapters. Where available, these results cover 3 assessment periods: the short term (most recent 5-year period for which data are available); the medium term (most recent 10-year period for which data are available) and

the long term (since the time series began). Full results and summary narrative are available as part of the online dashboard.

Clean Air

Indicator component	Short term assessment of change	Date range	Percentage change*
A1 Emissions of ammonia (NH3) in England	little or no change	2014-2019	+0.86
A1 Emissions of fine particulate matter (PM2.5) in England	improvement	2014-2019	-5.22
A1 Emissions of nitrogen oxides (NOx) in England	improvement	2014-2019	-27.72
A1 Emissions of non-methane volatile organic compounds (NMVOCs) in England	improvement	2014-2019	-5.20
A1 Emissions of sulphur dioxide (SO2) in England	improvement	2014-2019	-56.85
A3 Concentrations of fine particulate matter (PM2.5) in the air in England	improvement	2015-2020	-19.19
A4 Rural background concentrations of ozone (O3) in England	deterioration	2015-2020	+4.47
A5 Roadside nitrogen dioxide (NO2) concentrations in England	improvement	2015-2020	-28.94
A6 Exceedances of damaging levels of nutrient nitrogen deposition on ecosystems in England	little or no change	2013-2015 to 2018-2020	-0.10

Indicator component	Short term assessment of change	Date range	Percentage change*
A7 Area of land in England exposed to damaging levels of ammonia (NH3) in the atmosphere	deterioration	2012-2014 to 2017-2019	+4.21

Clean and Plentiful Water

Indicator component	Short term assessment of change	Date range	Percentage change*
B2 Serious pollution incidents to water	improvement	2015-2020	-4.11
B4 Condition of bathing waters in England	improvement	2016-2021	+3.52
B7a Salmon stock status - principal salmon rivers at risk in England	deterioration	2015-2020	-31.34

Thriving Plants and Wildlife

Indicator component	Short term assessment of change	Date range	Percentage change*
D2b Condition of Sites of Special Scientific Interest in England (favourable condition)	little or no change	2017-2022	-1.22
D3 Area of woodland in England	little or no change	2017-2022	+1.22

Indicator component	Short term assessment of change	Date range	Percentage change*
D4bi Widespread butterflies in woodland, England	little or no change	2016-2021	+2.94
D4bii Widespread butterflies on farmland, England	little or no change	2016-2021	+5.54
D7i Distribution of pollinators in the UK	deterioration	2014-2019	-5.60
C3ai Abundance of harbour seals, North-east England	improvement	2015-2020	+8.08
C3bi Percentage of marine bird species achieving relative breeding abundance targets, Greater North Sea	deterioration	2012-2017	-12.50
C3bi Percentage of marine bird species achieving relative breeding abundance targets, Celtic Seas	improvement	2014-2019	+8.33
C3bii Percentage of marine bird species achieving relative non-breeding abundance targets, Celtic Seas	deterioration	2015-2020	-18.75
C3bii Percentage of marine bird species achieving relative non-breeding abundance targets, Greater North Sea	deterioration	2011-2016	-6.67
D2b Condition of Sites of Special Scientific Interest in England (favourable condition)	little or no change	2017-2022	-1.22

Using resource from nature more sustainably and efficiently

Indicator component	Short term assessment of change	Date range	Percentage change*
E1 Area of productive agricultural land in England	little or no change	2016-2021	-0.28
E2 Volume of agricultural production in England	Change (increasing)[1]	2015/16 to 2020/21	+4.45
E3 Volume of inputs used in agricultural production in England	little or no change	2015/16 to 2020/21	-0.51
E4 Efficiency of agricultural production measured by Total Factor Productivity in England	Change (increasing)[1]	2015/16 to 2020/21	+5.10
E5 Percentage of the annual growth of trees in English woodlands that is harvested	deterioration	2016-2021	-13.01
E6 Volume of timber brought to market from English sources	deterioration	2016-2021	-4.14
E8a Water leakage in England[2]	improvement	2016/17 to 2021/22	-3.92

[1] *It is not possible to define an increase in indicators E2 or E4 as an 'improvement' or 'deterioration' as this would depend on whether the specific farming practices driving change are positive for the environment and there will be inherent trade-offs of impact to account for.*

[2] *The dates for E8a refer to the final year of the 3-year period, for example 2021/2022 refers to the period 2019/2020 to 2021/2022.*

Indicator component	Short term assessment of change	Date range	Percentage change*
E8b Per capita water consumption in England	deterioration	2016/17 to 2021/22	+4.12
J2a Raw material consumption (excluding fossil fuels) per capita in England (metal ores)	improvement	2013-2018	-14.66
J2a Raw material consumption per capita in England (non-metallic mineral ores)	deterioration	2013-2018	+8.19
J2a Raw material consumption per capita in England (biomass)	Change (decreasing)[3]	2013-2018	-9.75
J2b Gross value added per kg of raw material consumption (excluding fossil fuels) in England	improvement	2013-2018	+8.32

Enhanced beauty, heritage, and engagement with the natural environment

Indicator component	Short term assessment of change	Date range	Percentage change*
D3 Area of woodland in England	little or no change	2017-2022	+1.22

[3] *It is not possible to define a decrease in indicator J2a as an 'improvement' or 'deterioration' as there is no desired direction of change.*

Mitigating and adapting to climate change

Indicator component	Short term assessment of change	Date range	Percentage change*
A2 Emissions of greenhouse gases from natural resources in England (net total)	improvement	2014-2019	-4.96
J1 Consumption based greenhouse gas emissions in England (total)	improvement	2013-2018	-12.35

Minimising waste

Indicator component	Short term assessment of change	Date range	Percentage change*
C1b Percentage of sampled fulmars having more than 0.1 g of plastic in their stomach, UK	improvement	2012-2016 to 2017-2021	-22.41
C1ci Mean probability that benthic trawl surveys contain a litter item, Celtic Seas	improvement	2013-2018	-16.30
C1ci Mean probability that benthic trawl surveys contain a litter item, Greater North Sea	deterioration	2013-2018	+16.47
J1 Consumption based greenhouse gas emissions in England (total)	improvement	2013-2018	-12.35
J3 Waste from households recycling rates in England	little or no change	2015/16 to 2020/21	-0.53
J4 Residual waste (excluding major mineral wastes) in England (total)	deterioration	2014-2019	+19.54

Indicator component	Short term assessment of change	Date range	Percentage change*
J6a Illegal waste sites in England (total active sites)	improvement	2015/16 to 2020/21	-15.37

Managing exposure to chemicals and pesticides

Indicator component	Short term assessment of change	Date range	Percentage change*
New data points for relevant indicators were not available in the 2023 update to the Outcome Indicator Framework so the quantitative assessment has not been updated.			

Enhancing biosecurity

Indicator component	Short term assessment of change	Date range	Percentage change*
H2 Number of additional tree pests and diseases becoming established in England	deterioration	2007-2016 to 2012-2021	+33.33

* Note that some assessment categories were assigned based on smoothed data, so percent change figures listed here may differ from unsmoothed values quoted elsewhere. Percent change refers to the difference seen from the first to last year in the specified date range. For further information on the assessment methodology, including the approach to smoothing for individual indicators, refer to the Outcome Indicator Framework

Natural Capital and Ecosystem Assessment

Defra's £140 million Natural Capital and Ecosystem Assessment (NCEA) programme was launched in April 2022, following a successful pilot. Over three years (2022/23 to 2024/25), NCEA is mapping the location, extent, condition, and change over time of England's natural capital assets. The new data, gathered via a number of monitoring networks, will address critical evidence gaps and in-turn improve decision-making. NCEA outputs are

already feeding into key strategic indicators of the Outcome Indicator Framework describing soil health, water quality and habitat quantity, quality, and connectivity.

The terrestrial arm of the programme is delivering high-quality data to assess the state and condition of natural capital assets, ecosystems, and biodiversity in terrestrial and freshwater environments. One example, being bringing together existing but disjointed data alongside new data (field surveys and remote sensing) to produce an England Peat Map, which can be used by policy teams working on carbon accounting and restoration priorities. The marine arm of the programme is focused on providing evidence, tools, and guidance to capture the environmental and socioeconomic benefits of our marine natural capital – so that we can better manage, enhance, and protect these assets.

The programme is currently in its second year of delivery and so far, has delivered over 100 outputs.

Clean air

What are our long-term ambitions?

We will tackle all sources of air pollution, making our air healthier to breathe, protecting nature and boosting the economy.

Long-term targets

- By the end of 2040, we will achieve a maximum Annual Mean Concentration Target (AMCT) of 10 micrograms of PM2.5 or below per cubic metre (µg/m³).
- By the end of 2040, we will reduce population exposure to PM2.5 by 35% compared to 2018 levels.

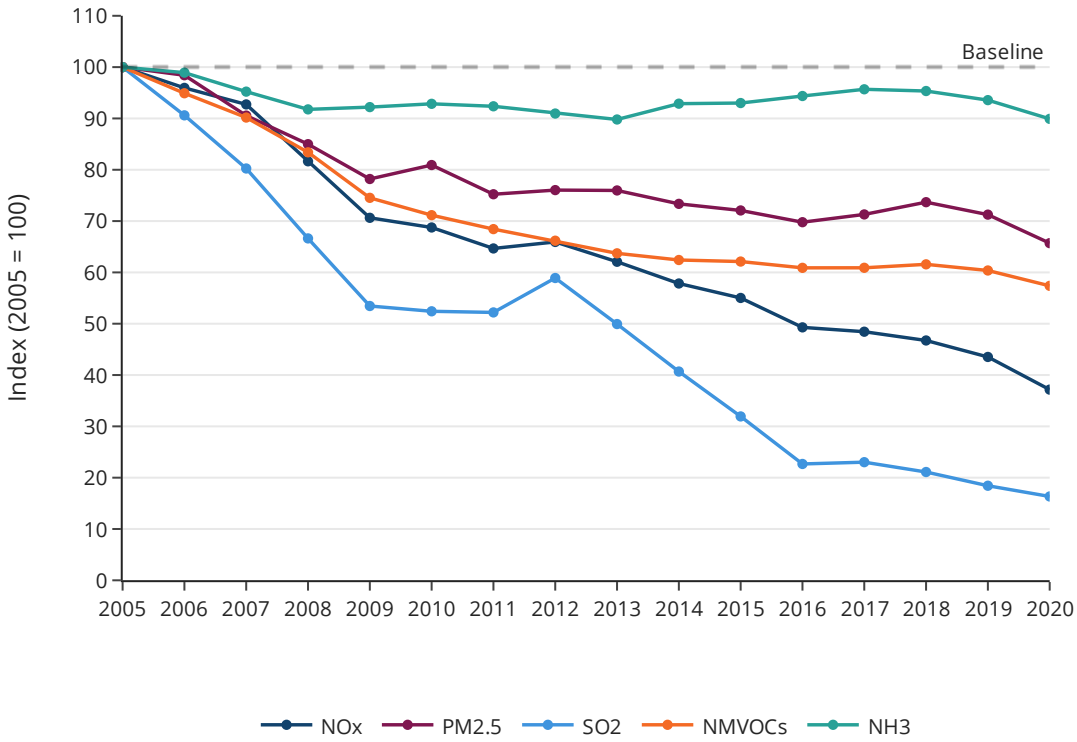
Interim targets

By the end of January 2028:

- The highest annual mean concentration in the most recent full calendar year must not exceed 12 µg/m³ of PM2.5.
- Compared to 2018, the reduction in population exposure to PM2.5 in the most recent full calendar year must be 22% or greater.

What is the condition of the natural environment?

Figure 1: Emissions for 5 key air pollutants in England, 2005 to 2020



Source: Ricardo Energy and Environment (reported as A1 indicator in the Outcome Indicator Framework)

Emissions for all 5 key air pollutants (ammonia (NH_3), fine particulate matter ($PM_{2.5}$), nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOCs) and sulphur dioxide (SO_2)) in England have fallen over the latest 15 years for which annual, country-level data are available. Emissions of SO_2 have seen the greatest reductions, falling by 84% between 2005 and 2020. Emissions of NOx, NMVOCs and $PM_{2.5}$ have also fallen considerably, by 63%, 43% and 34% respectively; and emissions of NH_3 have fallen by 10% over the same period.

Figure 2: Summary of assessment results for clean air indicator components

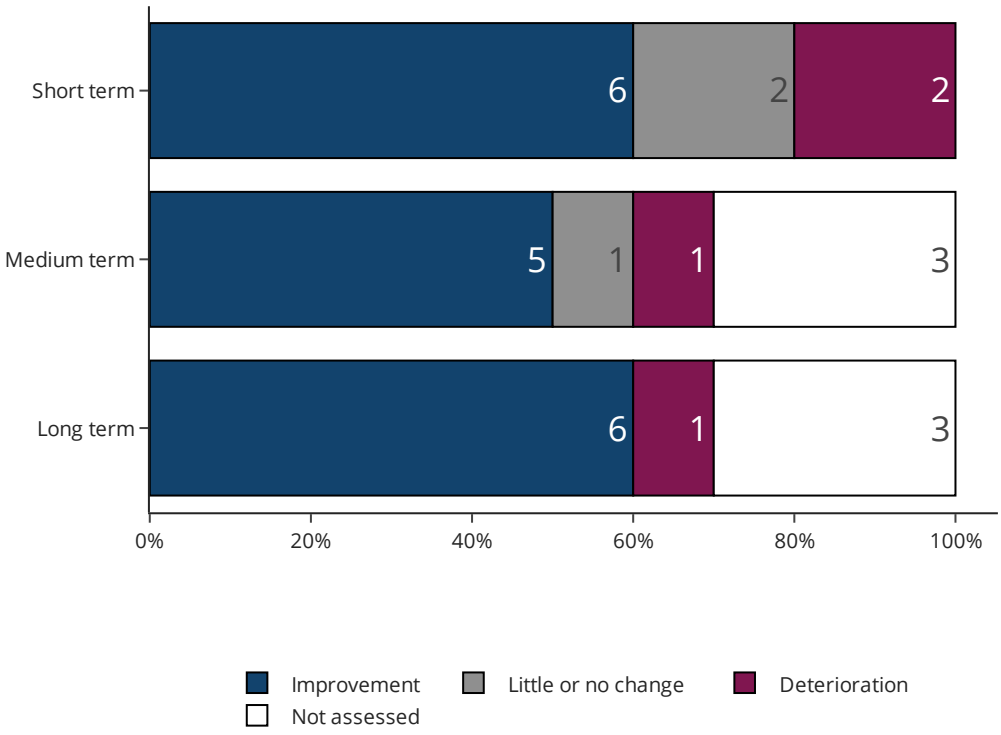


Figure 2 shows the proportion of indicators for which ‘Clean air’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Of the 10 indicator components that were assessed, 6 showed an improvement, 2 showed little or no change and 2 showed a deterioration over the short-term assessment period. Most indicator components recorded the same results over the medium and long-term time periods to those reported over the short term, where a sufficiently long time series was available to carry out these assessments.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

Defra published the revised National Air Pollution Control Programme (NAPCP). This sets out policies and measures to be considered further in order to reduce emissions in line with the Emission Reduction Commitments, set under the National Emission Ceilings Regulations. The policies and measures fall across a number of sectors, including domestic combustion, industry and agriculture and together outline a pathway to meeting the 2030 emission reduction ceilings for all five pollutants.

We announced that local councils will have a new strengthened framework to improve air quality. This includes updating Local Air Quality Management Policy and Technical guidance. For the first time this includes detailed guidance on reducing disparities and community engagement.

We announced that local authorities across England have been awarded £10.7 million for projects that will improve air quality from the Government's annual Air Quality Grant. 44 projects received funding to protect public health and the environment by improving air quality. Funding was awarded for projects that address actions outlined in local authorities' Air Quality Action Plans as well as projects that focus on PM2.5 and improving air quality knowledge.

The Department for Transport invested over £850 million in active travel between 2020/21 and 2022/23 and committed to spend at least a further £100 million capital into active travel over the period to 2024/25 as part of a total of around £3 billion investment in active travel over this Parliament.

Defra announced a new regulatory framework to boost industrial emissions standards and reduce pollution to air, water, and land. The UK's new Best Available Techniques framework will enable regulators and industry to work together to identify and apply up to date, challenging standards to reduce harmful emissions.

Defra has run two rounds of the Farming Equipment and Technology Fund which offers grants towards innovative equipment to increase farm productivity and reduce environmental impact. To date the scheme has awarded £8.6 million for over 1,350 low emission slurry spreaders, helping farmers cut ammonia emissions and improve nutrient use efficiency.

We introduced restrictions on the sale of small volumes of wood coming from small foresters (those producing less than 600m^3 per annum of wood). We also introduced legislation enabling local authorities to better enforce Smoke Control Areas through issuing penalties under a civil regime and by pursuing persistent offenders under a criminal regime.

Defra and the Department for Transport have continued to support 64 local authorities to develop and implement measures to meet nitrogen dioxide (NO_2) limit values in the shortest possible time. Seventeen local authorities have completed implementation of the air quality measures in their local plans to reduce NO_2.

