Methodological Statement

Progress in improving the natural environment in England 2024/2025

The Office for Environmental Protection is a non-departmental public body, created in November 2021 under the Environment Act 2021. Our mission is to protect and improve the environment by holding government and other public authorities to account. Our work covers England and Northern Ireland. We also cover reserved matters across the UK.

www.theoep.org.uk/what-we-do

Contents

I. Setting the scene

Chapter 1: Introduction

1.1. Purpose of this document

In line with our commitment to transparency and the three pillars of the UK Statistics Authority Code of Practice for Statistics[1] – trustworthiness, quality and value – we have developed this third edition of our Methodological Statement to accompany our report 'Progress in Improving the Natural Environment in England 2024/2025' (2024/2025 progress report).

This Methodological Statement provides further detail of our assessment approach, including the data sources we have used, our analytical methods and the stakeholder engagement we have undertaken. We also identify limitations and areas for development, and set out any changes in our assessment methodologies. The structure of this Methodological Statement follows that of the main progress report.

1.2. Our assessment process

Governance

The OEP's role in monitoring, assessing and reporting on government's progress is set out in Section 28 of the Environment Act 2021 (EA21).[2] The EIP assessment process takes a wide perspective. This enables annual progress reporting, and connects a range of activities within the OEP, such as monitoring progress, development of the evidence base, capacity building and stakeholder engagement.

Our EIP progress reports and Methodological Statements are developed in accordance with the OEP's Strategy and Enforcement Policy[3] and Governance Framework,[4] reporting on which is undertaken annually in the OEP's Annual Report and Accounts.[6]

Oversight and strategic input are provided by the OEP's Executive Committee (ExCo) and the Board. On an annual basis, ExCo and the Board approve the scope of the EIP progress report, review the draft report, and oversee the development of key messages and communication activities. The Board approves the final report.

Each year, an implementation plan is developed for the EIP progress report. Regular updates are provided to ExCo and the Board in line with the OEP's governance framework, and individual Board members may act as critical friends during the development of the assessment.

Assessment development

Our assessments are based on available knowledge, evidence and analysis. We take an integrated approach to provide an assessment within and across environmental domains, across geographic scales, and over past, present and future timescales.

Our integrated assessment approach aims to be credible, relevant and legitimate. To ensure it is credible, we use reliable and technically adequate methods and approaches, and have formal procedures for quality assurance. To ensure it is relevant, we assess progress towards government's own ambitions, targets and commitments, and analyse issues

related to the challenges faced by government and stakeholders in improving the natural environment. To ensure it is legitimate, we are transparent with respect to our evidence base, methodologies and stakeholder interactions.

We develop our assessment in an iterative way. We start with a scoping process that sets out the structure and initial content of the assessment. Content is developed through a combination of individual analyses and interactive team working sessions that address key topics and cross-cutting aspects, such as summary assessments and development of recommendations. Weekly team working sessions ensure effective project management and co-ordination.

Risk management is undertaken in accordance with the OEP framework, which defines the approach to identify, manage and report on risk, and is based on HM Treasury's *Orange Book: Management of Risk – Principles and Concepts*.[5,6]

Issues, actions and changes made during the EIP assessment process are recorded at project and process levels in a 'risks, assumptions, issues and dependencies' log. This has developed our previous approach to change control by integrating our existing logs to provide a single source of information and audit trail for decisions and approvals.

Roles and responsibilities

The Head of Assessments oversees the planning and development of the EIP progress assessment. They report to the Chief Insights Officer/Chief Scientist, who is accountable to ExCo and the Board.

Team roles and responsibilities focus on process and content development. Process-focused roles include quality assurance and peer review, graphics, stakeholder engagement, development of the Methodological Statement and our statement of compliance with the UK Statistics Authority Code of Practice for Statistics.[7]

Content-focused roles include development of different aspects of the assessment approach, and authorship of the related report text. Assessment strands include the methodological approach to past trends, progress and prospects assessments, and summary assessments (see Chapter 2).

Each chapter of the EIP progress report has a lead author and, in the majority of cases, other contributors. The Head of Assessments acts as the co-ordinating lead author and has responsibility for integration of analyses and ensuring overall coherence of the assessment.

The development of the EIP progress assessment is supported by a multi-disciplinary team, with representatives from across OEP directorates, to ensure that the assessment process draws on and informs activities across the organisation.

Stakeholder engagement

Stakeholder engagement and review are essential to producing a high-quality assessment and ensuring our analysis and findings are credible, relevant and legitimate.

For our 2024/2025 progress report, we engaged with experts across EIP23 goal areas to develop our assessment – particularly in areas that are less rich in publicly available evidence and delivery plans – as well as through a multi-stage peer review process.

We engaged with key stakeholders from a range of sectors, including central government, Defra arm's-length bodies and wider public bodies, as well as non-governmental organisations (NGOs), industry and academia.

Organisations engaged with for our 2024/2025 progress report are listed in Table 1.1. This list is not exhaustive. It focuses on those stakeholders with whom we engaged directly, and so does not include wider engagement – for example, respondents to calls for evidence or project-level workshop attendees.

Table 1.1. Organisations engaged during development of our 2024/2025 progress report

Organisations engaged
Biomathematics and Statistics Scotland
CL:AIRE
Climate Change Committee
Department for Transport
Department for Environment, Food and Rural Affairs
Eftec
Environment Agency
Environmental Standards Scotland
Eunomia Research and Consulting
Forestry Commission
Great Britain Non-native Species Secretariat
Green Alliance
Joint Air Quality Unit
Joint Nature Conservation Committee
National Contaminated Land Officers Group (Institution of Environmental Science)
National Infrastructure and Service Transformation Authority
Natural England
OEP College of Experts (and wider subject-matter academic experts)
Office for Product Safety and Standards
Royal Society of Chemistry
UK Centre for Ecology & Hydrology
Wildlife and Countryside Link
Wildlife Trusts

Quality assurance

We undertake a rigorous quality assurance procedure, consistent with our application of the UK Statistics Authority Code of Practice for Statistics, to ensure the data and evidence we use and publish are trustworthy, of high quality and provide value to the public.

The quality assurance process consists of a range of activities. These include checks of the accuracy of the data and calculations underpinning our assessment of indicator trends, and the accurate use and referencing of wider evidence throughout the assessment.

A series of workshops are also undertaken to ensure that the analytical methodologies used to assess past trends, progress within the reporting year, and prospects are applied consistently. A review is also undertaken by our General Counsel team to ensure accuracy of legal content.

Quality assurance is integrated into our commitment to continuous improvement, and we welcome feedback after publication of our EIP progress reports to identify areas of improvement for future iterations. We can be contacted via our website.[8]

Peer review

Most of the data and evidence underpinning our EIP progress reports have previously been peer-reviewed and/or quality-assured. For example, almost all the data underpinning the indicators we use to assess past trends are based on official or national statistics (see Chapter 3 and Annex).

However, in addition to our internal quality assurance process and engagements with Board and ExCo, we also undertake an extensive three-part peer review process. This includes an internal peer and legal review by OEP experts and General Counsel, who were independent of the authorship team. Draft progress report chapters are then also sent for external peer review, typically with two independent reviewers per chapter (Table 1.2).

This process is particularly important for areas where publicly available evidence is lacking, and use of a greater degree of expert judgement was necessary to assign assessment ratings.

The overall aim of peer review was to ensure that the narrative, analysis, findings and recommendations were comprehensive, objective and transparent. The following questions guided the reviews:

1. Evidence

    a. Is there any key evidence that has not been considered?

    b. Has any evidence been misinterpreted, or over-interpreted?

2. Progress/prospects

    a. Are there any key actions or issues that have not been considered?

    b. Is the overall structure logical?

    c. Are assessment ratings consistent with the narrative?

3. Opportunities/recommendations

    a. Do the opportunities and recommendations target the most important areas?

4. Overall

    a. Does each chapter's findings cover the most important issues?

    b. Is there a logical thread to the assessment that is well evidenced and explained, and that substantiates conclusions and recommendations?

Table 1.2. The OEP would like to thank the following external peer reviewers for their contribution to our 2024/2025 progress report (College of Experts members are identified with 'CoE')

External peer reviewer
Professor Jo Barnes, UWE Bristol
James Marsden, CoE
Dr Nic Bury, CoE
Scott Butler, CoE
Alan Potter, CoE
Professor Jim Harris, CoE
Dr Emanuela Orlando, CoE
Anita Metelko, National Contaminated Land Officers Group
Ian Tubby, Forestry Commission
Professor Andrew J Jordan, CoE
Dr Richard G R Mitchener, CoE
Dr Niall Moore, Great Britain Non-native Species Secretariat
Natalya Kharadi, CoE
Julia Thrift, Town and Country Planning Association
David Tyrer, CoE
Stephanie Metzger, Royal Society of Chemistry
Natalie Sims, Royal Society of Chemistry
Kathryn Brown, Wildlife Trusts
Kim Dowsett, Climate Change Committee
Ruth Gregg, Climate Change Committee
Miriam Kennedy, Climate Change Committee
Rob Gazzard, Forestry Commission

1.3. Our assessment framework

Our overall approach consists of four main components: past trends, progress over the reporting period, overall prospects of meeting ambitions, targets and commitments, and identification of opportunities for improvement. We provide an integrated assessment of each EIP23 goal.[9]

Figure 1.1 The Office for Environmental Protection's integrated assessment approach

Our assessment of past trends mainly reflects developments over the five most recent years of data. Our assessment of progress focuses on the annual reporting period. Our assessment of prospects looks ahead along the timeframes of government's ambitions, targets and commitments.

We use summary assessments throughout the report to present analyses in a concise and accessible way. In Part II of the 2024/2025 progress report ('Progress and prospects'), we assign assessment ratings to past trends, progress over the reporting year, and prospects of meeting ambitions, targets and commitments for each EIP goal area. We then consider how progress could be improved, and provide recommendations on how this could be achieved. We also assess the cross-cutting themes of nature-friendly farming, green finance and green choices. EIP23 cross-cutting themes are intended to tie together delivery across EIP23 goal areas. Further detail on our assessment methodologies is provided in Chapter 2.

In Part III of the 2024/2025 progress report ('A focus on improving nature'), we follow up on one of last year's key recommendations on reconciling competing demands on land and sea, with a focus on land use policy coherence.

In Part IV of our 2024/2025 progress report ('Taking stock'), we bring together the goal-level summary assessments to provide an overall picture of trends, progress and prospects across EA21 targets and EIP23 goals, drawing out common themes. We also assess progress in relation to the recommendations we made in our previous progress reports.

Overall, our assessment aims to support decision-making, so we are transparent about the quality of evidence, assumptions and uncertainties, and include this in our summary assessments.

Development of our assessment approach this year

The approach to our 2024/2025 progress report is consistent with last year, but has developed further, in line with our commitment to continuous improvement and voluntary application of the UK Statistics Authority Code of Practice for Statistics.

We made no changes this year to our approaches to assessing progress over the reporting period, or prospects of meeting targets and commitments. For the past trends methodology, each year we review the set of environmental indicators to ensure they accurately represent the current policy landscape. We made no changes this year to the assessed indicators (see Chapter 3 and Annex). However, we have supplemented our approach with a measure of statistical significance.

The 3% threshold we apply to our past trends assessment is intuitive, easy to apply and communicate, and is used widely across government as a proxy of significant change in environmental indicators.[10–13] However, this methodology is vulnerable to data variability when used in isolation, and the relative importance of a 3% change is not constant across all indicators.

This year, we applied a one-sided t-test to provide a measure of statistical significance of change over time. The t-test determines whether the most recent year of data can be robustly distinguished from variability in the preceding five data points (the 'baseline period'). A threshold of 0.05 (95%) was applied to the resulting p-value, whereby less than 0.05 is deemed a statistically significant change. Indicators that did not meet the criteria required for the t-test (such as having less than six data points, or insufficient variability) were omitted and classed as 'not assessed'.

The outputs of the t-test do not influence the past trends assessment ratings, which largely still define deterioration or improvement based on the 3% threshold (any variation from this approach, for example, for the species abundance index, is specified in the Annex). Instead, the outputs descriptively supplement the past trends narrative for each goal area.

The t-test provides a more bespoke measure of change. Therefore, the combination of these approaches supports a more robust and transparent assessment. Detailed results are set out in the indicator reference tables (Annex), where we present the effect size (expressed as percentage changes) alongside the p values, allowing both the OEP and report users to more confidently assess whether changes are meaningful (that is, sizeable and statistically distinguishable).

Further detail on the t-test methodology can be found in the report commissioned from Biomathematics and Statistics Scotland ('Developing statistical methodologies for analysing change and trends in environmental indicators') which will be published on the OEP website.[14]

1.4. The overall evidence base

In developing our assessment, we consider government's Annual Progress Report (APR), and data published by the Secretary of State that relate to that reporting period.[15]

Government's APR must report on implementation of the EIP, describe what has been done, and consider whether the environment has improved. It must also consider progress towards targets. In our view, the APR 2025 provides a limited overview of actions and plans and does not assess how actions have contributed to progress.

Our scrutiny of progress continues to be hampered by the lack of detailed information made available by government. Across many EA21 targets and interim targets and EIP23 targets and commitments, this lack of detailed information about delivery constrains our ability to assess the current and future effects of policy measures and actions.

To ensure we can assess progress, we must look beyond the APR 2025, where we consider appropriate, with evidence-gathering from wider sources, such as targeted information requests to central government and arm's-length bodies to address data and information gaps. Further details on the evidence base used in the analyses are provided in Chapter 3.

1.5. Code of Practice for Statistics

We have continued to develop our application of the UK Statistics Authority's Code of Practice for Statistics ('the Code') and have updated our voluntary statement of compliance (or 'TQV Statement').[1]

The Code sets out the standards to which the organisations that produce official statistics should commit, but can also be applied by any organisation that publishes data, evidence and statistics.

While we do not produce official statistics, we use and analyse those produced by others. We have applied the Code to improve transparency and ensure that users of the report have confidence in its robustness. This is due to our consideration and application of the three pillars of the Code, which are:

- Trustworthiness – confidence in the people and organisations that produce statistics and data

- Quality – data and methods that produce assured statistics

- Value – statistics that support society's needs for information

Our statement of compliance with the Code is published alongside this Methodological Statement and demonstrates how we have adhered to the pillars and principles of the Code in our work. It is a process of continuous improvement, so we will regularly review and update our statement of compliance.

II. Progress and prospects

Chapter 2: Assessment methodologies

This chapter outlines how we assessed past trends, progress in the annual reporting period, and the overall prospects of meeting EIP23 ambitions, targets and commitments.

2.1. Assessment of past trends

Background

As part of our first statutory progress report (2021/2022), we identified headline indicators that enabled assessment of progress against the 25 Year Environment Plan (25YEP).[17,18] The selection criteria are set out in our Methodological Statement for our 2022/2023 progress report.[19]

As part of the preparatory work for each progress report, we conduct an internal review to ensure the data underpinning the indicators we use are the most appropriate available. The indicators used for this assessment are set out by EIP23 goal area in Chapter 3. Government's APR 2025 sets out indicators for specific Environment Act 2021 targets. Some of these indicators were already used for our EIP progress report. However, not all have been selected for the past trends assessment – for example, because they are output-focused rather than outcome- focused, or do not have enough data to present a time series.

We have further developed our approach to our indicator reference tables detailed in the Annex. In addition to presenting methodologies for our own indicators, or where there has been a deviation from similar Defra Outcome Indicator Framework (OIF) indicators, we now also detail those indicators where no adjustments have been made. We do not include an Annex indicator reference table for the indicator 'Soil Health' as it remains the only unpopulated indicator in the OIF.

Trend assessment

To summarise and communicate change in indicator trends and whether change is for better or worse, we use a combined symbol of red-amber-green (RAG) and directional arrows (Table 2.1). The arrows indicate the direction of change and so, improvement can be indicated by either a downward arrow (for example, a decrease in the emission of air pollutants) or an upward arrow (for example, increased tree cover). Where we have not made an assessment due to the lack of a time series, we use a grey circle with a line through. Where data are not available, we use a grey circle with a cross.

For our 2024/2025 progress report, we have assessed 59 trends across 55 indicators. Typically, we assess one trend per indicator. However, for the emissions of five key air pollutants indicator, we present five trends, one for each pollutant. We did not make a trend assessment for eight indicators, either due to a lack of sufficient data to present a time series, or a lack of appropriate data sources, which are identified in our 2024/2025 progress report.

Indicator trends are aggregated to provide a goal level past trends summary assessment. Goals are rated as 'Improving trends dominate', 'Trends show a mixed picture' or 'Deteriorating trends dominate'. The aggregated ratings are assigned using expert judgment in an iterative process, which considers the relative importance of each indicator for the given goal area.

We have continued to assess individual indicator trends by calculating the percentage difference between the first and last year of the given time period. Most indicators are assessed across the latest five years of available data. We apply a threshold of 3% to the change between the first and last data point to determine improvement or deterioration, as is widely used across government, and for assessments in the OIF and England/UK Biodiversity Indicators.[13,20–22] For the species abundance indicator, we follow the same credible interval methodology developed for the UK Biodiversity Indicators to assess the significance of change.[23]

After testing our approach with stakeholders, we decided not to apply data-smoothing approaches, such as Loess smoothing, to trend analyses. We compared the calculated trends based on smoothed and raw data for a subset of indicators and the differences were often minimal when calculating short-term trends. For some datasets we use, the data have already been smoothed during processing, such as for the species abundance index.[24]

Smoothing methodologies also sometimes require the removal of the most recent year of modelled data due to higher uncertainties, driven by the lack of future data that can be used in the given smoothing window. This omission can exacerbate issues with time lags between data collection and publication. We note that a methodological adjustment has now been made to the OIF assessment process to include the latest data point, supporting closer alignment between Defra and OEP analyses.[15]

The 3% threshold we apply to our past trends assessment is intuitive, easy to apply and to communicate. However, it is vulnerable to data variability when used in isolation, and the relative importance of a 3% change is not constant across all indicators. To enable the OEP and report users to have more confidence that annual changes in past trend indicators are meaningful (that is, sizeable and statistically distinguishable), this year we applied a measure of statistical significance, which was used to descriptively support the past trends assessment for each goal. This is described in further detail in Section 1.3.

Our past trends narratives are further supported by contextual indicators, which are used to provide further context to support the assessment. Contextual indicators are not subject to indicator ratings and may vary across progress reports. However, they are subject to our peer review and quality assurance processes.

Table 2.1. Indicator trend assessment categories

Icon	Assessment of change	Trend direction	Rating
(green ↑)	Improvement	Increasing	Positive developments more prevalent
(green ↓)	Improvement	Decreasing	Negative developments less prevalent
(yellow →)	Little or no change	No change	No change for better or worse
(red ↑)	Deterioration	Increasing	Negative developments more prevalent
(red ↓)	Deterioration	Decreasing	Positive developments less prevalent
(grey —)	Not assessed	Single data point, or time series too short to adequately assess progress	Only the current state can be evaluated
(grey ✕)	Not assessed	No appropriate data to assess progress	Represents a major data gap

2.2. Assessment of progress towards ambitions, targets and commitments

We applied the same methodology to assess reporting year progress in our 2024/2025 progress report as for the 2023/2024 progress report.

We assess progress in the reporting period at two levels: firstly, towards individual targets and commitments, including those set under the Act, and then at the EIP23 goal level. This fulfils our statutory obligations under Section 28 of the Environment Act 2021 to monitor progress towards meeting EA21 targets and interim targets and in improving the natural environment in accordance with the current EIP.

Selection of targets and commitments

The targets we assessed in our 2024/2025 progress report are drawn from the targets and commitments sections across the EIP23 goals, and key outputs that are identified in EIP23 as necessary to achieve overall goals.[9] They include the legally binding EA21 long-term targets, and wider targets considered in government's Significant Improvement Test.[25]

Specific underpinning legislation for each target we assess is listed in Chapter 3. Where appropriate, we have simplified the target descriptions to make them more accessible, rather than presenting the source legislation wording.

For our 2024/2025 progress report, we retained the 43 targets and commitments considered in our 2023/2024 progress report. The prospects of meeting the target 'to bring at least 40% of England's agricultural soil into sustainable management by 2028, and increase this to 60% by 2030', could not be assessed due to the lack of an agreed definition of sustainable soil management and the lack of a published OIF indicator for healthy soils.[26]

Rationale for the assessment approach

The interaction between government activities and the state of the natural environment is complex. As such, it can be challenging to describe and analyse objectively. Any attempt to do so requires the use of clear definitions, pragmatic choices about scope, and appropriate methodologies.

As we are required to monitor progress towards meeting EA21 targets and interim targets and with the EIP23, we organise our assessment around the 10 goal areas of the EIP23, their targets and commitments (which include EA21 targets), and its cross-cutting themes. While this helps structure our approach and findings, it also raises challenges for the analysis because so much policy activity cuts across multiple areas.

Accordingly, we adopt a flexible approach to setting boundaries around which policies to consider in our assessment for each target and commitment, and each EIP23 goal area. This is based on two key assumptions. First, there is no definitive list set out by government of the relevant policies for each target, commitment or EIP23 goal area. Second, the policies themselves are often changing (in relevance and in practice), so any definitive list would be quickly out of date.

While the above assumptions introduce a degree of subjectivity to our approach, they also provide the opportunity for analysis that can provide an independent perspective and insights. We believe this is the best way for us to fulfil our duty to monitor progress, and our strategic aim to sustain environmental improvement.

Definitions

To assess the progress regarding government's activities in delivering actions, we developed a working definition of what good progress would look like:

> Government's current and planned actions to deliver a target or commitment are comprehensive (they cover the most important issues), credible (their development and delivery are effective) and coherent (they work together).

This definition is necessarily broad and is therefore applicable to any area of the environment or cross-cutting theme, and able to consider any type of government activity, such as policy, research and communications. It allows us to comment on the adequacy of activities in sum and on specifics of the activities themselves, that is, their design and delivery.

In addition to this fundamental definition of good progress, we use categories and operational definitions for identifying and organising the various government activities that were the subject of our analysis. These categories are based on government's own definitions and guidance for policy-makers, such as HM Treasury's *Green Book: Central Government Guidance on Appraisal and Evaluation* and *Magenta Book: Central*

Government Guidance on Evaluation.[27,28] Table 2.2 shows the definitions we developed and adapted to our assessment context, as well as their position in the policy-making process.

This enables us to be consistent with our terminology over reporting periods, and when comparing across EIP23 goals. It also enables us to be transparent about how we categorised and interpreted the wide range of activities described by government in the APR 2025 and elsewhere.

Table 2.2. Activity types and their definitions, grouped into three stages of the policy process (based on the ROAMEF cycle)[27]

Activity	Definition	ROAMEF Policy stage
Design	Any steps taken towards or announcements about a policy's mission and vision, strategic objectives, rationale, options appraisal, quantification, scope and key features	*Development:* Explaining the **rationale**, setting **objectives**, and **appraisal** of options
Research	Commissioning, undertaking or publishing research and consultations to gather evidence to understand the problems and solutions. Any piloting or testing of ideas	
Target	Statements of intent that quantify the desired level of performance, based on measurable indicators	
Funding	Statements about the amount or types of funding being made available	
Delivery	Steps taken to implement policies and projects, including money being made available or spent, and projects undertaken or supported	*Delivery:* **Monitoring** during implementation
Collaboration	Forums and mechanisms that bring stakeholders together to achieve shared objectives	
Monitoring	Gathering information about delivery progress and the environmental context	
Evaluation	Research and analysis to assess the design, implementation and outcomes of policies	*Learning:* **Evaluation** of delivery and **feedback** of learning
Learning	Any activity that uses feedback, or creates opportunities for its use, to improve policy	

Understanding what each activity means for progress towards specific outcomes and long-term targets requires knowledge of the intended delivery pathways. As government's delivery pathways for most targets and commitments are currently not available, we used our own knowledge of the environmental and policy systems involved.

