

Toby Perkins MP
Chair, Environmental Audit Committee
House of Commons
London
SW1A 0AA

17 January 2025

Dear Mr Perkins,

Please accept my congratulations on your election as Chair of the Environmental Audit Committee. Further to our update to the previous Committee in November 2023¹, I am writing to provide a further update on recent and upcoming Office for National Statistics (ONS) environmental work.

This includes work on the UK natural capital accounts which will be of potential relevance to the Committee's revived "*role of natural capital in the green economy*" inquiry.

Natural Capital Accounts

We continue to produce the UK's Natural Capital Accounts, which estimate the current value of natural wealth and what it could provide for future generations, as noted in our previous update².

Widely regarded as world-leading, these accounts are produced on a consistent basis with the System of National Accounts (SNA) used to produce Gross Domestic Product (GDP) statistics, and so help to understand the links between the environment and economic statistics. Produced following UN standards and guidance, these are also broadly comparable internationally where other countries publish similar accounts.

Our latest annual release in November 2024 provides our best estimate of the total asset value of ecosystem services in the UK of around £1.8 trillion in 2022.

Building on 2023's Principles of UK natural capital accounting³, we have expanded the range of ecosystem services measured and data sources used, as detailed in our methods guide published with the annual release⁴. For example, our latest tourism and recreation and

¹ <https://uksa.statisticsauthority.gov.uk/submission/office-for-national-statistics-correspondence-with-the-environmental-audit-committee-on-green-jobs/>

² <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/uknaturalcapitalaccounts/2024>

³ <https://www.ons.gov.uk/economy/environmentalaccounts/methodologies/principlesofuknaturalcapitalaccounts/2023>

⁴ <https://www.ons.gov.uk/economy/environmentalaccounts/methodologies/uknaturalcapitalaccounts/methodologyguide2024>

associated health benefits estimates now include data from the People and Nature Survey for Wales, increasing our coverage to the whole of the UK.

Among ongoing methodological developments, we are working to increase timeliness of our statistics, adapting the methodology of recreation and tourism estimates to align with new data sources, improving coverage of urban heat regulating services from city regions to Local Authority level, and improving estimates of agricultural biomass provisioning, enabling us to produce enclosed farmland accounts which would be used by the Department for Environment, Food and Rural Affairs (Defra). We will also focus our development capacity on other key user needs, such as expanding service coverage to include measures such as valuing flood defence.

We also published our latest habitat-focused accounts, for woodlands, in May 2024⁵.

The UK Natural Capital accounts are very relevant for policy development. Defra produce an annual paper covering key points for policy makers in the UK and England based on our Natural Capital Accounts⁶. The next iteration of this is due for release in early 2025.

We are also aware of growing demand from local and combined authorities, as well as other organisations for even greater spatial granularity to support their work and policies. Elements of the natural capital accounts, e.g. air pollution and greenhouse gas regulating services, are already available at local authority level. Our intention is to add urban heat regulating services, and also to produce recreation services at England region level.

Given the increasing interest in these estimates, we are looking at the possibility of moving our natural capital accounts from statistics in development to official statistics, in 2026.

Depletion of natural resources

The upcoming revision of the SNA, due to be adopted by the UN Statistical Commission in March 2025, is for the first time expected to incorporate a measure of the depletion of natural resources in core economic metrics. This would likely to be included in Net Domestic Product, and comparing this with more widely used GDP data would provide a measure of the longer-term sustainability of the economy.