This year has also seen the delivery by Local Authorities of seven Clean Air Zones in Bath, Birmingham, Portsmouth, Bradford, Bristol, Tyneside, and Sheffield. Four of these (Bradford, Bristol, Tyneside, and Sheffield) were delivered in this reporting year. Early data is showing increased levels of vehicle compliance in the areas that have implemented Clean Air Zones as well as a general downward trend in concentrations of NO_2.

Defra designated National Highways as a Relevant Public Authority (RPA) under the Environment Act 2021. As an RPA, National Highways is required to collaborate with local authorities on their air quality action plans and to commit to measures for inclusion in the plans where such actions are needed to meet local air quality objectives.

Clean and plentiful water

What are our long-term ambitions?

We will achieve clean and plentiful water by improving at least 75% of our waters to be close to their natural state as soon as is practicable.

Long-term targets

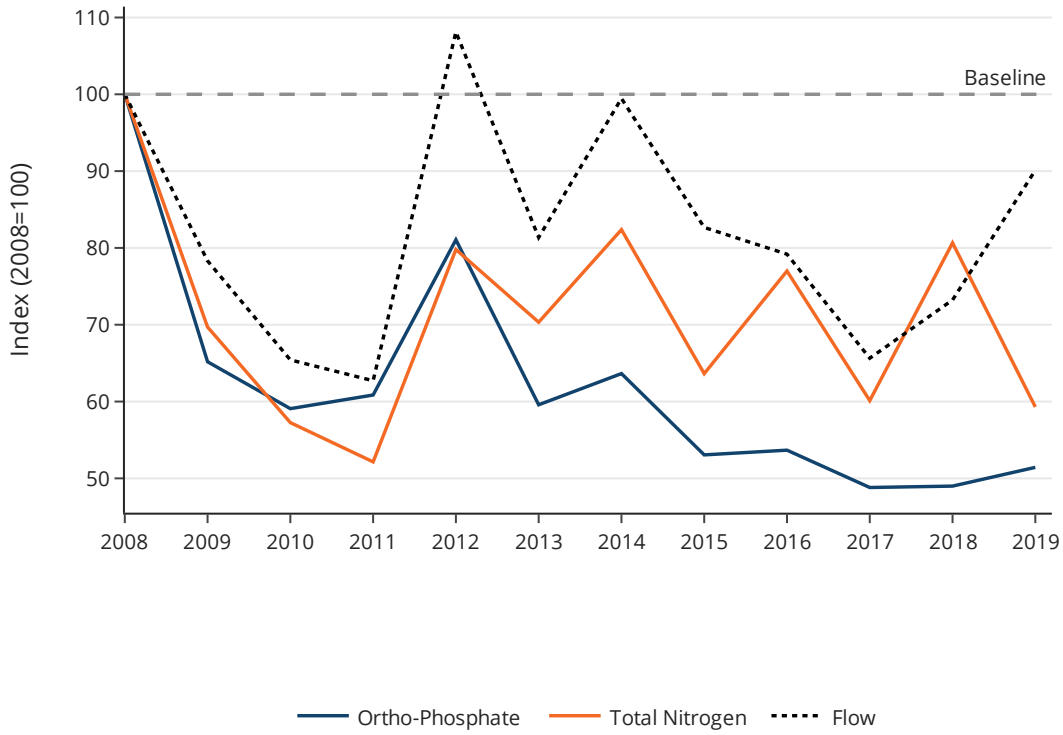
- Reduce nitrogen, phosphorus, and sediment pollution from agriculture into the water environment by 40% by 31 December 2038, compared to a 2018 baseline.
- Reduce the use of public water supply in England per head of population by 20% from the 2019 to 2020 baseline reporting year figures, by 31 March 2038.
- Halve the length of rivers polluted by harmful metals from abandoned metal mines by 31 December 2038, against a baseline of around 930 miles (or 1,500km).
- Reduce phosphorus loadings from treated wastewater by 80% by 31 December 2038, against a 2020 baseline.

Interim targets

- Reduce nitrogen, phosphorus, and sediment pollution from agriculture to the water environment by 10% by 31 January 2028.
- Reduce nitrogen, phosphorus, and sediment pollution from agriculture to the water environment by 15% in catchments containing protected sites in unfavourable condition due to nutrient pollution by 31 January 2028.
- Reduce the use of public water supply in England per head of population by 9% by 31 March 2027 and 14% by 31 March 2032.
- Reduce leakage by 20% by 31 March 2027 and 30% by 31 March 2032.
- Construct 8 mine water treatment schemes and 20 diffuse interventions to control inputs of target substances to rivers by 31 January 2028.
- Reduce phosphorus loadings from treated wastewater by 50% by 31 January 2028, against a 2020 baseline.

What is the condition of the natural environment?

Figure 3: Riverine inputs of selected nutrients into English tidal waters, 2008 to 2019



Source: Environment Agency (reported as B1b indicator in the Outcome Indicator Framework).

Riverine inputs of selected nutrients (total nitrogen and ortho-phosphate) have fluctuated considerably between 2008 and 2019, but overall, both have fallen, and both have remained below their baseline value with measured loads in 2019 being 41% and 49% respectively less than those measured in 2008.

Figure 4: Summary of assessment results for clean and plentiful water indicator components

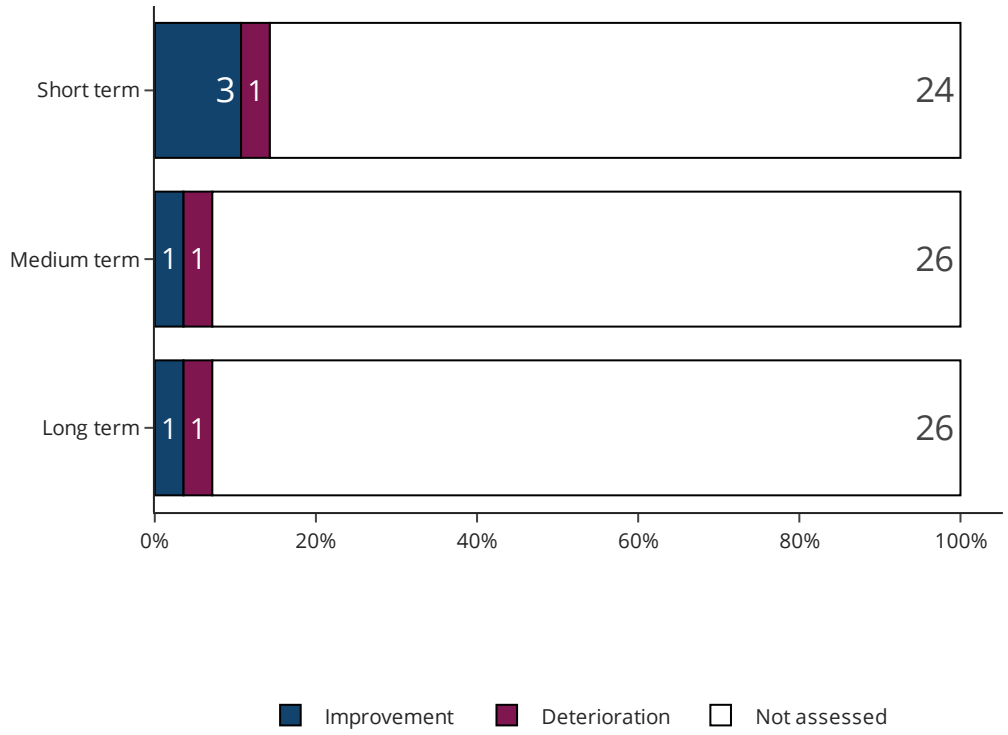


Figure 4 shows the proportion of indicator components for which ‘Clean and plentiful water’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Of the 4 indicator components that were assessed, one showed an improvement over the short, medium, and long-term assessment periods, 2 showed an improvement over the short term and were not assessed over the medium or long term, and one showed a deterioration over all 3 assessment periods. Note that the short-term assessment of ‘improvement’ for B7b (Classification of fish in English rivers) does not include more recent years where a new method was adopted; these new data will be assessed once a sufficient time series has been built up.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

Defra published the Integrated Plan for Delivering Clean & Plentiful Water. This sets out how we will achieve a healthy water environment, and a sustainable supply of water for people, business, and nature.

We announced new legal requirements on water companies to upgrade wastewater treatment works to their highest nutrient removal in designated areas where protected habitat sites are in unfavourable condition.

We launched the Storm Overflows Discharge Reduction Plan. This Plan requires water companies to deliver the largest infrastructure programme in water company history - £56 billion of capital investment by 2050.

We announced that water companies face unlimited penalties to help bring quicker enforcement action against water companies for causing pollution and that funding from fines and penalties handed out to water companies that pollute our rivers and seas will be invested in schemes that benefit our natural environment through the Water Restoration Fund.

We have fined water companies a record amount of over £147 million for pollution incidents since 2015 as part of ongoing action to hold rule-breakers to account.

We asked water and sewerage companies to set an action plan on every storm overflow in England.. The ask prioritises companies that are spilling more than a certain number of times a year, and those spilling into bathing waters and high priority nature sites. Water companies reported back with their Action Plans on 30 June 2023. These draft plans are currently being reviewed and will need further company input before they can be finalised and published.

We have also backed new plans for the water regulator Ofwat to take action against water companies that do not link dividend payments to performance for both customers and the environment. These new powers were made possible by new licence modification powers that the Government gave to Ofwat in the Environment Act 2021. Ofwat have also published its Price Review 2024 Methodology, which is in line with the government Strategic Policy Statement and prioritised protecting and enhancing the environment and security of water resources.

Defra is reducing pressures on the water environment from agriculture. We doubled the budget of the successful Catchment Sensitive Farming advice partnership to £15 million per year. Catchment Sensitive Farming will provide expert advice to 7,300 farmers and have provided an extra £13.5 million over 3 years (2022-25) to enable at least 4,000 regulatory compliance farm visits per year which will target high-risk river catchments.

We launched the Slurry Infrastructure Grant scheme. The scheme will support farmers to bring their capacity up to six months of covered storage to help manage their resources whilst protecting the environment. We have nearly trebled our first-round budget to £34 million**.** We will run two larger rounds in 2023 and 2024 respectively.

Defra is enabling sustainable use of water for people, business, and the environment. We consulted on the introduction of a Mandatory Water Efficiency Labelling Scheme wrote to chief executives of local authorities on increasing water efficiency in new homes.

We undertook a Call for Evidence on leaking toilets and published a roadmap towards greater water efficiency in new developments and retrofits as part of the Environmental Improvement Plan 2023. More detail was included in the Integrated Plan for Water.

We also announced the approach to sustainable drainage systems which is set to be incorporated into new developments in England. The recommendation is to make sustainable drainage systems mandatory, requiring standardised systems in new developments in 2024. This is subject to final decisions following consultation in 2023 and is the result of the Government's Sustainable Drainage Systems Review.

We also opened the first year of funding through the new Sustainable Farming Incentive. pays farmers for actions that support food production and can help improve farm productivity and resilience, while also protecting and improving the environment. Defra has taken action to improve the status of bathing waters. In 2022, 93% of bathing waters in England met the highest standards of 'good' or 'excellent', up from just 76% in 2010. Overall, in 2022, 97.1% of bathing waters in England achieved at least sufficient standard.

Through joined-up management of the water system the Environment Agency published River Basin Management Plans, setting out environmental objectives and measures to tackle the main challenges facing the water environment.

Case study: Cumbrian River Restoration Strategy

The Cumbrian River Restoration Strategy (RRS) project is an ambitious programme to restore and improve rivers in the county. It has improved almost 100km of river length; and restored over 150 hectares of floodplain across the Special Area of Conservation catchments of the Rivers Eden, Derwent, and Kent. It has also reduced flood risk, removed plastic from rivers and boosted biodiversity in the region. The Strategy was

developed to help deliver the joint Natural England and Environment Agency obligation to improve the quality and function of the Eden, Derwent, and Kent SSSI/SAC sites.

This partnership was started in 2009 by Natural England and the Environment Agency working with the three River Trusts in Cumbria. Additional partners now involved include the National Trust, RSPB, Ullswater Community Interest Group and United Utilities working with farmers and landowners to deliver restoration projects.

Thriving plants and wildlife

What are our long-term ambitions?

We will achieve a growing and resilient network of land, water and sea that is richer in plants and wildlife.

Long-term targets

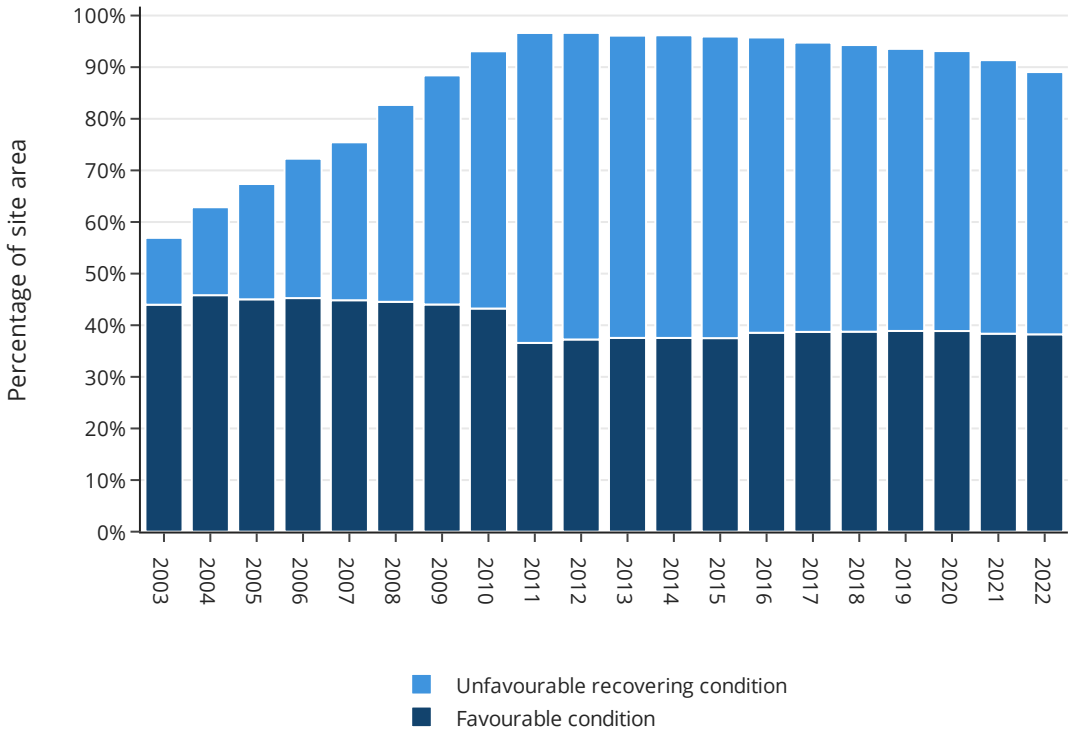
- By the end of 2030, we will halt the decline in species abundance.
- By the end of 2042, we will increase species abundance so that it is greater than in 2022 and at least 10% greater than in 2030.
- By the end of 2042, we will restore or create in excess of 500,000 hectares of a range of wildlife-rich habitats outside protected sites, compared to 2022 levels.
- By the end of 2042, we will improve the GB Red List Index for species extinction compared to 2022 levels.
- Increase tree canopy and woodland cover to 16.5% of total land area by 2050.
- Ensure that 70% of designated features in Marine Protected Areas (MPAs) are in favourable condition by 2042, with the remainder in recovering condition.

Interim targets

- To restore or create 140,000 hectares of a range of wildlife-rich habitats outside protected sites by 31 January 2028, compared to 2022 levels.
- All Sites of Special Scientific Interest (SSSIs) will have an up-to-date condition assessment by 31 January 2028.
- 50% of SSSIs to have actions on track to achieve favourable condition by 31 January 2028.
- Increase tree canopy and woodland cover by 0.26% of land area (equivalent to 34,000 hectares) by 31 January 2028.
- 48% of designated features in MPAs to be in favourable condition by 31 January 2028, with the remainder in recovering condition.

What is the condition of the natural environment?

Figure 5: Condition of Sites of Special Scientific Interest in England, 2003 to 2022



Source: Defra (reported as D2b indicator in the Outcome Indicator Framework)

There has been a net decrease in the area of Sites of Special Scientific Interest (SSSIs) in favourable condition; down from 44% in 2003 to 38.2% in 2022. The sudden drop in the area of SSSIs in favourable condition from 43.2% in 2010 to 36.6% in 2011 was due to the larger than average number of condition assessments being completed and recorded in the final year before the Public Services Agreement target deadline of 31 December 2010. While there has been a small increase in the area in favourable condition since 2011 (from 36.6% to 38.2% in 2022), the figure has fallen slightly in the latest two years. The area of SSSIs in unfavourable recovering condition has increased substantially from 13% in 2003 to 50.8% in 2022.