To keep our interpretation aligned with government's own broad approach to tracking progress, we drew on the 25YEP evidence annex definitions and descriptions of linking policy performance measures to outcomes (Table 2.3). We also used our EIP23 review and analysis of policy area strategy documents to identify key actions across EIP23 goal areas.

Table 2.3. 25 Year Environment Plan evidence annex definitions of performance measures and indicators, with examples from government's Annual Progress Report 2020/2021[29]

Term	Definition	Example from APR 2020/2021
Performance measure	A metric relating to policy interventions and can be quantitative (for example, number of trees planted) or more process-based (for example, new scheme introduced, legislation enacted, and so on)	We also delivered over 275 projects that will contribute towards creating and restoring 20,000 hectares of priority habitats by 2030
Indicators	A particular type of metric which shows a statistical trend over time	OIF Indicator D1: Quantity, quality and connectivity of habitats

Evidence sources

Our analysis focused on the 12-month reporting period of April 2024 to March 2025. This is because we must provide our assessment of progress over the period covered by the APR 2025. However, we also considered additional information beyond the reporting period. This longer timeframe is important for contextualising progress within the reporting year, particularly for long-term actions that have multiple phases of development and delivery.

Our evidence sources included the APR 2025, data published by the Secretary of State relating to the reporting period and the EIP23, and the various links and references contained therein. In addition, we looked at policy announcements, policy papers, ministerial statements, action plans, blogs, commissioned research, and monitoring and evaluation reports. This enabled us to consider a larger number and range of actions that were not included in the APR 2025. These additional sources were selected for their value in helping us address our analytical questions.

For some areas, we have identified key actions for achievement of targets and commitments through calls for evidence undertaken for this and previous reports, discussions with stakeholders, and the EIP23 actions analysis described in Chapter 6 of our 2023/2024 Methodological Statement, which was used to assess progress towards individual targets where possible.[24]

The key policies and other government actions, and the underlying evidence sources that we considered in our assessment, are discussed and referenced in our 2024/2025 progress report.

Analysis

We developed a set of guiding questions to ensure consistency in our approach to analysing progress across targets, commitments and EIP23 goal areas and over reporting periods, and to provide transparency about how we made our assessments.

The analytical questions were:

1. Are government's actions addressing the most important issues? (*comprehensive*)

   a. To what extent are the actions addressing the important issues?

   b. Are there any gaps in the environmental policy system for this goal?

2. Are government's actions being developed and delivered effectively? (*credible*)

   a. How well is the environmental policy system functioning?

   b. Are the actions producing significant and timely outcomes?

3. Do government's actions work well together? (*coherent*)

   a. How well is the mix of actions within each goal described and justified?

   b. Are synergies and trade-offs being managed?

Answering these questions required gathering, sorting and interpreting the content of various evidence sources referenced throughout our 2024/2025 progress report. We used several templates and tools for standardising our analysis.

We extracted key information from the EIP23 and other government strategies to create summaries for each goal area. These showed the links between targets and commitments and indicators, actions to improve understanding and actions to effect change, drivers and pressures acting on a goal area, enablers of change, as well as identifying delivery partners and stakeholders.

These templates and tools enabled us to have a consistent approach to summarising information, to check the methodology had been applied consistently across all goals, and to contextualise our analysis within the broader policy and environmental context.

Following the guiding questions above, we developed a narrative assessment of progress in each goal area. The summary narratives were developed iteratively, drawing on stakeholder and expert engagement as well as formal internal and external reviews.

Ratings and conclusions

Having finalised our narrative assessment of progress for individual targets and across the breadth of government action for each EIP23 goal area, we converted our findings into a red-amber-green (RAG) rating for our summary assessment, based on expert judgement (Table 2.4). This is a simplification of the underlying analysis, but a useful step to ensure transparency and accessibility. The summary assessments were developed and refined in an iterative process to ensure consistency across assessments of individual targets and commitments and EIP23 goal areas.

Table 2.4. Descriptions of RAG ratings of progress in the reporting period

Assessment rating		Descriptions
Good		Important issues are all being addressed.
		Development, delivery and learning are progressing.
		Actions are working well together.
Mixed		Most but not all of the important issues are being addressed.
		Development, delivery and learning is mixed.
		Some actions work well together whereas others do not.
Limited		Some of the important issues are not being addressed.
		Development, delivery and learning are not progressing.
		Many actions do not work well together.
Not assessed		No assessment of progress has been possible because of a lack of available evidence.

2.3. Assessment of prospects of meeting ambitions, targets and commitments

The third component of our assessment framework looks forward and assesses the prospects of meeting individual targets and commitments, and the overall goal level prospects for each EIP23 goal area. We provide a narrative assessment of prospects and then convert our findings into a summary assessment. We use a red-amber-green (RAG) rating where green is defined as largely on track, amber is partially on track and red is largely off track (Table 2.5).

Our assessment of prospects is largely based on expert judgement, in combination with stakeholder input during its development, and wide-ranging available evidence, including past trends, policy evaluation, and forward-looking evidence such as quantified projections and qualitative assessments on the drivers of change where available.

2.4. Goal-level summary assessment

We developed summary assessments at the goal level to enable integration of our analyses and clear and concise presentation of our findings. The goal-level summary assessment tables summarise our assessments of past trends, progress over the reporting period, prospects of meeting targets and commitments, and the robustness of the evidence base (Table 2.5). Our approach has adapted the European Environment Agency (EEA) approach to assessing the state and outlook of the European environment.

Table 2.5. Goal-level summary assessment methodology (adapted from EEA[30])

Component	Assessment approach	Assessment rating	
Past trends	Assessment of trends is based on available indicators and other data as observed	Green	Improving trends dominate
		Amber	Trends show a mixed picture
		Red	Deteriorating trends dominate
		Grey	Not assessed
Progress in the annual reporting period	Assessment of progress is based on government's APR, data published by the Secretary of State that relate to the reporting period and any other reports, documents or information we consider appropriate. It is informed by progress towards individual targets and analysis of whether actions are comprehensive (they cover the most important issues), convincing (their development and delivery are high-quality) and coherent (they work well together)	Green	Good progress
		Amber	Mixed progress
		Red	Limited progress
		Grey	Not assessed
Overall prospects of meeting ambitions, targets and commitments	Assessment of the prospects of meeting selected targets (including EA21 targets and interim targets) and commitments is based on government's APR, data published by the Secretary of State that relate to the reporting period, distance to target assessments, target detailed evidence reports and impact assessments, other assessments and information, including calls for evidence, policy evaluation and expert judgement	Green	Largely on track
		Amber	Partially on track
		Red	Largely off track
		Grey	Not assessed
Robustness	Assessment of the robustness of the evidence base, identifying key gaps and uncertainties and indicating the degree of expert judgement used		

Chapter 3: Assessment of Environmental Improvement Plan 2023 goal areas

3.1. Introduction

This chapter presents further details of our analysis. The selection of indicators assessed in each EIP23 goal area is presented.

We outline in the 'Status' column in the environmental trends sections whether an indicator is existing, amended (a change to the source data or methodology), new or moved within the framework relative to previous progress reports.

Data sources are provided for all indicators where available, and indicator reference tables with more detailed metadata are provided in the Annex. In line with our commitment to continuous improvement, we now provide reference tables for all our indicators except for 'Soil Health', which remains the only unpopulated indicator in the OIF (see Chapter 2).

We also note where we have used United Kingdom or Great Britain indicators in the absence of appropriate data for England (Table 3.1). The rationale for this is described in the EIP23 goal area sections and in the indicator reference tables (Annex).

Table 3.1. United Kingdom or Great Britain level indicators used in our 2024/2025 progress report

Goal area	Indicator
Thriving plants and wildlife	Threat of extinction to UK species
	Extent of UK area protected for nature on land and water
	Extent of UK area protected for nature at sea
	Achievement of marine good environmental status
Clean air	UK emissions of five key air pollutants
Managing exposure to chemicals and pesticides	Total bank of in-use polychlorinated biphenyls (PCBs) remaining in the UK
	UK Pesticides Load Indicator
Maximise our resources, minimise our waste	Percentage of sampled fulmars having more than 0.1g of plastic in their stomach, Greater North Sea (marine good environmental status, descriptor 'marine litter')
Using resources from nature sustainably	Global environmental impacts of UK consumption of key commodities
	Fish stocks that are sustainably harvested (marine good environmental status, descriptor 'commercial fish')
Mitigating and adapting to climate change	UK GHG emissions
Enhancing biosecurity	Number of INNS becoming established

We present the selection of targets and commitments assessed within each EIP23 goal. Most are referred to in the EIP23. However, we provide further detail on the origin of the targets and how the selection has developed since our 2021/2022 progress report.

The policies and actions considered in our assessment of individual targets and commitments and at EIP23 goal level are discussed and referenced in our 2024/2025 progress report.

3.2. Thriving plants and wildlife (Chapter 2)

Key environmental trends

The indicators used to assess the Thriving plants and wildlife goal are outlined below (Table 3.2).

For the 'Relative abundance of species in England' indicator, we have utilised the approach of the England Biodiversity Indicators (EBI) dataset instead of the 3% threshold applied to all other indicators.[12] The formal assessment of change is made on the basis of credible intervals for the time period (2018-2023); if the indicator value for the first year falls outside of the credible intervals for the final year then the indicator is deemed to have changed over that time period.[23]

One indicator, 'Threat of extinction to UK species', is assessed at UK level, as at the time of publication, OIF indicator D5 ('Conservation status of our native species') had only one datapoint (2022 baseline). We have used the same UK-level data as our 2021/2022 progress report as a proxy for England, as previous work has shown that approximately 80% of Great Britain Red List taxa occur in England, which is a major component of the UK index.[31,32] We will update the source of this indicator when the Red List Index for England dataset allows for a trend assessment.

Table 3.2. Selected indicators – Thriving plants and wildlife

Indicator	Status	Source	Assessment
Achievement of marine good environmental status	Existing (Annex, Table A.2)	Cefas[35]	N/A
Extent of UK area protected for nature on land and water	Existing (Annex, Table A.3)	UK Biodiversity Indicators (UKBI)[36]	Trend: 0.0% T-test (p value): N/A (2019–2024)
Extent of UK area protected for nature at sea	Existing (Annex, Table A.3)	UK Biodiversity Indicators (UKBI)[36]	Trend: +55.0% T-test (p value): N/A (2019–2024)
Relative abundance of species in England	Existing (Annex, Table A.4)	OIF, EBI[23,37]	Option 1 Trend: +1.8% T-test (p value): N/A (2018–2023) Option 2 Trend: +2.5% T-test (p value): N/A (2018–2023)

Table 3.2. Selected indicators – Thriving plants and wildlife (cont.)

Indicator	Status	Source	Assessment
Area under agri-environment schemes	Existing ([Annex, Table A.5](#))	Defra[38]	Trend: +96.5% T-test (p value): 0.00 (2019–2024)
Threat of extinction to UK species	Existing ([Annex, Table A.6](#))	UN Sustainable Development Goals (SDG)[32]	Trend: +0.0% T-test (p value): N/A (2018–2023)
Extent of land cover more likely to support nature-friendly habitat	Existing ([Annex, Table A.7](#))	UKCEH[14]	Trend: +6.4% T-test (p value): N/A (2019–2024)
Area of woodland in England	Existing ([Annex, Table A.8](#))	OIF, Forest Research[39,40]	Trend: +1.9% T-test (p value): 0.01 (2020–2025)
Condition of Marine Protected Areas	Existing ([Annex, Table A.9](#))	Defra[41]	N/A

Progress towards ambitions, targets and commitments

Table 3.3. Selected targets and commitments – Thriving plants and wildlife

Target or commitment	Source
By the end of 2030, we will halt the decline in species abundance (2030 species abundance target)	Environmental Targets (Biodiversity) (England) 2023
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 (long-term target to reverse the decline of species abundance)	
By the end of 2042, we will reduce the risk of species' extinction when compared to 2022 (long-term species extinction risk target)	
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 levels before 30 January 2023 (long-term wildlife-rich habitat restoration or creation target)	
By the end of 2050, at least 16.5% of all land in England is covered by woodland and trees outside woodland (2050 target for woodland and trees outside woodland)	Environmental Targets (Woodland and Trees Outside Woodland) (England) Regulations 2023
Ensure that not less than 70% of protected features in relevant marine protected areas (MPAs) are in favourable condition by the end of 2042, with the remainder in recovering condition (target for the condition of protected features in relevant MPAs)	Environmental Targets (Marine Protected Areas) Regulations 2023

Table 3.3. Selected targets and commitments – Thriving plants and wildlife (cont.)

Target or commitment	Source
Restore 75% of protected sites to favourable condition by 2042	Environmental Improvement Plan 2023 commitment
65–80% of landowners and farmers adopting nature-friendly farming on at least 10–15% of their land by 2030	
Take the necessary measures to achieve or maintain good environmental status of marine waters within the marine strategy area (deadline passed on 31 December 2020)	Marine Strategy Regulations 2010
Ensure that by 2030, at least 30% of areas of degraded terrestrial, inland water, and marine and coastal ecosystems are under effective restoration	Convention on Biological Diversity commitment (UN Nature Summit COP15)
Ensure and enable that by 2030 at least 30% of terrestrial and inland water areas, and of marine and coastal areas, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures	

3.3. Clean air (Chapter 3)

Key environmental trends

For the incidents of exceedance indicator against the Air Quality Standards Regulations 2010 standards, where there have been no exceedances over the trend period, the assessment has been marked 'N/A' as standards are being met.

Table 3.4. Selected indicators – Clean air

Notes: NOx: nitrogen oxides; NO_2: nitrogen dioxide; SO_2: sulphur dioxide; NMVOC: non-methane volatile organic compounds; $PM_{2.5}$: fine particulate matter (<2.5 μm in diameter); PM_{10}: coarse particulate matter (>10 μm in diameter); NH_3: ammonia; B[a]P: Benzo(a)pyrene.

Indicator	Status	Source	Assessment
UK emissions of five key air pollutants	Existing (Annex, Table A.10)	Defra[42]	NOx Trend: −28.3% T-test (p value): 0.04 (2018–2023)
			SO_2 Trend: −37.7% T-test (p value): 0.08 (2018–2023)
			NMVOCs Trend: −14.8% T-test (p value): 0.03 (2018–2023)
			$PM_{2.5}$ Trend: −20.0% T-test (p value): 0.02 (2018–2023)
			NH_3 Trend: −3.4% T-test (p value): 0.22 (2018–2023)
Percentage of monitoring stations above 10 μg/m³ annual mean $PM_{2.5}$ concentration	Existing (Annex, Table A.11)	Defra[43]	Trend: −97% T-test (p value): 0.18 (2019–2024)

Table 3.4. Selected indicators – Clean air (cont.)

Indicator	Status	Source	Assessment
Incidents of exceedances against Air Quality Standards Regulations 2010 in England	Existing ([Annex, Table A.12](#))	Defra[44]	Overall Trend (total exceedances count): −41.5% T-test (p value): 0.02 (2019–2024)
			NO_2 −80.0% (25 to 5/31 exceeding zones)
			PM_{10} (N/A)
			$PM_{2.5}$ (N/A)
			Ozone −16.2% (37 to 31 exceedances)
			Arsenic (N/A)
			Cadmium (N/A)
			Nickel 0% (2/31 exceeding zones)
			B[a]P (1 to 0/31 exceeding zones)
			SO_2 (N/A)
			Carbon monoxide (N/A)
			Benzene (N/A)
			Lead (N/A)
$PM_{2.5}$ population exposure indicator	Existing ([Annex, Table A.13](#))	UK AIR[45]	Trend: −24.6% T-test (p value): 0.04 (2019–2024)
Exceedance of damaging levels of nutrient nitrogen deposition in England	Existing ([Annex, Table A.14](#))	OIF[46]	Trend: −0.6% (3-year moving average) T-test (p value): N/A (2015–2017 to 2020–2022)

Progress towards ambitions, targets and commitments

Table 3.5. Selected targets and commitments – Clean air

Target or commitment	Source
By the end of December 2040, the annual mean level of $PM_{2.5}$ in ambient air must be equal to or less than 10 μg/m³ (annual mean concentration target for $PM_{2.5}$)	Environmental Targets (Fine Particulate Matter) (England) Regulations 2023
At least a 35% reduction in population exposure to $PM_{2.5}$ by the end of 31 December 2040 compared to the 2016 to 2018 baseline period (population exposure reduction target for $PM_{2.5}$)	
National Emission Ceilings Regulations emission reduction commitments	National Emission Ceilings Regulations 2018
Air Quality Standards Regulations limits, targets and long-term objectives	Air Quality Standards Regulations 2010
Reduce damaging deposition of reactive forms of nitrogen by 17% over England's protected priority sensitive habitats by 2030	Clean Air Strategy 2019

3.4. Clean and plentiful water (Chapter 4)

Key environmental trends

For our 2024/2025 progress report, we have retained the two new indicators added for our 2023/2024 progress report: 'Soil nutrient balance' and 'Non-household water demand'. See the Annex for further information.

Table 3.6. Selected indicators – Clean and plentiful water

Indicator	Status	Source	Assessment
Pollution incidents to water (Environment Agency, Category 1 to 3)	Existing (Annex, Table A.15)	EA[47-49]	Trend: +32.5% T-test (p value): 0.08 (2019–2024)
State of the water environment (Water Framework Directive good ecological status)	Existing (Annex, Table A.16)	OIF, RBMPs[50,51]	Trend: −2.7% T-test (p value): N/A (2015–2019)
Condition of bathing waters	Existing (Annex, Table A.17)	OIF[52]	Trend: −6.2% T-test (p value): 0.00 (2019–2024)

Table 3.6. Selected indicators – Clean and plentiful water (cont.)

Indicator	Status	Source	Assessment
Loads discharged to rivers from water company sewage treatment works (of three key pollutants)	Existing (Annex, Table A.18)	OIF, EA[53,54]	Biological oxygen demand Trend: +4.2% T-test (p value): N/A (2020–2024)
			Phosphorus Trend: −17.6% T-test (p value): N/A (2020–2024)
			Ammonia Trend: +0.7% T-test (p value): N/A (2020–2024)
			Mean (composite) Trend: −3.3% T-test (p value): N/A (2020–2024)
Per capita potable water consumption in England	Existing (Annex, Table A.19)	OIF[55]	Trend: -4.7% T-test (p value): 0.03 (2018–2019 to 2023–2024)
Water company security of supply performance	Existing (Annex, Table A.20)	EA[47]	Trend: +0.3% T-test (p value): N/A (2021–2024)
Water leakage in England (from water company potable water supply)	Existing (Annex, Table A.21)	OIF[55]	Trend: −9.4% T-test (p value): 0.03 (2018–2019 to 2023–2024)
Non-household water demand	Existing (Annex, Table A.22)	EA	Trend: −4.4% T-test (p value): 0.55 (2018–2019 to 2023–2024)
Soil nutrient balance	Existing (Annex, Table A.23)	Defra[56]	Trend: +17.3% T-test (p value): 0.84 (2019–2024)

Progress towards ambitions, targets and commitments

Table 3.7. Selected targets and commitments – Clean and plentiful water

Target or commitment	Source
Reduce nitrogen (N), phosphorus (P) and sediment pollution from agriculture into the water environment by at least 40% by 2038, compared to a 2018 baseline (agriculture water target)	Environmental Targets (Water) (England) Regulations 2023
Reduce phosphorus loadings from treated wastewater by 80% by 2038 against a 2020 baseline (wastewater target)	
Halve the length of rivers polluted by harmful metals from abandoned mines by 2038, against a baseline of around 1,500km (abandoned metal mines water target)	
Reduce potable water demand in England per head of population by 20% from the 2019 to 2020 baseline reporting figures, by 31 March 2038 (water demand target)	
Each body of surface water to achieve or maintain good ecological status or potential by 2021 or the revised objective date of 2027 for 77% of surface waters	Water Environment (Water Framework Directive) (England and Wales) Regulations 2017
(By 2050) water companies will only be permitted to discharge from a sewer overflow where they can demonstrate that there is no local adverse ecological impact	Storm Overflows Discharge Reduction Plan
Ensure that, by the end of the bathing season in 2015, all bathing waters are classified at least as 'sufficient'	Bathing Water Regulations 2013

3.5. Managing exposure to chemicals and pesticides (Chapter 5)

Key environmental trends

For our 2024/2025 progress report we have retained two new indicators added for our 2023/2024 progress report: 'Exposure and adverse effects of chemicals on wildlife in the environment,' and 'UK Pesticides Load Indicator'.

We have changed the indicator 'Total bank of in-use polychlorinated biphenyls (PCBs) remaining in the UK' used in our 2023/2024 progress report, and now present the 'Stockpile of 3 persistent organic pollutants remaining in the UK' to provide a more granular assessment, as this indicator includes two additional Persistent Organic Pollutants (POPs) and Polychlorinated Biphenyls (PCBs).

Table 3.8. Selected indicators – Managing exposure to chemicals and pesticides

Indicator	Status	Source	Assessment
Stockpile of 3 persistent organic pollutants remaining in the UK	Amended ([Annex, Table A.24](#))	OIF[57]	PCB Trend: −50.1% T-test (p value): 0.01 (2018–2023)
			Decabromodiphenyl Ether Trend: −38.2% T-test (p value): 0.02 (2018–2023)
			Hexabromocyclododecane Trend: −7.5% T-test (p value): 0.01 (2018–2023)
Emissions of persistent organic pollutants	Existing ([Annex, Table A.25](#))	OIF[58]	Dioxin-like PCB Trend: −35.3% T-test (p value): 0.02 (2017–2022)
			Dioxins and furans Trend: −2.2% T-test (p value): 0.63 (2017–2022)
			Hexachlorobenzene Trend: 0.0% T-test (p value): 0.31 (2017–2022)
			PCB Trend: −32.2% T-test (p value): 0.03 (2017–2022)
			Polychlorinated Napthalenes Trend: +1.2% T-test (p value): 0.22 (2017–2022)
			Pentachlorophenol Trend: −32.0% T-test (p value): 0.02 (2017–2022)
			Pentachlorobenzene Trend: −8.4% T-test (p value): 0.01 (2017–2022)
			Mean (composite) Trend: −12.0% T-test (p value): 0.04 (2017–2022)

Table 3.8. Selected indicators – Managing exposure to chemicals and pesticides (cont.)