Measurement of depletion also contributes towards measurement and analysis of 'inclusive wealth', as outlined in the HM Treasury-commissioned Dasgupta Review of the Economics of Biodiversity⁷. As a 'beyond GDP' measure, inclusive wealth is more ambitious than the SNA revision, bringing in a more comprehensive definition of natural capital, as well as human capital, to create more holistic measure of economic welfare. These measures highlight the impact of economic activity now and into the future, and potential trade-offs and synergies

⁵ <https://www.ons.gov.uk/economy/environmentalaccounts/bulletins/woodlandnaturalcapitalaccountsuk/2024>

⁶ <https://randd.defra.gov.uk/ProjectDetails?ProjectId=21190>

⁷ <https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review>

between resource use, depletion and regeneration and economic growth. Depletion data will support the production of adjusted macroeconomic aggregates, such as net inclusive income and wealth. The latest edition of the ONS's work on this was also published in November 2024.⁸

While measuring UK natural capital asset depletion presents significant methodological and data challenges, we intend to build on our initial experimental estimates published in March 2024, which focused on non-renewables: oil, gas and coal.⁹ Our ambition would be to enhance our natural capital accounts to first quantify, then regularly produce, statistics on depletion of renewable resources – fish stocks, timber, renewable energy – and to estimate the costs of restoring environmental damage due to human activity.

Measuring private investment in nature

The Committee's 18 December 2024 evidence session touched on measurement of the nature recovery investment target¹⁰. The Minister for Nature referred to ongoing discussions between the Defra and the ONS on measuring this target.

These discussions have focused on the potential to transform our existing Environmental Protection Expenditure business survey to gather the data needed to produce annual statistics of relevance to this target. Progress is subject to the outcomes of ongoing internal business planning following the 2025/26 Spending Review and the second phase of the Spending Review.

Greenhouse gas emissions estimates

We produce estimates of greenhouse gas (GHG), alongside air pollution, emissions statistics on a residence, or production, basis. These complement territorial measure - emissions that occur within the UK's borders – produced by the Department for Energy, Security and Net Zero that is used to monitor UK emissions targets, as they are residence-based, they are comparable with a range of important economic statistics, including GDP. We regularly update our explainer article about the different UK emissions measures¹¹.

Our latest provisional estimates of annual GHG and emissions statistics on a residence (or production) basis, published on 17 October 2024, found that GHG emissions decreased by 3.8% between 2022 and 2023, having increased 1.2% in 2022, and 0.3% below the 2020 level, during the coronavirus (COVID-19) pandemic.¹²

⁸ www.ons.gov.uk/economy/economicoutputandproductivity/output/articles/ukinclusiveincome/2005to2022

⁹ blog.ons.gov.uk/2024/03/07/how-the-ons-is-working-towards-measuring-depletion-of-uk-natural-capital

¹⁰ committees.parliament.uk/oralevidence/15157/pdf

¹¹ www.ons.gov.uk/economy/environmentalaccounts/methodologies/measuringukgreenhousegasemissions

¹² www.ons.gov.uk/economy/environmentalaccounts/bulletins/greenhousegasintensityprovisionalestimatesuk/provisionalestimates2023

Having remained stable of the last couple of years, emissions intensity was down 71% between 1990 (when this series began) and 2023 to reach its lowest ever level: 0.18 thousand tonnes of carbon dioxide equivalent per million pounds of gross value added.

Our modelled estimates of quarterly emissions statistics for quarter 2 (April to June) 2024 were published on 6 November¹³. Noting that these estimates are subject to greater uncertainty as final emissions estimates for 2023 are not yet available, these found that residence-based GHG emissions were 2.5% higher than in the same quarter in 2023.

Our estimates for Quarter 3 (July to September) 2023 are due to be published on 30 January 2025.¹⁴ Having developed innovative modelling to provide these more timely statistics, we are working towards securing official statistics status for these previous experimental statistics in development in this next release.

We are also looking at developing our environmental taxes work, looking at environmental subsidies, and produced deflated versions of our measures.

Measuring green jobs

Following publication of our definition of a green job in March 2023, “*Employment in an activity that contributes to protecting or restoring the environment, including those that mitigate or adapt to climate change*”¹⁵, and initial estimates in September 2023¹⁶, we published a second set of estimates on 14 March 2024¹⁷.