Figure 6: Summary of assessment results for thriving plants and wildlife indicator components

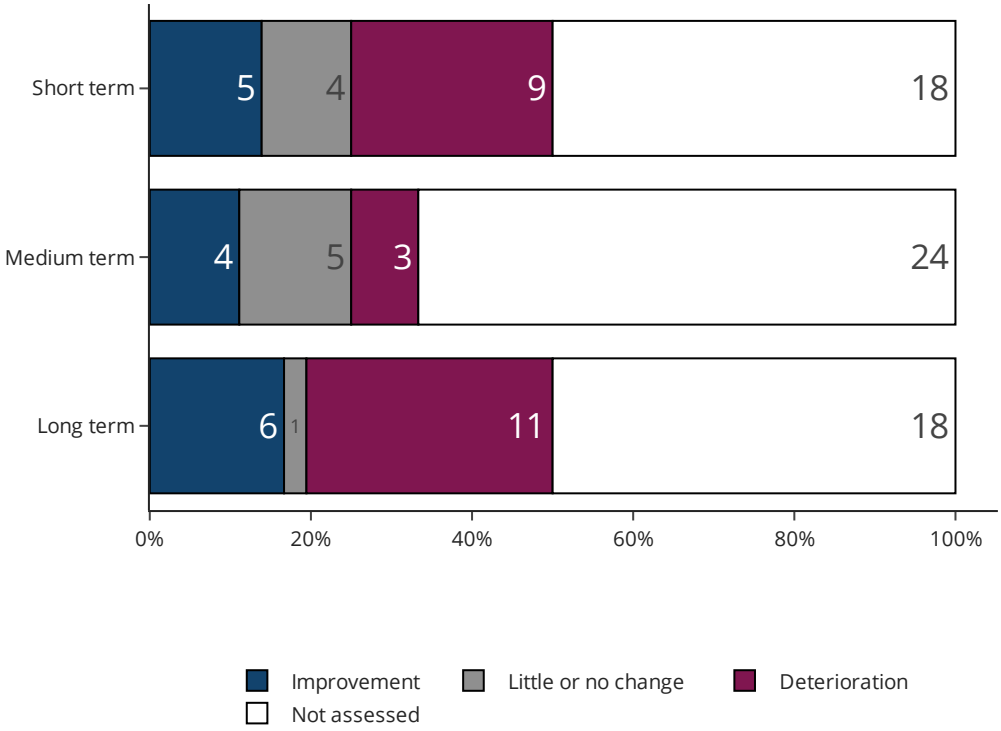


Figure 6 shows the proportion of indicator components for which ‘Thriving plants and wildlife’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Of the 18 indicator components assessed over the short term, 5 showed an improvement, 4 showed little or no change and 9 showed a deterioration. Of the 12 indicator components assessed over the medium term, 4 showed an improvement, 5 showed little or no change and 3 showed deterioration, and of the 18 indicator components assessed over the long term, 6 showed an improvement, 1 showed little or no change and 11 showed a deterioration.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

Defra announced that sales of peat to amateur gardeners in England will be banned by 2024. The measures announced will contribute to efforts to restore 35,000 hectares of peatlands by 2025.

The Department for Levelling Up, Housing and Communities included provisions in the Levelling Up and regeneration Bill placing new statutory duty on water companies to

upgrade wastewater treatment works for nutrient removal in specific catchments by 1 April 2030. This will reduce a significant source of nutrient pollution, improve water quality, and support the recovery of the most affected protected sites.

Creating more joined up space for nature on land

The Countryside Stewardship Scheme (CS) and its predecessor Environmental Stewardship (ES) continue to protect and enhance the natural environment through its Higher tier and Mid-tier schemes and alongside longer term (5-20 year) offers, provides capital grants to achieve environmental benefits. There is currently 2.01 million hectares in CS and 1.21 million hectares in ES. The CS Higher tier is targeted at the most important sites including commons and woodlands which need complex management such as creating or restoring habitats and improving woodland. We are supporting an increased number of Higher tier applications this year which should bring 35,000 hectares of SSSI land and 49,000 hectares of woodland under management.

We are expanding the scope of CS so that it pays for a wider range of actions and targeting funding towards actions in places where they can have the biggest impacts, in ways that are joined up across larger areas, and that deliver outstanding results.

Natural England has created more joined up space for nature on land. It launched the £5.6 million Conservation and Enhancement Scheme to improve and maintain the condition of SSSIs not currently eligible for existing agri-environment schemes.

It has also continued to create, restore, and extend areas of wildlife through establishing National Nature Reserves with the designation of:

- The Somerset Wetlands 'super' National Nature Reserve. This protects 6,140 hectares of precious saltmarsh, heath and wetland habitats, home to nationally significant wildlife populations.
- The new 'Wild Ennerdale National Nature Reserve'. It is the largest nature reserve in the county and the 9th largest in England. It covers over 3,000 hectares of landscape comprising water, forests, and mountains.
- The new Flashes of Wigan and Leigh National Nature Reserve. This 738-hectare area of species-rich wetland, meadows and woodlands close to major urban areas will provide access to nature for over 300,000 local people and protect rare willow tits, bitterns and water voles.

Natural England designated Penwith Moors as a SSSI. At 3,152 hectares it is one of the largest expanses of semi-natural habitat in the South-West including one of the largest areas of lowland heathland habitat in Britain (around 1,200 hectares). It supports wetlands, areas of unimproved grassland and a diversity of species including plants, lichens, and invertebrates.

Defra announced the awards for phase one of the Landscape Recovery Scheme, for 22 projects each covering an area of between 500 and 5,000 hectares. These projects aim to restore over 400 miles of rivers and protect and enhance 263 species such as water vole,

lapwing, and marsh fritillary. We have launched the second round of Landscape Recovery and are looking for up to 25 projects over 500 hectares targeting net zero, protected sites and wildlife-rich habitats.

Restoring our protected sites on land

Natural England announced five nature recovery projects spanning nearly 100,000 hectares to help restore our protected sites on land. We launched 5 pilot projects to test the full potential of protected site strategies to address the greatest challenges facing protected sites. The pilots will provide the evidence base for protected site strategies rollout and inform subsequent guidance.

Defra has awarded £11 million to six projects through round two of the Nature for Climate Fund Peatland Restoration Grant. Successful projects will support restoration works on over 7,000 hectares of peatland, adding to more than 8,000 hectares already funded through round one.

We also announced a £5 million fund to promote the use of peatlands for sustainable farming to support uptake of paludiculture – the practice of farming on rewetted peatland. This will help further safeguard food security, produce alternatives to horticultural peat and reduce environmental impacts.

Managing our woodlands for biodiversity, climate, and sustainable forestry

Defra and the Forestry Commission have continued to manage our woodlands for biodiversity, climate, and sustainable forestry.

We announced £6 million was being made available to help support a diverse range of woodland projects across England through the Trees Call to Action Fund. Distributed by the National Lottery Heritage Fund. Successful projects include providing 450 training placements for people to learn the specialist skills required when managing ancient and other veteran trees; and the NHS Forest project, which helps healthcare sites to realise the health, wellbeing, and biodiversity value of their green spaces.

We announced that millions of trees are set to be planted through £44.2 million in funding for Community Forests and woodland creation partners. The investment will create larger, well-designed, and more diverse woodlands which will be more resilient to climate change, as well as natural hazards such as wildfires and storms. They will help to reduce flood risk in vulnerable areas, provide sustainable UK grown timber and provide more places for nature and biodiversity to thrive.

Alongside this funding, Forestry Commission has:

- introduced the Woodland Creation Accelerator Fund that is designed to support local authorities with the new staff and expertise needed to kickstart woodland creation and tree planting plans. The Fund will provide at least 50 local authorities with financial support to bring on board the professional expertise they need to drive tree planting and woodland creation commitments.

- launched its new campaign highlighting the importance of woodland creation for biodiversity and nature recovery. A suite of woodland creation assets and resources has been created as part of the campaign, including an animation, fact sheet, infographics, blogs, and case studies.
- In partnership with Natural England, published a policy paper - Keepers of time: ancient and native woodland and trees policy in England. The statement updates the Government's policy to recognise the value of England's ancient and native woodlands and ancient and veteran trees.
- published evidence-based decision support frameworks evidence-based decision support frameworks to guide both landowners and public bodies regarding tree planting decisions in peat environments or in locations where there may be ground-nesting birds.

Defra, together with the National Lottery Heritage Fund have published the final evaluation report for Round 1 of the Green Recovery Challenge Fund. Projects delivered activities at 930 locations around England, directly benefiting 326,000 hectares of land; while 1.1 million trees have been planted, exceeding original targets by 37%; more than 170,000 people have been engaged through more than 9,400 in-person and online events; and funding has directly supported 653 positions during the life of the projects.

Defra and Forest Research announced the economic value of individual trees planted outside of our forests and woodlands at £3.8 billion. The figures are revealed in a new ground-breaking study published by Forest Research and Defra as part of National Tree Week.

Taking targeted actions to restore and manage species

Natural England announced the Species Recovery Programme Capital Grant Scheme. Eligible projects will enhance or create land that supports wildlife habitats which benefit species recovery; and/or conservation translocations of species that enhance habitats to enable them to function effectively.

Defra has published the Pollinator Action Plan (2021-24) to help take action to restore our global environment. The plan sets out how we will continue to work with partners to address the needs of pollinators. It will help us to look after important pollinator habitats and understand more about how we can help pollinators and improve their health.

Mobilising green finance and the private sector

The government has undertaken a range of actions to mobilise green finance and the private sector:

- Announced the second round of the Natural Environment Investment Readiness Fund, which will provide grants to environmental groups, local authorities, businesses, and other organisations to help them develop nature projects to a point where they can attract private investment to deliver.

- Committed £30 million to the Big Nature Impact Fund. This public-private fund for nature in the UK aims to unlock private investment into nature projects, such as tree planting or peat restoration.
- Published the Green Finance Strategy that sets out how the government will green the financial sector to align investment with net zero and environmental targets.
- Published the first Nature Markets Framework to encourage green finance for nature-based solutions, such as tree planting and peatland restoration.
- Set a target to raise at least £500 million in private finance to support nature's recovery every year by 2027 in England, rising to more than £1 billion per year by 2030.

The Department for Education announced that the Natural History Museum and its partners will deliver the National Education Park and Climate Action Awards. The National Education Nature Park will encourage nurseries, schools, colleges, and universities to think of this land as one whole 'park' with vast potential to help halt the decline of biodiversity in this country. The Climate Leaders Award will help children and young people develop their skills and knowledge in biodiversity and sustainability, celebrating and recognising their work in protecting the local environment.

Enhancing nature in our marine and coastal environments

Through our focus on enhancing nature in our marine and coastal environments, we are aiming to have all Marine Protected Areas (MPAs) in English waters protected from damaging fishing activity by 2024.

In January 2023, the Marine Management Organisation has, following consideration of conservation advice provided by Natural England and the Joint Nature Conservation Committee, introduced the first four byelaws in offshore MPAs, which prohibit damaging fishing activity over sensitive habitats. The byelaws will bring in management measures on fishing within these four MPAs in English waters. They also launched a consultation on a proposed byelaw to ban bottom-towed gear in 13 more MPAs to protect vital marine ecosystems.

Defra launched the Natural Capital and Ecosystem Assessment (NCEA) programme to collect data on the extent, condition and change over time of England's natural capital assets, across land and sea. The marine arm of the programme is providing evidence, tools, and guidance to capture the environmental and socioeconomic benefits of our marine natural capital – so that we can better manage, enhance, and protect these assets.

The Centre for Environment, Fisheries and Aquaculture Science has established the UK Blue Carbon Evidence Partnership to give UK administrations a space to work together with Defra and the Department for Energy Security and Net Zero to address key research questions related to blue carbon policy.

The Environment Agency led a flagship initiative to restore habitats in our estuaries and at the coast. By 2043, the "Restoring Meadow, Marsh and Reef" initiative aims to restore at least 15% of seagrass meadow, saltmarsh and native oyster beds and reef habitats. The

initiative has produced a suite of tools on how and where to restore. It also worked across Government and with academia to understand the value of our estuarine, coastal, and marine ecosystems, particularly in their role around blue carbon. This includes working with the Department of Energy Security and Net Zero and the UK Centre of Ecology & Hydrology to develop the evidence base required for the inclusion of saltmarsh onto the UK Greenhouse Gas Inventory so natural and restored saltmarshes can contribute towards the UK Net Zero target.

The Environment Agency has also supported the development of a Saltmarsh Code for a certification scheme for offsetting carbon credits from saltmarsh restoration, which will help to protect the value of these habitats and upscale estuarine and coastal habitat restoration.

Sustainable global fisheries

Defra has made progress on sustainable global fisheries. We announced a consultation on proposed measures to ban industrial sandeel fishing within English waters of the North Sea**.** Kittiwakes, puffins, and razorbills are some of England's most treasured seabirds that could benefit from the proposed measures. Seabird abundance could increase within 10 years of the full banning of industrial sandeel fishing in English waters. We also published a report on the sustainability outcomes of annual negotiations for fishing opportunities for 2023. This highlighted that the number of Total Allowable Catches (TACs) set consistent with advice from the International Council for the Exploration of the Sea has increased from 34% in 2022 to 40% in 2023. This is positive for the long-term sustainability of our fish stocks.

Taking targeted action to restore and manage species

We consulted on the principles of marine net gain and published the summary of responses. We are working towards the government response to the consultation and future work on marine net gain implementation.

Defra has taken targeted action to restore and manage species in publishing the Marine Wildlife Bycatch Mitigation Initiative. This outlined how the UK will achieve its ambitions to minimise and, where possible, eliminate the bycatch of sensitive marine species.

Case study: Recovering nature, Wendling Beck environment project, Norfolk

Background

In mid-Norfolk, near Dereham, a pioneering habitat creation, nature restoration and regenerative farming project covers land within the wider upper Wensum catchment. Covering 900 hectares of the 10,000 hectares in total, land will be transformed for environmental benefit, whilst also building community and environmental resilience.

Contributing to the Nature Recovery Network, wildlife habitat is being created around a core of 3 Sites of Special Scientific Interest (SSSIs) resulting in a patchwork of connected species-rich meadows, heathland, woodland, scrub, river, and wetland. These habitats will help restore the ecosystem and build climate resilience as new woodland, scrub and soil management will draw down carbon and the wetland and river restoration will store water, reduce flood risk, and help address nutrient pollution in the Wensum catchment.

As part of testing new approaches to stacking and blending funding and tools for nature recovery, private investment will be drawn down through Biodiversity Net Gain, whilst helping local authorities achieve nutrient neutrality in the Wensum catchment. Also, more people will be given access to nature through a new access route joining Dereham with Norfolk County Council's nearby Rural Life Museum where a new Environment Hub and gateway to the Wendling Project landscape will be developed.

Partners: Four local farming landowners: Norfolk Wildlife Trust, Norfolk County Council, Norfolk Rivers Trust, Norfolk Farming and Wildlife Advisory Group, Anglian Water and The Nature Conservancy

Supporters/Funders/Collaborators: Natural England and Environment Agency**.**

Current or recent funding streams:

Natural England (Biodiversity Credits Pilot and Nature Recovery Project), Countryside Stewardship, Natural Environment Investment Readiness Fund (NEIRF), Norfolk County Council and The Nature Conservancy. The Project has just begun selling Biodiversity Net Gain units to market.

Land suitable for habitat restoration, copyright Andy Millar

Reduced risk of harm from environmental hazards

What are our long-term ambitions?

We will reduce the risk of harm to people, the environment and the economy from natural hazards including flooding, drought, and coastal erosion. We will do this by better protecting 100,000 properties from flooding and coastal erosion by 2024, and 336,000 by 2027. This will reduce the national flood risk by 11% from 2021 to 2027.

What is the condition of the natural environment?

The 25 Year Environment Plan includes outcome indicators relating to drought, flood and coastal erosion risk management which are currently in development. There is a growing body of observational and modelled evidence on how climate change has affected the probability of significant weather events. The Met Office State of the UK Climate Report shows that:

The most recent decade (2012 to 2021) has been on average 2% wetter than 1991 to 2020 and 10% wetter than 1961 to 1990 for the UK overall. Five of the ten wettest years for the UK in a series from 1836 have occurred this century. All the top ten warmest years for the UK in the series from 1884 have occurred this century.

The F3 indicator in the Outcome Indicator Framework focuses on disruption to public water supply due to drought by tracking changes in a Supply Demand Balance Index (SDBI). This indicator was reported by all water and sewerage companies for the first time in Summer 2022 as part of the Environment Agency's Environmental Performance Assessment (EPA) annual report. In 2021/2022, seven of the nine water and sewage companies in England were considered to be operating on or better than target.

What actions are being taken towards achieving our ambitions?

Defra, with the Environment Agency, has better protected 32,000 properties in 2021/22 and over 26,000 properties in 2022/23 since current the Flood and Coastal Erosion Risk Management Defence Investment Programme began in 2021. In 2022/23, 118 schemes were completed through this programme.

Defra published the assessment of benefit of the 2015 to 2021 flood and coastal defence programme. This report sets out some of the key headlines and achievements of the 2015 to 2021 flood and coastal defence programme and how the outcomes of the investment programme (which started in 2015) will inform delivery of the new investment programme that started in 2021.

The government has provided £3.5 million (£2 million in 2019-21 and £1.5 million in 2022-23) to increase surface water flood risk mapping so far in 59 Lead Local Flood Authority areas. This has provided 4.6 million people with more detailed information.

Defra announced a new approach to sustainable drainage systems that aims to reduce risk of flooding and pollution, which is set to be incorporated into new developments in England. The recommendation is to make sustainable drainage systems mandatory to new developments in England and is the result of the Government's Sustainable drainage systems review.