Indicator	Status	Source	Assessment
Emissions of mercury to air, land and water	Existing (Annex, Table A.26)	OIF[58]	Trend: −10.2% T-test (p value): 0.42 (2017–2022)
UK Pesticides Load Indicator	Existing (Annex, Table A.27)	Defra[59]	N/A
Exposure and adverse effects of chemicals on wildlife in the environment	Existing (Annex, Table A.28)	OIF[60]	N/A

Progress towards ambitions, targets and commitments

Table 3.9. Selected targets and commitments – Managing exposure to chemicals and pesticides

Target or commitment	Source
Substantially increase the amount of persistent organic pollutants (POPs) material being destroyed or irreversibly transformed by 2030, to make sure there are negligible emissions to the environment	EIP23 commitment
Seek to eliminate the use of polychlorinated biphenyls (PCBs) by 2025	EIP23 commitment
Reduce land-based emissions of mercury to air and water by 50% by 2030	EIP23 commitment
Reduce the overall risk posed by pesticides and highly hazardous chemicals by at least half in line with Kunming-Montreal Global Biodiversity Framework Target 7	EIP23 commitment (Global Biodiversity Framework Target 7)
Each body of surface water (other than an artificial or heavily modified water body) to achieve or maintain good surface water chemical status 2063 (extended from 2021)	Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

3.6. Maximise our resources, minimise our waste (Chapter 6)

Key environmental trends

For our 2024/2025 progress report, we have retained the 'Hazardous waste disposal' indicator, which we moved from the Managing exposure from chemicals and pesticides goal assessment for our 2023/2024 progress report.

Table 3.10. Selected indicators – Maximise our resources, minimise our waste

Indicator	Status	Source	Assessment
Residual waste	Existing (Annex, Table A.29)	OIF[61]	Trend: −2.9% T-test (p value): N/A (2019–2023)
Number of fly-tipping incidents	Existing (Annex, Table A.30)	OIF[62]	Trend: +20.4% T-test (p value): 0.04 (2018–2019 to 2023–2024)
Percentage of sampled fulmars having more than 0.1 g of plastic in their stomach, Greater North Sea (marine good environmental status, descriptor 'marine litter')	Existing (Annex, Table A.31)	OIF, WUR[63,64]	Trend: −22.9% T-test (p value): 0.00 (2014–18 to 2019–23)
Resource productivity	Existing (Annex, Table A.32)	OIF[65]	Trend: −16.4% T-test (p value): 0.03 (2016–2021)
Number of illegal waste sites	Existing (Annex, Table A.33)	OIF[62]	Total active sites Trend: −49.8% T-test (p value): 0.03 (2018-2019 to 2023-2024) Active high-risk sites Trend: −35.7% T-test (p value): 0.04 (2018-2019 to 2023-2024)
Amount of raw material consumed	Existing (Annex, Table A.34)	OIF, Defra, ONS[65–67]	Trend: +17.8% T-test (p value): 0.00 (2017–2022)
Hazardous waste disposal	Existing (Annex, Table A.35)	EA[68]	Trend: +18.3% T-test (p value): 0.00 (2019–2024)

Progress towards ambitions, targets and commitments

Table 3.11. Selected targets and commitments – Maximise our resources, minimise our waste

Target or commitment	Source
By the end of 31 December 2042, the total mass of residual waste for the calendar year 2042 does not exceed 287kg per head of population in England (the residual waste long-term target)	Environmental Targets (Residual Waste) (England) Regulations 2023
Eliminate avoidable waste by 2050 and double resource productivity by 2050 (25YEP)	EIP23 commitment
Seek to eliminate waste crime and illegal waste sites by 2042, prioritising those of highest risk	EIP23 commitment

3.7. Using resources from nature sustainably (Chapter 7)

Key environmental trends

For our 2024/2025 progress report we have retained the 'Global environmental impacts of UK consumption of key commodities' indicator added for our 2023/2024 progress report.

We do not present an indicator reference table for the indicator 'Soil health' as this remains the only unpopulated indicator in the OIF (see Chapter 2).

Table 3.12. Selected indicators – Using resources from nature sustainably

Indicator	Status	Source	Trend assessment
Fish stocks that are sustainably harvested (marine good environmental status, descriptor 'commercial fish')	Existing (Annex, Table A.36)	OIF, EBI[69,70]	Trend: +18.5% T-test (p value): 0.01 (2015–2020)
Soil health	Existing	OIF[26]	N/A
Percentage of woodland that is sustainably managed	Existing (Annex, Table A.37)	Forestry Commission[13]	Trend: −3.4% T-test (p value): 0.03 (2020–2025)
Global environmental impacts of UK consumption of key commodities	Existing (Annex, Table A.38)	OIF[71]	Trend: −21.6% T-test (p value): 0.00 (2017–2022)

Progress towards ambitions, targets and commitments

Table 3.13. Selected targets and commitments – Using resources from nature sustainably

Target or commitment	Source
Halt and reverse forest loss and land degradation globally by 2030	EIP23 commitment
All fish stocks are recovered to and maintained at levels that can produce their maximum sustainable yield	
Bring at least 40% of England's agricultural soil into sustainable management by 2028 and increase this to 60% by 2030	
Take the necessary measures to achieve or maintain good environmental status of marine waters within the marine strategy area (deadline passed on 31 December 2020) – specifically the 'commercial fish' descriptor overall target (that populations of all commercially exploited fish and shellfish are within safe biological limits)	Marine Strategy Regulations 2010 and Marine Strategy

3.8. Mitigating and adapting to climate change (Chapter 8)

Key environmental trends

For our 2024/2025 progress report we have made no changes to the indicators for this goal.

Table 3.14. Selected indicators – Mitigating and adapting to climate change

Indicator	Status	Source	Assessment
UK GHG emissions	Existing (Annex, Table A.39)	Department for Energy Security and Net Zero[72]	Trend: −15.7% T-test (p value): 0.06 (2019–2024)
Consumption-based GHG (Greenhouse Gas) missions in England	Existing (Annex, Table A.40)	OIF, Defra[73,74]	Trend: −1.1% T-test (p value): 0.82 (2017–2022)
Emissions of fluorinated gases	Existing (Annex, Table A.41)	OIF[75]	Trend: −31.4% T-test (p value): 0.02 (2017–2022)

Trends – climate adaptation

Compared with climate mitigation, climate adaptation is difficult to measure directly. Outcomes are generally poorly defined, and assessments of progress typically rely on proxy measures that are often not solely climate-driven.

Government's third National Adaptation Programme (NAP3) includes a suite of risk-reduction goals that address each of the 61 climate risks and opportunities identified in the

third Climate Change Risk Assessment (CCRA).[76,77] The indicators across all EIP23 goal areas were mapped to the NAP3 risk reduction goals and CCRA climate risks for our 2022/2023 progress report, which have been refreshed each year as part of our annual indicator review.

Our indicators were collated primarily to assess progress towards EIP23 targets and commitments, rather than to assess climate adaptation. Therefore, in a climate adaptation context, the indicators provide proxy measures at best, based on assumptions such as that increased species abundance and improved habitat condition provide enhanced resilience to climate change.

This indicator selection does not represent a comprehensive suite of climate adaptation indicators for the natural environment. Instead it was used to identify areas where adaptation may be important for delivery of EIP23 goals, and therefore areas where we could use existing analysis to suggest whether EIP-relevant climate risks are being managed (Table 3.15).

Of the 21 indicators we assessed, nine were assessed as improving; three were a mixed picture, five were deteriorating trends, and four could not be assessed. For seven indicators there have been no new data releases or updates since our assessment last year, so the rating remains the same.

Table 3.15. Mapping our progress report indicators to the NAP3 risk reduction goals

CCRA3 risk/opportunity	NAP3 risk reduction goal	Relevant EIP progress report indicator
I7 – Risks to subterranean and surface infrastructure from subsidence	I7 – Water companies will address leakage and drought to reduce the risk that subsidence poses to their operations	Water leakage in England (from water company potable water supply)
I8 – Risks to public water supplies from reduced water availability	I8 – Water companies will use supply and demand management measures to mitigate risks from reduced water availability	Water company security of supply performance
N1 – Risks to terrestrial species and habitats from changing climatic conditions and extreme events, including temperature change, water scarcity, wildfire, flooding, wind, and altered hydrology (including water scarcity, flooding and saline intrusion)	N1 – Halt the decline in species abundance by 2030 and protect 30% of land in England in a way that recognises and responds to climate change risks by 2030	Relative abundance of species in England
		Condition of Sites of Special Scientific Interest (that are in favourable or unfavourable recovering condition)
		Extent of UK area protected for nature on land and water
		Extent of UK area protected for nature at sea
		Number of wildfire incidents

Table 3.15. Mapping our progress report indicators to the NAP3 risk reduction goals (cont.)

CCRA3 risk/opportunity	NAP3 risk reduction goal	Relevant EIP progress report indicator
N2 – Risks to terrestrial species and habitats from pests, pathogens and invasive non-native species	N2 – Reduce the number of new establishments of all invasive non-native species (INNS) in Great Britain by at least 50% by 2030 (compared to 2000 levels) and reduce further impacts of INNS that are already established under a changing climate	Number of INNS becoming established
N4 – Risk to soils from changing climatic conditions, including seasonal aridity and wetness	N4 – Protect and improve soil health so that soil maintains its multiple functions and is more resilient to impacts from climate change	Soil health
N5 – Risks to natural carbon stores and sequestration (blue carbon) from changing climatic conditions, including temperature change and water scarcity	N5 – Increase the extent and improve the condition of blue carbon habitats so they are more resilient to climate change and improve our understanding of climatic risks	Achievement of marine good environmental status
		Condition of Marine Protected Areas
N5 – Forestry – Risks to natural carbon stores and sequestration from changing climatic conditions	N5 – Forestry – Create and maintain healthy, functioning woodlands, which will increase the resilience of these carbon stores	Percentage of woodland that is sustainably managed
N6 – Risks to and opportunities for forestry productivity from extreme events and changing climatic conditions	N6 – Maintain average forestry productivity (as a minimum) at current levels to 2080, to ensure that England has healthy and productive woodlands which are resilient to extreme events and have high levels of diversity	Percentage of woodland that is sustainably managed
N8 – Risks to forestry from pests, pathogens, and INNS	N8 – Minimise the risk of increased impacts on forestry from pests, pathogens and INNS in a changing	Number of INNS becoming established
		Number of additional tree pests and diseases becoming established

Table 3.15. Mapping our progress report indicators to the NAP3 risk reduction goals (cont.)

CCRA3 risk/opportunity	NAP3 risk reduction goal	Relevant EIP progress report indicator
N9 – Opportunities for forestry productivity from new/alternative species becoming suitable	N9 – Plant a wider range of species, including emerging forestry species, so that timber productivity is maintained or enhanced, relative to a 2023 baseline	Percentage of woodland that is sustainably managed
N11 and N13 – Risks and opportunities to freshwater species and habitats from changing climatic conditions and extreme events, including higher water temperatures, flooding, water scarcity and phenological shifts	N11 – Achieve good ecological status at 75% of water bodies by 2027 and restore 75% of protected sites to favourable condition by 2042 in a way that recognises and responds to climate change risks	Condition of Sites of Special Scientific Interest (that are in favourable or unfavourable recovering condition)
		State of the water environment (WFD Regulations good ecological status)
N14 – Risks to marine species, habitats and fisheries from changing climatic conditions, including ocean acidification and higher water temperatures	N14 – Adaptively manage marine habitats and fisheries, enabling them to support strong, biodiverse communities and increasing their resilience to climate change	Achievement of marine good environmental status
		Condition of Marine Protected Areas
		Fish stocks that are sustainably harvested (marine good environmental status, descriptor 'commercial fish')
N15 – Opportunities to marine species, habitats and fisheries from changing climatic conditions	N15 – Where appropriate, maximise opportunities for new species moving into UK waters by achieving good habitat condition and an adaptive fishing and seafood sector	Achievement of marine good environmental status
		Condition of Marine Protected Areas
		Fish stocks that are sustainably harvested (marine good environmental status, descriptor 'commercial fish')
N16 – Risks to marine species and habitats from pests, pathogens and INNS	N16 – Reduce the number of new establishments of all INNS in Great Britain by at least 50% by 2030 (compared to 2000)	Number of INNS becoming established
N17 – Risks and opportunities to coastal species and habitats due to coastal flooding, erosion and climate factors	N17 – Improve the condition, extent and connectivity of coastal habitats	Condition of Sites of Special Scientific Interest
		Extent of UK area protected for nature on land and water

Table 3.15. Mapping our progress report indicators to the NAP3 risk reduction goals (cont.)

CCRA3 risk/opportunity	NAP3 risk reduction goal	Relevant EIP progress report indicator
N18 – Risks and opportunities from climate change to landscape character	N18 – Increase understanding of and address the change in landscape character due to climate change	Changes in landscape and waterscape character
H3 – Risks to people, communities and buildings from flooding	H3 – Improve the nation's resilience to future flood and coastal erosion risks	Properties at high risk of flooding
		Percentage of flood or coastal risk management assets in required condition
H4 – Risks to the viability of coastal communities from sea-level rise	H4 – Improve the nation's resilience to future flood and coastal erosion risks, thereby reducing the risk of harm to people, the environment and the economy	Properties at high risk of flooding
		Percentage of flood or coastal risk management assets in required condition
H7 – Risks to health and wellbeing from changes in air quality	H7 – Maximise air quality benefits from delivering the Net Zero Strategy and adapting to climate change. Minimise unintended air pollution impacts by meeting air pollution emission and concentration targets, and clearly identifying climate change interventions that impact air quality	UK emissions of five key air pollutants
		Percentage of monitoring stations above 10 µg/m^3 annual mean PM$_{2.5}$ concentration
		Incidents of exceedances against Air Quality Standards Regulations in England
		PM$_{2.5}$ Population Exposure Indicator
H11 – Risks to cultural heritage	H11 – Minimise the impact of climate change on cultural heritage and maximise the opportunities that heritage presents to help society mitigate and adapt to a changing climate	Changes in landscape and waterscape character

Progress towards ambitions, targets and commitments

Table 3.16. Selected targets and commitments – Mitigating and adapting to climate change

Target or commitment	Source
Net zero emissions by 2050, including Carbon Budgets 4, 5 and 6, and the UK's 2030 and 2035 NDC	Climate Change Act 2008 and Paris Agreement
Reducing HFC consumption by 85% between 2019 and 2036 (Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer)	EIP23 commitment (Montreal Protocol on Substances that Deplete the Ozone Layer)

3.9. Reduced risk of harm from environmental hazards (Chapter 9)

Key environmental trends

For our 2024/2025 progress report, we retained the 'Percentage of flood or coastal risk management assets' indicator added for our 2023/2024 progress report.

Table 3.17. Selected indicators – Reduced risk of harm from environmental hazards

Indicator	Status	Source	Assessment
Properties at high risk of flooding	Existing (Annex, Table A.42)	EA[78]	N/A
Number of wildfire incidents	Existing (Annex, Table A.43)	Forestry Commission[79,80]	Trend: +30.9% T-test (p value): 0.48 (2015–2016 to 2020–2021)
Percentage of flood or coastal risk management assets, in high-consequence systems, in required condition in England	Existing (Annex, Table A.44)	OIF[81,82]	Trend: −3.4% T-test (p value): 0.22 (2019–2020 to 2024–2025)

Progress towards ambitions, targets and commitments

Table 3.18. Selected targets and commitments – Reduced risk of harm from environmental hazards

Target or commitment	Source
Better protect 100,000 properties from flooding and coastal erosion by 2024, and 336,000 by 2027	APR 2021/2022
Maintain at least 94% of major flood and coastal erosion risk management assets fit for their designed purpose, through to March 2025. Our long-term aim is for this to reach 98%	EIP23 commitment
Double the number of government-funded projects to reduce flooding and coastal erosion through nature-based solutions to 260 projects by 2027	EIP23 commitment

3.10. Enhancing biosecurity (Chapter 10)

For our 2024/2025 progress report we have made no changes to the indicators for this goal.

Key environmental trends

Table 3.19. Selected indicators – Enhancing biosecurity

Indicator	Status	Source	Trend assessment
Number of INNS becoming established	Existing (Annex, Table A.45)	OIF, EBI[83,84]	Trend (total): +217.6% T-test (p value): 0.02 (1969–2023)
Number of additional tree pests and diseases becoming established	Existing (Annex, Table A.46)	OIF, Forestry Commission[13,85]	Trend: 0.0% T-test (p value): 0.18 (2010–2019 to 2015–2024)

Progress towards ambitions, targets and commitments

Table 3.20. Selected targets and commitments – Enhancing biosecurity

Target or commitment	Source
Reduce the number of introductions and establishments of INNS by at least 50% in 2030	EIP23 commitment and Convention on Biological Diversity commitment (UN Nature Summit COP15)

3.11. Enhancing beauty, heritage and engagement with the natural environment (Chapter 11)

Key environmental trends

For our 2024/2025 progress report we have made no changes to the indicators for this goal.

Table 3.21. Selected indicators – Enhancing beauty, heritage and engagement with the natural environment

Indicator	Status	Source	Trend assessment
Visits to green and natural spaces at least once a week by adults	Existing ([Annex, Table A.47](#))	OIF[86,87]	Trend: −5.0% T-test (p value): N/A (2020–2021 to 2024–2025)
Percentage of the total population in England living within 15 minutes' walk of green space, as of 2024	Existing ([Annex, Table A.48](#))	Defra[88]	N/A
Pro-environmental behaviours of adults	Existing ([Annex, Table A.49](#))	OIF[89]	Trend: +0.5% T-test (p value): N/A (2020–2021 to 2024–2025)
Pro-environmental behaviours of children	Existing ([Annex, Table A.49](#))	OIF[89]	Trend: −9.0% T-test (p value): N/A (2020–2021 to 2023–2024)
Changes in landscape and waterscape character	Existing ([Annex, Table A.50](#))	OIF[90]	N/A
Time spent outside every day or most days by children during school term	Existing ([Annex, Table A.51](#))	OIF[86]	Trend: −3.8% T-test (p value): N/A (2021–2024)
Time spent outside every day or most days in the last week by children during school holidays	Existing ([Annex, Table A.52](#))	OIF[86]	Trend: −11.4% T-test (p value): N/A (2021–2024)

Progress towards ambitions, targets and commitments

Table 3.22. Selected targets and commitments – Enhancing beauty, heritage and engagement with the natural environment

Target or commitment	Source
Everyone should live within 15 minutes' walk of a green or blue space	EIP23 commitment
Conserve and enhance the natural, geological and cultural diversity of our landscapes, and protect our historic and natural environment for the benefit and enjoyment of future generations	EIP23 commitment

Chapter 4: EIP23 Cross-cutting themes

4.1. Introduction

The EIP23 identifies cross-cutting themes that are intended to tie together delivery across goal areas. These include new farming schemes, land use and planning, green finance, green jobs and skills, and green choices.

We presented our initial analysis of nature-friendly farming, green jobs and green finance in our 2022/2023 progress report. We further developed that for our 2023/2024 progress report, presenting our analysis of green finance and green choices.

For our 2024/2025 progress report, we again focus on the cross-cutting themes of nature-friendly farming and green choices in Chapter 12.

4.2. Nature-Friendly Farming (Section 12.2)

'Nature-friendly farming' describes a range of measures that support the management of agricultural land to protect and improve the environment. Our assessment focuses on (1) the uptake of agri-environment schemes (AES) including Environmental Land Management (ELM) (2), Advice and (3) Compliance with farming regulations.

The implications on agri-environment schemes on biodiversity

To further assess the likelihood of AES supporting an improvement or stabilisation in farmland birds, we used data published by Defra to evaluate the current uptake of higher-tier AES actions and compared this to the outputs of our commissioned report.[91,92]

Defra has estimated that either 49%, 64% or 70% of utilised agricultural area was managed under AES agreements in 2024.[93] The overlap of actions within AES agreements and the way records are kept results in this range of possible results, which Defra explain in their methodology.[93]

To understand the extent of actions likely to benefit farmland birds or other species we categorised approximately 750 actions in AES as being either higher-tier, mid-tier or lower-tier for our assessment. The categorisation was based upon publications from Defra and its arm's length bodies.[94] Not all farming schemes which may lead to biodiversity outcomes are reported and could not therefore be analysed. These include Landscape Recovery, Nature for Climate Fund, and local actions such as those led by water companies.

Furthermore, certain AES actions do not deliver a direct benefit to biodiversity but can be a precursor, including planning actions such as producing soil management plans.[93] We therefore adopted a comparable approach to Defra by excluding planning actions from our analysis. We also excluded certain capital items, and actions where the area of land could not be determined.

To account for uncertainty in the categorisation of AES actions, we applied sensitivity analysis producing upper, middle and lower estimates based upon the inclusion or exclusion of groups of actions.

In particular, some actions available within Countryside Stewardship could be incorporated in either higher-tier or mid-tier agreements. For our upper estimate these actions are categorised as higher-tier. For the middle and lower estimate these actions are all categorised as lower-tier. Some higher-tier actions in Environmental Stewardship are supplemental payments. In our upper and middle estimate these actions are recorded as higher-tier, and in the lower estimate these are not recorded as higher-tier.

Our analysis found that 15 to 38% of the actions on land managed with AES agreements could be classed as higher-tier depending on the inclusion and exclusion criteria. By combining our results with Defra's calculated ranges for the areas of farmland (utilised agricultural area) managed with AES,[93] we produced a matrix of nine possible scenarios for the current percentage of farmland with higher-tier, lower-tier or no AES agreements (Table 4.1).

We applied these nine indicative AES scenarios to the findings of our commissioned research.[92] This enabled the likelihood of stabilising or increasing the farmland bird index under a variety of combinations of higher-tier and lower-tier agreements to be further considered.[92]

Whilst this assessment was not exhaustive, each scenario tested provided consistent results. We found that even the upper range of AES coverage (70%) published by Defra, combined with our optimistic scenario of 38% of land being managed with higher-tier AES agreements, indicates the current mix and extent of AES is unlikely to stabilise species abundance when compared to the pathways in our commissioned research.[92]

To further illustrate these pathways, we developed an additional scenario with a balanced tier delivery, where 40% of farmland is managed with higher-tier AES, 40% lower-tier, and 20% is not supported by AES. Our analysis indicates this type of pathway provides a high likelihood of stabilising the abundance of farmland birds. The scale of uptake in this pathway aligns with the existing nature friendly farming commitments in EIP23. This pathway requires a substantial increase in the deployment of higher-tier AES given our analysis that at best 26% of farmland is managed with higher-tier and 44% with lower-tier AES (Table 4.1).

Table 4.1. Indicative percentage of farmland with higher-tier, lower-tier or no AES agreements

		Upper estimate (38% of actions being higher-tier)	Middle estimate (19% of actions being higher-tier)	Lower estimate (15% of actions being higher-tier)
49% of farmland managed with agri-environment schemes (Defra)	Higher-tier AES	19%	9%	7%
	Lower-tier AES	30%	40%	42%
	No AES	51%	51%	51%
64% of farmland managed with agri-environment schemes (Defra)	Higher-tier AES	24%	12%	10%
	Lower-tier AES	40%	52%	54%
	No AES	36%	36%	36%
70% of farmland managed with agri-environment schemes (Defra)	Higher-tier AES	26%	13%	11%
	Lower-tier AES	44%	57%	59%
	No AES	30%	30%	30%

The role of advice in improving policy targeting and coherence

For our 2024/2025 progress report we commissioned the Countryside and Community Research Institute at the University of Gloucester to carry out a project on local scale advice provision for nature friendly farming. The aim of the project was to explore the extent to which local scale advice can improve the targeting, coherence, and effectiveness of policies and regulations. The research design utilised a realist evaluation approach, including a review of existing evidence and primary research with farm advice providers and users.

