

England Biodiversity Indicators technical background document

Funding for biodiversity

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Background information

This is the technical background document for:

- Indicator 15 – Funding for biodiversity

For further information on the England Biodiversity Indicators and the Funding for biodiversity indicator 15 visit the [England Biodiversity indicators](#) page on GOV.UK.

For any enquires about this indicator or the methodology used to prepare it, email us at: enviro.statistics@defra.gov.uk

Section 1 of this document describes the methodology used in determining estimates of public sector spending on biodiversity in England. The indicator is based on a combination of estimates and expert opinion with judgment employed to finalise some components of the total. The figures should be taken as approximate.

Section 2 describes the methodology used to determine estimates of spending by non-governmental organisations (NGOs), with a main focus on biodiversity and/or nature conservation, in the UK. The indicators are based on a combination of published and unpublished estimates, with judgment employed to finalise some components of the total. The figures should be taken as approximate.

Section 1: Public sector spending on biodiversity in England

Methodology

All total expenditure figures in this indicator are presented as financial year data and 2021/2022, for example, refers to the period April 2021 to March 2022.

Two main sources are used to obtain information for the indicators from a wide range of government organisations; departmental annual reports; and expert contacts in the relevant organisations.

Spending on biodiversity is disaggregated where possible between:

- spending directly on nature reserves and conservation measures
- related spending on administration and training
- relevant research and development
- transfer payments to other organisations (to remove double counting of financial flows)

Direct conservation consists of activities that directly protect and promote variety among living organisms. However, direct action is often ineffective unless supported by a range of other activities such as research and development, education and publicity, or even simply administration. Sources of information may not always distinguish between these elements and it is necessary to exercise judgment as to when an item should be included or not, or whether the relevant component relating to direct action should be estimated by expert judgment or by reference to other information. For simplicity, the staff costs associated

with implementing biodiversity focused programmes within large organisations are not included.

In practice, because biodiversity spending is not always separately identified within the available sources, or if a single expenditure item includes biodiversity and non-biodiversity elements, an aspect of judgment is sometimes required. One example is the treatment of expenditure through agri-environmental schemes, where an estimate is made of the proportion of total scheme spending that is biodiversity-related.

Given the large number of public sector organisations in England funding activities related to biodiversity and the complexities involved in both defining and identifying relevant expenditure, the figures presented in this indicator are likely to be an underestimation of total biodiversity spend by the public sector. They do however provide a clear trend of expenditure on biodiversity since the beginning of 2000/2001.

A further difficulty is that many expenditure items are designed to meet more than one policy objective: an example is tree planting, which promotes biodiversity but might be largely driven by a demand for landscaping. In practice, the assessment by relevant experts of the appropriate share of any spending which can be attributed to biodiversity needs to consider issues such as the quality of conservation measures and the original intentions of the expenditure.

Finally, given the time period covered by this indicator, it is inevitable that government organisations will be restructured, funding streams will change, projects will come to an end and/or new projects will begin, and some biodiversity related expenditure will be outsourced to external organisations. Therefore, although every effort is made to consistently report annual expenditure, there are likely to be some differences in the coverage of the indicator from one year to the next.

Definitional issues concerning spending on biodiversity in England

Access to the countryside

Expenditure on providing access to the countryside has generally been regarded as being for the benefit of society rather than in support of biodiversity. An exception is made for spending on nature reserves, which will include spending on visitor centres and footpaths, but which can be regarded as being for educational and fund-raising purposes. Where expenditure on access is identifiable (for example, expenditure by the Forestry Commission which is specifically allocated to access but not to nature reserves) this is excluded.

Expenditure on National Parks

Much of the spending by the 10 National Parks in England is geared towards services for the public, including access and landscaping. However, some specific expenditure in the form of contributions to Local Biodiversity Action Plans and other activities has been identified. There is also some relevant expenditure that is funded by the agriculture departments in each country. It has not been possible to gather biodiversity-related

expenditure from the majority of National Parks due to various reasons but expenditure on agri-environment schemes within National Parks by relevant departments is captured.