Forest Research has published research that reveals the financial contribution that trees and woodlands make in protecting communities from flooding. The annualised central estimate of the value of Great Britain's trees, forests and woodlands was £843 million and £420 million compared to bare soil and grass, respectively. The study was led by Forest Research and jointly funded by the Forestry Commission, Scottish Forestry, and the Welsh Government.

Forestry Commission, on behalf of Defra, delivered training designed to consolidate knowledge, skills and understanding of vegetation fires including wildfire incidents and prescribed fire operations. Over the past two years more than 800 Lantra accredited training modules have been completed by both public and private land managers. Defra has committed further funding over the next two years and is working closely with a range of stakeholders including land managers, Forestry Commission, and the National Fire Chiefs Council to embed this training across England, and to identify and respond to further training requirements.

We published the review of making sustainable drainage systems mandatory in new developments through the implementation of Schedule 3 to the Flood and Water Management Act 2010

Better preparing our communities

The government is taking steps to better prepare our communities. In April 2022, we introduced new regulations that allow Flood Re to pay claims from insurers which include an amount for resilient repair (Build-Back-Better) up to a value of £10,000 over and above the cost for like-for-like reinstatement of actual flood damage.

In July 2022, we announced that communities suffering repeated flooding will benefit from a new ring-fenced £100 million Frequently Flooded Allowance designed to better protect their properties. The allowance will improve access to public funding for these communities, which are often smaller areas requiring more complex flood schemes, meaning that community-wide defences are not always viable. Defra announced the first 53 projects will be allocated more than £26 million in total in 2023/24, better protecting more than 2,300 households and businesses across the country.

The Environment Agency has published a flood hydrology roadmap, which sets out a vision to help scientists and practitioners better predict future flood events and improve flood resilience across the UK. The roadmap will also help us understand the impact of climate change on flood risk and will support modelling of past and future climate change impacts.

It has also published a Flood Risk Management Plans 2021 to 2027, in December 2022. These set out how organisations, stakeholders and communities will work together to manage flood risk in England. The Environment Agency also published an evaluation report on the £15 million Natural Flood Management programme. Learning from this report has been applied to shape current and future work to mainstream Natural Flood Management (NFM). The learning has shaped the series of associated actions in the National Flood and Coastal Erosion Risk Management Strategy Roadmap. This will ensure that the learning from the NFM programme is embedded in the current and future work of the Environment Agency and partners.

The Department for Levelling Up, Housing and Communities has published a consultation on reforms to national planning policy. The consultation includes a commitment to keep flood risk and planning policy under review to ensure it is sufficiently robust to keep future development safe from floods and to not increase risk elsewhere. It also commits to review planning policy for areas managing and adapting to coastal change and sea level rise, and to review policy in relation to Strategic Flood Risk Assessments. A fuller review of the National Planning Policy Framework will be carried out following Royal Assent of the Levelling-up and Regeneration Bill. This will ensure it contributes to climate change mitigation and adaptation as fully as possible.

The Department for Levelling Up, Housing and Communities has also published planning guidance on flood risk and coastal change to help councils take climate change into consideration and make more informed decisions on whether a new development should go ahead. The guidance will ensure that councils are better placed to apply Government policy, where new homes in areas at risk of flooding should be appropriately flood resilient.

Using resource from nature more sustainably and efficiently

What are our long-term ambitions?

We will use resources from nature, such as timber, fish, and food, more sustainably and efficiently.

Long-term targets

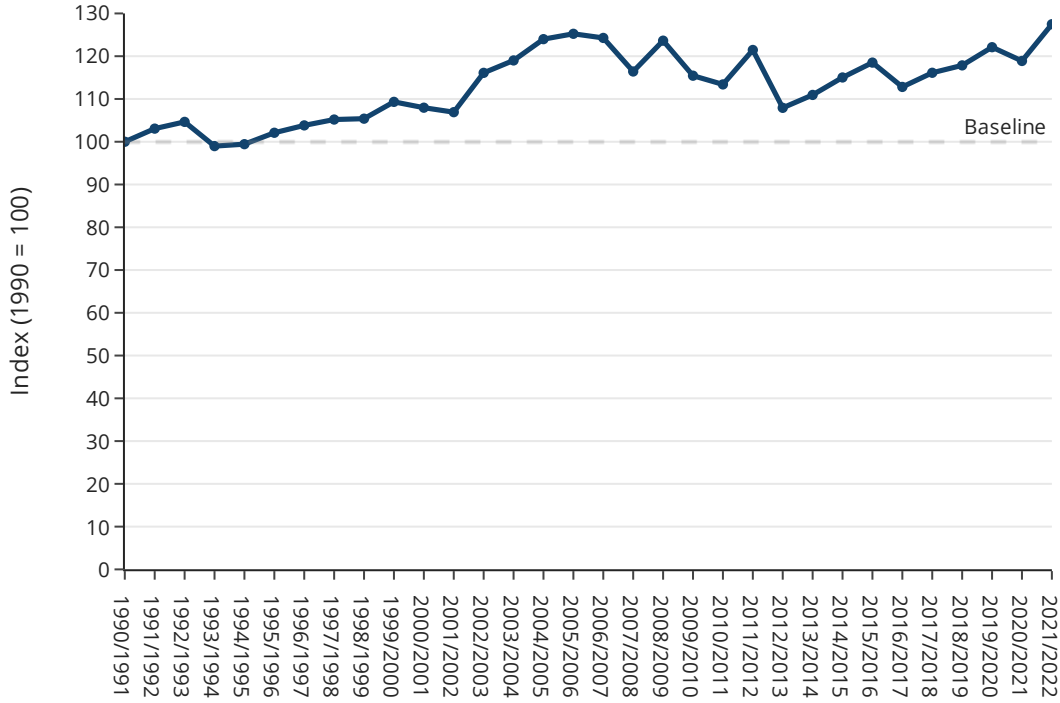
- Increase tree canopy and woodland cover to 16.5% of total land area.

Interim targets

- Increase tree canopy and woodland cover by 0.26% of land area (equivalent to 34,000 hectares).

What is the condition of the natural environment?

Figure 7: Efficiency of agricultural production measured by Total Factor Productivity, 1990/1991 to 2021/2022



Source: Defra (reported as E4 indicator in the Outcome Indicator Framework).

Overall productivity is driven by both the output and input components. Total factor productivity of the agricultural industry in the UK was 27% higher in 2021/2022 than it was in 1990/1991. There has been an overall long-term increase driven by both increased outputs and a fall in inputs, although the separate trends have followed different patterns (see indicators E2 and E3). There is considerable annual variation, this variation being mainly driven by variation in output volumes, and over the most recent year (2021/2022), total factor productivity of the agricultural industry in the UK rose by 7%.

Figure 8: Summary of assessment results for using resources from nature more sustainably and efficiently indicator components

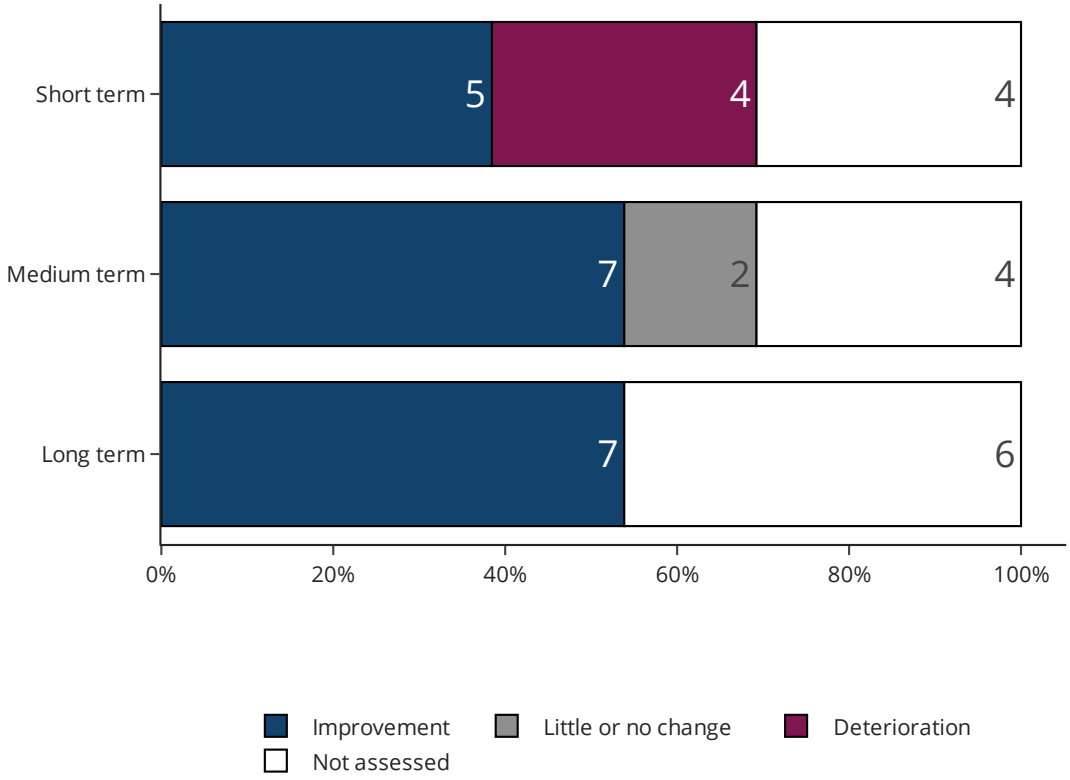


Figure 8 shows the proportion of indicator components for which ‘Using resources from nature more sustainably and efficiently’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Of the 9 indicator components that were assessed, 5 showed an improvement and 4 showed a deterioration over the short-term assessment period, and 7 showed an improvement and 2 showed little or no change over the medium term. Two indicators (E5 and E6) did not have sufficiently long time series available for a long-term assessment, but the remaining 7 indicator components showed an improvement over this period.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

Fisheries

Defra published the Joint Fisheries Statement (JFS) with the devolved administrations in Scotland, Wales and Northern Ireland. The statement sets out our policies for achieving, or contributing to the achievement of, the Fisheries Act’s eight fisheries objectives.

Defra has set out the timetable for the delivery of the 43 Fisheries Management Plans.

We also have taken action to support the improvement of data on fish stocks and the development of new methods for assessing the health of more data limited stocks.

Defra has provided £32.7 million in annual funding for the seafood sector across the UK. This funding is used to pay for data collection to support policy development, control, and enforcement activities to protect our waters, and to enable each fishing administration to run their own grant funding scheme. The scheme for England – the Fisheries and Seafood Scheme (FaSS) – opened in April 2021 and invests at least £6 million annually. Approximately £13.5 million has been invested in 750 projects in 2021-22 and 2022-23.

In addition to the £32.7 million, Defra has also established the £100 million UK Seafood Fund funding infrastructure, science and innovation, and skills and training projects throughout the UK seafood industry. Over £24 million has been awarded to more than 100 projects that will support collaborative research and fund the development of innovative new technologies.

Defra has directly encouraged applicants to tender for data collection activities through the Fisheries Industry Science Partnership (FISP). The fourth round of bidding closed in January 2023.

Defra published an assessment of the sustainability outcomes of annual negotiations for fishing opportunities for 2023. The report highlights the biggest improvement since 2020 when this metric was first used.

Defra has taken action to improve the robustness of our seafood supply chains by requiring all licensed vessels fishing in English waters, regardless of nationality or size, to report their location, speed, and direction via Vessel Monitoring Systems devices in 2023. This will provide positional data for all licensed fishing vessels for the first time, improving our ability to control, enforce and manage their activity.

Soil

Defra introduced the arable and horticultural soils standard and the improved grassland soils standard under the Sustainable Farming Incentive Scheme rewarding farmers for actions to improve soil health. This includes soil testing, the introduction of herbal leys, and the use of grass-legume mixtures or cover crops.

Defra is developing a range of measures to create a robust baseline from which the impact of land management practices and improvements to soil health can be measured. These will consider the physical, chemical, and biological characteristics of soil. The data collected will inform policy decisions, including any future environmental targets.

National soil monitoring under the Natural Capital and Ecosystem Assessment (NCEA), programme began in 2022. On top of this, Defra will:

- Establish a soil health indicator under the Outcome Indicator Framework for the 25 Year Environment Plan.
- Publish a baseline map of soil health for England by 2028.
- Support farmers and land managers to establish their own soil health baseline, so they can best manage the health of their soil.
- Provide a methodology and tools to collect consistent information about the health of the soil under all land uses.
- Share current guidance and best practice with farmers and land managers to improve their knowledge and work with them on how to improve soil health.

Defra and the Environment Agency began to scope the Soil Reuse and Storage Depot scheme which will work with urban soil experts and practitioners nationally and internationally.

Timber

Tackle deforestation in international supply chains

The UK government championed international forest protection and restoration and sustainable agriculture, including through the Glasgow Leader's Declaration on Forests and Land Use as UN Climate Summit COP26 President, the Policy Dialogue on Accelerating Transition to Sustainable Agriculture, and the launch of the Forest Agriculture and Commodity Trade (FACT) dialogue.

Encourage productive planting to increase supply of domestic timber

Defra announced £20 million of funding via the Woods into Management Forestry Innovation Funds, the Tree Production Innovation Fund and the Woodland Creation Accelerator Fund to improve woodland resilience and domestic timber production, increase tree planting stocks and accelerate tree planting across England. The funding will drive long-term woodland creation efforts, create jobs, boost biodiversity, and support innovative approaches to tree health and resilience in the face of climate change and the mounting threat of pests and diseases.

Defra published an update on Environmental Land Management schemes. This included details of the further new actions that will be made available through the SFI and Countryside Stewardship (CS). In this update, we said that we would support land managers to establish new woodland systems and treescapes, expand existing ones, and manage them sustainably. This will improve the UK's timber security and rural economy through providing increased productivity in the forestry sector.

Defra updated the Tree Health Pilot to improve the support available to farmers and land managers dealing with tree pest and disease issues.

The Forestry Commission announced the Tree Production Capital Grant, which will make £8.8 million available between August 2022 and March 2025 to support tree seed and

sapling suppliers of all sizes to enhance the quantity, quality, diversity and biosecurity of seed and/or sapling production.

The Forestry Commission introduced new measures to curb illegal tree felling in England, including unlimited fines for offenders. The changes will deliver more proportionate, impactful, and enduring enforcement options against those who fell trees illegally to protect our forests for future generations.

The Forestry Commission reopened applications for the Woods into Management Forestry Innovation Funds and the Tree Production Innovation Fund to further support expansion and management of our nation's trees and forests and futureproof them against stresses like pests, disease and climate change.

Peat

Natural England and Defra opened the third round of the Nature for Climate Peatland Grant Scheme (NCPGS), providing funding to restore peatlands in the uplands and lowlands of England.

Further progress on peat is set out in the 'Mitigating and adapting to Climate Change' chapter.

Food and farming

Through the International Development Strategy Defra confirmed its commitment to promoting climate-resilient, sustainable food systems globally. We will continue to work internationally to promote sustainable food supply chains.

Defra published an update on Environmental Land Management schemes. This included three schemes to pay for environmental and climate goods and services:

- The Sustainable Farming Incentive (SFI) pays farmers for actions that support food production and can help improve farm productivity and resilience, while also protecting and improving the environment. Countryside Stewardship (CS) will pay for more targeted actions relating to specific locations, features and habitats. There will be an extra incentive through CS Plus for land managers to join up across local areas to deliver bigger and better results.
- Landscape Recovery will pay for bespoke, longer-term, larger scale projects to enhance the natural environment.

Defra is providing support to farmers to improve productivity and bring environmental benefits through the Farming Investment Fund, as well as investing £270 million in the Farming Innovation Programme. This programme supports farmers, growers, foresters, and other businesses to embrace innovative ways to maximise productivity and drive sustainability.

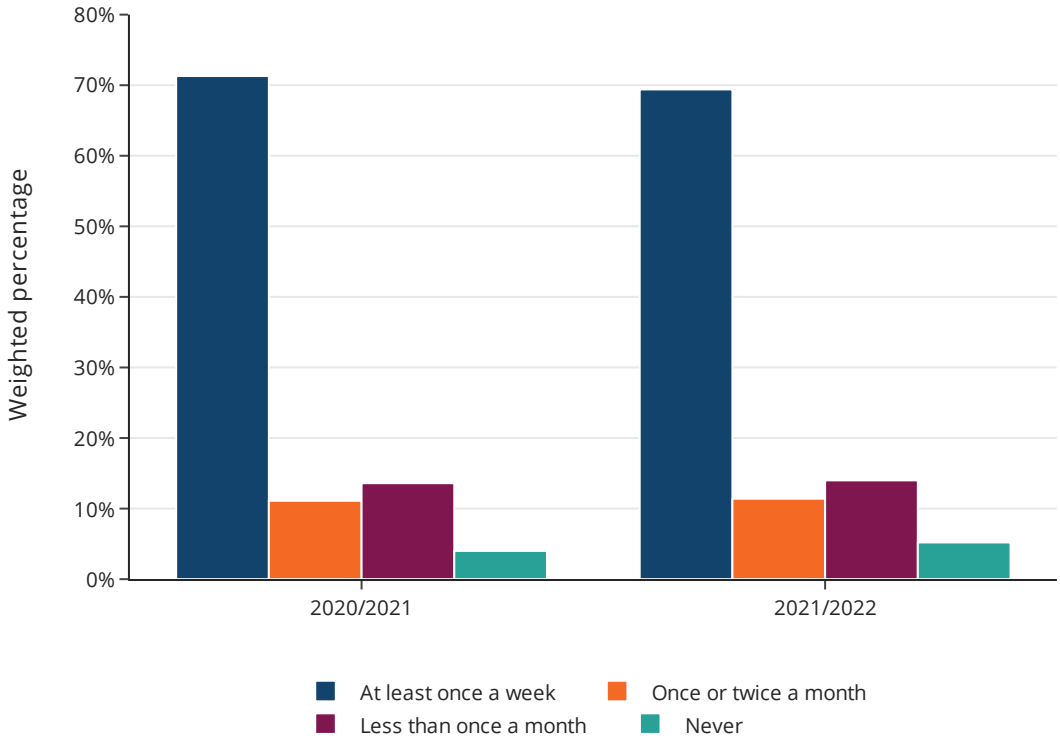
Enhanced beauty, heritage, and engagement with the natural environment

What are our long-term ambitions?