Findings included that, using the industry approach, UK employment in green jobs in 2022 was an estimated 639,400 full-time equivalents (FTEs), up 8.4% on the 589,600 FTEs in 2021 and 19.9% higher than the 533,200 FTEs in 2020.

We are hoping to be able to publish annual green jobs estimates on an ongoing basis, following the release of our low carbon and renewable energy economy statistics in each year. We are continuing to develop the measurement of green jobs, towards increasing timeliness and accuracy, thus enhancing the evidence base on this important issue.

UN environmental economy statistical framework review

Following the process leading to the 2025 SNA revision, the UN Statistics Commission is expected to approve a revision to the current System of Environmental Economic Accounting Central Framework (SEEA-CF), targeting adoption in 2028. Adopted in 2012, this explores

¹³ www.ons.gov.uk/economy/environmentalaccounts/bulletins/experimentalestimatesofquarterlygreenhousegasemissionsresidencebasisuk/apriltojune2024

¹⁴ www.ons.gov.uk/releases/estimatesofquarterlygreenhousegasemissionsresidencebasisukjulytoseptember2024

¹⁵ www.ons.gov.uk/economy/environmentalaccounts/articles/greenjobscurrentandupcomingwork/march2023

¹⁶ www.ons.gov.uk/economy/environmentalaccounts/bulletins/experimentalestimatesofgreenjobsuk/2023

¹⁷ www.ons.gov.uk/economy/environmentalaccounts/bulletins/experimentalestimatesofgreenjobsuk/2024

¹⁷ www.ons.gov.uk/economy/environmentalaccounts/bulletins/experimentalestimatesofgreenjobsuk/2024

environment-economy interlinkages, and provides an internationally comparable approach used in our emissions and Environmental Taxes¹⁸ publications.

The review is intended to ensure that SEEA-CF remains responsive to emerging demands for integrated environmental and economic data. Potential work areas include linkages with SEEA Ecosystem Accounting (which our Natural Capital Accounts follow, see above); consistency with the 2025 SNA revision and harmonisation with updates to other relevant international frameworks and classifications; and strengthening links with policy the social domain.

The UK – through the ONS – is likely to be involved in the review process, potentially co-leading one of the working groups that are likely to be established, potentially focusing on issues including: classification of environmental activity; climate mitigation (net zero) and adaptation expenditure; environmentally damaging subsidies; incorporating sustainable finance into an accounting framework; and potentially extending ‘environmental activities’ beyond environmental protection and resource management.

Business & Individual sentiment & actions

In November 2024, we brought data on sentiment and responses to environmental issues from two of our rapid surveys – the Business Insights and Conditions Survey (BICS) and the Opinions & Lifestyle Survey – together in *Public and business attitudes to the environment and climate change, Great Britain; 2023 and 2024*¹⁹. Key points from the release can be found in Annex A.

More recently, when asked about the important issues facing the UK today, during the period 6 November to 1 December 2024, 59% of adults in Great Britain selected climate change and the environment as an important issue. The other most commonly reported issues were NHS (86%), the cost of living (85%), the economy (68%), and crime (60%)²⁰. Females (65%) were more likely to consider climate change and the environment as an important issue facing the UK than males (54%). The next release in this series is on 24 January 2025.

Additionally, when asked in BICS in late December 2024²¹:

- Nearly three in five (59%) businesses²² reported that they were not concerned about the impact climate change may have on their business; this is up 3 percentage points from

¹⁸ www.ons.gov.uk/economy/environmentalaccounts/bulletins/ukenvironmentaltaxes/2023

¹⁹ www.ons.gov.uk/economy/environmentalaccounts/articles/publicandbusinessattitudestotheenvironmentandclimatechangegreatbritain/2024

²⁰ <https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/publicopinionsandsocialtrends/greatbritain/november2024>

²¹ <https://www.ons.gov.uk/businessindustryandtrade/business/businessservices/bulletins/businessinsightsandimpactontheukeconomy/9january2025>

²² Note: Industries excluded from the BICS sample include those in agriculture, oil and gas extraction, energy generation and supply, public administration and defence, public provision of education and health, and finance and insurance.

late September 2024 and is the highest proportion reported since the question was first introduced into the BICS in September 2022.