The final report, including the methodology and findings will be published on the OEP website.[95]

Regulating more effectively

For our 2024/2025 progress report we commissioned ICF and ADAS to carry out a project to identify farming regulations and wider legislation critical to protecting and improving the natural environment. The aim of the project was to develop an understanding of baseline risks to the natural environment from activities on farms, and the coverage and effectiveness of regulations in reducing risks. Furthermore, the project reviewed regulatory monitoring and compliance data provided by regulators.

The research blended a review of available evidence and expert judgement, and drew on a source-pathway-receptor approach to map environmental risks associated with farming and land management activities, and in the consideration of regulatory mitigation and controls.[96,97]

The final report, including the methodology and findings will be published on the OEP website.[95]

4.3. Green finance (Section 12.3)

We focus on green finance because of its important contribution to ensuring nature's recovery.

For our 2022/2023 progress report, we provided a broad overview of government plans and issues related to green jobs and mobilising green finance. For our 2023/2024 progress report, we carried out a more in-depth analysis of the green finance agenda and issues for mobilising finance at scale. This drew on an externally commissioned foundational evidence review, published alongside our 2023/2024 progress report.[98]

For our 2024/2025 progress report, we have continued to focus on the green finance agenda, providing an update on progress across key themes and issues identified in our 2023/2024 progress report. We also include a detailed examination of the governance framework for nature markets, and further clarity of what government actions are needed.

Our analysis draws on externally commissioned briefings and a review of the performance of nature markets by Economics for the Environment Consultancy Ltd (Eftec).[99] Eftec analysed the role of nature markets in delivering environmental policy objectives, and assessed the scale of key UK nature markets and their future prospects and policy dependencies.

The research developed a monitoring framework to track and interpret the state of nature markets by using four criteria: the underlying physical asset change (area of restoration or creation), the number of credits sold and the intensity of supply, the total market value of credits, and trends in the area of change and price of units sold over time.

The analysis considered nature market performance across the four largest established markets in the UK (Woodland carbon code, Peatland code, Biodiversity offset market and Nutrient neutrality market). While the monitoring framework and lessons learned were applied to these markets, the framework was designed to be applicable to emerging nature codes and markets.

Stakeholder engagement was undertaken to support an appraisal of the barriers and enablers to nature markets operating efficiently and effectively. Engagement was undertaken with nature market participants, including buyers of nature-based credits, natural asset owners responsible for delivering the nature-based benefits, investors and lenders, market intermediaries (including agents who match demand and supply), and market shapers – those who influence the design, structure and functioning of the market.

Transferable lessons were identified across the markets on how to make nature markets and wider environmental offsetting schemes efficient and effective. Key enablers identified included the development of high-integrity markets, demand stimulators, including mandating Taskforce on Nature-related Financial Disclosure (TNFD) reporting, clear, joined-up regulation and policy, and providing certainty on stacking credits.

The final report, including the methodology and findings, will be published on the OEP website.[95]

4.4. Green choices (Section 12.3)

We focus on green choices because it is a cross-cutting theme in EIP23, which is intended to enable the behaviour change required to deliver the goals and targets.

For our 2023/2024 progress report, we developed a method for applying the six green choices principles analytically. We applied this to the UK Food Strategy at the time, recommending that they are applied more comprehensively in any future food strategy.

In July 2025, government published a new food strategy. We commissioned CECAN Ltd with the University of Oxford to repeat the previous analysis. This was to determine the extent to which the new food strategy more fully applied the green choices principles, and whether it had strengthened key action areas that we had previously highlighted as opportunities.

The final report, including the methodology and findings, will be published on the OEP website.[95]

III. A focus on improving nature

Chapter 5: In-depth assessment: Land Use

5.1. Introduction

A recurring theme in our 2023/2024 progress report was the challenge of siloed delivery. One of our key recommendations was for government to set out clear mechanisms to reconcile competing demands for land and sea.[19]

For our 2024/2025 progress report, we focused our in-depth assessment on this issue in regard to land use.

5.2 Assessment Approach

Our approach builds on the OEP's response to the Land Use Framework (LUF) consultation, where we addressed nine of 24 questions.[100] These were areas we have previously scrutinised and which we judged to be the most strategically important. This was informed by engagement with key stakeholders working in environment and farming policy delivery and advocacy.

For our in-depth assessment, we analysed two areas covered in the LUF consultation – understanding the policy, incentives and other changes needed to realise land use transitions (Question 4), and how government can support closer co-ordination across plans and strategies for different sectors, including those developed at a local level (Question 14). Our analysis was undertaken through a series of internal OEP workshops.

Given the broad policy landscape, we focused on nature policy. The first step was mapping key policies critical to influencing land use decisions and driving future land use changes. We focused on six key policy areas – nature, food, climate, nature markets, planning and devolution policies.

These policies were then organised into a taxonomy of policy types, positioning them on a spectrum, recognising that their scope and purpose can vary significantly. The focus was on national policies and strategies, local place-based plans and governance frameworks, state-led delivery mechanisms and local and private-led delivery mechanisms. Policies or government activities that did not fit in these categories were removed from the analysis – for example, legislation, target-setting, advice provision and research.

Each output was subject to further structured workshops that examined the critical interdependencies in the policy system, (such as how policies influence, affect, or rely on one another), what the implications are for improving policy coherence, and the key mechanisms and opportunities.

Our analysis enabled the identification of four broad priorities for improving coherence across the policies. We focused on the essential drivers to deliver the scale of land use change needed for nature recovery, and supporting decisions in respect of the synergies or trade-offs between policy frameworks:

1. Coherence between nature policy frameworks (including market-based mechanisms)

2. Coherence between nature and food policies

3. Coherence between nature and climate policies

4. Coherence between nature and the planning system (including the devolution agenda)

Tools and mechanisms for improving land use policy coherence across the four priority areas were analysed. The LUF was identified as a critical mechanism for both enabling strategic land-use planning, and alignment of land use policies. Further opportunities identified include the revised EIP, strengthening of government-wide guidance to support coherence between new and existing policies, and consideration of the legal duty to have due regard to the Environmental Principles Policy Statement.

The results of the policy mapping are shown in Table 5.1.

Table 5.1. Mapping and categorisation of policies influencing land use

Policy	Abbreviations	Policy area	Policy type
Environmental Improvement Plan 2025	EIP25	Nature	National Strategy
UK National Biodiversity Strategy and Action Plan	NBSAP	Nature	National Strategy
The Nature Recovery Network	NRN	Nature	National Strategy
To protect 30% of land and sea for nature by 2030	30 by 30	Nature	National Strategy
Flood Risk Management Plans	FRMPs	Nature	Local place-based plans and governance frameworks
Woodland Management Plan	WMPs	Nature	Local place-based plans and governance frameworks
River basin management plans	RBMPs	Nature	Local place-based plans and governance frameworks
Local Nature Recovery Strategies	LNRS	Nature	Local place-based plans and governance frameworks
Species conservation strategies	SCS	Nature	Local place-based plans and governance frameworks
National Parks Plans	NPPs	Nature	Local place-based plans and governance frameworks
Environmental Land Management Schemes	ELMs	Nature	State-led delivery mechanisms
Farming Regulations		Nature	State-led delivery mechanisms

Table 5.1. Mapping and categorisation of policies influencing land use (cont.)

Policy	Abbreviations	Policy area	Policy type
Farming Ammonia Reduction Grant Scheme		Nature	State-led delivery mechanisms
Protected Sites Strategies	PSS	Nature	Local place-based plan and governance frameworks AND State-led delivery mechanism
Protected Landscapes		Nature	Local place-based plan and governance frameworks AND State-led delivery mechanism
Food Strategy		Food	National Strategy
Farming Profitability Review	FPR	Food	National Strategy
Agri-transition Plan		Food	National Strategy
Farming Roadmap		Food	National Strategy
UK Trade strategy		Food	National Strategy
Industrial Strategy		Food	National Strategy
Circular Economy Strategy		Food	National Strategy
Improving Farm Productivity Grant	IFPG	Food	State-led delivery mechanisms
English Devolution White Paper		Devolution	National Strategy
Local devolution settlements		Devolution	Local place-based plans and governance frameworks
Green Finance Strategy 2023	GFS23	Markets	National Strategy
Nature Market Framework	NMF	Markets	State-led delivery mechanisms
BSI standards		Markets	State-led delivery mechanisms AND Local and private-led delivery mechanisms
Nutrient Neutrality	NN	Markets	Local and private-led delivery mechanisms
Biodiversity Net Gain	BNG	Markets	Local and private-led delivery mechanisms
Woodland Carbon Code	WCC	Markets	Local and private-led delivery mechanisms
Peatland Code	PC	Markets	Local and private-led delivery mechanisms
UK Emissions Trading Scheme	UK ETS	Markets	Local and private-led delivery mechanisms
Natural Environment Investment Readiness Fund	NEIRF	Markets	State-led delivery mechanisms AND Local and private-led delivery mechanisms

Table 5.1. Mapping and categorisation of policies influencing land use (cont.)

Policy	Abbreviations	Policy area	Policy type
Local Investment into Natural Capital	LINC	Markets	State-led delivery mechanisms AND Local and private-led delivery mechanisms
Carbon Budget Delivery Plan	CBDP	Climate	National Strategy
National Adaptation Plan	NAP	Climate	National Strategy
Strategic Spatial Energy Plan	SSEP	Climate	National Strategy
Nature for Climate Fund	NCF	Climate	State-led delivery mechanisms
Green Infrastructure Framework	GIF	Planning	National Strategy
Industrial Strategy Zones Action Plan	ISZAP	Planning	National Strategy
National Planning Policy Framework	NPPF	Planning	State-led delivery mechanisms
Planning practice guidance		Planning	State-led delivery mechanisms
Nationally Significant Infrastructure Projects, National Policy Statements	NSIP: NPS	Planning	State-led delivery mechanisms
Environmental Delivery Plans and Nature Restoration Fund	EDPs and NRF	Planning	State-led delivery mechanisms
Environmental Impact Assessment	EIA	Planning	Local and private-led delivery mechanisms
Strategic Environmental Assessments	SEA	Planning	Local and private-led delivery mechanisms
Spatial Development Strategies	SDS	Planning	Local place-based plans and governance frameworks
Local Growth Plans	LGPs	Planning	Local place-based plans and governance frameworks

IV. Taking stock

Chapter 6: Taking stock

6.1. The overall picture (Section 14.1)

No changes were made to this section for the 2024/2025 progress report. We continue to use summary assessments for past trends, progress over the reporting period, and prospects of meeting targets and commitments across all 10 goal areas.

We updated the summary assessment included in the 2023/2024 progress report, which assesses government's progress towards addressing previous recommendations. Progress towards each recommendation was rated as good, mixed or limited. Good progress indicated that most aspects of the recommendation have been addressed or are on track to being addressed. Limited progress reflects very little action or no action. Ratings were assigned based on expert judgement in a collaborative, iterative process across the goal areas.

Chapter 7: Continuous improvement

In line with our commitment to continuous improvement, we identify potential improvements to our approach throughout development of our EIP progress assessments. Development is also informed by an evaluation and learning process, discussions with external stakeholders, and engagement on our multi-annual approach to our EIP progress reports with the OEP Board. Where possible, these opportunities are implemented immediately. However, some take longer or require greater resources than available, so are deferred for future consideration.

The improvements made to our assessment process this year are described in Chapter 1, and they address some of the areas for future development identified in our 2023/2024 progress report. We will continue to evolve our assessment approach in our next report, which will cover progress during the reporting period April 2025 to March 2026 and reflect the implementation of the EIP25 and associated developments.

We have commissioned contractors OfficeLabs to develop a data management system for our 2025/2026 progress report. The system will enhance our capability to analyse and present our indicators, make our assessments more efficient, and enable authors to provide greater depth and complexity of analyses. The system will further develop our commitment to the UK Statistics Authority Code of Practice for Statistics by including new and more efficient quality assurance, data entry and data security features.

We will also continue to develop our Methodological Statement to ensure our assessments are fully transparent. We will also continue to annually review our voluntary statement of compliance with the UK Statistics Authority Code of Practice for Statistics, and will continue to be active members of the community of practice to ensure we learn from examples of best practice across other organisations.

Quality assurance is integrated into our commitment to continuous improvement and we welcome feedback after publication of our EIP progress reports to identify areas of improvement for future iterations. We can be contacted via our website.[8]

Annex:
Indicator reference tables

Annex: Indicator reference tables

Here we present indicator reference tables for the indicators selected for our 2024/2025 progress report. We do not include a reference table for the indicator 'Soil Health' as it remains the only unpopulated indicator in the OIF.

The indicator reference tables include key metadata, such as the relevant EIP goal, data source(s), categorisation of the source data (official statistics, national statistics, experimental or other), a description of the indicator and rationale for why it was selected, the most recent data points used to assess trends, and finally, a brief description of the methodologies.

Thriving plants and wildlife

Table A.1. Indicator reference table – Condition of Sites of Special Scientific Interest (that are in favourable or unfavourable recovering condition)

EIP goal	Thriving plants and wildlife
Data source	Outcome Indicator Framework D2(b): Extent and condition of protected sites – land, water and sea[33] England Biodiversity Indicators: Extent and condition of protected areas[34] Department for Environment, Food and Rural Affairs
Category	England Biodiversity Indicator, accredited official statistics
Description and rationale	This OIF indicator assesses the extent of protected sites and is a cumulative area that is assessed in March of each year shown. It is based on the following designations: Sites of Special Scientific Interest (SSSI), Special Areas of Conservation (SAC), Special Protection Areas (SPA), National Nature Reserves (NNR), Ramsar sites and Marine Conservation Zones (MCZ). For sites that span English borders, only the area within England is included. The extent of protected sites located between mean low water and the 12-nautical-mile limit is included in the marine measure. The extent of protected sites located beyond 12-nautical-miles, in UK waters, is excluded. The condition component of the indicator applies to SSSIs only.
Methodology	No adjustments were made to the data. For a full description of the methodology, refer to the supporting documents for the OIF and EBI indicators. Data reported below are the sum of the percentage of SSSI site area that is in unfavourable recovering condition, with that in favourable condition.

Table A.1. Indicator reference table – Condition of Sites of Special Scientific Interest (that are in favourable or unfavourable recovering condition) (cont.)

EIP goal	Thriving plants and wildlife						
Data	Year	2019	2020	2021	2022	2023	2024
	Favourable and unfavourable recovering	93.53	92.81	91.15	89.03	85.98	84.28

Unit: percentage of site area

Trend: −9.9% (2019–2024)
T-test (p value): 0.01

Accessed: 26 September 2025

Table A.2. Indicator reference table – Achievement of marine good environmental status

EIP goal	Thriving plants and wildlife
Data source	Summary of progress towards good environmental status (GES)[35] Centre for Environment, Fisheries and Aquaculture (Cefas)
Category	UK government research and analysis
Description and rationale	The UK Marine Strategy covers 11 elements (termed descriptors). These are disaggregated into biodiversity ecosystem components and human pressures, for a total of 15 ecosystem components and descriptors. Assessments towards GES are made for each individual descriptor or ecosystem component every six years through the UK Marine Strategy (UKMS) Part One. Each descriptor is allocated a green-amber-red status if GES has been achieved, partially achieved or not achieved, respectively. Government published a draft update to UKMS Part One in June 2025. Below, we present data for the 2018 assessment and draft 2025 update.[101,102] Note that an assessment of the overall direction of trends within each descriptor has not been provided in the 2025 draft UKMS Part One update. Full details of each assessment can be found in the individual Cefas indicator assessments.[35]
Methodology	No adjustments were made to the data. For a full description of the methodology for each descriptor, refer to the UKMS Part One and Cefas Marine Online Assessment Tool.

Table A.2. Indicator reference table – Achievement of marine good environmental status (cont.)

EIP goal	Thriving plants and wildlife					
Data						

Descriptor	Cetaceans	Seals	Birds	Fish	Pelagic habitats	Benthic habitats
RAG (2018 assessment)	Partially achieved	Partially achieved	Not achieved	Not achieved	Partially achieved	Not achieved
RAG (2025 draft UKMS Part One)	Not met	Partially met	Not met	Not met	Uncertain	Not met

Descriptor	Non-indigenous species	Commercial fish	Food webs	Eutrophication	Changes in hydrographical conditions	Contaminants
RAG (2018 assessment)	Not achieved	Not achieved	Partially achieved	Achieved	Achieved	Achieved
RAG (2025 draft UKMS Part One)	Uncertain	Partially met	Not met	Met	Met	Not met

Descriptor	Contaminants in seafood	Litter	Input of anthropogenic sound
RAG (2018 assessment)	Achieved	Not achieved	Partially achieved
RAG (2025 draft UKMS Part One)	Partially met	Not met	Uncertain

Unit: N/A

Trend: not assessed
T-test (p value): N/A (each descriptor rating represents an assessment based on an aggregation of indicator trends using a RAG system)

Accessed: 26 September 2025

Table A.3. Indicator reference table – Extent of UK area protected for nature on land and water, and extent of UK area protected for nature at sea

EIP goal	Thriving plants and wildlife
Data source	UK Biodiversity Indicators C1: Protected areas[36] Department for Environment, Food and Rural Affairs, Joint Nature Conservation Committee
Category	UK Biodiversity Indicator, accredited official statistics
Description and rationale	Data show the extent of nationally and internationally important protected areas across the UK. We disaggregate the indicator to its component parts and provided two trend assessments, one for marine and another for land and water (terrestrial, freshwater and coastal area above mean high water), due to the differing contexts. We have used UK data rather than the disaggregated England metric from the England Biodiversity Indicators[34] dataset because government has committed to restoring 30% of degraded ecosystems and conserving 30% of land, waters and seas by 2030 at a UK level.

Table A.3. Indicator reference table – Extent of UK area protected for nature on land and water, and extent of UK area protected for nature at sea (cont.)

EIP goal	Thriving plants and wildlife						
Methodology	No adjustments were made to the data. For a full description of the methodology, refer to the supporting documents for the JNCC indicator.						
Data	Year	2019	2020	2021	2022	2023	2024
	Marine area	21.8	33.8	33.8	33.8	33.8	33.8
	Land and water area	6.8	6.8	6.8	6.8	6.8	6.8

Unit: million hectares

Trend (marine): +55.0% (2019–2024)
T-test (p value): N/A (not enough variability in dataset)

Trend (land and water): 0.0% (2019–2024)
T-test (p value): N/A (not enough variability in dataset)

Accessed: 26 September 2025

Table A.4. Indicator reference table – Relative abundance of species in England

EIP goal	Thriving plants and wildlife						
Data source	Outcome Indicator Framework D4: Relative abundance and/or distribution of species[37]; Indicators of species abundance in England (all species index)[23] Department for Environment, Food and Rural Affairs						
Category	Official statistic in development						
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]						
Data	Year	2018	2019	2020	2021	2022	2023
	Smoothed index option 1	66.3	66.4	66.5	66.7	67.1	67.5
	Smoothed index option 2	65.0	66.1	66.9	67.2	67.0	66.6

Unit: smoothed index (1970 = 100)

Trend:
Option 1: +1.8% (2018–2023)
Option 2: +2.5% (2018–2023)

T-test (p value): N/A (confidence interval methodology used to assess trend, following OIF and England Biodiversity Indicators assessment)

Accessed: 26 September 2025

Table A.5. Indicator reference table – Area under agri-environment schemes

EIP goal	Thriving plants and wildlife
Data source	Agriculture in the United Kingdom (AUK) 2022, Chapter 10: Public Payments[38] Department for Environment, Food and Rural Affairs
Category	Accredited official statistic
Description and rationale	This indicator provides an indication of progress towards government's EIP23 commitment to support 65–80% of farmers to adopt nature-friendly farming on 10–15% of their land by 2030. We use the data for England, which accounts for the following schemes: Organic Farming, Countryside Stewardship (1991–2014), Environmentally Sensitive Areas, Environmental Stewardship (Entry Level and Higher Level), Countryside Stewardship (2014 to present), Sustainable Farming Incentive. There has been a change in methodology for this indicator, used in 2024. From 2024 onwards the total area for England is based on a new methodology that removes any overlap and so will be smaller than the sum of the individual scheme areas. It also uses the action area rather than whole parcel area, which gives a better estimate of the area under active management. As the 2024 data is published in the Agricultural support payments dataset, implying it is comparable – and the likelihood the new methodology will result in a lower estimate, and the new data point sits in line with the previous/expected trend – we have included the latest data in our assessment. Full details of the new methodology can be found in the Defra publication.[104]
Methodology	No adjustments were made to the data or processing. We summed the area of land in England under each scheme to calculate a total area and converted the units to million hectares.
Data	<table><tr><td>Year</td><td>2019</td><td>2020</td><td>2021</td><td>2022</td><td>2023</td><td>2024</td></tr><tr><td>Area of land</td><td>2.84</td><td>2.79</td><td>3.04</td><td>3.57</td><td>4.49</td><td>5.57</td></tr></table> Unit: million hectares Trend: +96.5% (2019–2024) T-test (p value): 0.00 Accessed: 26 September 2025

Table A.6. Indicator reference table – Threat of extinction to UK species

EIP goal	Thriving plants and wildlife
Data source	UK data for the Sustainable Development Goals (SDG), Indicator 15.5.1 Red List Index[32] Office for National Statistics
Category	Office for National Statistics reporting
Description and rationale	The OIF Indicator D5 ('Conservation status of our native species')[105] is now Final, however there is insufficient data to undertake an assessment of change over time (baseline only). We therefore use the UK Red List Index data as a proxy until additional OIF data is available. The UK Red List Index is based on global estimates of the extinction risk (IUCN Red List categories) of all mammals, birds, amphibians, corals and cycads, derived from local and national data, disaggregated to the national scale and weighted by the proportion of each species' distribution in the country or region (in this case the UK). This index does not indicate risk of extinction within the UK, but rather, risk of global extinction of species found within the UK.
Methodology	No adjustments were made to the data. For a full description of the methodology, refer to the supporting documents for SDG reporting.
Data	<table><tr><th>Year</th><th>2018</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th><th>2023</th></tr><tr><td>Red List Index</td><td>0.9619</td><td>0.9619</td><td>0.9620</td><td>0.9620</td><td>0.9621</td><td>0.9621</td></tr></table> Unit: index (1.0 = all species categorised as 'least concern', 0.0 = all species 'extinct') Trend: 0.0% (2018–2023) T-test (p value): N/A (insufficient variability in the data) Accessed: 26 September 2025

Table A.7. Indicator reference table – Extent of land cover more likely to support nature-friendly habitat

EIP goal	Thriving plants and wildlife
Data source	UK Centre for Ecology and Hydrology Land Cover Map UK Centre for Ecology and Hydrology (UKCEH), Office for Environmental Protection. This research has been published on the OEP website.[19]
Category	OEP indicator, based on UKCEH Land Cover Maps
Description and rationale	This indicator was developed by UKCEH, commissioned by the OEP, for our 2022/2023 progress report. It replaced an indicator based on land use in England statistics, used in our 2021/2022 progress report. Our new approach provides greater granularity of land-use types that are focused on biodiversity. The indicator tracks the changes in England's land cover over the period 1990–2022 across Land Cover Map (LCM) datasets. The indicator was developed to track land cover likely to support nature-friendly habitats to assess the target to restore or create in excess of 500,000 hectares of wildlife-rich habitats by 2042. LCM categories defined as 'more likely' to support wildlife-rich habitat is based on an assessed correlation between the 46 habitats of principal importance for England[107] and the broader LCM land-use categories. UKCEH determined that all LCM land use habitats, except conifer, arable, improved grassland, water or urban classes, can be defined as 'more likely' to support wildlife-rich habitat. New data from UKCEH has been included in this indicator for our 2024/2025 progress report. For further information on UKCEH Land Cover Maps, see their website.[108] We have used the UKCEH data rather than that presented in the OIF Indicator D1 ('Quantity, quality and connectivity of habitats'), which uses information from the Living England Habitat Map, as this indicator remains as interim, and a suitable time series is not yet available.[109,110]
Methodology	Summary land cover statistics were calculated for England using an R-script,[111] across 10 classes and each of the LCM datasets (1990–2024) – low-tide mark was chosen to include the greatest extent of coastal habitats.