We will conserve and enhance the beauty of our natural environment, and make sure it can be enjoyed, used by, and cared for by everyone. We will do this through a range of measures. For example, by completing the England Coast Path and planting 1 million urban trees – both by the end of this parliament.

What does access to the natural environment currently look like?

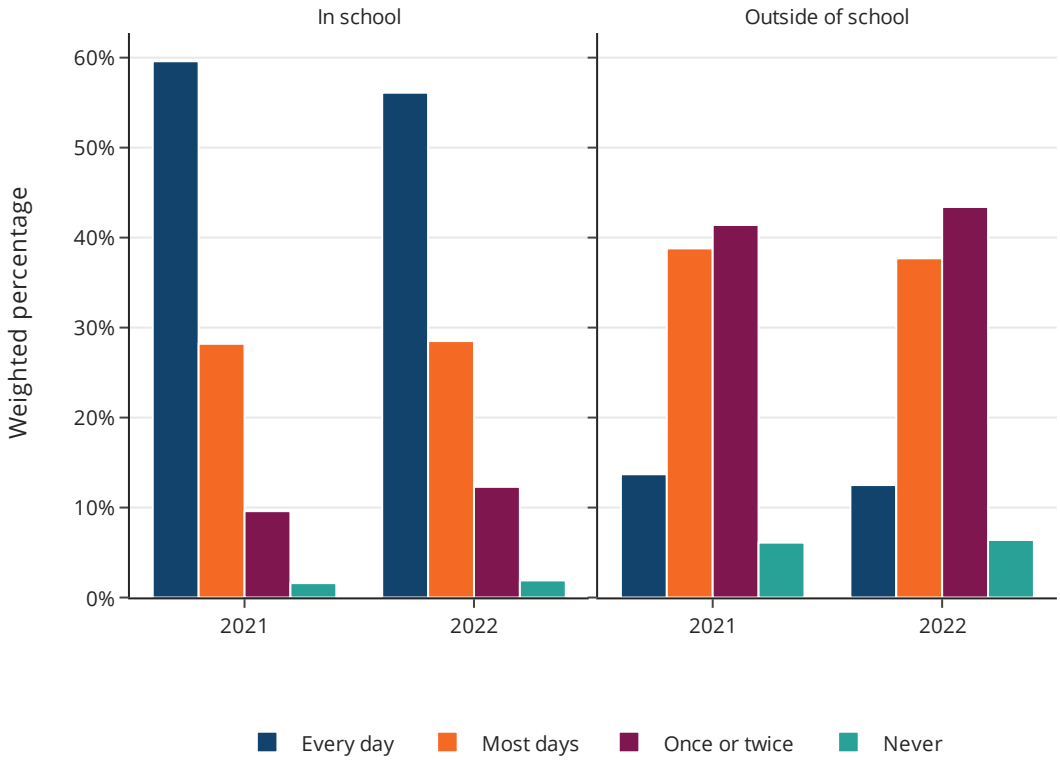
Figure 9: Frequency of visits to green and natural spaces in the past 12 months by adults in England, survey years 2020/2021 and 2021/2022



Source: Natural England (reported as G4b indicator in the Outcome Indicator Framework)

Results from the People and Nature Survey cannot yet be assessed to show yearly trends. However, data show that around 70% of adults (71% in 2020/2021 and 69% in 2021/2022) said they had spent free time outside in green and natural spaces on average at least once a week in the past 12 months. A further 25% (in both survey years) said they spent free time outside in green and natural spaces less often than once a week, and around 5% (4% in 2020/2021 and 5% in 2021/2022) spent no free time outside in green and natural spaces.

Figure 10: Frequency of time spent outside in the last week by children in England, survey years 2021 and 2022



Source: Natural England (reported as G4c indicator in the Outcome Indicator Framework)

Results from the Children's People and Nature Survey cannot yet be assessed to show yearly trends. However, data show that when thinking about the last week, more than half of children (60% in 2021 and 56% in 2022) said they spent time outside every day when at school, almost a third more (28% in 2021 and 29% in 2022) had spent time outside most days, around 10% (10% in 2021 and 12% in 2022) had spent time outside once or twice, and 2% (in both years) had not spent time outside at all. Children reported spending time outside less frequently when not at school in both 2021 and 2022. Less than 15% of children (14% in 2021 and 13% in 2022) said they had spent time outside every day when not at school, a little less than 40% (39% in 2021 and 38% in 2022) had spent time outside most days, a little more than 40% (41% in 2021 and 43% in 2022) had spent time outside once or twice, and 6% (in both survey years) had not spent time outside at all.

Figure 11: Summary of assessment results for enhancing beauty, heritage, and engagement with the natural environment indicator components

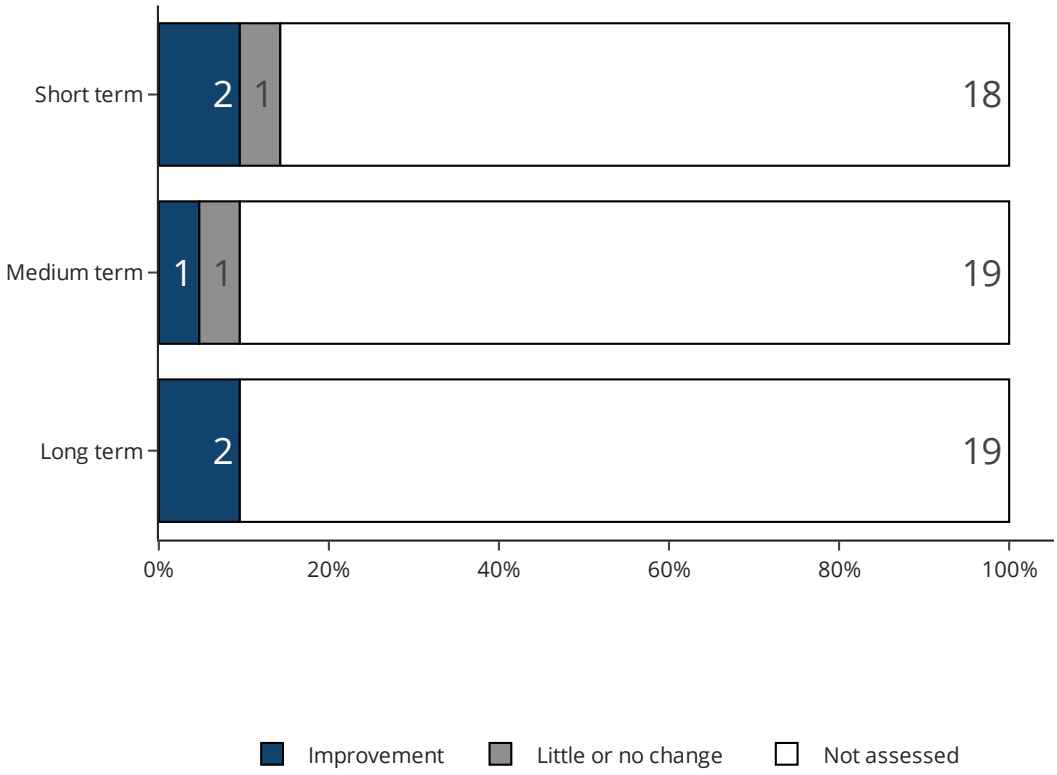


Figure 11 shows the proportion of indicator components for which ‘Enhancing beauty, heritage and engagement with the natural environment’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Three indicator components were assessed. The observed increases in the area of woodland in England over the short and medium term are assessed as ‘little or no change’ but long-term increases are assessed as an improvement. Increases in the frequency of visits to the natural environment over the short term were also assessed as an improvement but there were insufficient data points to assess changes to this indicator over longer time periods. Volunteer time spent on the natural environment in England has improved across all 3 assessment periods.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

Defra announced a new £14.5 million ‘Access for All’ programme to make targeted access improvements in our protected landscapes, national trails, forests, and the wider countryside. The programme will help to make nature more accessible to everyone.

Forestry Commission has continued to provide funding support across the Urban Trees Challenge Fund, Local Authority Treescapes Fund and via England's Community Forests and our Woodland Creation Partnerships to support tree planting and regeneration in urban and peri-urban areas, particularly in areas with high levels of social and tree canopy deprivation. The Urban Trees Challenge Fund alone this year will lead to 25,000 more trees being planted in areas of higher social deprivation and lower canopy cover – especially in locations close to healthcare and educational facilities. This builds on the 134,000 trees already planted under the scheme in previous years. In 2022/23 the Urban Trees Challenge Fund and Local Authority escapes Fund have planted 164,000 hectares of trees close to people. In 2022, 82% of the woodlands planted by England's Community Forests have full or partial public access.

Work by Forest Research indicates that an increase in greenspace with trees in an urban environment has real impact and can avert and reduce deaths and hospital admissions. Defra and the Forestry Commission announced new funding to plant trees in communities nationwide in honour of the late Her Majesty Queen Elizabeth. The Queen's Green Canopy (QGC) – funding of £499,000 will be provided for a special programme of planting to be delivered by QGC Partners including Trees for Cities, The Tree Council, The Conservation Volunteers and Earthwatch. Working in cooperation with local authorities and communities, the funding will enable thousands of trees to be planted in over 60 locations across England, engaging communities that have limited access to nature and green spaces.

Defra and Natural England announced five unique nature recovery projects spanning nearly 100,000 hectares, which will transform the public's enjoyment of nature in the West Midlands, Cambridgeshire, the Peak District, Norfolk and Somerset.

Defra and Natural England announced that Wainwright's Coast to Coast route would be designated as a new National Trail, to be delivered by 2025. This 197-mile route stretches from St Bees in Cumbria to Robin Hoods Bay in the North Yorkshire and will improve access to nature for all. £5.6 million has been committed to upgrade the path, which will make it more accessible, create circular paths and link routes, and ensure high quality signage and surfacing. Funding has also been set aside to develop a community engagement programme; and maximise economic and health benefits for local people and businesses.

Defra and Natural England delivered more stretches of the King Charles III England Coast Path, with over 800 miles open to the public as of April 2023. The path will allow people to walk around the whole English coast, linking up the best existing coastal paths and creating new ones where there were none before. It is expected to bring significant benefits to local authorities and communities, to recreational users, and to public health. When complete, the path will be the longest waymarked and maintained coastal walking route in the world at around 2,700 miles.

Natural England launched the Green Infrastructure Framework. Aimed at planners, developers, and greenspace managers, it supports taking a strategic approach to planning Green Infrastructure. Standards will help increase the proportion of people who have

access to good quality green and blue space close to home; increase the amount of green cover to 40% in urban residential areas; increase urban tree canopy cover; and increase the number and quality of Local Nature Reserves and Local Wildlife sites. Natural England has now also worked with 15 local authorities in testing this framework.

The Department for Levelling Up, Housing and Communities launched the £9 million Levelling Up Parks Fund to create new and improved parks in urban areas, helping communities to come together and enjoy the outdoors. In England, the funding has been awarded to councils to create or significantly revamp existing parks in 85 neighbourhoods most deprived of outdoor space. The new parks will significantly increase access to quality green space for those who need it most. Defra provided £2 million of the total fund investment to support tree planting in the parks supported by the fund.

The Department for Transport announced that funding worth £200 million for new walking and cycling schemes across England. The government's new executive agency Active Travel England will oversee the delivery of 134 first-rate schemes, which includes new footways, cycle lanes and pedestrian crossings across 46 local authorities outside London.

Defra announced an additional £4.4m to National Park Authorities this year and increased the core grant for AONB teams by ~ 15% over the current Spending Review period. In addition, we will shortly publish our response to the consultation on implementing the Landscapes Review. This will set out our action plan to ensure Protected Landscapes can deliver their full potential for nature, climate, people and place.

Defra announced that the Farming in Protected Landscapes programme delivered across 10 National Parks and 34 Areas of Outstanding Natural Beauty (AONBs) since 2021 will be extended until March 2025. This will enable National Parks and AONBs to continue delivering outcomes for nature, climate, people, and place. For example, since the programme began in 2021, over 5,000 volunteers have been engaged with the programme and over £25 million has been provided to farmers and land managers.

Defra and the Forestry Commission worked with the Tree Council, FERA Science and other stakeholders to publish the Local Authority Tree and Woodland Strategy Toolkit. This provides guidance for local authorities to develop effective tree and woodland strategies to harness the long-term benefits that trees can bring to local communities, including for public access.

Natural England launched the web-based 'All-England Strategic Landscape Mapping Tool'. This was the initial phase of an England-wide assessment to identify conservation needs across England, including any remaining places suitable for future designation as National Park or Area of Outstanding Natural Beauty, and those places where alternative forms of action will be more appropriate and are wanted by local communities. This tool will inform strategic decision-making for landscape planning which aims to reflect the spirit of the 1947 Hobhouse Map which led to the establishment of the National Parks 70 years ago.

Natural England also conserved and enhanced the heritage of landscapes through a range of targeted grant schemes. For instance, the £8 million Traditional Farm Building Restoration project restored 126 historical buildings in selected National Parks, benefiting the heritage and beauty of our protected landscapes and supporting their ability to engage the public.

Defra and the Department of Health and Social Care achieved over 8,500 referrals to nature-based activities over the course of the 'Preventing and tackling mental ill-health through green social prescribing' programme. Evidence suggests that the programme has had a very strong service take-up compared with traditional mental health support services. Though the programme closed in March 2023, work is still underway to embed and scale green social prescribing across the country, with support remaining in place at both local and national level.

The National Lottery Heritage Fund announced a partnership with Groundwork UK to deliver paid, nature-based work placements for young people – diversifying the sector and creating a natural legacy to mark the Queen's Platinum Jubilee.

The Department for Education announced that a new Natural History GCSE will be introduced to help increase children and young people's knowledge and understanding of nature.

The Department for Education announced a new National Education Nature Park and Climate Action Award. These will drive and increase engagement with nature for all children and young people by empowering them to make their school grounds more biodiverse and help them develop their skills and knowledge in biodiversity and sustainability.

Mitigating and adapting to climate change

What are our long-term ambitions?

Take all appropriate action to mitigate climate change, while adapting to reduce its impact.

Long-term targets

- Increase tree canopy and woodland cover to 16.5% of total land area.

Interim targets

- Increase tree canopy and woodland cover by 0.26% of land area (equivalent to 34,000 hectares).

Net zero

The 2019 Climate Change Act, updating the 2008 Climate Change Act, set out:

- A legal requirement to reduce net greenhouse gas emissions by at least 100% (net zero) by 2050 relative to 1990 levels.

- A framework of carbon budgets to ensure continued progress towards the net zero target, capping emissions in successive five-year blocks. We have separately published the fourth (2023 to 2027), fifth (2028 to 2032), and sixth (2033 to 2037) carbon budgets.
- A requirement for a Climate Change Risk Assessment (CCRA) every 5 years, responded to by a National Adaptation Programme (NAP) for England.

In addition to our carbon budgets, at the UN Climate Summit COP26 we agreed an ambitious Nationally Determined Contribution through the UN process to reduce emissions in 2030 by at least 68% compared to 1990 – the highest reduction target set by a major economy to date.