- 17% of businesses reported that they had taken at least one action to protect the environment, up 3 percentage points from late September 2024, but in line with late June 2024; the most commonly reported action was monitoring climate-related risks at 7%, broadly stable over the same period.
- More than half (51%) of businesses reported that they had taken at least one action to reduce their carbon emissions, up 3 percentage points from late September 2024; the most reported actions taken were switching to LED bulbs (34%), adjusting heating and cooling systems (24%), and installing a smart meter (15%).

Climate & Health

The ONS is also leading an international project called Standards for Official Statistics on Climate and Health Interactions (SOSCHI), with funding from Wellcome and in partnership with UKHSA and colleagues in Ghana and Rwanda. The aim is to develop a transparent and globally usable framework, with accompanying statistical methods to better estimate climate-related health risk using real-world data sources, including modelling local-level impacts. The project will help stakeholders produce high-quality data and statistics and communicate with a range of audiences. Especially in low- and middle-income countries, where the ability to monitor the effects of climate change will be increased by the provision of practical, coherent standards and open-source tools.

An overview of the project is available on the ONS website²³. Outputs to date include a first 'Alpha' version of the statistical framework and introductory papers looking at health impacts and outlining metrics for several topics including heat and cold related mortality²⁴. The project will publish its final recommendations in spring 2026 and links to international indicator development on the effects of climate change by the United Nations, the World Health Organisation and others.

Other relevant ONS publications

Our latest annual energy efficiency of housing in England and Wales release was published on 8 October 2024²⁵. Findings include that new dwellings are becoming more efficient, regardless of property or tenure type: new dwellings in both England and Wales had a median Energy Performance Certificate score of 84 in the five years to 2024, compared with 82 in England and 81 in Wales in the five years to 2013.

²³ <https://www.ons.gov.uk/aboutus/whatwedo/programmesandprojects/standardsforofficialstatisticsonclimateandhealthinteractions>

²⁴ <https://zenodo.org/records/14051796>

²⁵ www.ons.gov.uk/peoplepopulationandcommunity/housing/articles/energyefficiencyofhousinginenglandandwales/2024

Other publications of potential interest to the Committee since our previous update include:

- High emission-intensity industries (digital content) 5 December 2023²⁶
- Impact of hot days on productivity in Great Britain (ONS Working Paper), 15 May 2024²⁷
- Quarterly Measuring progress, wellbeing & beyond GDP Q4 - Wellbeing, climate change & nature, 14 November 2024²⁸

We also made our first ONS Statistically Speaking podcast, on “Green Data: Measuring the Environment”, available in August 2024.²⁹

As ever, we would be happy to brief the Committee further on any aspect of our work if helpful.

I am also copying this letter to the chairs of the Environment and Climate Change Committee, the Environment, Food and Rural Affairs Committee, and the Energy Security and Net Zero Committee for their information.

Yours sincerely,



Mike Keoghan

Deputy National Statistician for Economic, Social and Environmental Statistics

²⁶ www.ons.gov.uk/economy/environmentalaccounts/articles/oneinfiveworkersinthemidlandsinhighemissionsindustries/2023-12-05

²⁷ www.ons.gov.uk/methodology/methodologicalpublications/generalmethodology/onsworkingpaperseries/impactofhotdaysonproductivityingreatbritainmethodology

²⁸ www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/measuringprogresswellbeingandbeyondgdpintheuk/november2024

²⁹ sites.libsyn.com/397223/green-data-measuring-the-environment

Annex A: Public and business attitudes to the environment and climate change, Great Britain; 2023 and 2024: key points³⁰

Using the latest data collected from adults in Great Britain in October 2024 using our Opinions and Lifestyle Survey:

- Around 6 in 10 (57%) adults reported climate change and the environment was an important issue, compared with a recent high of 69% in July to August 2023.
- The most common ways adults reported climate change had affected them in the last 12 months were strong winds (40%), floods (35%) and heatwaves (30%).
- The most commonly reported ways adults expected climate change would affect them in the next 10 years were increased temperatures (65%), increased flooding (60%), stronger winds (50%), rising sea levels or coastal erosion (44%) and water shortages (40%), with around 8 in 10 (83%) expecting to be affected in the next 10 years in at least one of the ways we asked about.