Table A.7. Indicator reference table – Extent of land cover more likely to support nature-friendly habitat (cont.)

EIP goal	Thriving plants and wildlife														
Data	Year	1990	1994	1998	2002	2006	2010	2015	2017	2018	2019	2020	2021	2022	2023	2024
	BW	8779	8635	9077	9184	9313	9766	9771	10828	10492	10750	10795	10457	10457	10457	10951
	CW	2625	2742	2789	2879	2952	2963	2979	2853	2804	2803	2635	2722	2722	2722	2844
	Arable	47794	49663	49557	49106	48070	47346	47763	46641	46383	46072	45585	44603	44603	44603	42595
	IG	44808	41513	40580	40574	41688	41423	42919	41604	42627	42527	41874	41512	41512	41512	46141
	SN	8142	8958	9301	9442	8995	9213	6258	6823	6556	6625	7216	8337	8337	8337	6168
	MHB	5297	5085	5001	5112	5107	5067	4897	4856	4858	4826	4953	5280	5280	5280	4903
	Salt	1231	890	952	1027	887	1010	703	724	752	727	686	709	709	709	975
	Fresh	697	770	797	826	815	838	972	1014	1019	1026	945	976	976	976	879
	Coastal	1649	1853	1802	1725	1876	1746	2126	2365	2351	2345	2533	2100	2100	2100	1803
	BUG	11608	12521	12775	12756	12930	13260	14243	14901	14768	14908	15409	15936	15936	15936	15374
	Total	130459	130459	130459	130459	130459	130459	130459	130443	130443	130443	130459	130459	130459	130459	132631
	NFM	21696	22360	23009	23291	23117	23619	20880	22706	22090	22380	23325	24001	24001	24001	23823

Key: BW – Broadleaved woodland; CW – Coniferous woodland; IG – Improved grassland; SN – Semi-natural grassland; MHB – Mountain, heath, bog; Salt – Saltwater; Fresh – Freshwater; BUG – Built-up areas and gardens; NFM – Land cover more likely to support nature-friendly habitats (total minus CW, Arable, IG, Salt, Fresh, BUG).

Unit: square kilometres (low tide mark)

Trend (NFH): +6.4% (2019–2024)
T-test (p value): N/A (not enough variability in the data)

Developed: 26 September 2024

Table A.8. Indicator reference table – Area of woodland in England

EIP goal	Thriving plants and wildlife
Data source	Outcome Indicator Framework D3: Area of woodland in England[39] and Woodland Statistics – Woodland area by forest type and ownership, England, 1998 to 2024[40] Department for Environment, Food and Rural Affairs, Forest Research
Category	Modified OIF indicator, accredited official statistics
Description and rationale	This indicator tracks the change in broadleaved and conifer woodland in England. Woodland, as defined for the National Forest Inventory (NFI), is land under stands of trees with a minimum area of 0.5 hectares, a width of at least 20 metres, and a canopy cover of at least 20% or having the potential to achieve this. The definition relates to land use, rather than land cover, so integral open space and areas of felled trees that are awaiting restocking (replanting) are included as woodland. Woodland is a key natural capital asset that provides many natural capital benefits, such as the provision of timber and other wood products, carbon storage, habitats for wildlife, and opportunities for exercise and recreation. The equivalent OIF indicator is derived from the same Forest Research data as that presented here. However, here we also use the most recent statistical release, which is published after the annual OIF update, to provide the most up-to-date assessment. The most recent year is typically based on Forest Research provisional statistics.
Methodology	No adjustments were made to the data. For a full description of the methodology, refer to the supporting documents for the OIF and Forest Research indicators.
Data	

Year	2020	2021	2022	2023	2024	2025
Conifers	0.342	0.303	0.304	0.304	0.305	0.306
Broadleaves	0.978	1.018	1.026	1.029	1.033	1.039
Total	1.320	1.320	1.330	1.333	1.338	1.345

Unit: million hectares

Trend: +1.9% (2020–2025)
T-test (p value): 0.01

Accessed: 26 September 2025

Table A.9. Indicator reference table – Condition of Marine Protected Areas

EIP goal	Thriving plants and wildlife
Data source	Percentage of designated features in Marine Protected Areas in favourable condition[41] Department for Environment, Food and Rural Affairs
Category	Defra reporting
Description and rationale	In the APR 2024, Defra provided an assessment of the condition of Marine Protected Area (MPA) designated features that were in favourable condition in 2022. This represents a baseline year. No trend is currently available and there will not be an update to this metric until the MPA monitoring and assessment strategy is completed (expected 2028). Assessing the condition of features designated within MPAs is undertaken by statutory nature conservation bodies (Natural England and the JNCC) using survey data. In the absence of survey data, a vulnerability assessment is performed, which estimates the sensitivity of protected features to human activity occurring within their vicinity. The results will give the likely condition of the feature at the site.
Methodology	No adjustments were made to the data. See government's APR 2025 for a more detailed description of the methodology.[41]
Data	<table><tr><th>Year</th><th>2022</th></tr><tr><td>Percentage of designated MPA features in favourable condition</td><td>44%</td></tr></table> Unit: % of features Trend: N/A T-test (p value): N/A (not enough data) Accessed: 20 September 2024

Clean air

Table A.10. Indicator reference table – UK emissions of five key air pollutants

EIP goal	Clean air
Data source	Emissions of air pollutants in the UK[42] Department for Environment, Food and Rural Affairs
Category	Accredited official statistics

Table A.10. Indicator reference table – UK emissions of five key air pollutants (cont.)

EIP goal	Clean air
Description and rationale	This indicator tracks the emissions of the five key air pollutants covered by the National Emission Ceilings Regulations 2018: nitrogen oxides (NOx), sulphur dioxide (SO_2), non-methane volatile organic compounds (NMVOC), fine particulate matter less than 2.5 µm in diameter ($PM_{2.5}$) and ammonia (NH_3). This indicator uses a similar source of data to OIF Indicator A1 ('Emissions for five key air pollutants in England').[112] However, A1 focuses on England. This indicator tracks UK-wide emissions, because while air quality is a devolved matter, the Secretary of State has responsibility for ensuring (subject to certain derogations) that UK emissions do not exceed the commitments specified in the National Emission Ceilings Regulations. Both sets of data are plotted in our 2024/2025 progress report to provide context.
Methodology	As outlined in the National Emission Ceilings Regulations, emissions reduction commitments are relative to a 2005 baseline. Therefore, emissions are presented in our 2024/2025 progress report as an index relative to 2005 (where emissions in 2005 = 100). This is also for data presentation purposes. Data for all previous years is extracted from the most recent publication, as emissions can be retrospectively updated due to changes in inventories. For some pollutant emissions, there are multiple datasets comprising different sources that are reported for compliance purposes and trends. We selected the following datasets: • NOx emissions are non-agricultural, as the emission reduction commitments exclude agricultural sources. • NMVOC emissions are non-agricultural, as the emission reduction commitments exclude agricultural sources. • NH_3 emissions reflect the compliance total, rather than the absolute total emissions, as the emissions inventory no longer considers non-manure digestate spreading. England-level data, plotted for context in the 2024/2025 progress report, is extracted from the National Atmospheric Emissions Inventory's Air Pollutant Inventories for England, Scotland, Wales, and Northern Ireland report. England-level data lags the UK inventory by one year.

Table A.10. Indicator reference table – UK emissions of five key air pollutants (cont.)

EIP goal	Clean air						
Data	Year	2005	2018	2019	2020	2021	2022	2023

Year	2005	2018	2019	2020	2021	2022	2023
NOx							
$T\times10^6$	1.700	0.807	0.750	0.641	0.635	0.613	0.578
Index	100	47	44	38	37	36	34
SO_2							
$T\times10^6$	0.760	0.153	0.129	0.110	0.101	0.100	0.095
Index	100	20	17	14	13	13	13
NMVOC							
$T\times10^6$	1.144	0.738	0.720	0.691	0.668	0.634	0.628
Index	100	65	63	60	58	55	55
$PM_{2.5}$							
$T\times10^3$	105.12	69.88	66.81	59.77	61.71	59.59	55.88
Index	100	66	64	57	59	57	53
NH_3							
$T\times10^3$	280.88	258.00	257.15	248.00	253.63	246.05	249.12
Index	100	92	92	88	90	88	89

Unit: tonnes/year; index (2005 = 100)

Trends (2018–2023):

NOx: –28.3%
T-test (p value): 0.04

SO_2: –37.7%
T-test (p value): 0.08

NMVOC: –14.8%
T-test (p value): 0.03

$PM_{2.5}$: –20.0%
T-test (p value): 0.02

NH_3: –3.4%
T-test (p value): 0.22

Accessed: 09 October 2025

Table A.11. Indicator reference table – Percentage of monitoring stations above 10 µg/m³ annual mean PM$_{2.5}$ concentration

EIP goal	Clean air
Data source	UK Air Information Resource Annual and Exceedance Statistics – Automatic Urban and Rural Network (AURN)[43,45] Department for Environment, Food and Rural Affairs
Category	Accredited official statistics
Description and rationale	This indicator was developed to provide an assessment of progress against the EA21 annual mean concentration target for fine particulate matter (PM$_{2.5}$) in England. The data show the annual mean concentration of PM$_{2.5}$ across AURN monitoring stations in England. They track progress towards the Environment Act 2021 annual mean concentration target, as each individual monitoring station must not exceed an annual average concentration of 10 µg/m³[,113] The APR 2024 and 2025 published a similar statistic, using the same underlying data, which is now also available on the UK AIR website.[15,41,45]
Methodology	To calculate the percentage of monitoring stations in exceedance of the target value, we manually filtered the data to remove stations in Scotland, Wales and Northern Ireland. Those AURN stations with less than 85% data (sampling) capture were also removed. We then identified the stations with an annual mean PM$_{2.5}$ concentration of more than 10 µg/m³ and calculated their proportion relative to the total number of stations in England. For many air pollution indicators, a three-year moving average is applied to correct for the influence of meteorology. We do not apply that for this indicator as the EA21 target on annual mean PM$_{2.5}$ concentrations is assessed in the relevant statutory instrument by a comparison between two individual years.
Data	(see table below)

Year	2019	2020	2021	2022	2023	2024
Stations >10 µg/m³	24	3	5	6	1	1
Total stations in England (>85% data capture)	58	58	52	55	74	81
%	41	5	10	11	1	1

Unit: number of stations / percentage of stations

Trend: −97.0% (2019–2024)

T-test (p value): 0.18

Accessed: 09 October 2025

Table A.12. Indicator reference table – Incidents of exceedances against Air Quality Standards Regulations in England

EIP goal	Clean air
Data source	Air pollution in the UK reports[114] Department for Environment, Food and Rural Affairs
Category	UK government annual compliance reporting informed by accredited official statistics
Description and rationale	This indicator was developed to capture a high-level trend in ambient air quality across a broad range of pollutants and standards across England. The indicator covers the pollutants and standards summarised in the table below, which are outlined in the Air Quality Standards Regulations 2010. This indicator uses Defra's annual air pollution in the UK reports to track exceedances against the following standards for each pollutant and zone. This metric considers all limit values, which set standards that must not be exceeded, as well as all target values and objectives set for human and environmental health, achievement of which is not legally mandatory – but all necessary measures must be implemented, not entailing disproportionate cost: • nitrogen dioxide: one-hour limit value; annual mean limit value; annual mean limit value set for protection of vegetation • PM_{10}: daily mean limit value; annual mean limit value • $PM_{2.5}$: stage 2 annual mean limit value • ozone: eight-hour mean long-term objective set for the protection of human health; long-term objective set for the protection of vegetation • sulphur dioxide: one-hour mean limit value; 24-hour mean limit value; annual mean and winter mean critical levels set for the protection of ecosystems • target values for arsenic, cadmium, nickel, benzo[a]pyrene • limit value for carbon monoxide, benzene, lead Because multiple pollutants are considered for each zone, some of which have multiple target values, limit values, or long-term objectives, the count of exceedances can far exceed the total number of zones.

Table A.12. Indicator reference table – Incidents of exceedances against Air Quality Standards Regulations in England (cont.)

EIP goal	Clean air
Methodology	Data were extracted from the compliance summaries of government's annual air pollution in the UK reports to collate a dataset of exceedances over time. The data from 43 UK zones were filtered to account for the 31 zones in England. The number of exceedances against all standards in the regulations was summed across pollutants and zones, for each reporting year. These standards vary by pollutant, in terms of the time-averaging period, exceedance thresholds and concentration values. By calculating a total value, we make an overall assessment of exceedances of standards. However, this indicator does not allow for the absolute concentrations of individual pollutants to be tracked over time. For this indicator for our 2024/2025 progress report, we have not applied a three-year moving average to the total count of exceedances. This approach was introduced for the 2023/2024 progress report in response to feedback from stakeholders on the need to address interannual variability due to meteorological factors on pollutants such as ozone. However, this has not been applied for this report due to the introduction of the t-test methodology, which accounts for variability in the data. This also allows us to present the most up-to-date trend possible.
Data	

Year	2019	2020	2021	2022	2023	2024
NO_2	25	4	8	9	9	5
PM_{10}	0	0	0	0	0	0
$PM_{2.5}$	0	0	0	0	0	0
O_3	37	45	32	42	57	31
As	0	0	0	0	0	0
Cd	0	0	0	0	0	0
Ni	2	2	2	2	2	2
B[a]P	1	1	0	0	0	0
SO_2	0	0	0	0	0	0
CO	0	0	0	0	0	0
Benzene	0	0	0	0	0	0
Pb	0	0	0	0	0	0
Total	65	52	42	53	68	38

Unit: count

Trend: −41.5% (2019–2024)
T-test (p value): 0.02

Accessed: 09 October 2025

Table A.13. Indicator reference table – PM2.5 Population exposure indicator

EIP goal	Clean air
Data source	EIP 2024/2025 Annual Progress Report / UK AIR $PM_{2.5}$ Targets (PERT and AMCT) assessment[15,45] Department for Environment, Food and Rural Affairs
Category	Official statistics
Description and rationale	These data present the annual population-weighted mean concentration of $PM_{2.5}$ in the air and are used as a measure of the impact of $PM_{2.5}$ on the health of the total population. We use this indicator to assess progress towards the EA21 $PM_{2.5}$ population exposure reduction target.
Methodology	This indicator calculates a three-year moving average, as the EA21 population exposure reduction target is based on a three-year average in the statutory instrument. A full description of the methodology is provided on the UK AIR website.
Data	<table><tr><th>Year</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th><th>2023</th><th>2024</th></tr><tr><td>Population Exposure Indicator</td><td>10.02</td><td>9.41</td><td>8.68</td><td>8.11</td><td>7.86</td><td>7.56</td></tr></table> Unit: $\mu g/m^3$ Trend: −24.6% (2019–2024) T-test (p value): 0.04 Accessed: 09 October 2025

Table A.14. Indicator reference table – Exceedance of damaging levels of nutrient nitrogen deposition in England

EIP goal	Clean Air
Data source	Outcome Indicator Framework A6: Exceedance of damaging levels of nutrient nitrogen on ecosystems[46] and UK Centre for Ecology and Hydrology trends in critical load and critical level exceedances in the UK reports[115] Department for Environment, Food and Rural Affairs, UK Centre for Ecology and Hydrology (UKCEH)
Category	Defra reporting
Methodology	Data points are calculated using a three-year moving average. The mid-point year is used to describe the trend (2020-2022 is referred to as 2021). See the UK CEH report, and OIF, for a more detailed description of the methodology.[103]

Table A.14. Indicator reference table – Exceedance of damaging levels of nutrient nitrogen deposition in England (cont.)

EIP goal	Clean Air					
Data	Year	2015–2017	2016–2018	2017–2019	2018–2020	2019–2021	2020–2022

Year	2015–2017	2016–2018	2017–2019	2018–2020	2019–2021	2020–2022
$PM_{2.5}$	99.9	100	100	100	99.9	99.3

Unit: Percentage of sensitive habitats exceeding critical loads

Trend: −0.6% (2015–2017 to 2020–2022)
T-test (p value): N/A (not enough variability in the data)

Accessed: 09 October 2025

Clean and plentiful water

Table A.15. Indicator reference table – Pollution incidents to water (Environment Agency, Category 1 to 3)

EIP goal	Clean and plentiful water
Data source	Outcome Indicator Framework B2: Serious pollution incidents to water[48] and Environment Agency data on regulated businesses in England[47] Environment Agency
Category	Modified OIF indicator, based on government research and analysis
Description and rationale	This indicator is based on the OIF Indicator B2 ('Serious pollution incidents to water') and is used to track pollution incidents to the water environment from all sectors. Our 2021/2022 progress report iteration of this indicator focused on serious incidents (category 1 and 2) from water and sewerage companies in England only.[116,49] From our 2022/2023 progress report onwards, we have expanded the scope to account for category 1 to 3 incidents from all sectors.
Methodology	These data are taken from the annually reported data on regulated business in England pollution incidents dataset. The EA data have four categories for pollution incidents: 1: major; 2: significant; 3: minor; 4: no impact. We disregard category 4 incidents and include category 1 to 3 to compile a time series. Inclusion of category 3 is to evaluate minor incidents that can aggregate and apply significant pressure on the environment. They also provide opportunity to understand the background level of incidents as an early warning of possible, more significant incidents. This therefore represents a deviation from OIF Indicator B2, which only accounts for categories 1 and 2.

Table A.15. Indicator reference table – Pollution incidents to water (Environment Agency, Category 1 to 3) (cont.)

EIP goal	Clean and plentiful water						
Data	Year	2019	2020	2021	2022	2023	2024
	Category 1 (major)	41	46	47	43	56	40
	Category 2 (significant)	225	270	282	265	323	306
	Category 3 (minor)	39	51	41	40	37	58
	Total	305	367	370	348	416	404

Unit: number of incidents

Trend: +32.5% (2019–2024)
T-test (p value): 0.08

Accessed: 06 October 2025

Table A.16. Indicator reference table – State of the water environment (Water Framework Directive Regulations good ecological status)

EIP goal	Clean and plentiful water					
Data source	Outcome Indicator Framework B3a: State of surface waters in England, 2019[51] Department for Environment, Food and Rural Affairs, Environment Agency					
Category	Defra reporting					
Methodology	Data for this indicator was taken from River basin management plans, updated progress report 2022. A method change took place in 2015 which was adopted in preparation for cycle 2 RBPMs.					
Data	State	Bad	Poor	Moderate	Good	High	Total
	2015	135	820	2943	774	7	4679
	2019	137	793	2988	756	4	4678

Unit: Count of waterbodies assessed

Trend: –2.7%
T-test (p value): N/A (not enough data)

Accessed: 08 October 2025

Table A.17. Indicator reference table – Condition of bathing waters

EIP goal	Clean and plentiful water
Data source	Outcome Indicator Framework B4: Condition of designated bathing waters in England, 1995 to 2024[52] Department for Environment, Food and Rural Affairs
Category	Defra reporting, official statistics
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	(see table below)

Year	2018	2019	2020	2021	2022	2023	2024
Excellent	67.1	71.4	–	70.7	72.1	66.4	64.2
Good	25.2	21.9	–	24.0	20.8	23.4	21.1
Poor	2.1	1.7	–	1.0	2.9	4.3	8.2
Sufficient	5.5	5.0	–	4.3	4.3	5.9	6.4
Number of Sites	422	421	417	419	421	424	451
Total sites meeting 'at least sufficient'	97.9	98.3	–	99.0	97.1	95.7	91.8

Unit: Percentage of designated bathing waters

Trend: −6.2% (2018–2024)
T-test (p value): 0.00

Accessed: 08 October 2025

Table A.18. Indicator reference table – Loads discharged to rivers from water company sewage treatment works (of three key pollutants)

EIP goal	Clean and plentiful water
Data source	Outcome Indicator Framework B1c: Loads discharged to rivers from water company sewage treatment works in England, 1995 to 2020[53] and Environment Agency Chief Regulator's Report[54] Department for Environment, Food and Rural Affairs, Environment Agency
Category	Defra reporting, Environment Agency research and analysis
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]

Table A.18. Indicator reference table – Loads discharged to rivers from water company sewage treatment works (of three key pollutants) (cont.)

EIP goal	Clean and plentiful water					
Data						

Year	2000	2005	2010	2015	2020	2024
Biological Oxygen Demand	29.06	22.97	21.23	20.52	22.29	23.23
Phosphorus	22.73	12.77	11.16	9.54	8.34	6.87
Ammonia	9.62	7.32	5.27	4.79	4.17	4.20
Mean (composite)	0.82	0.56	0.48	0.44	0.42	0.41

Unit: kilotonnes/year

Trends (2020–2024):
Biological Oxygen Demand: +4.2%
Phosphorous: –17.6%
Ammonia: +0.7%
Mean (composite): –3.3%
T-test (p value): N/A (not enough data- trend assessed on two data points)

Accessed: 08 October 2025

Table A.19. Indicator reference table – Per capita potable water consumption in England

EIP goal	Clean and plentiful water
Data source	Outcome Indicator Framework E8b: Per capita water consumption in England[55] and Water resources 2023-2024: analysis of the water industry's annual water resources performance[117] Department for Environment, Food and Rural Affairs, Environment Agency
Category	Defra reporting, Environment Agency research and analysis
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	

Year	2018–2019	2019–2020	2020–2021	2021–2022	2022–2023	2023–2024
Litres	146.32	142.36	155.44	148.04	143.77	139.48

Unit: weighted average (litres per person per day)

Trend: -4.7% (2018–2019 to 2023–2024)
T-test (p value): 0.03

Accessed: 08 October 2025

Table A.20. Indicator reference table – Water company security of supply performance

EIP goal	Clean and plentiful water
Data source	Water and sewerage companies in England: environmental performance assessment (EPA) reports[47] Environment Agency
Category	OIF indicator, Environment Agency research and analysis
Description and rationale	This indicator is based on annual EPA reports for water and sewerage companies and reflects the same data source as that for OIF Indicator F3 (Disruption or unwanted impacts caused by drought).[118] For EPA reports prior to 2021, water and sewerage companies reported on the security of water supply using the Security of Supply Index (SoSI) for water availability. This changed to the Supply Demand Balance Index (SDBI) metric for reporting on years 2021 to 2024. The two indices are not comparable, and no backdated assessment has been developed by the data owner. For our 2024/2025 progress report, we have assessed the four available datapoints.
Methodology	The SDBI rating for each reporting year is taken from the environmental performance assessment summary graphic on the linked webpage. This represents a sector-level score, averaged across the SDBI calculated for each of the nine water and sewerage companies operating in England.
Data	<table><tr><th>Year</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th><th>2023</th><th>2024</th></tr><tr><td>SoSI</td><td>99.9</td><td>99.8</td><td>–</td><td>–</td><td>–</td><td>-</td></tr><tr><td>SDBI</td><td>–</td><td>–</td><td>99.6</td><td>98.4</td><td>100</td><td>99.9</td></tr></table> Unit: indices (/100) Trend: +0.3% (2021–2024) T-test (p value): N/A (not enough data) Accessed: 27 October 2025

Table A.21. Indicator reference table – Water leakage in England (from water company potable water supply)

EIP goal	Clean and plentiful water
Data source	Outcome Indicator Framework E8a: Water leakage in England[55] and Water resources 2023–2024: analysis of the water industry's annual water resources performance[117] Department for Environment, Food and Rural Affairs, Environment Agency
Category	Defra reporting, Environment Agency research and analysis
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]

Table A.21. Indicator reference table – Water leakage in England (from water company potable water supply) (cont.)