International commitments

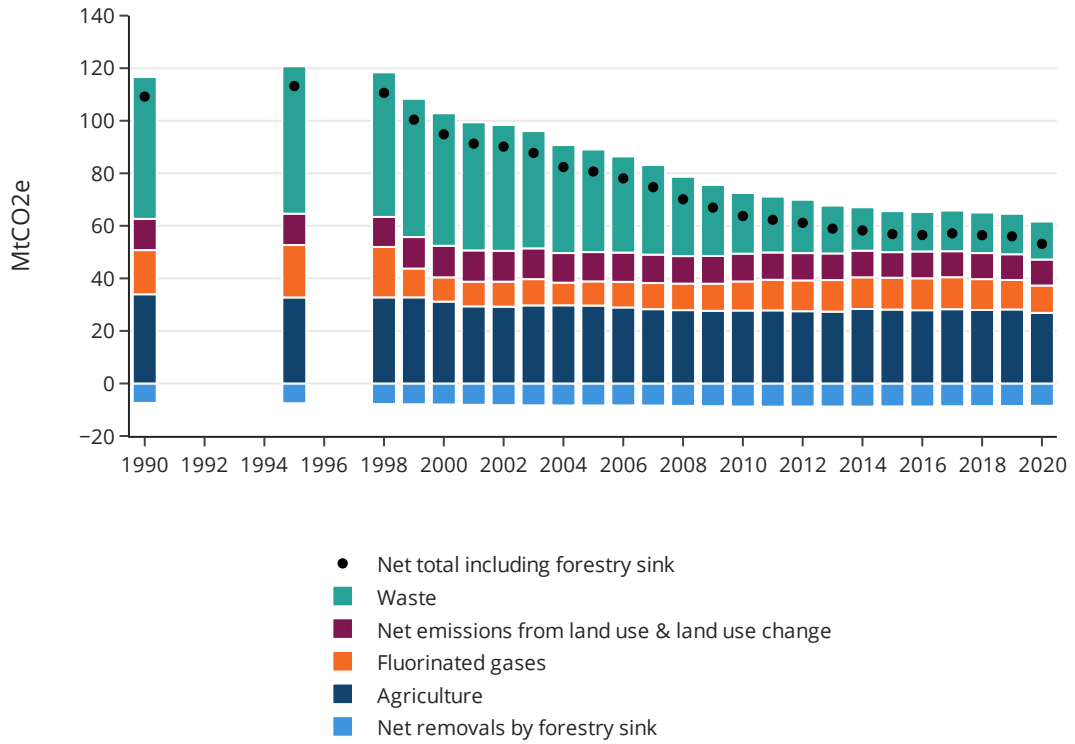
Fulfil the Montreal Protocol, including the Kigali amendment to phase down the use of hydrofluorocarbons (HFCs) by 85% by 2036.

At the UN Climate Summit COP27, we:

- Confirmed the government would triple funding for climate adaptation as part of our international climate finance, from £500m in 2019 to £1.5bn in 2025.
- Announced a range of investments worth over £100 million to support developing economies to respond to climate-related disasters and adapt to the impacts of climate change.

What is the condition of the natural environment?

Figure 12: Emissions of greenhouse gases from natural resources, 1990 to 2020



Source: Department for Business, Energy & Industrial Strategy (reported as A2 indicator in the Outcome Indicator Framework)

Net emissions of GHGs from natural resources in England have fallen by 51%, from 109 MtCO2e in 1990 to 53 MtCO2e in 2020. Net GHG emissions have fallen from all sectors included within the indicator; however, the greatest reduction has been achieved in the waste sector (40 MtCO2e or 73%). Net emissions from both fluorinated gases and agriculture, and net emissions from land use and land use change have fallen by 38%, 21% and 17% respectively, and net removals by the forestry sector have increased by 14%.

Figure 13: Summary of assessment results for mitigating and adapting to climate change

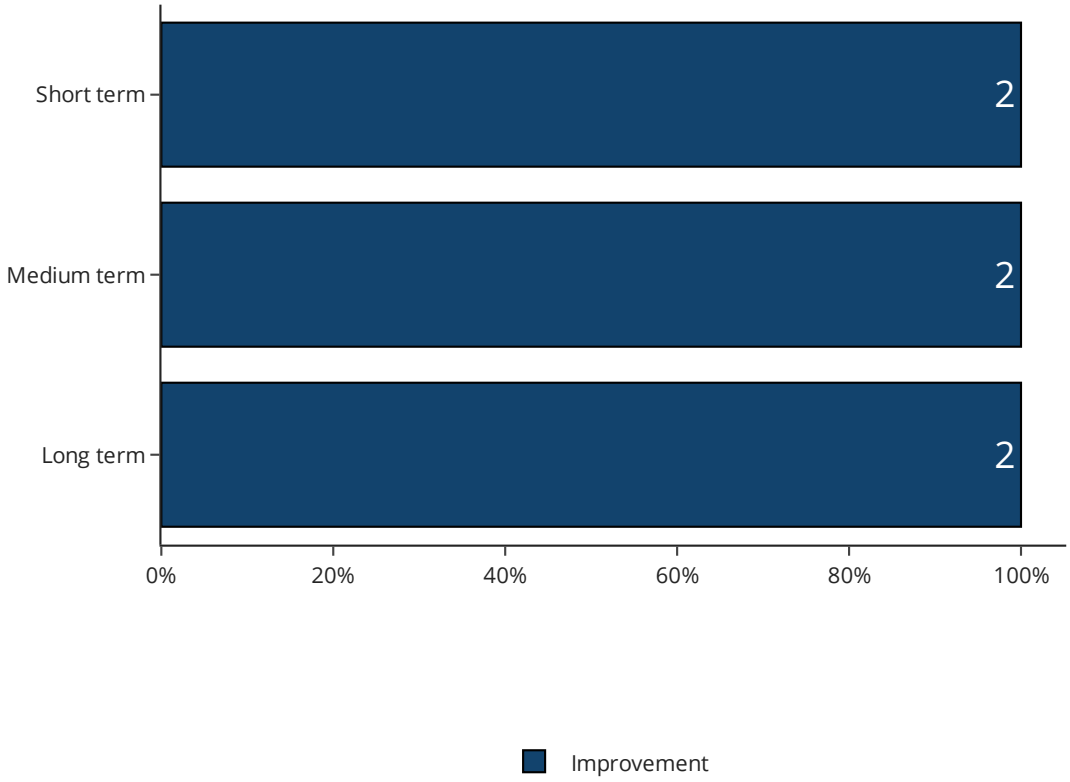


Figure 13 shows the proportion of indicator components for which ‘Mitigating and adapting to climate change’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Both emissions of greenhouse gases from natural resources in England (indicator A2) and consumption-based greenhouse gas emissions in England (indicator J1) showed an improvement over all assessed time periods (short, medium and long term). The short-term time period relates to the most recent 5 years for which an assessment could be undertaken (2014 to 2019 for A2 and 2013 to 2018 for J1).

The inclusion of this assessment is based on the individual indicators with a relevant primary goal; additional valuable insights can be understood by considering the holistic relevance of additional indicators, as many will be sensitive to the issue of climate change. The first Outcome Indicator Framework report (published in 2019) lists a sub-selection of indicators which are expected to give some indication of progress on adaptation, the need for adaptation or the resilience of natural assets to climate change. Future assessments of the Outcome Indicator Framework will continue to consider how best to derive inferences of progress to aid in understanding progress of the 25 Year Environment Plan.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

The Department of Energy Security and Net Zero published the Net Zero Growth Plan, setting out our ambition to reduce emissions from Defra sectors as part of an overall reduction across the economy of approximately 77% by Carbon Budget 6. For agriculture and other land use emissions the ambition set out could reduce emissions by 19% to 37% on average over 2033-37, and for waste, wastewater and f-gas emissions could fall by 56% to 65% on average over 2033-37, compared to 2021 emissions levels. The plan encompasses a range of measures, many of the agriculture ones delivered through our new environmental land management schemes.

Defra announced that all sales of peat to amateur gardeners in England will be banned by 2024. We also announced an intention to end peat use in the professional sector by 2026, with some exemptions permitting peat use through until 2030. The measures will contribute to efforts to achieve our ambitious target of restoring 35,000 hectares of peatlands by 2025 and wider efforts to achieve net zero. The announcement follows an extensive public consultation, with over 95% in favour of government taking action to ban retail peat sales.

Defra announced that millions of trees are set to be planted nationwide, with £44.2 million in funding for Community Forests and woodland creation partners. It is estimated the planting will see 600,000 tonnes of carbon dioxide absorbed by 2050, valued at nearly £100 million. The funding will create more green jobs within the forestry and environmental sectors, helping spread economic growth across the country.

Defra opened the £270 million Farming Innovation Programme (FIP). In partnership with UK Research & Innovation (UKRI), we committed £68 million in 2022 and will provide further grants of £51 million in 2023 to facilitate the development and adoption of emerging farming technologies that will help reduce greenhouse gas emissions.

We opened the sixth Woodland Carbon Guarantee Auction. The £50 million scheme aims to help accelerate woodland planting rates and permanently remove carbon dioxide from the atmosphere.

Defra set out our reporting requirement for the Greening Government Commitments (GGCs) for the 2021-2025 framework. This document sets out how departments will meet and report on the GGCs, including reducing greenhouse gas emission from their estates, and ensure consistent reporting of the GGCs across government.

We launched the Climate Change Hub in partnership with Forest Research, Scottish Forestry and Welsh Government. The hub centralises resources, information, and guidance on climate change adaptation to support landowners, woodland managers, and forestry practitioners in addressing climate change. The hub also supports the UK Forestry Standard Practice Guide on adapting Forest and woodland management to the changing climate.

Waste decarbonisation is set out in the ‘Clean and plentiful water’ and ‘Minimising waste’ chapters.

Natural England announced that six nature projects across England have received funding to trial the most effective ways to capture carbon and mitigate the impacts of climate change. Operating at a landscape scale of over 500 hectares each, the six projects will restore landscapes and assess how carbon is captured and stored across habitats such as grasslands, forests, wetlands, and hedgerows.

Natural England opened the third round of the Nature for Climate Peatland Grant Scheme, providing funding to restore peatlands in the uplands and lowlands of England. Successful projects from this round will be announced in the summer.

Through round two of the Nature for Climate Peatland Grant Scheme, Natural England awarded approximately £11 million to 6 projects to support restoration works on over 7,000 hectares of peatland, adding to more than 8,000 hectares already funded through round one. Round two is supporting a blend of lowland and upland restoration works, including projects in Somerset, Yorkshire, Cumbria, and the Humberhead Levels. Round two includes the first Nature for Climate-funded peatland project to be led by a private company, alongside four projects that have successfully used funding from round one of the Discovery Grant to support their restoration planning.

Through round two of the Nature for Climate Peatland Grant Scheme Discovery Grant, Natural England awarded over £600,000 to 5 projects to support planning and preparation for the restoration of nearly 9,500 hectares across England. The grant will support partnerships in Derbyshire, Lancashire, Yorkshire, and Greater London to conduct peat surveys, engage with landowners and assess restoration potential. Projects will gather information and create restoration plans that will help to overcome barriers, with a view to applying for future restoration funding.

Defra published a consultation on the fourth round of reporting under the Adaptation Reporting Power in the Climate Change Act (2008), in its role as lead for climate adaptation across government. It proposed to realign the timing of reports with the rest of the statutory cycle for climate adaptation, so they can better inform the next UK Climate Change Risk Assessment. Reports are likely to update government on organisations' climate risk management processes, actions and progress made since any earlier reports (where relevant).

Defra has also updated the England Woodland Creation Offer to target additional contributions for public goods. New maps have been published to support catchments and river reaches contributing to flood management objectives and those most in need of riparian shade to counter the effects of climate change.

We published the Integrated Plan for Water as set out in the Clean and Plentiful Water chapter. This includes actions to achieve the statutory water demand target to mitigate the impacts of climate change on water supplies by 2037/38.

We awarded funding under the Landscape Recovery Scheme as described in the Thriving plants and wildlife chapter. Projects require proposals to demonstrate that actions which will be paid for will not result in outcomes that become inappropriate over time, and do not

increase the vulnerability of the surrounding area to climate change risks. We are monitoring and evaluating the progress of climate adaptation so that the projects are delivering value for money, maximising benefits, and helping to support resilience in agriculture and rural communities.

Defra announced £20 million of funding to improve tree planting stocks, woodland resilience, domestic timber production and accelerate tree planting across England as described in the Using resources from nature more sustainably chapter. Defra and the Forestry Commission will ensure new woodlands have current and future climate conditions considered in their design and species choice.

The Foreign, Commonwealth and Development Office published an International Development Strategy (IDS). One of the strategy's four priorities is to take forward work on climate change, nature, and global health, putting the commitments of our COP26 and G7 Presidencies at the core of our international development offer. The IDS highlights the Prime Minister's commitment to double UK International Climate Finance to at least £11.6 billion between 2021-26, including at least £3 billion for development solutions that protect and restore nature.

The government launched a major international climate package to deliver on the UK's Glasgow legacy at COP27. New announcements included £65.5 million for green tech innovation and significant clean energy investments with Kenya and Egypt; a new Forests and Climate Leaders' Partnership and more than £150 million for protecting rainforests and natural habitats, including the Congo Basin and Amazon.

Minimising waste

What are our long-term ambitions?

We will minimise waste, reuse materials as much as we can and manage materials at the end of their life to minimise the impact on the environment.

Following our Environment Act targets consultation last year, we have set an ambitious suite of targets to deliver on that commitment. For the Maximise our Resources, Minimise our Waste goal, these cover:

Long-term targets

- By 31 December 2042, the total mass of residual waste (excluding major mineral wastes) in a calendar year does not exceed 287 kg per head of population in England. This is equivalent to a 50% reduction from 2019 levels.

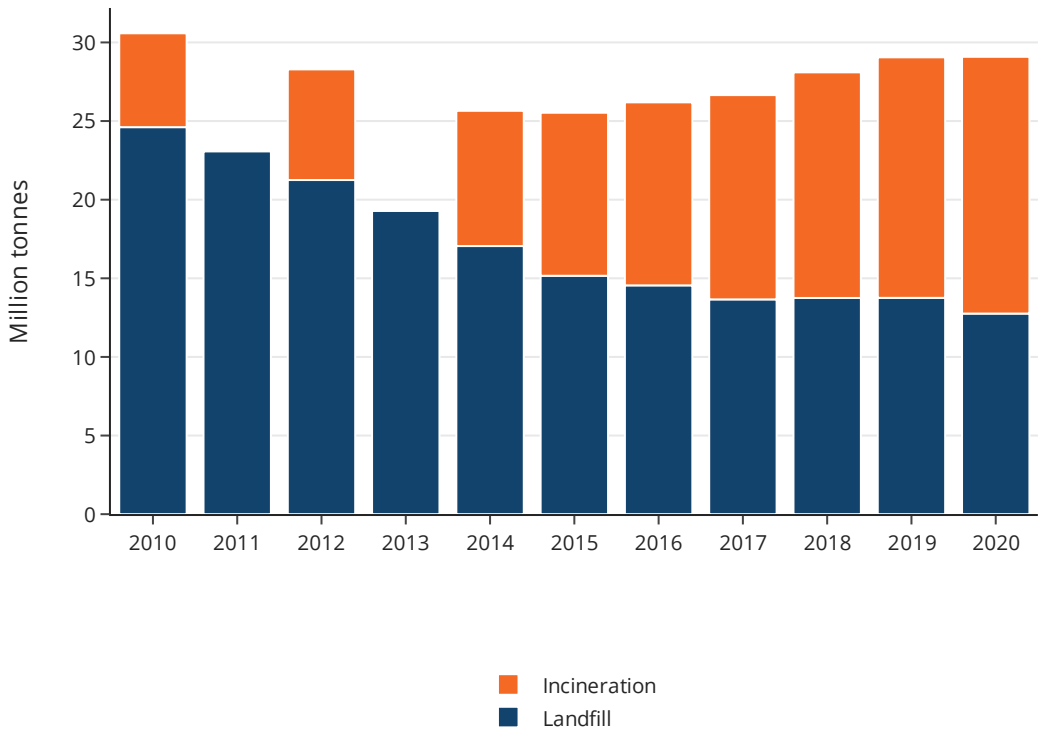
Interim targets

- By 31 January 2028, the total mass of residual waste excluding major mineral wastes in the most recent full calendar year does not exceed 437 kg per capita. This is equivalent to a 24% reduction from 2019 levels.

- By 31 January 2028, the total mass of residual waste excluding major mineral waste in the most recent full calendar year does not exceed 25.5 million tonnes. This is equivalent to a 21% reduction from 2019 levels.
- By 31 January 2028, the total mass of municipal residual waste in the most recent calendar year does not exceed 333 kg per capita. This is equivalent to a 29% reduction from 2019 levels.
- By 31 January 2028, the total mass of residual municipal food waste in the most recent full calendar year does not exceed 64 kg per capita. This is equivalent to a 50% reduction from 2019 levels.
- By 31 January 2028, the total mass of Residual municipal plastic waste in the most recent full calendar year does not exceed 42 kg per capita. This is equivalent to a 45% reduction from 2019 levels.
- By 31 January 2028, the total mass of Residual municipal paper and card waste in the most recent full calendar year does not exceed 74 kg per capita. This is equivalent to a 26% reduction from 2019 levels.
- By 31 January 2028, the total mass of Residual municipal metal waste in the most recent full calendar year does not exceed 10 kg per capita. This is equivalent to a 42% reduction from 2019 levels.
- By 31 January 2028, the total mass of Residual municipal glass waste in the most recent full calendar year does not exceed 7 kg per capita. This is equivalent to a 48% reduction from 2019 levels.

What is the condition of the natural environment?

Figure 14: Residual waste (excluding major mineral wastes) in England, 2010 to 2020



Source: Defra and Environment Agency (reported as J4 indicator in the Outcome Indicator Framework)

In 2020, the total quantity of waste (excluding major mineral wastes) landfilled or incinerated in England was 29.1 million tonnes, a 5% reduction against levels in 2010 (30.6 million tonnes). This reduction was due to less waste being landfilled (falling by 48% over the period 2010 to 2020), and more waste being sent to incineration (increasing by 174% over the same period).