Natural resource management

The following spending is excluded on the grounds that it is aimed at managing the use of the environmental assets for the economy, rather than for the protection and enhancement of biodiversity:

- spending by the Environment Agency on water abstraction licenses
- spending by the Centre for Environment, Fisheries and Aquaculture Science (CEFAS) on the management of the fishing industry
- spending by the Forestry Commission on the management of commercial forests

Forestry Commission expenditure

Gross expenditure by the Forestry Commission is included, in respect of the broad objective that includes biodiversity in the annual accounts for the Forestry Commission in England; each includes a diverse range of activities in addition to the biodiversity-related activities outlined below. A typical activity is the expansion of native woodland, as this is an important habitat to native animal and plant species. Other activities include management of Sites of Special Scientific Interest (SSSIs), creating linkages to isolated woodland remnants and woodland glade management for key moth and butterfly species living in the forests.

Road schemes

Biodiversity protection expenditure has not in the past been separately estimated by the Highways Agency (for the Department for Transport). However, since 2005/2006 the Agency has had a separate budget specifically allocated to the overall achievement of the Biodiversity Action Plan targets. It is believed that prior to 2005/2006, the (unallocated) spending on biodiversity was significantly lower. No estimates have been made for these years; therefore, some discontinuity will occur.

Landscape

Estimates of expenditure on land management regarding SSSIs, National Nature Reserves and other protected land areas are included. However, wherever possible expenditure relating to landscaping is excluded, as the main focus of this activity is for aesthetic reasons.

Spending by police forces on Wildlife Crime Units

The only Wildlife Crime Units are the National Wildlife Crime Intelligence Unit in the National Criminal Intelligence Service, mainly funded by Defra, and the Wildlife Crime Unit in the Metropolitan Police.

Other police forces do have individuals who are wildlife crime leads in their area, in some cases, these may be referred to as units. Some officers work full time as wildlife crime

officers, others incorporate wildlife crime duties in with work on other crime issues. No estimates of these costs are made.

Spending by the Metropolitan Police is difficult to capture as no separate budgets for wildlife crime were allocated until 2004 to 2005. Costs noted are estimated staff costs supplied by the Metropolitan Police. Spending in earlier years is assumed to be negligible on the understanding that prior to 2004 to 2005 much of the work was either carried out in the individuals' own time or while they were engaged in other duties.

Financing issues

European Union funding of biodiversity in England

Financing from the European Union (EU), for example, funding to agri-environment schemes, is included in this indicator so total figures are for spending on biodiversity in England irrespective of which public body the money comes from.

National Lottery funding

National Lottery funding from both the National Lottery Heritage Fund and the Big Lottery Fund is classified as government spending on the grounds that government bodies decide who and what to fund. National Lottery heritage funding is provided at a UK level, 84% (based on the relative population of the country) is allocated to biodiversity in England. The People's Postcode Lottery is not currently included.

Areas of expenditure on biodiversity in England not currently included in this indicator

There are several areas where funding for biodiversity in England is not currently included in this indicator. Examples of this include spending on local nature reserves and nature conservation by local authorities. Where gaps are identified, they can only be resolved if robust data from reliable sources are available across the entire time series for that funding stream, otherwise the trend assessment (particularly over the long term) will be affected.

Assumptions and adjustments made to the data

Where the relevant data are available, expenditure figures relating to biodiversity protection are separated out from general environmental spending. When this breakdown is not possible, estimates are made as to how much of the total spending can be attributed towards biodiversity protection. These estimates are mostly made through contacts within the organisations concerned, ideally by the person responsible for the relevant programme.

Although this process should mean that all relevant spending is captured, it does mean that we are sometimes dependent upon expert judgment which can have limitations. The process by which experts arrive at their judgment may not be documented, and subsequent assessments may not be made on a consistent basis. Also, these experts may

have a different view of what constitutes spending on biodiversity and hence the estimates they supply may not always be directly comparable. We do try to maintain consistency by asking experts to explain or justify the reasons for any change in the estimated proportion of spend going on biodiversity.

There are a few cases where it has not been possible to obtain an expert view of the biodiversity-related proportion of the total spend of a scheme. In these cases, a judgment has been made based on the description of the scheme's priorities.

Where possible, the data included in this indicator are reported on a financial year basis; if this is not possible, data have been allocated to the financial year beginning in the relevant calendar year, for example, 2021 data are included in 2021/2022.

Indicator assessment

The Gross Domestic Product (GDP) deflator is a measure of general inflation in the domestic economy – it captures the price changes over time. The deflator is expressed in terms of an index number. It is used here to convert historic prices into constant prices, thereby adjusting for the effects of inflation and allowing meaningful comparisons to be made between biodiversity expenditure in different years. The base year is always set to the most recent year of data available in the time series, therefore, data presented in the current publication are not directly comparable to those in previous publications because a new deflator is used to prepare each annual update.