EIP goal	Clean and plentiful water					
Data	Year	2018–2019	2019–2020	2020–2021	2021–2022	2022–2023	2023–2024

	Million litres per day (ML/d)	2969.25	2771.29	2828.25	2754.82	2790.34	2689.16

Unit: million litres per day (3-year moving average)

Trend: −9.4% (2018–2019 to 2023–2024)
T-test (p value): 0.03

Accessed: 08 October 2025

Table A.22. Indicator reference table – Non-household water demand

EIP goal	Clean and plentiful water
Data source	Environment Agency
Category	Data provided by the Environment Agency
Description and rationale	This indicator tracks non-household water usage by businesses, charities and public sector organisations. It complements our indicators Per capita potable water consumption in England and Water leakage in England in assessing the utilisation of water in the potable water supply system in England and therefore the potential impacts on water resources.
Methodology	The most recent data have been provided by the Environment Agency and are currently unpublished. It is based on data submitted by water companies to the Environment Agency through the annual review of the Water Resources Management Plans. The Environment Agency notes there may be discrepancies with other data sources, particularly for historic years. Individual water company non-household consumption figures will be different, as this is a national average considering non-household consumption across water companies in England. No adjustments were made to the data.

EIP goal	Clean and plentiful water						
Data	Year	2018–2019	2019–2020	2020–2021	2021–2022	2022–2023	2023–2024
	Million litres per day	2883.31	2790.80	2317.30	2538.08	2736.66	2755.28

Unit: million litres per day

Trend: −4.4% (2018–19 to 2023–24)
T-test (p value): 0.55

Accessed: 08 October 2025

Table A.23. Indicator reference table – Soil nutrient balance

EIP goal	Clean and plentiful water
Data source	UK and England soil nutrient balances[119] Department for Environment, Food and Rural Affairs
Category	Official statistics
Description and rationale	This indicator is based on Defra monitoring of soil nutrient balances for nitrogen and phosphorus. Soil nutrient balances provide a method for estimating the annual nutrient loadings of nitrogen and phosphorus to agricultural soils. They give an indication of the potential risk associated with losses of nutrients to the environment – losses that can impact on air and water quality and on climate change. The nutrient balances are used as a high-level indicator of the pressure farming exerts on the environment and of how that pressure is changing over time. The balances do not estimate the actual losses of nutrients to the environment, but significant nutrient surpluses are linked with losses to the environment. Nutrient balances are of direct relevance to policies relating to agriculture and the environment, including climate change, air quality, water quality, and habitats and biodiversity.
Methodology	No changes were made to the raw data. The data were taken directly from the soil nutrient balance data and normalised to create an index. Although data are available from 1990, we use a baseline year of 2010, as this represents the first year following a change in methodology to collecting data for commercial farms only, and so provides a consistent assessment. We normalise the data to 2010 (2010 = 1.0) and, in line with our other indicators, use the mean value for both substances in the assessment of change.

Table A.23. Indicator reference table – Soil nutrient balance (cont.)

EIP goal	Clean and plentiful water														
Data	Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Nitrogen	720	684	698	695	653	627	672	660	675	608	698	703	604	646	683
	Phosphorus	34	32	31	33	17	15	27	23	29	15	41	28	4	6	19
	Normalised soil nitrogen balance	1.00	0.95	0.97	0.97	0.91	0.87	0.93	0.92	0.94	0.84	0.97	0.98	0.84	0.90	0.95
	Normalised soil phosphorus balance	1.00	0.94	0.91	0.97	0.50	0.44	0.79	0.68	0.85	0.44	1.21	0.82	0.12	0.18	0.56
	Mean	1.00	0.95	0.94	0.97	0.70	0.66	0.86	0.80	0.90	0.64	1.09	0.90	0.48	0.54	0.75

Unit: index (2010 = 1.0)

Trends (2019–2024):

Normalised soil nitrogen balance: +12.3%

Normalised soil phosphorus balance: +26.7%

Mean (composite): +17.3%
T-test (p value): 0.84

Accessed: 03 November 2025

Managing exposure to chemicals and pesticides

Table A.24. Indicator reference table – Stockpile of 3 persistent organic pollutants remaining in the UK

EIP goal	Managing exposure to chemicals and pesticides
Data source	Outcome Indicator Framework J5a: Stockpile of 3 persistent organic pollutants remaining in the UK, 2000 to 2023[57] Department for Environment, Food and Rural Affairs
Category	Defra reporting
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103] The indicator comprises three components. The past trends RAG rating is applied based on the aggregate assessments for each component.
Data	

Year	2018	2019	2020	2021	2022	2023
Polychlorinated Biphenyls	7.23	6.25	5.40	5.24	4.57	3.61
Decabromodiphenyl Ether	69.04	63.52	57.76	52.36	47.35	42.70
Hexabromocyclododecane	183.14	180.67	178.04	175.25	172.35	169.45

Unit: Index (2000 = 100)

Trends (2018–2023):

Polychlorinated Biphenyls: −50.1%
T-test (p value): 0.01

Decabromodiphenyl Ether: −38.2%
T-test (p value): 0.02

Hexabromocyclododecane: −7.5%
T-test (p value): 0.01

Accessed: 06 October 2025

Table A.25. Indicator reference table – Emissions of Persistent Organic Pollutants

EIP goal	Managing exposure to chemicals and pesticides
Data source	Outcome Indicator Framework H3b: Emissions of persistent organic pollutants to air, land and water, England, 2000 to 2019[58] Department for Environment, Food and Rural Affairs
Category	Environment Agency reporting
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103] The past trends RAG rating is applied based on the aggregate assessments for each component.

Table A.25. Indicator reference table – Emissions of Persistent Organic Pollutants (cont.)

EIP goal	Managing exposure to chemicals and pesticides						
Data	Year	2017	2018	2019	2020	2021	2022
	Dioxin-like PCB	12.34	11.18	10.17	9.33	8.90	7.99
	Dioxins and furans	43.30	43.45	42.65	40.79	39.41	42.33
	Hexachlorobenzene	45.34	47.91	46.54	44.57	45.69	45.35
	PCB	10.39	9.54	8.72	7.82	7.64	7.04
	Polychlorinated Napthalenes	14.85	14.45	14.52	14.88	15.32	15.03
	Pentachlorophenol	36.24	33.74	31.33	28.99	26.76	24.64
	Pentachlorobenzene	16.66	16.15	15.84	15.79	16.15	15.26
	Mean index (Composite)	25.59	25.20	24.25	23.17	22.84	22.52

Unit: index (2000 = 100)

Trends (2017–2022):
Dioxin-like PCB: –35.3%
T-test (p value): 0.02

Dioxins and furans: –2.2%
T-test (p value): 0.63

Hexachlorobenzene: 0.0%
T-test (p value): 0.31

PCB: –32.2%
T-test (p value): 0.03

Polychlorinated Napthalenes: +1.2%
T-test (p value): 0.22

Pentachlorophenol: –32.0%
T-test (p value): 0.02

Pentachlorobenzene: –8.4%
T-test (p value): 0.01

Mean index (Composite): –12.0%
T-test (p value): 0.04

Accessed: 06 October 2025

Table A.26. Indicator reference table – Emissions of mercury to air, land and water

EIP goal	Managing exposure to chemicals and pesticides
Data source	Outcome Indicator Framework H3a: Emissions of mercury to air, land and water, England, 2016 to 2020[58] Department for Environment, Food and Rural Affairs
Category	Environment Agency reporting
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	<table><tr><th>Year</th><th>2017</th><th>2018</th><th>2019</th><th>2020</th><th>2021</th><th>2022</th></tr><tr><td>Total emissions</td><td>1731.10</td><td>2011.75</td><td>1466.46</td><td>1478.68</td><td>1545.26</td><td>1553.93</td></tr></table> Unit: kg Trend: –10.2% (2017–2022) T-test (p value): 0.42 Accessed: 06 October 2025

Table A.27. Indicator reference table – UK pesticides load indicator

EIP goal	Managing exposure to chemicals and pesticides
Data source	Pesticides load indicator (PLI) for the UK: Phase 4 Report PC0116[59] Department for Environment, Food and Rural Affairs, University of Hertfordshire
Category	UK government research and analysis
Description and rationale	The PLI is a multi-component indicator, which combines data on the usage of different pesticide active substances in UK agriculture with information on their propensity to persist, bioaccumulate, or be lost via surface run-off or leaching, as well as information on their relative toxicity to wildlife. Data are derived from the UK Pesticide Usage Survey and the Pesticide Properties Database. The PLI supplements traditional metrics such as the 'total mass of pesticides applied' and the 'total area treated' by considering the changing mixture of different substances applied through time and the effect of their varying chemical or biochemical properties. The PLI consists of four environmental fate and 16 ecotoxicity metrics. It does not quantify harm or reflect environmental outcomes, as it does not account for any mitigation practices, or calculate exposure of real wildlife populations. Instead, the aim of the PLI is to illustrate relative trends in the potential pressure on the environment arising from the use of pesticides, to help inform UK policy decisions and the assessment of policy intervention.

Table A.27. Indicator reference table – UK pesticides load indicator (cont.)

EIP goal	Managing exposure to chemicals and pesticides
Methodology	This indicator is taken directly from the PLI dashboard. On the advice of Defra, we do not undertake trend assessments, due to the illustrative nature of the indices. For further information on the methodology, consult the Defra PLI report.[59]
Data	See Figure 3.1 from the PLI report.[120] Unit: percentage change Trend: not assessed T-test (p value): N/A (not RAG rated) Accessed: 06 October 2025

Table A.28. Indicator reference table – Exposure and adverse effects of chemicals on wildlife in the environment

EIP goal	Managing exposure to chemicals and pesticides
Data source	Outcome Indicator Framework H4: Exposure and adverse effects of chemicals on wildlife in the environment[60] and Exposure and adverse effects of chemicals on wildlife in the environment: interim H4 indicator[121] Department for Environment, Food and Rural Affairs, Environment Agency
Category	Defra reporting, Environment Agency research and analysis
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	See OIF dashboard indicator H4. Unit: N/A Trend: Not assessed T-test (p value): N/A (not RAG rated) Accessed: 06 October 2025

Maximise our resources, minimise our waste

Table A.29. Indicator reference table – Residual waste

EIP goal	Maximise our resources, minimise our waste
Data source	Outcome Indicator Framework J4: Residual waste (excluding major mineral wastes) in England[61,122] Department for Environment, Food and Rural Affairs
Category	Defra reporting

Table A.29. Indicator reference table – Residual waste (cont.)

EIP goal	Maximise our resources, minimise our waste
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103] In order to provide a trend assessment, we have used the five available datapoints in our 2024/2025 progress assessment.
Data	

Year	2019	2020	2021	2022	2023
Incineration (England)	286.68	299.29	307.39	306.84	322.3
Sent outside UK for energy recovery	50.20	30.90	26.42	25.16	27.40
Landfill	237.96	219.90	243.03	226.82	208.5
Total kg per person	574.84	550.10	576.83	558.82	558.20

Unit: kg per person

Trend: −2.9% (2019–2023)
T-test (p value): N/A (not enough data)

Accessed: 08 October 2025

Table A.30. Indicator reference table – Number of fly-tipping incidents

EIP goal	Maximise our resources, minimise our waste
Data source	Outcome Indicator Framework J6b: Fly-tipping incidents in England[62] and ENV24 – Fly-tipping incidents and actions taken in England[122] Department for Environment, Food and Rural Affairs
Category	Official statistics
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	

Year	2018–2019	2019–2020	2020–2021	2021–2022	2022–2023	2023–2024
Incidents	957.16	979.73	1138.35	1091.02	1084.04	1152.62

Unit: number of incidents (thousands)

Trend: +20.4% (2018–2019 to 2023–2024)
T-test (p value): 0.04

Accessed: 08 October 2025

Table A.31. Indicator reference table – Percentage of sampled fulmars having more than 0.1g of plastic in their stomachs, Greater North Sea (marine good environmental status, descriptor 'marine litter')

EIP goal	Maximise our resources, minimise our waste
Data source	Outcome Indicator Framework C1b: Clean Seas: marine litter Department for Environment, Food and Rural Affairs, Cefas,[63] Wageningen University and Research
Category	Defra reporting
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	(see table below)

Year	2014–2018	2015–2019	2016–2020	2017–2021	2018–2022	2019–2023
Percentage	48	47	44	44	43	37

Unit: percentage

Trend: −22.9% (2014–2018 to 2019–2023)
T-test (p value): 0.00

Accessed: 08 October 2025

Table A.32. Indicator reference table – Resource productivity

EIP goal	Maximise our resources, minimise our waste
Data source	Outcome Indicator Framework J2b: Gross value added per kg of raw material consumption (excluding fossil fuels) in England[65] and Regional gross value added (balanced) by industry: all ITL regions[123] Department for Environment, Food and Rural Affairs, Office for National Statistics
Category	Official Statistics
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	(see table below)

Year	2016	2017	2018	2019	2020	2021
£/kg	2.497	2.583	2.196	2.241	2.216	2.087

Unit: £/kg

Trend: −16.4% (2016–2021)
T-test (p value): 0.03

Accessed: 08 October 2025

Table A.33. Indicator reference table – Number of illegal waste sites

EIP goal	Maximise our resources, minimise our waste
Data source	Outcome Indicator Framework J6a: Illegal waste sites in England[62] Department for Environment, Food and Rural Affairs
Category	Defra reporting, Environment Agency research and analysis
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	(see table below)

Year	2018–2019	2019–2020	2020–2021	2021–2022	2022–2023	2023–2024
Number of active sites	685	544	470	419	407	344
Number of active high-risk sites	255	238	197	188	174	164

Unit: number of sites

Trends (2018–19 to 2023–24):

Total active sites: –49.8%
T-test (p value): 0.03

Active high-risk sites: –35.7%
T-test (p value): 0.04

Accessed: 08 October 2025

Table A.34. Indicator reference table – Amount of raw material consumed

EIP goal	Maximise our resources, minimise our waste
Data source	Outcome Indicator Framework J2: Raw material consumption[65] and England's raw material footprint,[124] Department for Environment, Food and Rural Affairs England population estimates time series data,[67] Office for National Statistics
Category	Modified OIF indicator, based on official statistics

Table A.34. Indicator reference table – Amount of raw material consumed (cont.)

EIP goal	Maximise our resources, minimise our waste
Description and rationale	This indicator provides a measure of England's material footprint, by tracking primary raw material consumption/extraction that is attributable to final domestic demand for goods and services from residents in England. It is used as a proxy for the scale of environmental impact from resource use. This indicator is identical to OIF Indicator J2 (Raw material consumption). However, we have updated it in line with the most recent statistical release. As a result, the data presented differ slightly from that presented in J2, as values for previous years were updated in the most recent release.
Methodology	Data for this indicator are extracted from Figure 1 of the England's raw material footprint publication, which shows trends in total annual raw material consumption in tonnes. We convert to tonnes per capita following the methodology used for OIF Indicator J2 by dividing the consumption of metal ores, non-metal mineral materials and biomass, for each given year, by the population of England, as calculated by the Office for National Statistics.[67] We also follow the OIF Indicator J2 methodology in excluding fossil fuel consumption from the dataset. The OIF also utilises smoothed data; we do not, as discussed in Chapter 2.
Data	

Year	2017	2018	2019	2020	2021	2022
Metal ores	1.483	1.575	1.487	1.370	1.654	2.030
Non-metallic minerals	6.458	7.084	6.935	6.699	7.521	8.575
Biomass	5.215	5.251	5.423	4.557	4.757	4.900
Total	13.156	13.910	13.846	12.626	13.933	15.505

Unit: tonnes per capita (excluding fossil fuels)

Trend (Total): +17.8% (2017–2022)
T-test (p value): 0.00

Accessed: 08 October 2025

Table A.35. Indicator reference table – Hazardous waste disposal

EIP goal	Maximise our resources, minimise our waste
Data source	Waste Data Interrogator[68] Environment Agency
Category	UK government research and analysis
Description and rationale	We use this indicator to track trends in the volume of hazardous waste sent for disposal, used as a proxy for hazardous chemicals in the economy. It ensures we consider the latter stages of chemicals' life cycles in our assessment. The waste interrogator data show the quantities and types of waste managed in England within the regulatory framework. These data are reported to the Environment Agency for compliance monitoring purposes.
Methodology	Data for this indicator are taken from the hazardous waste trends tab of the national-level waste management in England data tables. We use the total tonnage for each year of the hazardous waste deposit trends defined by disposal and recovery options.
Data	

Year	2019	2020	2021	2022	2023	2024
Value	5.989	5.384	5.861	6.019	6.040	7.087

Unit: million tonnes

Trend: +18.3% (2019–2024)
T-test (p value): 0.00

Accessed: 08 October 2025

Using resources from nature sustainably

Table A.36. Indicator reference table – Fish stocks that are sustainably harvested (marine good environmental status, descriptor 'commercial fish')

EIP goal	Using resources from nature sustainably
Data source	Outcome Indicator Framework C10a: Productive seas: fish and shellfish stocks fished sustainably[69] and ENV09 England Biodiversity Indicator 23: Sustainable Fisheries[70] Department for Environment, Food and Rural Affairs, Joint Nature Conservation Committee
Category	UK Biodiversity Indicator, accredited official statistics
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103] We report the percentage sustainably harvested – less than or equal to Maximum Sustainable Yield (MSY) – and within MSY range.

Table A.36. Indicator reference table – Fish stocks that are sustainably harvested (marine good environmental status, descriptor 'commercial fish') (cont.)

EIP goal	Using resources from nature sustainably					
Data	Year	2015	2016	2017	2018	2019	2020

Year	2015	2016	2017	2018	2019	2020
Value	47.368	50.877	45.614	52.632	50.877	56.140

Unit: percentage of fish stocks exploited with respect to MSY

Trend: +18.5% (2015–2020)
T-test (p value): 0.01

Accessed: 08 October 2025

Table A.37. Indicator reference table – Percentage of woodland that is sustainably managed

EIP goal	Using resources from nature sustainably
Data source	Forestry Commission key performance indicators: Percentage of woodland that is sustainably managed[13] Forestry Commission
Category	Official statistics
Description and rationale	This indicator includes all sustainably managed woodland in England, including the nation's forests managed by Forestry England. 'Sustainably managed' is defined by the Forestry Commission as woodland managed to the UK Forestry Standard,[125,126] that has a Woodland Management Plan, or for which the Forestry Commission has provided a grant or felling licence within the last 15 years. It is recognised that other woodland might be considered as sustainably managed. However, the Forestry Commission does not have the data to include this.
Methodology	Data for this indicator are based on the metric 'percentage of sustainably managed woodland in England', taken from the Forestry Commission's annual key performance indicators publication. There are multiple data points recorded throughout each year. For simplicity, and because the data do not fluctuate significantly between measurements within a given year, we use the value as of 31 March of each reporting year.
Data	

Year	2020	2021	2022	2023	2024	2025
Percentage	59	59	58	58	57	57

Unit: percentage of woodland

Trend: –3.4% (2020–2025)
T-test (p value): 0.03

Accessed: 08 October 2025

Table A.38. Indicator reference table – Global environmental impacts of UK consumption of key commodities

EIP goal	Using resources from nature sustainably
Data source	Outcome Indicator Framework K1a: Area of deforestation associated with UK consumption[71] Department for Environment, Food and Rural Affairs, Joint Nature Conservation Committee
Category	UK Biodiversity Indicator, accredited official statistics
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	(see table below)

Year	2017	2018	2019	2020	2021	2022
Thousand hectares	45.4	48.0	45.2	44.6	40.5	35.6

Unit: thousand hectares

Trend: −21.6% (2017–2022)
T-test (p value): 0.00

Accessed: 08 October 2025

Mitigating and adapting to climate change

Table A.39. Indicator reference table – UK GHG emissions

EIP goal	Mitigating and adapting to climate change
Data source	UK greenhouse gas (GHG) emissions statistics[127] Department for Energy Security and Net Zero
Category	Accredited official statistics
Description and rationale	This indicator assesses progress towards government's target of meeting Net Zero greenhouse gas emissions by 2050 relative to a 1990 baseline, and broadly follows the Climate Change Committee's methodology applied in their annual UK mitigation progress reports. Data are published annually. The most recent data point is usually based on a provisional statistical release. We use the reported total emissions, which cover seven greenhouse gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride and nitrogen trifluoride. Data are reported at a UK level, as the 2050 Net Zero emissions target is UK-wide, and the Secretary of State has ultimate responsibility for ensuring it is met under the Climate Change Act 2008.

Table A.39. Indicator reference table – UK GHG emissions (cont.)

EIP goal	Mitigating and adapting to climate change
Methodology	All historical data are taken from the most recent statistical release, as changes to greenhouse gas inventories can result in retrospective adjustments to emissions levels. We use the total annual territorial greenhouse gas emissions and sum this with the emissions from international aviation and shipping to provide a total.
Data	(see table below)

Year	2019	2020	2021	2022	2023	2024
Total UK territorial emissions	447.5	408.0	422.5	404.7	385.0	371.4
UK international aviation and shipping	43.4	21.2	20.0	34.7	39.5	42.2
Total	490.9	429.2	442.5	439.4	424.5	413.6

Unit: million tonnes carbon dioxide equivalent ($MtCO_2e$)

Trend: −15.7% (2019–2024)
T-test (p value): 0.06

Accessed: 06 October 2025

Table A.40. Indicator reference table – Consumption-based GHG emissions in England

EIP goal	Mitigating and adapting to climate change
Data source	Outcome Indicator Framework J1: Consumption based greenhouse gas emissions in England[73] and Carbon footprint for the UK and England[74] Department for Environment, Food and Rural Affairs
Category	Modified OIF indicator, official statistics
Description and rationale	This indicator tracks annual emissions relating to consumption in England. It is used to show how consumer preferences and behaviour are impacting on the overall national carbon footprint. 'Consumption emissions' are estimates relating to the emissions produced within a country's territory or economic sphere. The total carbon footprint covers the seven main greenhouse gases: carbon dioxide, methane, nitrous oxide, hydroflourocarbons, perfluorocarbons, nitrogen trifluoride and sulphur hexafluoride. The data may differ from OIF Indicator J1 as we also draw from the source dataset, which can be updated after the annual OIF refresh. All previous years of data are extracted for every report, as each year the estimates relating to previous years are subject to revision because of revisions to the underlying data or methodological improvements.