Figure 15: Summary of assessment results for minimising waste indicator components

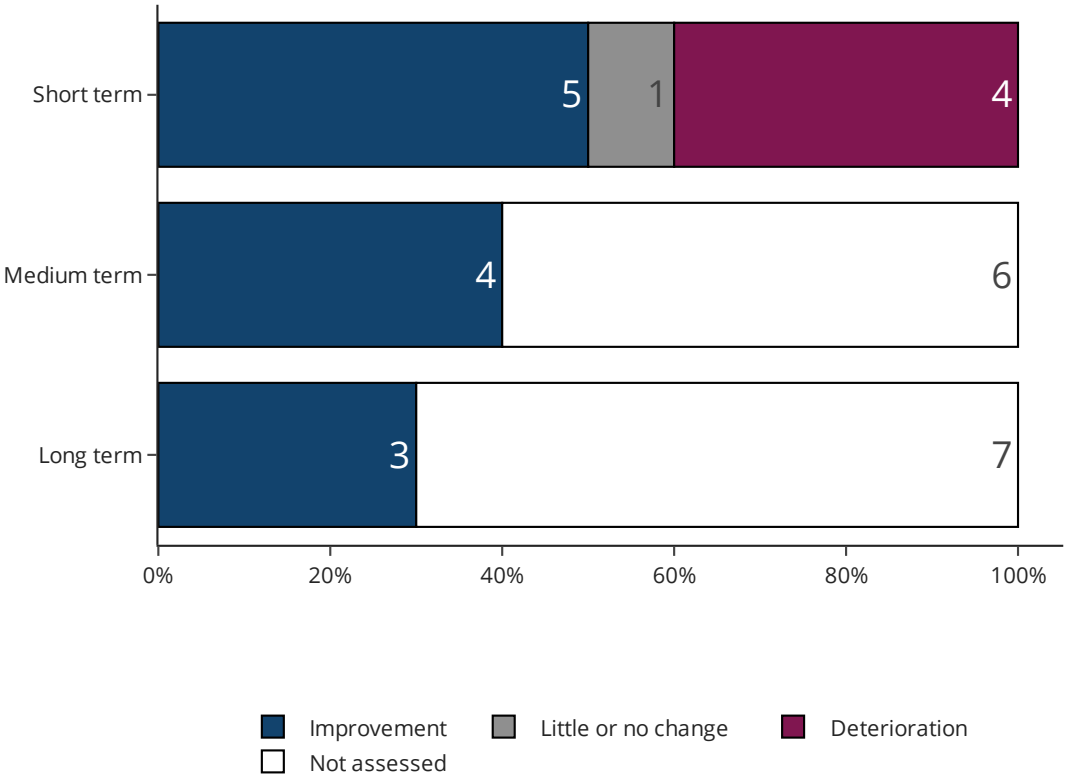


Figure 15 shows the proportion of indicator components for which ‘Minimising waste’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Of the 10 indicator components for which Minimising Waste is the primary goal, all those with sufficient time-series data to be assessed over the medium and long term (4 and 3 components respectively) showed an improvement over these periods. All 10 indicator components were assessed over the short term. Of these, 5 showed an improvement, one showed little or no change and 4 showed a deterioration.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

Defra published details of reporting requirements for Extended Producer Responsibility for packaging (pEPR),which came into force in February 2023. pEPR will make firms that supply packaging responsible for the costs of dealing with packaging waste from households and discarded in street bins provided by local authorities, moving costs away councils and council taxpayers. This will encourage producers to reduce the amount of packaging they place on the market, and to improve the recyclability of their packaging – in turn ensuring less waste ends up in the natural environment and more packaging waste is recycled.

Defra launched a consultation on preventing householders being charged for the disposal of waste from small scale DIY projects and carried out a call for evidence on the impact of booking systems at household waste recycling centres. The government response to this consultation was published on 18 June and confirms legislation will be amended by the end of 2023 to prevent local authorities from charging householders for the disposal of waste that meets the description of DIY waste.

We launched a consultation seeking views on different options to improve food waste reporting by large food businesses in England.

We announced that a range of polluting single-use plastics will be banned in England. We will ban the supply of single-use plastic plates, bowls, and trays to the end-user and ban the supply of single-use plastic cutlery and single-use plastic balloon sticks and expanded and extruded polystyrene food and drinks containers, including cups, from October 2023.

As part of the work on Extended Producer Responsibility for packaging, Defra published the government response on Reforms to the Packaging Waste Recycling Note and Packaging Waste Export Recycling Note System and Operator Approval, which will form part of the final Regulations.

We announced that a new cash incentive system, placing deposits on drinks bottles and cans, will boost recycling from 2025. New plans set out in a consultation response detail that, through small financial deposits placed on single-use drinks containers, people will be incentivised to recycle their plastic drinks bottles and metal cans, reducing litter and plastic pollution. The scheme would include reverse vending machines and designated sites where people can return their bottles and redeem their deposit.

The Department of Energy Security and Net Zero published the Powering up Britain: Net Zero Growth Plan accompanied by a detailed delivery plan that sets out how decarbonisation of the waste sector will contribute to delivering the net zero target by 2050.

We published our most recent progress report for the government's Litter Strategy for England (2017). The strategy sets out 36 commitments that will contribute to our aim of delivering a substantial reduction in litter and littering within a generation. The latest report,

which covers the period from April 2019 to March 2022 as a result of delays caused by coronavirus, sets out our progress against these commitments.

As part of the Prime Minister's Anti-Social Behaviour Action Plan, we set out how we will support councils to take tougher action against those who fly-tip and litter. This included a commitment to significantly raise the upper limit on fixed penalty notices this year, to £1,000 for fly-tipping and £500 for littering and the government has now laid a statutory instrument to achieve this. The plan also sets out measures to help and encourage councils and others to carry out more enforcement activity and we are currently consulting key stakeholders on ringfencing council receipts from fly-tipping penalties for enforcement and clean up activity.

Defra announced new reforms to further crack down on illegal waste activities.

As part of the second round of the fly-tipping grant scheme, a further £775,000 in grant funding was awarded to help more councils purchase equipment, such as CCTV and barriers, to tackle fly-tipping. Across the two rounds of the scheme, Defra has now provided nearly £1.2 million across more than 30 councils.

The Environment Agency issued a press release giving details of civil sanctions for 3 companies following failure to comply with packaging regulations designed to protect the environment. A tech firm, a drinks company and a home furnisher will pay a total of almost £87,000 to good causes after they failed to comply with the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended). This ensures that businesses fund the recycling of the packaging waste that they place on the UK market.

The Environment Secretary started talks with businesses, environmental groups, scientists and civil society on shaping a legally-binding global treaty that aims to end plastic pollution by 2040. Continuing to work closely with UK stakeholders will be key in strengthening the UK's leading voice at the treaty negotiations. We have taken a leadership role in negotiations to establish an international scientific panel to advise on global pollution reduction.

The UK played a leading role in the adoption of an amendment to the Basel Convention that means all exports of e-waste will be subject to greater controls and only exported if the destination country agrees. These changes (which will become effective on 1 January 2025) will mean better protection of vulnerable countries from unwanted imports, reducing the human health and environmental hazards stemming from undocumented e-waste not managed in an environmentally sound manner.

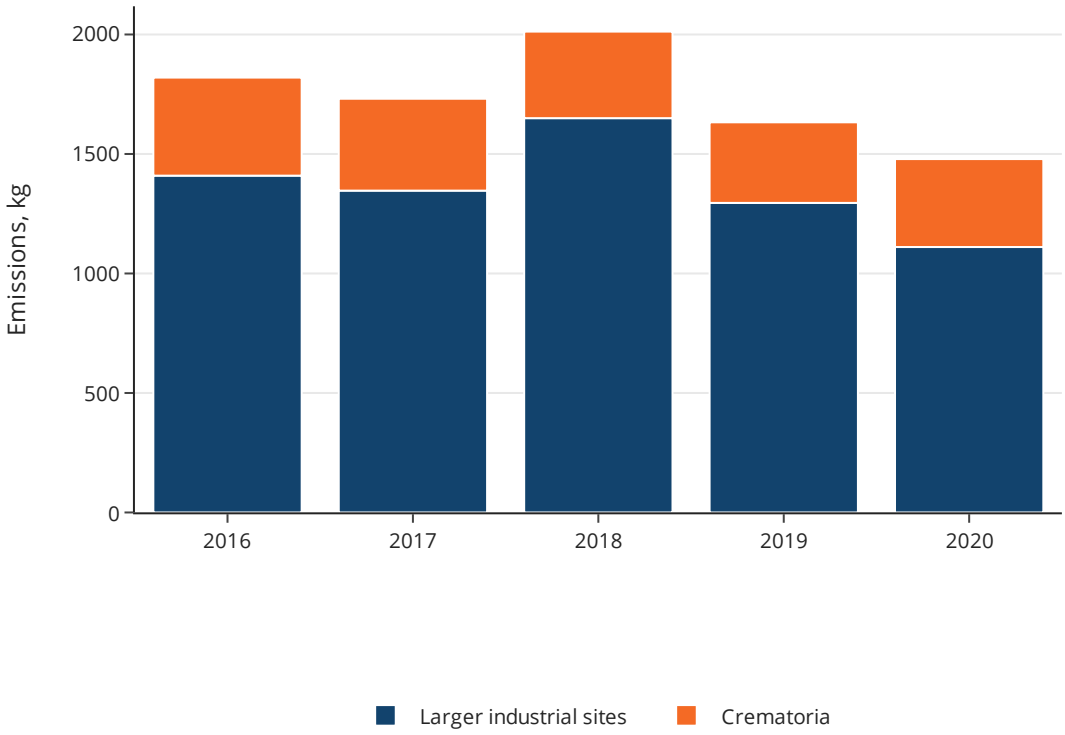
Managing exposure to chemicals and pesticides

What are our long-term ambitions?

We will make sure that chemicals are safely used and managed, and that the levels of harmful chemicals entering the environment (including through agriculture) are significantly reduced.

What is the condition of the natural environment?

Figure 16: Emissions of mercury to air, land and water, England, 2016 to 2020



Source: Environment Agency Pollution Inventory; National Atmospheric Emissions Inventory; Air Pollutant Inventories for England, Scotland, Wales and Northern Ireland (reported as H3a indicator in the Outcome Indicator Framework).

In 2020, emissions of mercury from larger industrial sites and crematoria in England totalled 1,478 kg, with larger industrial sites accounting for 75% of this figure. Sufficient datapoints are not yet available to robustly assess a short-term trend.

Figure 17: Summary of assessment results for managing exposure to chemicals indicator components

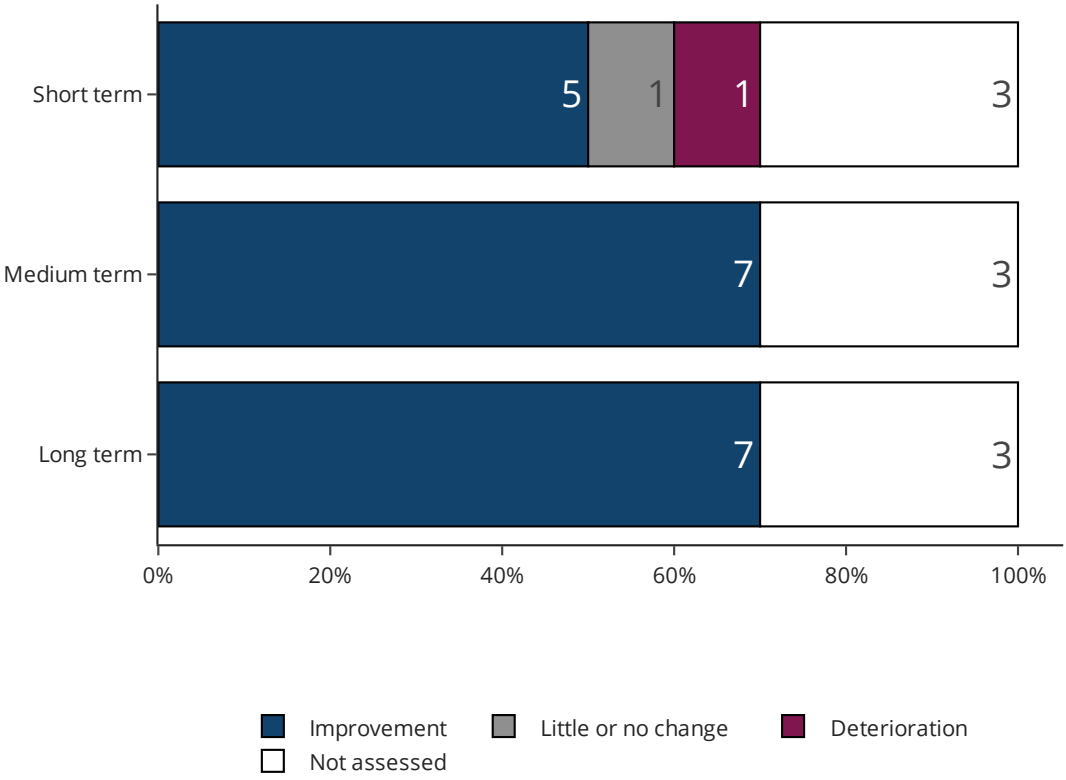


Figure 17 shows the proportion of indicator components for which ‘Managing exposure to chemicals’ is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Indicator H3b (Emissions of persistent organic pollutants to air land and water in England) is the only indicator with sufficient data points to be assessed. All the pollutants measured by H3b showed an improvement over the medium and long term. Most have also shown short-term improvements, however, emissions of hexachlorobenzene increased over the short term and polychlorinated naphthalenes showed little or no change. The short-term time period covered the most recent 5 years for which an assessment can be made (2013 to 2018 for H3b).

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

Defra published the summary of responses and government response to the consultation on extending the current deadlines for transitional registrations. We will be bringing forward secondary legislation, subject to the consent of the Scottish and Welsh governments, to extend the UK REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) submission deadlines by 3 years in line with this government response.

We published a consultation seeking stakeholders' views on a number of government proposals and policy options relating to domestic management of Persistent Organic Pollutants (POPs).

We published a call for comments seeking views on UN's POP Review Committee's draft evaluation documents for 3 chemical substances that have been proposed as POPs (chlorpyrifos, LC-PFCAs, and UK-led proposal MCCPs).

The Health and Safety Executive published a Regulatory Management Options Analysis (RMOA) on perfluoroalkyl and polyfluoroalkyl substances (PFAS), which was commissioned under the UK REACH Work Programme to assess PFAS uses, exposure routes, and risk management actions specific to Great Britain in an evidence-based and proportionate way. Defra ministers have accepted the RMOA's recommendations, which include reducing PFAS emissions by developing UK REACH restriction proposals, beginning with a restriction on PFAS in fire-fighting foams, and exploring further restrictions covering a wide range of industrial and consumer uses. The PFAS RMOA represents a significant milestone in the UK's efforts to protect people and the environment from the potential impacts of PFAS, building on the commitment in the 25 Year Environment Plan to tackle chemicals of concern.

Research on the presence of POPs in landfill leachate in England has been completed and Defra is considering the report and next steps.

The Environment Agency published guidance on how to manage Waste Upholstered Domestic Seating (WUDS) containing POPs.

Defra is introducing new paid actions within the Sustainable Farming Incentive scheme to increase the uptake of integrated pest management, such as the establishment and maintenance of flower-rich margins, blocks or in-field strips, and the use of companion cropping.

Defra has also invested in research into alternatives to chemical pesticides that can be used sustainably by growers.

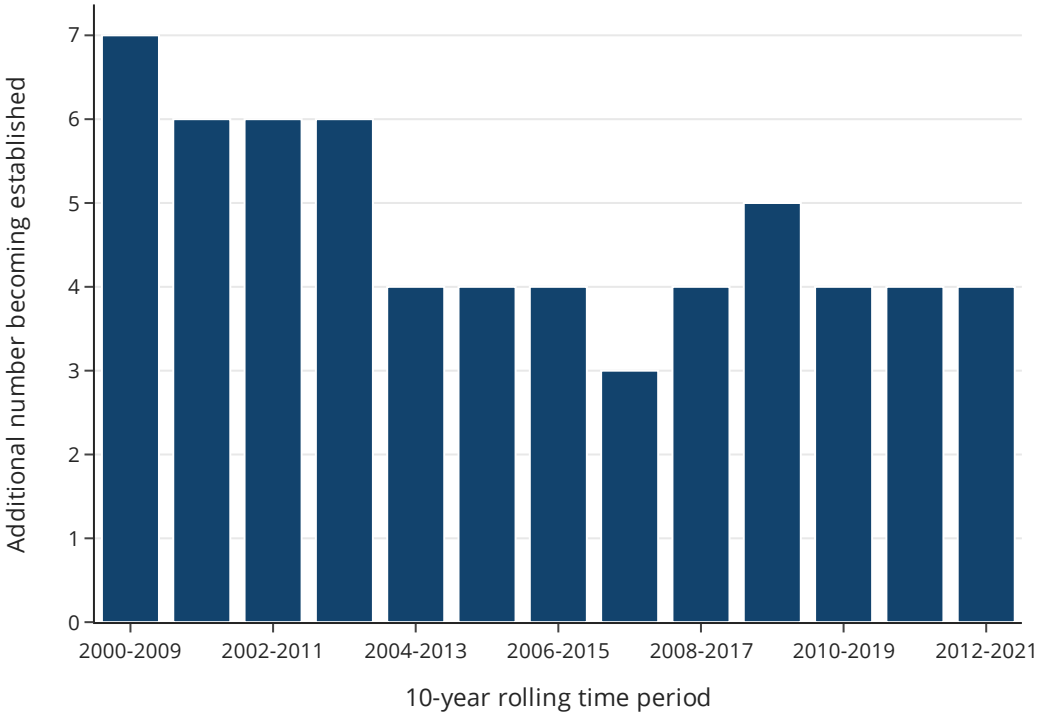
Enhancing biosecurity

What are our long-term ambitions?