Once the time series for the public sector spend indicator has been deflated, assessments are made by comparing the difference between the value of the measure in the base year and the value in the end year against a 3% 'rule of thumb' threshold. A 3-year average is used to calculate the base year, to reduce the likelihood of any unusual years unduly influencing the assessment.

Where the indicator value has changed by less than the threshold of 3%, the indicator will be assessed as showing 'little or no change', otherwise it will be assessed as either decreasing or increasing. The choice of 3% as the threshold is arbitrary but is commonly used across other government indicators; the use of this approach will be kept under review.

The assessment results only reflect the overall change in the measure from the base year to latest year and do not reflect fluctuations during the intervening years. Two assessment periods have been used for the public sector expenditure measure:

- long term – an assessment of change since the earliest date for which data are available (2000/2001)
- short term – an assessment of change over the latest 5 years

The public sector expenditure indicator also has a third marker showing the direction of change in the latest year. This period is too short for any meaningful assessment to be made. However, when the change exceeds a 1% threshold, the direction of this change is

given simply as an acknowledgement of very recent trends and as a possible early indication of emerging trends.

Indicator revisions

The Community Forests

The expenditure on biodiversity by the Community Forest that was previously included in the domestic measure was removed from the entire time series as part of the 2019 update. This was due to concerns over the continuity of reporting across all years. Compared to the figures reported in 2018 and those that would have been reported at the time, this revision resulted in real-term reductions to reported annual expenditure of between £19.2 million in 2000/2001 and less than £1 million in 2015/2016 to 2017/2018 (all figures given in 2017/2018 prices).

Agri-environment schemes

Historical funding made available to farmers and land managers in England through agri-environment schemes was revised during the 2019 update. The percentage of this funding that is considered to be of benefit to biodiversity was also revised. Funding through these schemes is now more closely aligned with the figures reported in Defra's ['Agriculture in the United Kingdom'](#) statistics although some inconsistencies may still exist because of differences in reporting years (financial in the Biodiversity Indicators and calendar in Agriculture in the United Kingdom), the treatment of payments for capital items; and the proportions of this funding considered to be of benefit to biodiversity.

Up to and including the 2018 indicator publication, the percentage of funding made available through agri-environment schemes in England that was considered of benefit to biodiversity and hence included in this indicator was 70% between 2000/2001 and 2010/2011 and 55% between 2011/2012 and 2016/2017. These estimates were revised during the 2019 update and the 70% assumption is now applied consistently across the entire time series from 2000/2001 through to the current publication.

At the time these changes were made, they resulted in real-term increases in the indicator value of between £17 million and £25 million in 2008/2009 to 2010/2011 and between £70 million and £99 million in the later years of the time series (2011/2012 to 2016/2017) when compared to the figures reported in the 2018 publication. Figures from 2000/2001 to 2007/2008 were unaffected by the revisions (all figures given in 2017/2018 prices).

Latest year's change in indicator value

Real-term public sector spending on biodiversity in England rose from £461 million in 2020/2021 to £534 million in 2021/2022 (in 2021/2022 prices), a latest-year increase of 16%.

Funding made available to farmers and land managers under agri-environment schemes (Countryside Stewardship and Environmental Stewardship) account for two-thirds (68% in 2021/2022) of annual public sector spending on biodiversity in England. Expenditure

through the new Countryside Stewardship schemes, which over time will replace the old Environmental Stewardship schemes, has increased year-on-year since the schemes commenced in 2016 and in total, real-term payments apportioned to this indicator via agri-environment schemes rose by £17 million in 2021/2022. This increase reflects the increases seen in the number of agreements and area of land under agri-environmental schemes.

The remainder of the observed increase in this year's indicator is largely due to increased contributions from the Forestry Commission. The Forestry Commission's expenditure on biodiversity accounted for 23% of annual public sector spending on biodiversity in the UK, and in 2021/2022, total expenditure increased by £16 million.

Bibliography

Environmental expenditure statistics, General Government and Specialised Producers data collection handbook, 2007 edition. Eurostat Methodologies and Working papers.