Table A.40. Indicator reference table – Consumption-based GHG emissions in England (cont.)

EIP goal	Mitigating and adapting to climate change						
Methodology	Household heating emissions and household transport emissions are summed to provide the 'direct household emissions of greenhouse gases', following the OIF Indicator J1 methodology. This is then summed with greenhouse gas emissions embedded in imported goods and services and those from England-produced goods and services to provide a total.						
Data	Year	2017	2018	2019	2020	2021	2022
	Direct household	117	118	115	102	109	101
	Embedded in imported goods and services	314	337	331	280	313	339
	Produced goods and services	194	197	194	170	177	178
	Total	625	652	640	552	599	618

Unit: million tonnes carbon dioxide equivalent ($MtCO_2e$)

Trend: −1.1% (2017–2022)
T-test (p value): 0.82

Accessed: 06 October 2025

Table A.41. Indicator reference table – Emissions of fluorinated gases

EIP goal	Mitigating and adapting to climate change						
Data source	Outcome Indicator Framework A2: Emissions of greenhouse gases from natural resources, waste and fluorinated gases[75] Department for Environment, Food and Rural Affairs						
Category	Defra reporting						
Methodology	No adjustments were made to the data. For this indicator, we extract the F-gas component of OIF A2. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]						
Data	Year	2017	2018	2019	2020	2021	2022
	Emissions (Fluorinated gas only)	9.362	8.826	8.249	7.423	6.951	6.424

Unit: million tonnes carbon dioxide equivalent ($MtCO_2e$)

Trend: −31.4% (2017–2022)
T-test (p value): 0.02

Accessed: 06 October 2025

Reduced risk of harm from environmental hazards

Table A.42. Indicator reference table – Properties at high risk of flooding

EIP goal	Reduced risk of harm from environmental hazards
Data source	Flood and coastal erosion risk management annual report[78] Environment Agency
Category	Statutory reporting
Description and rationale	This indicator tracks the total number of properties at high risk of flooding in England. The data are published in annual reports by the Environment Agency under the Flood and Water Management Act 2010. The reports include an assessment of the number of properties at four degrees of risk (high, medium, low, very low) from multiple types of flooding (rivers and the sea, surface water). A similar data source will be used for the OIF Indicator F1 ('Disruption or unwanted impacts from flooding or coastal erosion').[128] However, F1 is an Interim OIF indicator, comprising one data point, and is still being developed.
Methodology	Data for this indicator were extracted from past reports for each individual financial year to create a time series. To calculate the total number of properties at high risk of flooding, we sum the total for rivers and the sea, with the total at high risk from surface water flooding. This indicator is not limited to residential properties. The Environment Agency introduced a new methodology in 2022, which considered the risk to total properties rather than residential properties only, as previously presented (methodology 2 below). As a result, there was an approximate 10% increase to the data, and so 2022–2023 and 2023–2024 cannot be compared directly to prior years. In 2024–2025, the national flood risk assessment was updated, providing an insight into changes in risk that may occur with climate change (methodology 3 below). Therefore, we do not compare the data for 2024–2025 directly to prior years and so have not calculated a trend. Instead, we refer to the data in the narrative to provide context.

Data							
	Year	**2019– 2020**	**2020– 2021**	**2021– 2022**	**2022– 2023**	**2023– 2024**	**2024– 2025**
	Count (methodology 1)	524000	524000	515000	–	–	–
	Count (methodology 2)	–	–		583800	540200	–
	Count (methodology 3)	–	–	–	–	–	1439700

Unit: total number of properties at high risk of flooding

Trend: not assessed (not RAG rated)
T-test (p value): N/A (not enough data, not RAG rated)

Accessed: 06 October 2025

Table A.43. Indicator reference table – Number of wildfire incidents

EIP goal	Reduced risk of harm from environmental hazards
Data source	Forestry Commission wildfire statistics for England[79] Forestry Commission
Category	UK government research and analysis
Description and rationale	These data are published to show the location and nature of all wildfire incidents in England attended by the fire and rescue services over the period 2009–2010 to 2020–2021. The statistics reported are outside the scope of official statistics, but have been developed under the UKSA Code of Practice for Statistics. This indicator was developed to track wildfire frequency, which represents a significant increasing threat to nature and commercial forestry and agriculture.[77] Wildfire incidents and area burnt are reported for each financial year. The Forestry Commission has advised that they do not, at time of publication, have sufficient resources to update this indicator.
Methodology	Data on wildfire incidents are disaggregated by 24 land-cover classes. We regrouped the data for clarity, and to align with the indicator used by the Climate Change Committee (CCC) in their biennial assessments of climate adaptation progress.[129]

CCC/OEP categories	Forestry Commission land-cover class
Broadleaf woodland	Broadleaf woodland, Mixed – predominantly broadleaf
Conifer woodland	Conifer woodland, Mixed – predominantly conifer
Other woodland	Coppice, Coppice with standards, Young trees, Low density, Assumed woodland, Ground prepared for planting, Shrub land, Felled, Failed, Windblown, Uncertain
Arable	Arable
Improved grassland	Improved grassland
Semi-natural grassland	Semi-natural grassland
Mountain, heath and bog	Mountain, heath and bog
Other non-woodland	Woodland (other verified), Non-woodland (as not verified), Other, No classification

Table A.43. Indicator reference table – Number of wildfire incidents (cont.)

EIP goal	Reduced risk of harm from environmental hazards					
Data	Year	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021

Year	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021
Broadleaf woodland	2529	2201	2907	4359	3088	3901
Conifer woodland	524	394	545	904	651	890
Other woodland	297	238	313	618	287	375
Arable	1873	1792	1994	3395	2113	2103
Improved grassland	3438	3213	3427	6651	3588	4169
Semi-natural grassland	510	426	475	971	494	606
Mountain, heath and bog	145	127	150	349	184	275
Other non-woodland	1510	1210	1589	2748	1511	1857
Total	10826	9601	11400	19995	11916	14176

Unit: number of wildfire incidents

Trend: +30.9% (2015–2016 to 2020–2021)
T-test (p value): 0.48

Accessed: 06 October 2025

Table A.44. Indicator reference table – Percentage of flood or coastal risk management assets, in high-consequence systems, in required condition in England

EIP goal	Reduced risk of harm from environmental hazards
Data source	Outcome Indicator Framework Figure F2b: Percentage of flood or coastal risk management assets, in high consequence systems, in required condition in England, 2017/2018 to 2023/2024,[81] and Flood and Coastal Risk Management National Report: 1 April 2024 to 31 March 2025[82] Department for Environment, Food and Rural Affairs, Environment Agency.
Category	Environment Agency reporting
Description and rationale	This indicator provides a measure of flood or coastal risk management assets, in high consequence systems in required condition in England. It is used as a proxy to identify flood or coastal risk. We have updated this indicator in line with the most recent statistical release, which was published after the 2025 annual OIF update. As a result, the data presented for 2024-2025 can be found in the EA report.

Table A.44. Indicator reference table – Percentage of flood or coastal risk management assets, in high-consequence systems, in required condition in England (cont.)

EIP goal	Reduced risk of harm from environmental hazards
Methodology	Data for this indicator are based on the percentage of 'Assets not in required condition' and 'Assets in required condition', taken from the Environment Agency Flood and coastal erosion risk management report for year 2024–2025, and the OIF: Figure F2b for all previous years. See government's OIF indicator for a more detailed description of the methodology. Data provided in EA Report for 2024–2025 is provided as 'Assets in required condition' only. Consequently, a deduction from a total of 100% is made to calculate 'Assets not in required condition' percentage.

Data							

Year	2019–2020	2020–2021	2021–2022	2022–2023	2023–2024	2024–2025
Assets not in required condition	3.9	5.5	8.2	5.5	7.4	7.2
Assets in required condition	96.1	94.5	91.8	94.5	92.6	92.8

Unit: percentage

Trend: –3.4% (2019–2020 to 2024–2025)
T-test (p value): 0.22

Accessed: 06 October 2025

Enhancing biosecurity

Table A.45. Indicator reference table – Number of INNS becoming established

EIP goal	Enhancing biosecurity
Data source	Outcome Indicator Framework H1: Abatement of the number of invasive non-native species entering and establishing against a baseline[83] Department for Environment, Food and Rural Affairs, Joint Nature Conservation Committee
Category	Accredited official statistics
Methodology	This indicator shows the cumulative net totals of all invasive non-native species (INNS) established across or along 10% or more of the land area or coastline of Great Britain, minus any eradications. One cumulative net total data point is reported for each 10-year period. Each year reported therefore presents the cumulative total for the preceding decade, hence 1969 represents the decade '1960-1969' and so on. The most recent data points for each category therefore cover a shorter time period than the others (four years from 2020 to 2023). See the OIF for a more detailed description of the methodology.

Table A.45. Indicator reference table – Number of INNS becoming established (cont.)

EIP goal	Enhancing biosecurity						
Data	Year	1969	1979	1989	1999	2009	2019	2023

Year	1969	1979	1989	1999	2009	2019	2023
Freshwater	4	6	11	12	12	13	14
Marine (Coastal)	2	5	11	14	24	29	30
Terrestrial	28	37	45	51	57	60	64
Total	34	48	67	77	93	102	108

Unit: species count

Trend (total): +217.6% (1969–2023)
T-test (p value): 0.02

Accessed: 06 October 2025

Table A.46. Indicator reference table – Number of additional tree pests and diseases becoming established

EIP goal	Enhancing biosecurity
Data source	Outcome Indicator Framework H2: Distribution of invasive non-native species and plant pests and diseases[85] and Forestry Commission Key Performance Indicators[13] Department for Environment, Food and Rural Affairs, Forestry Commission
Category	Forestry Commission reporting
Methodology	This indicator enumerates those additional tree pests and diseases formally considered as becoming established by the UK Plant Health Risk Group within a rolling 10-year period. No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103]
Data	

Rolling 10-year period	2010–2019	2011–2020	2012–2021	2013–2022	2014–2023	2015–2024
Count	3	3	3	2	2	3

Unit: species count: Number of additional tree pests and diseases becoming established in England since the year 2000

Trend: 0.0% (2010–2019 to 2015–2024)
T-test (p value): 0.18

Accessed: 06 October 2025

Enhancing beauty, heritage and engagement with the natural environment

Table A.47. Indicator reference table – Visits to green and natural spaces at least once per week by adults

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Data source	Outcome Indicator Framework G4c: Frequency of visits to green and natural spaces in the past 12 months by adults in England,[86] and People and Nature Survey for England[130] Department for Environment, Food and Rural Affairs, Natural England
Category	Accredited official statistics
Description and rationale	This indicator was developed by government to assess changes in the attitudes and behaviours of children and adults relating to the environment. Spending time in the natural environment is important for both human health and wellbeing, and for increasing pro-environmental behaviours to support nature recovery. The People and Nature Survey for England (PANS) is one of the main sources of data and statistics about how people in England experience and think about the environment. It has been collecting data monthly since April 2020. Data may differ slightly to G4c, as we use the source dataset, which may have been updated after the annual OIF refresh.
Methodology	Data for this indicator are extracted from PANS. Data tables and publications from the adults' survey year are also presented in PANS, alongside a full description of the methodology.[130] No adjustments were made to the data this year. For our trend assessment we report on changes to the number of respondents visiting 'at least once per week'.

Table A.47. Indicator reference table – Visits to green and natural spaces at least once per week by adults (cont.)

EIP goal	Enhancing beauty, heritage and engagement with the natural environment					
Data	Year	2020–2021	2021–2022	2022–2023	2023–2024	2024–2025
	At least once per week	71.3	69.4	69.2	70.0	67.7
	Once or twice a month	11.1	11.4	13.3	13.3	13.9
	Less than once a month	13.6	14.0	14.0	13.8	15.2
	Never	4.0	5.2	3.5	2.9	3.2

Unit: weighted percentage

Trend (at least once per week): −5% (2020–2021 to 2024–2025)
T-test (p value): N/A (not enough data)

Accessed: 07 October 2025

Table A.48. Indicator reference table – Percentage of the total population in England living within 15 minutes' walk of green space, as of 2024

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Data source	Access to Green Space in England[88] Department for Environment, Food and Rural Affairs
Category	Official statistics in development
Description and rationale	This indicator was developed by government to assess access to green space in England. It uses three scenarios to describe how many households live within a 15-minute walk of green space. The scenarios vary in the type of green space and rights of way that are included, which has a large impact on the estimation of the number of households with access.
Methodology	Data for this indicator is extracted from Figure 1 of the Access to green space in England publication, which also presents a full description of the methodology.[88] No adjustments were made to the data.

Table A.48. Indicator reference table – Percentage of the total population in England living within 15 minutes' walk of green space, as of 2024 (cont.)

EIP goal	Enhancing beauty, heritage and engagement with the natural environment	
Data	Year	2024
	All green space	87
	All green space with rights of way	93
	Doorstep standard	15
	Local standard	12
	Neighbourhood standard	33
	Combined standard	5
	Partial-combined standard	18
	Unit: percentage of households Trend: N/A (not RAG rated) T-test (p value): N/A (not enough data, not RAG rated) Accessed: 07 October 2025	

Table A.49. Indicator reference table – Pro-environmental behaviours of adults/of children

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Data source	Outcome Indicator Framework G6b: Adults' pro-environmental behaviour score as an index from 0 to 100, England[89] Outcome Indicator Framework G6d: Children's pro-environmental behaviour score as an index from 0 to 100, England[89] Department for Environment, Food and Rural Affairs, People and Nature Survey for England[130] Natural England
Category	Accredited official statistics

Table A.49. Indicator reference table – Pro-environmental behaviours of adults/of children (cont.)

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Description and rationale	This indicator was developed by government to assess changes in the attitudes and behaviours of children and adults relating to the environment. Data for the Adults' People and Nature Survey (A-PANS) for England are published after the annual update of the OIF Indicator G6b; therefore, data may differ slightly to the OIF dashboard. Data for the Children's People and Nature Survey (C-PANS) is published on a different frequency from that for the A-PANS and therefore, the two indicator trends may reflect different timeframes. A-PANS is one of the main sources of data and statistics about how adults in England experience and think about the environment. It has been collecting data monthly since April 2020. C-PANS provides information on how children and young people experience and think about the natural environment. It is run twice each year, once in term time and once in holiday time.
Methodology	Data for this indicator are extracted from the PANS for England. Data tables and publications from the adults' survey year are also presented in PANS, alongside a full description of the methodology.[87] No adjustments were made to the data this year. In order to provide a trend assessment, we have used the five available datapoints in our 2024/2025 progress assessment.
Data	

Year	2020–2021	2021–2022	2022–2023	2023–2024	2024–2025
Adults	49.72	49.23	50.09	50.73	49.99
Children	42.82	45.28	41.05	38.96	–

Unit: index (0 to 100)

Trend:

Adult: +0.5% (2020–2021 to 2024–2025)
T-test (p value): N/A (not enough data)

Children: −9.0% (2020–2021 to 2023–2024)
T-test (p value): N/A (not enough data)

Accessed: 07 October 2025

Table A.50. Indicator reference table – Changes in landscape and waterscape character

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Data source	Outcome Indicator Framework G1a: Changes in the landscape characteristics of NCAs (National Character Areas) in England, overall and within and outside of protected landscapes,[90] and People and Nature Survey for England[130] Department for Environment, Food and Rural Affairs, Natural England
Category	Defra reporting, accredited official statistics
Methodology	No adjustments were made to the data. See the OIF dashboard for a more detailed description of the methodology.[103] We do not apply a past trends RAG rating to this indicator as there is insufficient data for a time series.

Data						
	Extent	Mainly declining	Some declining	Mixed change and mainly little change	Some improving	Mainly improving
	All NCAs in England	3.77	30.19	6.29	44.65	15.09
	NCAs within protected landscapes	2.70	27.03	4.05	47.30	18.92
	NCAs outside protected landscapes	4.71	32.94	8.24	42.35	11.76

Unit: percentage of NCAs

Trend: Not assessed (not RAG rated)
T-test (p value): N/A (not enough data, not RAG rated)

Accessed: 07 October 2025

Table A.51. Indicator reference table – Time spent outside every day or most days by children during school term

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Data source	Outcome Indicator Framework G4d: Frequency of time spent outside in the last week by children in England,[86] and People and Nature Survey for England[130] Department for Environment, Food and Rural Affairs, Natural England
Category	Defra reporting

Table A.51. Indicator reference table – Time spent outside every day or most days by children during school term (cont.)

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Methodology	No adjustments were made to the data. See the OIF dashboard for a more detailed description of the methodology.[103] In order to provide a trend assessment, we have used the four available datapoints in our 2024/2025 progress assessment.
Data	<table><tr><th>Year</th><th>2021</th><th>2022</th><th>2023</th><th>2024</th></tr><tr><td>Every Day</td><td>59.64</td><td>56.07</td><td>56.76</td><td>52.33</td></tr><tr><td>Most Days</td><td>28.18</td><td>28.52</td><td>30.35</td><td>32.19</td></tr><tr><td>Once or twice</td><td>9.59</td><td>12.33</td><td>10.57</td><td>13.13</td></tr><tr><td>Never</td><td>1.57</td><td>1.91</td><td>1.47</td><td>1.90</td></tr><tr><td>Total: Every Day and Most Days</td><td>87.82</td><td>84.59</td><td>87.11</td><td>84.52</td></tr></table> Unit: weighted percentage Trend: –3.8% (2021–2024) T-test (p value): N/A (not enough data) Accessed: 07 October 2025

Table A.52. Indicator reference table – Time spent outside every day or most days in the last week by children during school holidays

EIP goal	Enhancing beauty, heritage and engagement with the natural environment
Data source	Outcome Indicator Framework G4d: Frequency of time spent outside in the last week by children in England,[86] and People and Nature Survey for England[130] Department for Environment, Food and Rural Affairs, Natural England
Category	Accredited official statistics
Methodology	No adjustments were made to the data. See government's Outcome Indicator Framework indicator for a more detailed description of the methodology.[103] In order to provide a trend assessment, we have used the four available datapoints in our 2024/2025 progress assessment.

Table A.52. Indicator reference table – Time spent outside every day or most days in the last week by children during school holidays (cont.)

EIP goal	Enhancing beauty, heritage and engagement with the natural environment			
Data	Year	2021	2022	2023	2024

Year	2021	2022	2023	2024
Every Day	13.68	12.46	11.73	10.79
Most Days	38.76	37.69	34.69	35.68
Once or twice	41.40	43.40	47.47	47.08
Never	6.11	6.41	4.85	5.22
Total: Every Day and Most Days	52.44	50.15	46.42	46.47

Unit: weighted percentage

Trend: −11.4% (2021–2024)

T-test (p value): N/A (not enough data)

Accessed: 07 October 2025

References

(1)   UK Statistics Agency. *Code of Practice for Statistics*. https://code.statisticsauthority.gov.uk (accessed 2025-11-11).

(2)   UK Parliament. *Environment Act 2021*; 2021. https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted.

(3)   Office for Environmental Protection. *Strategy and Enforcement Policy*; 2022. https://www.theoep.org.uk/strategy-and-enforcement-policy (accessed 2023-11-16).

(4)   Office for Environmental Protection. *OEP Governance Framework*. https://www.theoep.org.uk/report/oep-governance-framework (accessed 2023-11-16).

(5)   Government Finance Function; HM Treasury. *Orange Book*. GOV.UK. https://www.gov.uk/government/publications/orange-book (accessed 2024-11-04).

(6)   Office for Environmental Protection. *Annual Report and Accounts from April 1st 2023 to 31st March 2024*. https://www.theoep.org.uk/report/annual-report-and-accounts-april-1st-2023-31st-march-2024 (accessed 2025-11-11).

(7)   UK Statistics Agency. *Voluntary application of the UKSA Code of Practice for Statistics*. https://code.statisticsauthority.gov.uk/voluntary-application/ (accessed 2023-11-16).

(8)   Office for Environmental Protection. *Contact*. https://www.theoep.org.uk/contact-us (accessed 2024-12-06).

(9)   Department for Environment, Food & Rural Affairs. *Environmental Improvement Plan 2023*; 2023. https://www.gov.uk/government/publications/environmental-improvement-plan (accessed 2023-10-19).

(10)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework Assessment Methodology*. https://oifdata.defra.gov.uk/assessment/ (accessed 2024-10-08).

(11)   Department for Environment, Food & Rural Affairs. *UK Biodiversity indicators*. https://www.gov.uk/government/statistics/biodiversity-indicators-for-the-uk (accessed 2025-09-04).

(12)   Department for Environment, Food & Rural Affairs. *England biodiversity indicators*. GOV.UK. https://www.gov.uk/government/statistics/england-biodiversity-indicators (accessed 2023-11-30).

(13)   Forestry Commission. *Forestry Commission Key Performance Indicators*; 2025. https://www.gov.uk/government/collections/forestry-commission-corporate-plan-performance-indicators (accessed 2025-10-06).

(14)   Office for Environmental Protection. *Reports and publications*. https://www.theoep.org.uk/reports-publications (accessed 2023-11-17).

(15)   Department for Environment, Food & Rural Affairs. *Environmental Improvement Plan: Annual Progress Report 2024 to 2025*; 2025. https://www.gov.uk/government/publications/environmental-improvement-plan-annual-progress-report-2024-to-2025/environmental-improvement-plan-annual-progress-report-april-2024-to-march-2025 (accessed 2025-09-10).

(16)   Department for Environment, Food & Rural Affairs. *Department for Environment, Food and Rural Affairs Outcome Delivery Plan: 2021 to 2022*; 2021. https://www.gov.uk/government/publications/department-for-environment-food-and-rural-affairs-outcome-delivery-plan/department-for-environment-food-and-rural-affairs-outcome-delivery-plan-2021-to-2022.

(17)   Office for Environmental Protection. *Progress in Improving the Natural Environment in England, 2021/2022*; 2023. www.theoep.org.uk/report/progress-improving-natural-environment-england-20212022 (accessed 2023-10-12).

(18)   Department for Environment, Food & Rural Affairs. *25 Year Environment Plan*; 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf (accessed 2023-10-19).

(19)   Office for Environmental Protection. *Government remains largely off track to meet its environmental ambitions, finds OEP in annual progress report*. https://www.theoep.org.uk/report/government-remains-largely-track-meet-its-environmental-ambitions-finds-oep-annual-progress (accessed 2024-09-26).

(20)   Department for Environment, Food & Rural Affairs. *England Biodiversity Indicators: 2a Extent and condition of priority habitats*. https://www.gov.uk/government/statistics/england-biodiversity-indicators/1-extent-and-condition-of-protected-areas--2 (accessed 2023-11-28).

(21)   Department for Environment, Food & Rural Affairs. *England Biodiversity Indicators 9: Biodiversity and ecosystem services: greenhouse gas removal by forests*. https://www.gov.uk/government/statistics/england-biodiversity-indicators/9-biodiversity-and-ecosystem-services-greenhouse-gas-removal-by-forests (accessed 2023-11-28).

(22)   Joint Nature Conservation Committee. *Assessing Indicators | JNCC – Adviser to Government on Nature Conservation*; 2023. https://jncc.gov.uk/our-work/assessing-indicators/ (accessed 2023-11-28).

(23)   Department for Environment, Food & Rural Affairs. *Indicators of species abundance in England*. GOV.UK. https://www.gov.uk/government/statistics/indicators-of-species-abundance-in-england/ indicators-of-species-abundance-in-england (accessed 2024-10-07).

