

UK Biodiversity Indicators 2018

This document supports
E2. Expenditure on UK and international biodiversity

Technical background document:
Public sector and non-governmental organisation expenditure
on UK and overseas biodiversity

Biodiversity Indicators Production Team (Defra)

July 2018

For further information on E2. Expenditure on UK and international biodiversity visit
<http://www.jncc.defra.gov.uk/page-4251>

For further information on the UK Biodiversity Indicators visit
<http://www.jncc.defra.gov.uk/page-1824>

Technical annex: E2 Expenditure on Domestic and International Biodiversity

Expenditure on UK and overseas biodiversity

Section 1 of this document describes the methodology used in determining estimates of UK public sector spending on biodiversity in the UK and the rest of the world. The indicators are 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 The indicators are based on a combination of published and unpublished estimates, with judgment employed to finalise some components of the total.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: UK public sector spending

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Methodology

- 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, and

3. Transfer payments to other organisations (in order 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.

4. 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 particular example is Defra's agri-environmental schemes, where an estimate is made of the proportion of total scheme spending that is biodiversity-related.

5. Given the large number of UK public sector organisations 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 UK public sector. They do however provide a clear trend of expenditure on biodiversity since the beginning of 2000/01

6. 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 take into account issues such as the quality of conservation measures and the original intentions of the expenditure.

7. 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 the UK

Access to the countryside

8. 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

9. Much of the spending by the 15 National Parks in England, Scotland and Wales is geared towards services for the public, including access, landscaping etc. However, some specific expenditure in the form of contributions to Local Biodiversity Action Plans (LBAPs)

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 each country's relevant departments is captured.

Natural resource management

10. 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, and
- Spending by the Forestry Commission on the management of commercial forests.

Forestry Commission expenditure

11. Gross expenditure by the Forestry Commission is included, in respect of the broad objective that includes biodiversity in the annual accounts for FC in England, Wales and Scotland; 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 SSSI management, creating linkages to isolated woodland remnants and woodland glade management for key moth and butterfly species living in the forests.

Road schemes

12. Biodiversity protection expenditure has not in the past been separately estimated by the Highways Agency (for the Department for Transport). However, since 2005/06 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 2005/06, the (unallocated) spending on biodiversity was significantly lower. No estimates have been made for these years, therefore some discontinuity will occur.

Landscape

13. Estimates of expenditure on land management regarding Sites of Special Scientific Interest (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.

Definitional issues concerning spending on biodiversity overseas

Spending in the UK's Overseas Territories

14. Public sector spending on overseas biodiversity includes spending by the UK in the Overseas Territories. Spending on the Overseas Territories Environmental Programme (OTEP) is provided by the Foreign and Commonwealth Office (FCO) and the Department for International Development (DfID), whilst other spending is carried out by Defra, Joint Nature Conservation Committee (JNCC) and the Ministry of Defence (MoD).

Wildlife trade and international wildlife crime

15. Estimates of Departmental costs involved in monitoring and controlling the trade in endangered species (CITES) are included.

Spending on international aid as part of wider initiatives

16. A number of relevant programmes have been identified and allocated to biodiversity. These schemes include Darwin and Darwin Plus (Defra), the Flagship Species Fund (Defra), the Global Opportunities Fund (FCO) and the Global Environment Facility (GEF) (DfID). Given the broad coverage of the latter, an assumption is made that 33% of the payments relate to biodiversity. The irregular timing of payments to the GEF also mean that the values reported in this indicator can vary considerably from one year to the next. There are years where no payments are reported and there are years where 2 payments are reported. Elsewhere within this indicator, payments such as these would be allocated to the appropriate year on an accruals basis, thereby smoothing out any peaks and troughs. Payments to the GEF, however, are recorded with HM Treasury as overseas development assistance at the time they are made rather than the period they relate to so it is not possible to apply an accruals approach here.

Financing issues

EU funding of UK biodiversity

17. Financing from the EU, for example funding to agri-environment schemes, is included in this study so total figures are for spending on UK biodiversity irrespective of which public body the money comes from.

National Lottery funding

18. National Lottery funding from both the Heritage Lottery Fund and the Big Lottery Fund is classified as government spending on the grounds that government bodies decide who and what to fund.

Assumptions and adjustments made to the data

19. 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.

20. 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/justify the reasons for any change in the estimated proportion of spend going on biodiversity.

21. 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.

Spending by local authorities

22. Spending on local nature reserves and nature conservation by local authorities is not included in the total. *Spending by police forces on Wildlife Crime Units*

23. 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.

24. 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.

25. Spending by the Metropolitan Police is difficult to capture as no separate budgets for wildlife crime were allocated until 2004/05. 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 2004/05 much of the work was either carried out in the individuals' own time or while they were engaged in other duties.

Indicator assessment

26. The Gross Domestic Product (GDP) deflator is a measure of general inflation in the domestic economy – it captures the price changes over a period of time. The deflator is expressed in terms of an index number. It is used here to convert historic prices into constant prices, thereby 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.

27. Once the time series for each UK public sector spend indicator (domestic and international) 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 year(s) unduly influencing the assessment.

28. Where the indicator value has changed by less than the threshold of 3%, the traffic light will be set at amber, otherwise it will be set at either red (decreasing) or green (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.