Organisations in the public sector indicator

Biodiversity expenditure by the following organisations is included within the public sector measure:

- Department for Environment, Food and Rural Affairs
- Environment Agency
- Forestry Commission
- National Lottery Heritage Fund
- Highways Agency
- Joint Nature Conservation Committee
- Royal Botanical Gardens, Kew
- Landfill Tax Credit Scheme
- Met Police Wildlife Crime Unit
- Ministry of Defence
- Natural England
- The Big Lottery Fund

Section 2: Non-governmental organisation spending

Methodology

Prior to 2014, the expenditure indicator included in the Biodiversity Indicators publications only covered public sector expenditure, and so did not fully represent total expenditure on biodiversity. In 2014, Defra statisticians developed an additional measure of non-governmental organisation (NGO) spend on biodiversity (net of government funded spend). NGO support for and action on biodiversity is vitally important; capturing the contribution of NGOs is a key element of tracking the UK's conservation efforts. In addition, this new measure is likely to account for a large part of the funding from businesses and private individuals that is channeled through the NGOs. Including this source of expenditure will give a more complete picture of spending on UK biodiversity.

All total expenditure figures presented in this indicator are financial year (that is, April to March) data.

NGO selection

NGOs with a primarily biodiversity or nature focus were selected for inclusion in this indicator. Many of the NGOs selected are members of the organisation Wildlife and Countryside Link. Link is an umbrella body, whose purpose is to bring together voluntary organisations in the UK to protect and enhance wildlife, landscape and the marine environment. Focusing on Link members gives a suite of significant NGOs pre-selected for their focus on biodiversity and nature protection. In addition, 13 of the 47 Wildlife Trusts with the highest annual turnover in England and Scotland have been included in this indicator, as well as NGOs that are not members of Link, but have a biodiversity and/or nature focus (British Trust for Ornithology, The British Association for Shooting and Conservation and the Game & Wildlife Conservation Trust).

A full list of organisations included in the indicator can be found at the end of this section. Organisations that focus on animal welfare or conduct the bulk of their work abroad are included, however expenditure by the 3 NGOs in the indicator providing the greatest financial contributions to biodiversity in other countries (RSPB, WWF-UK and the Zoological Society of London (ZSL) has been adjusted accordingly.

Data collection

To avoid placing reporting burdens on NGOs, data is collated predominantly from NGO published annual accounts or financial reports. Almost all of the NGOs included in this indicator are registered as charities and detailed annual financial reports are published on the [Charity Commission website](#). In a small number of cases data, or a more refined estimate of expenditure, is collected from the organisation directly, examples of this include the estimates used to apportion spend by the RSPB, WWF-UK and ZSL between work in the UK and work abroad.

For consistency with the public sector stream, staff costs associated with administrating biodiversity focused programmes are not included.

For the majority of NGOs, the total amount of money spent on 'Charitable Activities', documented in the 'Resources Expended' section of the 'Consolidated Statement of Financial Activities' (present in each NGO annual report) is used as a first estimate of annual biodiversity spend.

In practice, because biodiversity spending is not always separately identified within the available sources, or if a single expenditure item includes biodiversity and non-biodiversity elements, an aspect of judgment is sometimes required.

A further difficulty is that many expenditure items are designed to meet more than one policy objective: an example is tree planting, which promotes biodiversity but might be largely driven by a demand for landscaping. In practice, the assessment by relevant experts of the appropriate share of any spending which can be attributed to biodiversity needs to consider issues such as the quality of conservation measures and the original intentions of the expenditure.

If organisations fail to supply data in a given year, estimates are made based on the mean of the previous 3 years data. For the 2023 publication, 2 organisations failed to supply data or apportionment of expenditure for 2021/2022: British Association of Conservation and Shooting and the ZSL.

Avoiding double counting of public sector grants

It is necessary to avoid double counting of grants and other payments (for example, research contracts) coming from the government to NGOs, as these are already accounted for in the public sector stream of the indicator. Many NGOs list grants received and the value of these grants in their statement of financial activities. Where this is the case, it is possible to identify grant providers that are already in the public sector indicator and calculate the proportion of a NGO's total income that is from these organisations. The first estimate of the NGO's expenditure on biodiversity is multiplied by the proportion of total income not from these organisations in the appropriate year. This gives a final estimate of biodiversity expenditure funded from non-government sources for each NGO.

Itemised grants are not always available in the published accounts. In most of these cases, no correction is made to the NGO estimate of total expenditure as the contribution of the individual NGO to the total NGO spend is very small. In cases where the contribution of an NGO without grant information to the overall indicator is significant (more than 1% of the total expenditure), that organisation is contacted directly to obtain grant information, in order that their estimates of expenditure can be refined.

It has been assumed that grants and expenditure relate to the same time period.