When considering public attitudes to climate change by different characteristics using data collected during August to October 2024:

- Groups of the population who appeared more likely to report climate change and the environment was an important issue included adults with a degree or equivalent (66%), working in professional occupations (67%), those living in the least deprived areas of England (61%), women (60%), those living in the South West (61%), those aged 16 to 29 years (59%) or aged 70 years and over.
- Around three-quarters (76%) of adults reported having made changes (68% some, 9% a lot) to their lifestyle to help tackle climate change; groups who appeared more likely to report this included those working in professional occupations (85%), adults with a degree or equivalent (85%), Asian or Asian British adults or Mixed or multiple ethnic group adults (82%), women (81%), those living in London (81%), adults aged 30 to 49 years (80%) or 50 to 69 years (79%).
- Among the 24% of adults who had not made any lifestyle changes to help tackle climate change, the most commonly reported reasons were not feeling that their changes would have any effect on climate change (42%), thinking that large-scale polluters should change before individuals (37%), it being too expensive to make changes (24%) and not knowing how to make changes (19%).
- The majority of adults in Great Britain (74%) reported they would support (41% strongly, 33% somewhat) the creation of renewable energy projects in their local area; this

³⁰ www.ons.gov.uk/economy/environmentalaccounts/articles/publicandbusinessattitudestotheenvironmentandclimatechangegreatbritain/2024

proportion appeared higher among groups including those with a degree or equivalent (84%) or those in professional occupations (85%).

Using data collected during late September 2024 from our UK Business Insights and Conditions Survey (BICS) to examine business attitudes towards climate change. Note that industries excluded from the BICS sample include those in agriculture, oil and gas extraction, energy generation and supply, public administration and defence, public provision of education and health, and finance and insurance.

- The proportion of businesses that expressed concern (very or somewhat concerned) about the impact of climate change on their business had fallen from around a third (34%) in late June 2024 to less than 3 in 10 (28%) in late September 2024.
- Among all businesses, the accommodation and food service activities industry had the largest proportion of businesses reporting some form of concern, at 44%, with the lowest level of reported concern being reported by the other service activities industry, which includes hairdressing and other beauty treatments, at 6%.
- Concern about climate change increased as business size increased, from 26% for businesses with fewer than 10 employees, up to 57% for businesses with 250 or more employees.
- When asked about which risks of climate change businesses had assessed, supply chain disruption and distribution (8%) was most commonly reported, followed by temperature increases (4%) and increased flooding (4%), but the majority of businesses (74%) had not assessed any of the risks listed (other response options included coastal erosion and water security.)
- Among businesses that had assessed at least one climate change risk, 29% reporting having acted as a result, with the largest proportion having taken action against potential supply chain disruption and distribution risks (15%).

The majority of UK businesses surveyed (79%) reported in BICS for late September 2024 that they had not been affected by severe weather events in the last 12 months. Of the remaining 21% of businesses that reported they had been affected, storms (7%) was the most commonly reported response, followed by flooding (5%), and increased temperatures or heat, at 4%.

Among those businesses who reported they had been affected by severe weather events in the last 12 months, the most commonly reported forms of impact were weather-related damage to physical infrastructure (20%), employee absence (13%), disruption to local supply chains (9%) and disruption to global supply chains (5%), 13% reported "Other", while around half (50%) of businesses were not sure how they had been affected.