29. The traffic lights 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 both UK public sector expenditure measures:

1. Long-term – an assessment of change since the earliest date for which data are available (2000/01), and
2. Short-term – an assessment of change over the latest 5 years.

30. The public sector expenditure indicators also have 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.

Bibliography

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

Further information

Further details on the methodology used for this indicator are available from Defra Environment Statistics: enviro.statistics@defra.gsi.gov.uk. The lead statistician is Rocky Harris (Defra).

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Glossary

Cefas	The Centre for Environment, Fisheries and Aquaculture Science
CITES	Convention on International Trade in Endangered Species
Defra	Department for Environment, Food and Rural Affairs
DfID	Department for International Development
EA	Environment Agency
FC	Forestry Commission
FCO	Foreign and Commonwealth Office
JNCC	Joint Nature Conservation Committee
LBAP	Local Biodiversity Action Plan
LGA	Local Government Association
MOD	Ministry of Defence
ONS	Office for National Statistics
OTEP	Overseas Territories Environmental Programme
SSSI	Site of Special Scientific Interest

Organisations in the public sector indicator

Community Forests

Department of Agriculture, Environment and Rural Affairs – Northern Ireland

Department for Environment, Food and Rural Affairs

Environment Agency

Forestry Commission

Forest Service – Northern Ireland

Heritage Lottery 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

Natural Resources Wales

Northern Ireland Environment Agency

Royal Botanical Gardens Edinburgh

Scottish Environment Protection Agency

Scottish Government

Scottish Natural Heritage

The Big Lottery Fund

Welsh Assembly

Section 2: Non-governmental organisation spending

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Background

1. 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.

Methodology

NGO selection

2. 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

3. To avoid placing reporting burdens on NGOs, data is collated predominantly from NGO published annual accounts/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.

4. For consistency with the public sector stream, staff costs associated with administering biodiversity focused programmes are not included.
5. 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.
6. 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.
7. 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 take into account issues such as the quality of conservation measures and the original intentions of the expenditure.

Avoiding double counting of public sector grants

8. It is necessary to avoid double counting of grants and other payments (e.g. 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.
9. 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 particular 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 one per cent of the total expenditure), that organisation is contacted directly to obtain grant information, in order that their estimates of expenditure can be refined.
10. It has been assumed that grants and expenditure relate to the same time period.

Calculating total NGO expenditure

11. Total NGO expenditure on biodiversity in the UK is calculated as the sum of the individual estimates of expenditure for all of the NGOs included in the indicator. At present, we have estimated NGO expenditure on biodiversity for 7 years, 2010/11 through to 2016/17. 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.

12. 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.
13. 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 since the beginning of 2010/11

Spending on international biodiversity by NGOs

14. Due to internal resource constraints, this work has been limited to domestic biodiversity expenditure in the first instance. We may extend the indicator to include contributions to overseas work in the future.

Indicator assessment

15. The Gross Domestic Product (GDP) deflator is a measure of general inflation in the domestic economy – it captures the price changes over a period of time. The deflator is expressed in terms of an index number. It is used here to convert historic prices into constant prices, thereby 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.
16. 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 year(s) unduly influencing the assessment.
17. Where the indicator value has changed by less than the threshold of 3%, the traffic light will be set at amber, otherwise it will be set at either red (decreasing) or green (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.
18. The traffic lights only reflect the overall change in the measure from the base year to latest year and do not reflect fluctuations during the intervening years. To date, it has only been possible to calculate a short-term assessment (change over the last 5 years) for the NGO measure. Once data are available for at least 10 years, a long-term assessment will also be calculated for the measure.
19. 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.

Further information

Further details on the methodology used for this indicator are available from Defra Environment Statistics: enviro.statistics@defra.gsi.gov.uk. The lead statistician is Rocky Harris (Defra).

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NGOs in the indicator

Amphibian and Reptile Conservation Trust	The Shark Trust
Badger Trust	Whale and Dolphin Conservation (WDC)
Bat Conservation trust	Wildfowl & Wetlands Trust (WWT)
British Association for Shooting and Conservation	The Woodland Trust
British Trust for Ornithology (BTO)	WWF - UK
Buglife	Zoological Society of London (ZSL)
Bumblebee Conservation Trust	Royal Society of Wildlife Trusts (RSWT)
Butterfly Conservation	Norfolk Wildlife Trust
ClientEarth	Essex Wildlife Trust
Freshwater Habitats Trust	Wildlife Trust for Bedfordshire, Cambridgeshire & Northamptonshire
Game & Wildlife Conservation Trust	The Wildlife Trust for Lancashire, Manchester and North Merseyside
Hawk and Owl Trust	Yorkshire Wildlife Trust
The Mammal Society	Dorset Wildlife Trust
Marine Conservation Society	Surrey Wildlife Trust
MARINELife	Hampshire & Isle of Wight Wildlife Trust
National Trust	Berks, Bucks & Oxon Wildlife Trust
Plantlife	Devon Wildlife Trust
People's Trust for Endangered Species (PTES)	Scottish Wildlife Trust
The Rivers Trust	Warwickshire Wildlife Trust
RSPB	Wiltshire Wildlife Trust
Salmon & Trout Association	