We will enhance biosecurity to protect our wildlife and livestock and boost the resilience of plants and trees.

What is the condition of the natural environment?

Figure 18: Number of additional tree pests and diseases becoming established in England, 2000-2009 to 2012-2021



Source: Forestry Commission (reported as H2 indicator in the Outcome Indicator Framework).

The number of additional tree pests and diseases becoming established in England within a rolling 10-year period fell from a peak of 7 in 2000 to 2009 to a low of 3 in 2007 to 2016. In total, 11 tree pests and diseases became established in England in the 21 years from 2000 to 2021.

Figure 19: Summary of assessment results – Enhancing biosecurity indicator components

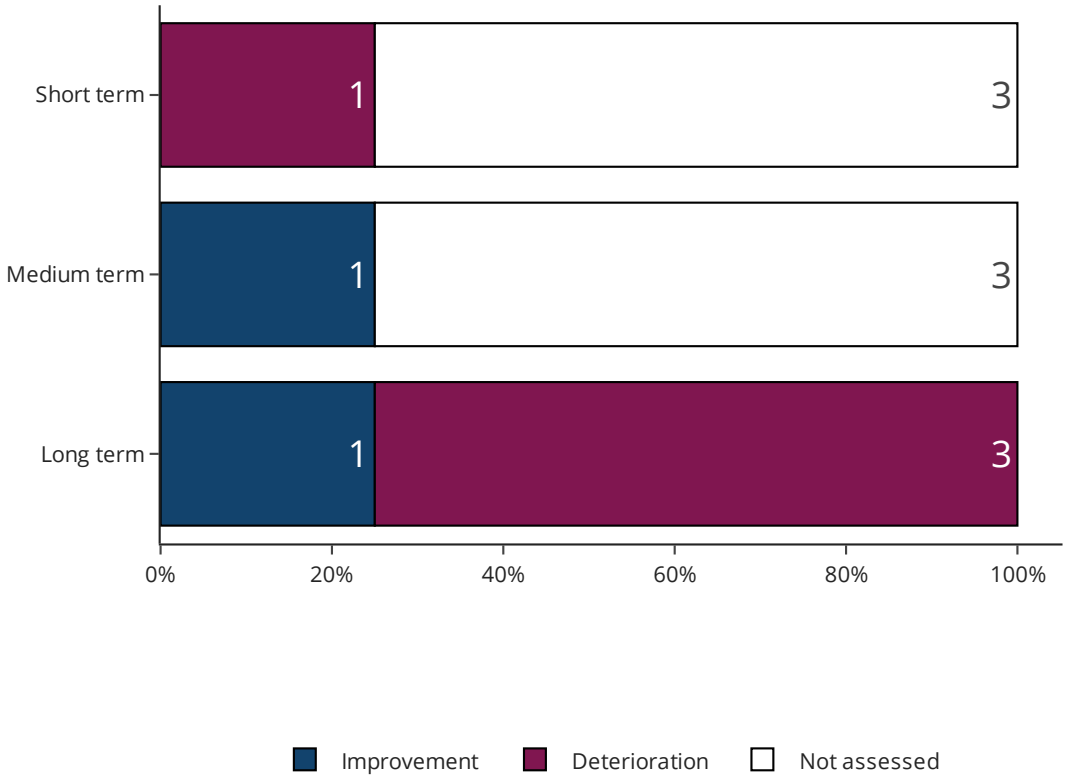


Figure 19 shows the proportion of indicator components for which 'Enhancing biosecurity' is the primary goal that have been assigned to each assessment category, with the exact number of indicator components shown as a label on the bars.

Indicator H1 (Abatement of the number of invasive non-native species entering and establishing against a baseline) reports one cumulative data point for each 10-year period included within the indicator, so it is only possible to assess long-term trends as there are insufficient data points to establish trends over shorter time periods. H1 showed a deterioration for freshwater, marine and terrestrial ecosystems over the long term. H2 (Distribution of invasive non-native species and plant pests and diseases) showed an improvement over the medium and long-term assessment periods, moving to a deterioration over the short term.

For further information, including information on indicators not assessed, refer to the Outcome Indicator Framework.

What actions are being taken towards achieving our ambitions?

The government published the draft The Border Target Operating Model to deliver a suite of new digital improvements and digital systems which will strengthen our biosecurity at the border and improve efficiencies across border processes. We are also exploring an Authorised Operator Status for plant and plant products imports, enabling traders to manage their own risks.

Together with the Forestry Commission, Defra has worked with the UK Squirrel Accord to support the development and publication of the industry-led England Red Squirrel Action Plan in January 2023.

Defra unveiled a new action plan to protect Great Britain's biodiversity, ecosystems and economy from the growing risks posed by invasive non-native species, in partnership with the Scottish and Welsh Governments. The Invasive Non-Native Species Strategy sets out a new framework for tackling the existing and growing threat posed non-native species with a commitment to reduce establishments of non-native species by at least 50% compared to 2000 levels.

We published a new Plant Biosecurity Strategy for Great Britain. This is a five-year strategy, that sets out a new vision for plant health through a series of joint commitments, building upon the work achieved under the previous 2014 strategy. The strategy has been developed in partnership with industry, landowners, non-government organisations, the scientific community, and devolved administrations.

Defra announced a new Public Engagement in Plant Health Accord at the RHS Chelsea Flower Show. Signed by over 30 organisations, the Accord signals our joint commitment to work together on plant health awareness raising and encouraging positive biosecurity behaviours.

Defra announced a new Biosecure Procurement Pilot for suppliers to government tree planting grants. Since June 2022, applicants to the England Woodland Creation Offer and Tree Health Pilot Restocking grants must source saplings from approved suppliers who are either accredited under the Plant Healthy Certification Scheme or have passed a Ready to Plant assessment, as provided by Fera Science Ltd, for their order. From July 2023, the requirement has been extended to applicants for the Local Authority Treescapes Fund, the Urban Tree Challenge Fund, and the HS2 Woodland Fund.

Defra co-hosted, with the Secretariat of the International Plant Protection Convention, the first International Plant Health Conference. It aimed to address new and emerging plant health challenges, including climate change impacts, the risks associated with significant increase in international trade, the rapid loss of biological diversity and new pest pathways such as e-commerce by exploring more efficient national, regional, and global policies, structures, and mechanisms.

We updated the Tree Health Pilot grant scheme, to improve the support available to farmers and land managers dealing with tree pest and disease issues. This innovative pilot, running between 2021 and 2024, provides grants, guidance and advice to reduce the impacts of tree pests and diseases and build the resilience of England's trees, woodlands and forests.

Defra has taken robust action against outbreaks of tree pests and diseases, including Oak Processionary Moth, *Phytophthora pluvalis* and continued incursions (blow over) of *Ips typographus* from mainland Europe to south-east England.

We have strengthened protection against new and revised plant health threats, through regulating new pests and enhancing import requirements against key threats, such as the emerald ash borer, through the UK Plant Health Risk Group. Regulation of threats to plant health are kept under review and revised in light of information on new and changing threats to Great Britain's biosecurity which have been identified as a result horizon scanning and risk assessments.

Defra announced a new package of measures to support the poultry industry with bird flu.

We started the second stage of the Tuberculosis cattle vaccine field trials in February 2023. This is the first time that cattle in the UK have been vaccinated against tuberculosis and forms part of the process to apply to the Veterinary Medicines Directorate for marketing authorisation of the vaccine and companion test. We expect that vaccinating cattle against bTB will be a valuable addition to the toolbox but will not replace existing control measures.

We have made it more straightforward for farmers and other landholders to get involved in badger vaccination projects, with the launch of a simplified Defra issued licence and smartphone reporting app, alongside support to reduce the cost of the badger vaccine. Defra has also awarded funding for a five-year badger vaccination programme in East Sussex. The project, which is now in its third year, will help provide a template for other large-scale badger vaccination approaches in the future.

Defra published our Mitigation strategy for avian influenza in wild birds in England and Wales. This document sets out the policies and approach Defra and Welsh Government, and their delivery agencies the Animal and Plant Health Agency (APHA), Natural England and Natural Resources Wales (NRW) take to avian influenza in wild birds in England, within the remit of national law.

We launched the Annual Health and Welfare Review and Animal Health and Welfare grants, the first two steps on the Animal Health and Welfare Pathway a programme co-designed with farmers and vets to be delivered by farmers and vets in England. Pathway benefits include reducing greenhouse gas emissions from livestock through tackling diseases.

Defra and the Forestry Commission opened a state-of-the-art quarantine laboratory conducting innovative research into tree pests and diseases. The £5.8 million Forest Research Holt Laboratory, located within the Alice Holt Forest in Surrey, undertakes leading research on pests and pathogens which could be detrimental or seriously damaging to our forests.

Defra, Forest Research and Royal Botanic Gardens Kew launched the new Centre for Forest Protection, a collaborative research network funded by Defra and led jointly by Forest Research and Royal Botanic Gardens Kew with a mission to protect forests, woodlands and trees from environmental and socioeconomic threats now and in the future. This delivers on a key commitment outlined in the England Trees Action Plan.

Global leadership

What are our long-term ambitions?

Protecting and improving our global environment by providing international leadership and leading by example; helping developing nations protect and improve the environment; and leaving a lighter footprint on the global environment.

What actions are being taken towards achieving our ambitions?

The government published the 2030 Strategic Framework for International Climate and Nature Action which builds on the Integrated Review (IR) Refresh, setting the direction for the UK's integrated approach to international action on nature and climate to 2030. The framework sets out an ambitious vision for 2030, to:

- keep 1.5°C alive by halving global emissions
- build resilience to current and future climate impacts
- halt and reverse biodiversity loss

It outlines what part the UK will play in addressing 6 global challenges to meet this vision, deploying the full range of levers at our disposal and playing to the UK's particular strengths and expertise.

Convention on Biological Diversity COP15

At UN Nature Summit COP15, through the Kunming-Montreal Global Biodiversity Framework (GBF), we agreed alongside the other parties to 4 global goals and 23 global targets. This includes a global commitment to halt and reverse biodiversity loss by 2030, to protect at least 30% of the land and of the ocean (known as the 30by30 target) and to ending human-induced extinctions of known threatened species by the same date.

The UK also pledged nearly £30 million to support developing countries in delivering the '30by30' target, which is aiming to protect least 30% of the world's land and ocean habitats by 2030.

The UK successfully raised ambition on the finance targets for the GBF, and together with Ecuador, Gabon, and the Maldives launched the political vision: The 10 Point Plan for financing biodiversity, growing this to a coalition of over 40 countries. The plan provides a clear roadmap defining the role of all sources of finance needed to deliver the GBF.

The international donor community agreed to commit billions of dollars to support the protection and restoration of the natural world. The Joint donor statement on international finance for biodiversity and nature (JDS) showcases the important steps that are being taken to both increase financial flows and mainstream nature into our international public finance and lists billions of dollars in forward-looking commitments from 11 donors, which represents a significant down payment towards the finance targets in the Kunming-Montreal GBF.

The Environment Secretary also led calls for more ambitious and meaningful outcomes for ocean protection and confirmed the UK will renew its role as Chair of the Global Ocean Alliance beyond COP15. The UK also reiterated its commitment to the High Ambition Coalition for Nature and People, working in tandem with the Global Ocean Alliance to support implementation of the 30by30 target.

At COP15, the UK announced £5.79 million funding for over 20 new projects under Darwin Plus, a grant scheme for biodiversity and conservation projects in the UK Overseas Territories. We confirmed the opening of our new Darwin Plus Local scheme in January 2023, which will fund smaller environmental projects to build capacity and grow local economies in the UK Overseas Territories.

The UK announced a major new package of climate support at COP27. New announcements included £65.5 million for green technology innovation and significant clean energy investments with Kenya and Egypt; a new Forests and Climate Leaders' Partnership and more than £150 million for protecting rainforests and natural habitats, including the Congo Basin and Amazon.

At COP27, the government pledged to raise awareness of the incredible importance of mangroves and their role in coastal resilience by endorsing the Mangrove Breakthrough led by the UN Framework Convention on Climate Change High-Level Champions and the Global Mangrove Alliance.

At the G7 Environment Ministers Meeting in June 2022, the UK successfully ensured G7 commitments to increase actions to halt and reverse biodiversity loss, achieve the "30by30 target", reverse forest loss and address plastic pollution. The G7 agreed to substantially increase national and international funding for nature by 2025, ensure economic and financial decision-making supports biodiversity objectives, and ensure international development assistance does no harm to nature by 2025. In May 2022, at the G7 Agriculture Ministers Meeting, the G7 committed to work towards sustainable and resilient food systems, including the greater use of policies to promote sustainable production and deliver nature positive outcomes.

At the G20 Environment Ministers Meeting, held in September 2022, G20 ministers committed to strengthen action to halt and reverse biodiversity loss by 2030, highlighting the urgent need to align financial flows with environmental objectives and scale up sustainable finance to protect ecosystems, committed to reducing and reversing forest loss and land degradation by 2030, and committed to end plastic pollution.

The 36th France – United Kingdom Summit took place in Paris. France and the UK committed to boosting climate and nature action through the G7, G20 and multilateral environment agreements.

Both sides committed to work collaboratively to protect the ocean, and to promote ambitious action towards the UN Conference on Ocean in 2025, ongoing negotiations on a legally binding treaty on plastic pollution, and in relation to marine biological diversity of areas beyond national jurisdiction. Further, the UK and France committed to further joint

action to mobilise Nature Finance and drive alignment with the Global Biodiversity Framework, committing to its full and effective implementation while also committing to support developing countries in its implementation. France and the UK also committed to working with partners to halt and reverse deforestation by 2030, and so deliver the outcomes from the Glasgow Leaders' Declaration on Forests and Land Use, the One Forest Summit, and the Forest and Climate Leaders' Partnership (FCLP). Finally, we agreed to reinforce our dialogue on global health issues, in order to jointly promote and foster sustainable prevention, preparedness and response to pandemics, addressing antimicrobial resistance, and integrating the "One Health approach" through relevant initiatives, such as the One Health Joint Plan of Action, and Preventing Zoonotic Disease Emergence.

Defra published the Summary of responses and government response to our consultation on implementing due diligence on forest risk commodities. Most respondents reiterated the need for the government to act swiftly to help tackle illegal deforestation in UK supply chains. As a result, we have committed to implement due diligence requirements set out in the Environment Act 2021 to tackle illegal deforestation in our supply chains.

The UK championed high ambition at the negotiations for a new treaty on plastic pollution, so this treaty can deliver the international action needed to end plastic pollution by 2040..

The government published its International Development Strategy (IDS). One of the strategy's four priorities is to take forward our work on climate change, nature, and global health, putting the commitments of our COP26 and G7 Presidencies at the core of our international development offer. The IDS highlights the Prime Minister's commitment to double UK International Climate Finance to at least £11.6 billion between 2021-26, including at least £3 billion for development solutions that protect and restore nature.

We continued to provide support to developing countries to deliver on global nature commitments through our Official Development Assistance programmes which included:

- Defra committed a further £6 million (overall commitment £9 million) to provide capacity building support to developing countries to increase commitments to nature and nature-based solutions under the Paris Agreement, through the UN Development Programme Climate Promise.
- The UK established a £7.2 million Nature Positive Economy Programme, which is being delivered in partnership with the UN Development Programme's BioFin Initiative and FSD Africa.
- The UK launched the first call for proposals for the new Global Centre on Biodiversity for Climate to support research and development that can generate evidence and unlock new approaches to addressing biodiversity and climate challenges simultaneously.
- The UK is implementing a range of programmes to protect and restore ecosystems including the Biodiverse Landscapes Fund and Blue Planet Fund and launched and funded new programmes to address the decline in species and wildlife through the Darwin and Illegal Wildlife Trade Challenge Funds.

The government joined other world leaders at the UN Ocean Conference to announce new initiatives to protect the global marine environment, marking a significant step forward in our mission to protect at least 30% of the global ocean by 2030.

The UK, along with the US and Canada, launched the Illegal, Unreported and Unregulated Fishing Action Alliance (IUU-AA) at the 2022 United Nations Ocean Conference. The IUU-AA brings together a collection of states and non-state actors committed to tackle IUU fishing by supporting the IUU-AA Pledge.

The UK renewed support through its ambitious £500 million Blue Planet Fund to protect and restore important marine habitats such as mangroves, coral reefs and seagrasses that play a key role in the fight against climate change. This includes an additional £24 million to the Global Fund for Coral Reefs, and the UK becoming the first donor to the Blue Carbon Action Partnership, committing £4 million to support countries unlock and mobilise finance to protect and restore blue carbon ecosystems. The Environment Secretary has also announced £45 million to the new 'Blue Tech Superhighway' project.

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