(24)   Office for Environmental Protection. *Methodological Statement – Progress in Improving the Natural Environment in England 2023/2024*; 2025. https://www.theoep.org.uk/report/government-has-chance-get-track-meet-legal-environmental-commitments-window-opportunity.

(25)   Department for Environment, Food & Rural Affairs. *The Significant Improvement Test*; 2023. https://www.gov.uk/government/publications/the-significant-improvement-test (accessed 2023-12-14).

(26)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework E7: Healthy soils*. https://oifdata.defra.gov.uk/themes/natural-resources/E7/ (accessed 2025-11-11).

(27)   HM Treasury. *The Green Book*; 2022. https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent/the-green-book-2020 (accessed 2023-09-28).

(28)   HM Treasury. *The Magenta Book*; 2020. https://assets.publishing.service.gov.uk/government/uploads/ system/uploads/attachment_data/file/879438/HMT_Magenta_Book.pdf (accessed 2023-09-28).

(29)   Department for Environment, Food & Rural Affairs. *25 Year Environment Plan Annex 1: Supplementary Evidence Report*; 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/ attachment_data/file/673492/25-year-environment-plan-annex1.pdf (accessed 2023-10-30).

(30)   European Environment Agency. *The European Environment — State and Outlook 2020: Knowledge for Transition to a Sustainable Europe*; 2020. https://www.eea.europa.eu/soer/publications/soer-2020 (accessed 2023-10-19).

(31)   Natural England. *Outcome Indicator Framework D5 Conservation status of our native species, 2022 – NERR124*. https://publications.naturalengland.org.uk/publication/6315201438941184 (accessed 2024-10-08).

(32)   United Nations. *SDG Indicator 15.5.1 – Red List Index – U.K. Indicators For The Sustainable Development Goals*. https://sdgdata.gov.uk/15-5-1/ (accessed 2025-10-08).

(33)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework D2: Extent and condition of protected sites – land, water and sea*. https://oifdata.defra.gov.uk/themes/wildlife/D2/ (accessed 2025-10-08).

(34)   Department for Environment, Food & Rural Affairs. *England Biodiversity Indicators 1: Extent and condition of protected areas*. https://www.gov.uk/government/statistics/england-biodiversity-indicators/1-extent-and-condition-of-protected-areas--2 (accessed 2025-08-10).

(35)   Centre for Environment, Fisheries and Aquaculture Science. *Summary of Progress towards Good Environmental Status – Marine Online Assessment Tool*; 2018. https://moat.cefas.co.uk/summary-of-progress-towards-good-environmental-status/#.

(36)   Joint Nature Conservation Committee. *UK Biodiversity Indicators 2024. Indicator C1: Protected areas*. https://webarchive.nationalarchives.gov.uk/ukgwa/20250304074657/https://jncc.gov.uk/our-work/ ukbi-protected-areas/ (accessed 2025-10-08).

(37)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework D4: Relative abundance and/or distribution of species*. https://oifdata.defra.gov.uk/themes/wildlife/D4/ (accessed 2025-09-26).

(38)   Department for Environment, Food & Rural Affairs. *Agriculture in the United Kingdom 2023 Chapter 10: Public payments*. https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2022/ chapter-10-public-payments (accessed 2025-10-08).

(39)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework D3: Area of woodland in England*. https://oifdata.defra.gov.uk/themes/wildlife/D3/ (accessed 2025-10-08).

(40)   Forest Research. *Woodland Statistics*. https://www.forestresearch.gov.uk/tools-and-resources/ statistics/statistics-by-topic/woodland-statistics/ (accessed 2025-10-08).

(41)   Department for Environment, Food & Rural Affairs. *Environmental Improvement Plan: Annual Progress Report 2023 to 2024*; 2024. https://www.gov.uk/government/publications/environmental-improvement-plan-annual-progress-report-2023-to-2024 (accessed 2025-10-08).

(42)   Department for Environment, Food & Rural Affairs. *Emissions of air pollutants in the UK – Summary*. https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-summary (accessed 2023-11-21).

(43)   Department for Environment, Food & Rural Affairs. *Annual and Exceedance Statistics*. https://uk-air.defra.gov.uk/data/exceedance?f_group_id=4&action=exceedance&go=Step+1 (accessed 2023-11-21).

(44)   Department for Environment, Food & Rural Affairs. *Air Pollution in the UK Report 2022*; 2023. https://uk-air.defra.gov.uk/library/annualreport/index.

(45)   Department for Environment, Food & Rural Affairs. *PM2.5 Targets (PERT and AMCT)*. https://uk-air.defra.gov.uk/pm25targets/progress (accessed 2024-09-18).

(46)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework A6: Exceedance of damaging levels of nutrient nitrogen deposition on ecosystems*. https://oifdata.defra.gov.uk/themes/air/A6/ (accessed 2025-11-11).

(47)   Environment Agency. *Environment Agency data on business environmental performance*. https://www.gov.uk/government/collections/environment-agency-data-on-business-environmental-performance (accessed 2025-10-23).

(48)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework B2: Serious pollution incidents to water*. https://oifdata.defra.gov.uk/themes/water/B2/ (accessed 2025-10-08).

(49)   Environment Agency. *Environmental Pollution Incidents (Category 1 and 2)*. https://www.data.gov.uk/dataset/c8625e18-c329-4032-b4c7-444b33af6780/environmental-pollution-incidents-category-1-and-2 (accessed 2025-10-08).

(50)   Environment Agency. *River basin management plans, updated 2022: progress report*. https://www.gov.uk/government/publications/river-basin-management-plans-updated-2022-progress-report/river-basin-management-plans-updated-2022-progress-report (accessed 2025-10-08).

(51)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework B3: State of the water environment*. https://oifdata.defra.gov.uk/themes/water/B3/ (accessed 2025-10-08).

(52)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework B4: Condition of bathing waters*. https://oifdata.defra.gov.uk/themes/water/B4/ (accessed 2025-10-08).

(53)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework B1: Pollution loads entering waters*. https://oifdata.defra.gov.uk/themes/water/B1/ (accessed 2025-10-08).

(54)   Environment Agency. *Environment Agency Chief Regulator's report 2023-24*. GOV.UK. https://www.gov.uk/government/publications/environment-agency-chief-regulators-report-2023-24/environment-agency-chief-regulators-report-2023-24 (accessed 2025-09-04).

(55)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework E8: Efficient use of water*. https://oifdata.defra.gov.uk/themes/natural-resources/E8/ (accessed 2025-10-08).

(56)   Department for Environment, Food & Rural Affairs. *UK and England soil nutrient balances, 2021*. GOV.UK. https://www.gov.uk/government/statistics/uk-and-england-soil-nutrient-balances-2021 (accessed 2025-10-08).

(57)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework J5: Prevent harmful chemicals from being recycled*. https://oifdata.defra.gov.uk/themes/resource-use-and-waste/J5/ (accessed 2024-10-08).

(58)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework H3: Emissions of mercury and persistent organic pollutants to the environment*. https://oifdata.defra.gov.uk/themes/biosecurity-chemical-and-noise/H3/ (accessed 2025-10-08).

(59)   Rainford, J.; Tzilivakis, J.; Garthwaite, D.; Lewis, K. *Finalising a Pesticide Load Indicator for the UK: Phase 4*; 2023; pp 1–77. https://researchprofiles.herts.ac.uk/en/publications/finalising-a-pesticide-load-indicator-for-the-uk-phase-4-report-p.

(60)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework H4: Exposure and adverse effects of chemicals on wildlife in the environment*. https://oifdata.defra.gov.uk/themes/biosecurity-chemical-and-noise/H4/ (accessed 2025-10-07).

(61)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework J4: Residual waste arising by type and sector*. https://oifdata.defra.gov.uk/themes/resource-use-and-waste/J4/ (accessed 2024-10-08).

(62)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework J6: Waste Crime*. https://oifdata.defra.gov.uk/themes/resource-use-and-waste/J6/ (accessed 2025-10-08).

(63)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework C1: Clean seas: marine litter*. https://oifdata.defra.gov.uk/themes/seas-and-estuaries/C1/ (accessed 2025-10-08).

(64)   Wageningen University and Research. *Annual Report Published on Plastics in Fulmars from the UK*; 2025. https://edepot.wur.nl/685216 (accessed 2023-11-27).

(65)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework J2: Raw material consumption*. https://oifdata.defra.gov.uk/themes/resource-use-and-waste/J2/ (accessed 2025-10-08).

(66)   Department for Environment, Food & Rural Affairs. *England's Material Footprint*. https://www.gov.uk/government/statistics/englands-material-footprint/englands-material-footprint (accessed 2025-08-20).

(67)   Office for National Statistics. *Population estimates time series dataset*. https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatestimeseriesdataset (accessed 2023-11-27).

(68)   Environment Agency. *Waste Data Interrogator*. https://www.data.gov.uk/dataset/aa53a313-f719-4e93-a98f-1b2572bd7189/2022-waste-data-interrogator (accessed 2025-10-08).

(69)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework C10: Productive seas: fish and shellfish stocks fished sustainably*. https://oifdata.defra.gov.uk/themes/seas-and-estuaries/C10/ (accessed 2025-09-12).

(70)   Department for Environment, Food & Rural Affairs. *England Biodiversity Indicators 23: Sustainable fisheries*. https://webarchive.nationalarchives.gov.uk/ukgwa/20250610171624/https://www.gov.uk/government/statistics/england-biodiversity-indicators/23-sustainable-fisheries and https://webarchive.nationalarchives.gov.uk/ukgwa/20211105230518/https://www.gov.uk/government/statistics/england-biodiversity-indicators (accessed 2025-11-11).

(71)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework K1: Global environmental impacts of UK consumption of key commodities*. https://oifdata.defra.gov.uk/themes/international/K1/ (accessed 2025-10-08).

(72)   Department for Energy Security & Net Zero. UK Territorial Greenhouse Gas Emissions Statistics: Provisional UK Greenhouse Gas Emissions Statistics 2024. https://www.gov.uk/government/collections/uk-territorial-greenhouse-gas-emissions-statistics (accessed 2025-10-06).

(73)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework J1: Carbon footprint and consumer buying choices*. https://oifdata.defra.gov.uk/themes/resource-use-and-waste/J1/ (accessed 2025-10-06).

(74)   Department for Environment, Food & Rural Affairs. *Carbon footprint for the UK and England to 2022*. https://www.gov.uk/government/statistics/uks-carbon-footprint/carbon-footprint-for-the-uk-and-england-to-2019#greenhouse-gas-emissions-associated-with-consumption (accessed 2025-10-06).

(75)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework A2: Emissions of greenhouse gases from natural resources*. https://oifdata.defra.gov.uk/themes/air/A2/ (accessed 2025-10-06).

(76)   Department for Environment, Food & Rural Affairs. *The Third National Adaptation Programme (NAP3) and the Fourth Strategy for Climate Adaptation Reporting*; 2024. https://www.gov.uk/government/publications/third-national-adaptation-programme-nap3 (accessed 2023-10-27).

(77)   Department for Environment, Food & Rural Affairs. *UK Climate Change Risk Assessment 2022*; 2022. https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2022 (accessed 2025-10-06).

(78)   Environment Agency. *Flood and coastal erosion risk management annual report*. https://www.gov.uk/government/publications/flood-and-coastal-risk-management-national-report (accessed 2024-10-06).

(79)   Forestry Commission. *Wildfire Statistics for England: Report to 2020-2021*; 2023. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1136838/FC-Wildfire-statistics-for-England-Report-to-2020-21-.pdf (accessed 2025-10-06).

(80)   Climate Change Committee. *Research to Update Indicators Which Monitor Progress in Adaptation in England (ADAS)*; 2023. https://www.theccc.org.uk/publication/research-to-update-indicators-which-monitor-progress-in-adaptation-in-england-adas/ (accessed 2025-10-08).

(81)   Department for Environment, Food & Rural Affairs. *F2: Communities resilient to flooding and coastal erosion*. https://oifdata.defra.gov.uk/themes/resilience/F2/ (accessed 2025-10-06).

(82)   Environment Agency. *Flood and coastal erosion risk management report: 1 April 2024 to 31 March 2025*. GOV.UK. https://www.gov.uk/government/publications/flood-and-coastal-risk-management-national-report/flood-and-coastal-erosion-risk-management-report-1-april-2024-to-31-march-2025 (accessed 2025-10-06).

(83)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework H1: Abatement of the number of invasive non-native species entering and establishing against a baseline*. https://oifdata.defra.gov.uk/themes/biosecurity-chemical-and-noise/H1/ (accessed 2025-10-06).

(84)   Joint Nature Conservation Committee. *UK Biodiversity Indicators – B6. Invasive species*. https://jncc.gov.uk/our-work/ukbi-b6-invasive-species/ (accessed 2025-10-06).

(85)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework H2: Distribution of invasive non-native species and plant pests and diseases*. https://oifdata.defra.gov.uk/themes/biosecurity-chemical-and-noise/H2/ (accessed 2025-10-06).

(86)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework G4: Engagement with the natural environment*. https://oifdata.defra.gov.uk/themes/natural-beauty-and-engagement/G4/ (accessed 2025-11-11).

(87)   Natural England. *The People and Nature Surveys for England: Data Tables and Publications from Adults' Survey Year 4 (April 2023 – March 2024)*; 2024. https://www.gov.uk/government/statistics/the-people-and-nature-surveys-for-england-data-tables-and-publications-from-adults-survey-year-4-april-2023-march-2024 (accessed 2024-10-29).

(88)   Department for Environment, Food & Rural Affairs. *Access to green space in England*. GOV.UK. https://www.gov.uk/government/statistics/access-to-green-space-in-england/access-to-green-space-in-england (accessed 2024-09-26).

(89) Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework G6: Environmental attitudes and behaviours*. https://oifdata.defra.gov.uk/themes/natural-beauty-and-engagement/G6/ (accessed 2025-10-08).

(90) Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework G1: Changes in landscape and waterscape character*. https://oifdata.defra.gov.uk/themes/natural-beauty-and-engagement/G1/ (accessed 2024-10-08).

(91) Department for Environment, Food & Rural Affairs. *CS, ES and SFI option uptake data 2025*. GOV.UK. https://www.gov.uk/government/statistics/cs-es-and-sfi-option-uptake-data-2025 (accessed 2025-09-08).

(92) Royal Society for the Protection of Birds. *Analysis of the Effectiveness of Agri-Environment Schemes on Farmland Bird Species Abundance*; 2024. https://www.theoep.org.uk/commissioned-research/analysis-effectiveness-agri-environment-schemes-farmland-bird-species.

(93) Department for Environment, Food & Rural Affairs. *Area under agri-environment schemes in England at 31st December 2024*. GOV.UK. https://www.gov.uk/government/statistics/area-under-agri-environment-schemes-in-england-2024/area-under-agri-environment-schemes-in-england-at-31st-december-2024 (accessed 2025-09-02).

(94) Natural England. *Higher Level Stewardship: Environmental Stewardship Handbook, Fourth Edition – January 2013 – NE350*. https://publications.naturalengland.org.uk/publication/2827091 (accessed 2025-10-27).

(95) Office for Environmental Protection. *Publications: Commissioned research*. https://www.theoep.org.uk/publications/commissioned-research (accessed 2025-11-07).

(96) Ericson, B., Keith, J. & Jones, B. Rapid Environmental Assessment (REA) Investigator Handbook, 2020. https://openknowledge.fao.org/server/api/core/bitstreams/310ba7dd-3fe1-4afb-aeb7-8f6833178f40/content.

(97) Environment Agency. *LCRM: Stage 1 Risk Assessment*; 2025. https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm/lcrm-stage-1-risk-assessment (accessed 2025-10-22).

(98) Arup Group Ltd. *Green Finance Review*; 2024. https://www.theoep.org.uk/index.php/our-reports-and-publications.

(99) Eftec. *Nature Markets Review*; 2026. https://www.theoep.org.uk/publications/commissioned-research.

(100) Office for Environmental Protection. *OEP Response to Land Use Framework Consultation*; 2025. https://www.theoep.org.uk/index.php/report/oep-response-land-use-framework-consultation (accessed 2025-09-02).

(101) Department for Environment, Food & Rural Affairs; Scottish Government; Welsh Government; Department for Agriculture, Environment and Rural Affairs. *Marine Strategy Part One: UK Updated Assessment and Good Environmental Status*; 2019. https://www.gov.uk/government/publications/marine-strategy-part-one-uk-updated-assessment-and-good-environmental-status (accessed 2023-11-30).

(102) Department for Environment, Food & Rural Affairs. *Marine Strategy Part One: UK Updated Assessment and Good Environmental Status*; 2025. https://consult.defra.gov.uk/uk-marine-strategy-1/uk-marine-strategy-part-one-update-2025/consult_view/ (accessed 2025-08-13).

(103) Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework for the 25 Year Environment Plan*. https://oifdata.defra.gov.uk/ (accessed 2024-10-08).

(104) Department for Environment, Food & Rural Affairs. *Chapter 10: Agricultural support payments*. GOV.UK. https://www.gov.uk/government/statistics/agriculture-in-the-united-kingdom-2024/chapter-10-agricultural-support-payments (accessed 2025-10-06).

(105) Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework D5: Conservation status of our native species*. https://oifdata.defra.gov.uk/themes/wildlife/D5/ (accessed 2025-10-08).

(106) Department for Levelling Up, Housing & Communities. *Land use in England, 2022*. https://www.gov.uk/government/statistics/land-use-in-england-2022 (accessed 2023-01-03).

(107) Department for Environment, Food & Rural Affairs. *Habitats and species of principal importance in England*. GOV.UK. https://www.gov.uk/government/publications/habitats-and-species-of-principal-importance-in-england (accessed 2023-12-08).

(108) UK Centre for Ecology and Hydrology. *UKCEH Land Cover Maps | UK Centre for Ecology & Hydrology*. https://www.ceh.ac.uk/data/ukceh-land-cover-maps (accessed 2025-10-08).

(109) Department for Environment, Food & Rural Affairs. *D1: Quantity, quality and connectivity of habitats*. https://oifdata.defra.gov.uk/themes/wildlife/D1/ (accessed 2025-11-11).

(110) Natural England. *Living England: From Satellite Imagery to a National Scale Habitat Map*. https://naturalengland.blog.gov.uk/2022/04/05/living-england-from-satellite-imagery-to-a-national-scale-habitat-map/ (accessed 2023-12-01).

(111)   The R Foundation. *R: The R Project for Statistical Computing*. https://www.r-project.org/ (accessed 2023-12-11).

(112)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework A1: Emissions for Five Key Air Pollutants*; 2025. https://oifdata.defra.gov.uk/themes/air/A1/ (accessed 2025-10-08).

(113)   Department for Environment, Food & Rural Affairs. *Consultation on Environmental Targets- Air Quality PM2.5 Targets Detailed Evidence Report*; 2022. https://consult.defra.gov.uk/natural-environment-policy/consultation-on-environmental-targets/supporting_documents/Air%20quality%20targets%20%20Detailed%20Evidence%20report.pdf.

(114)   Department for Environment, Food & Rural Affairs. *Air Pollution in the UK 2024*; 2025. https://www.gov.uk/government/publications/air-pollution-in-the-uk-2024 (accessed 2025-10-09).

(115)   UK Centre for Ecology and Hydrology. *Air Pollution Trends Report 2024: Critical Load and Critical Level Exceedances in the UK*; Department for Environment, Food & Rural Affairs (Defra), Nobel House, 17 Smith Square, London SW1P 3JR helpline@defra.gsi.gov.uk, 2024. https://uk-air.defra.gov.uk/library/reports?report_id=1157 (accessed 2025-09-27).

(116)   Environment Agency. *Water and Sewerage Companies in England: Environmental Performance Report 2022*; 2023. https://www.gov.uk/government/publications/water-and-sewerage-companies-in-england-environmental-performance-report-2022 (accessed 2025-10-06).

(117)   Environment Agency. *Water Resources 2023-2024: Analysis of the Water Industry's Annual Water Resources Performance*; 2024. https://www.gov.uk/government/publications/water-resources-2023-2024-analysis-of-the-water-industrys-annual-water-resources-performance/d8ad2f98-4116-4446-8aba-e3005541a060 (accessed 2024-10-17).

(118)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework F3: Disruption or unwanted impacts caused by drought*. https://oifdata.defra.gov.uk/themes/resilience/F3/ (accessed 2025-10-08).

(119)   Department for Environment, Food & Rural Affairs. *UK and England soil nutrient balances, 2023*. GOV.UK. https://www.gov.uk/government/statistics/uk-and-england-soil-nutrient-balances-2023 (accessed 2025-10-08).

(120)   Department for Environment, Food & Rural Affairs. *Finalising a Pesticide Load Indicator for the UK: Phase 5*; 2024; pp 1–25. https://sciencesearch.defra.gov.uk/ProjectDetails?ProjectId=21394.

(121)   Environment Agency. *Exposure and adverse effects of chemicals on wildlife in the environment: interim H4 indicator*. GOV.UK. https://www.gov.uk/government/publications/exposure-and-adverse-effects-of-chemicals-on-wildlife-in-the-environment-interim-h4-indicator (accessed 2025-11-03).

(122)   Department for Environment, Food & Rural Affairs. *Estimates of Residual Waste and Municipal Residual Waste in England*. GOV.UK. https://www.gov.uk/government/statistics/estimates-of-residual-waste-excluding-major-mineral-wastes-and-municipal-residual-waste-in-england/estimates-of-residual-waste-excluding-major-mineral-wastes-and-municipal-residual-waste-in-england (accessed 2025-08-12).

(123)   Office for National Statistics. *Regional gross value added (balanced) by industry: all ITL regions*. https://www.ons.gov.uk/economy/grossvalueaddedgva/datasets/nominalandrealregionalgrossvalueaddedbalancedbyindustry (accessed 2025-11-03).

(124)   Department for Environment, Food & Rural Affairs. *Englands Raw Material Footprint*. https://www.gov.uk/government/statistics/englands-material-footprint/englands-material-footprint (accessed 2025-10-08).

(125)   Forestry Commission. *The UK Forestry Standard*; 2017. https://www.gov.uk/government/publications/the-uk-forestry-standard.

(126)   Forest Research. The Revised UK Forestry Standard, 2023. https://www.forestresearch.gov.uk/tools-and-resources/fthr/uk-forestry-standard/.

(127)   Department for Energy Security & Net Zero. *UK territorial greenhouse gas emissions national statistics*. GOV.UK. https://www.gov.uk/government/collections/uk-territorial-greenhouse-gas-emissions-national-statistics (accessed 2025-10-06).

(128)   Department for Environment, Food & Rural Affairs. *Outcome Indicator Framework F1: Disruption or unwanted impacts from flooding or coastal erosion*. https://oifdata.defra.gov.uk/themes/resilience/F1/ (accessed 2025-10-06).

(129)   ADAS. *Research to Develop Indicators That Monitor Adaptation: APR25 (ADAS)*; 2025. https://www.theccc.org.uk/publication/research-to-develop-indicators-that-monitor-adaptation-ADAS/ (accessed 2025-06-02).

(130)   Natural England. *The People and Nature Surveys for England*; 2025. https://www.gov.uk/government/collections/people-and-nature-survey-for-england (accessed 2025-10-31).

E03479050