Calculating total NGO expenditure

Total NGO expenditure on biodiversity in the UK is calculated as the sum of the individual estimates of expenditure for all the NGOs included in the indicator. At present, we have estimated NGO expenditure on biodiversity for 12 years, 2010/2011 through to 2021/2022. In keeping with the public sector strand of this indicator, final estimates of total NGO

expenditure are deflated using the UK Gross Domestic Product (GDP) Deflator to ensure spend is expressed in real terms.

Given the time period covered by this indicator, it is inevitable that organisations will be restructured, funding streams will change, and projects will come to an end and/or new projects will begin. Therefore, although every effort is made to consistently report annual expenditure, there are likely to be some differences in the coverage of the indicator from one year to the next.

Finally, given the limited number of NGOs included within this measure and the complexities involved in both defining and identifying relevant expenditure, the figures presented in this indicator are likely to be an underestimation of total biodiversity spend by UK NGOs. They do however provide a clear trend of expenditure on biodiversity in the UK since the beginning of 2010/2011

Spending on international biodiversity by NGOs

Due to internal resource constraints, this work has been limited to domestic biodiversity expenditure in the first instance.

Indicator assessment

The Gross Domestic Product (GDP) deflator is a measure of general inflation in the domestic economy – it captures the price changes over time. The deflator is expressed in terms of an index number. It is used here to convert historic prices into constant prices, thereby adjusting for the effects of inflation and allowing meaningful comparisons to be made between biodiversity expenditure in different years. The base year is always set to the most recent year of data available in the time series, therefore, data presented in the current publication are not directly comparable to those in previous publications because a new deflator is used to prepare each annual update.

Once the time series for the NGO spend indicator has been deflated, assessments are made by comparing the difference between the value of the measure in the base year and the value in the end year against a 3% 'rule of thumb' threshold. A 3-year average is used to calculate the base year, to reduce the likelihood of any unusual years unduly influencing the assessment.

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- long term – an assessment of change since the earliest date for which data are available (2010/2011)
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The NGO spend indicator also has a third marker showing the direction of change in the latest year. This period is too short for any meaningful assessment to be made. However, when the change exceeds a 1% threshold, the direction of this change is given simply as an acknowledgement of very recent trends and as a possible early indication of emerging trends.

Latest year's change in indicator value

Spending on biodiversity in the UK by non-governmental organisations (NGOs) with a focus on biodiversity and/or nature conservation was £307 million (net of government funding) in 2021/2022, a latest-year increase of 27%.

The observed increase in NGO spend on UK biodiversity in 2021/2022 is largely due to increases in expenditure by The National Trust and The Woodland Trust. Both organisations increased real-term expenditure in 2021/2022 due to a loosening of government guidelines around the COVID-19 pandemic. For The National Trust, real-term expenditure apportioned to this indicator increased by almost 87% (£20 million) in 2021/2022. And for The Woodland Trust, they also reported an increase in their real-term expenditure of 29% (£12 million) in 2021/2022.

Organisations in the NGO indicator

Biodiversity expenditure by the following organisations is included within the NGO indicator:

- Amphibian and Reptile Conservation Trust
- Badger Trust
- Bat Conservation trust
- British Association for Shooting and Conservation
- British Trust for Ornithology (BTO)
- Buglife
- Bumblebee Conservation Trust
- Butterfly Conservation
- ClientEarth
- Freshwater Habitats Trust
- Game & Wildlife Conservation Trust
- Hawk and Owl Trust
- The Mammal Society
- Marine Conservation Society
- MARINELife
- National Trust
- Plantlife

- People's Trust for Endangered Species (PTES)
- The Rivers Trust
- RSPB
- Salmon & Trout Association
- The Shark Trust
- Whale and Dolphin Conservation (WDC)
- Wildfowl & Wetlands Trust (WWT)
- The Woodland Trust
- WWF – UK
- Zoological Society of London (ZSL)
- Royal Society of Wildlife Trusts (RSWT)
- Norfolk Wildlife Trust
- Essex Wildlife Trust
- Wildlife Trust for Bedfordshire, Cambridgeshire & Northamptonshire
- The Wildlife Trust for Lancashire, Manchester and North Merseyside
- Yorkshire Wildlife Trust
- Dorset Wildlife Trust
- Surrey Wildlife Trust
- Hampshire & Isle of Wight Wildlife Trust
- Berks, Bucks & Oxon Wildlife Trust
- Devon Wildlife Trust
- Scottish Wildlife Trust
- Warwickshire Wildlife Trust
- Wiltshire Wildlife Trust