

Progress and challenges in measuring the environmental economy and valuing nature's economic contribution

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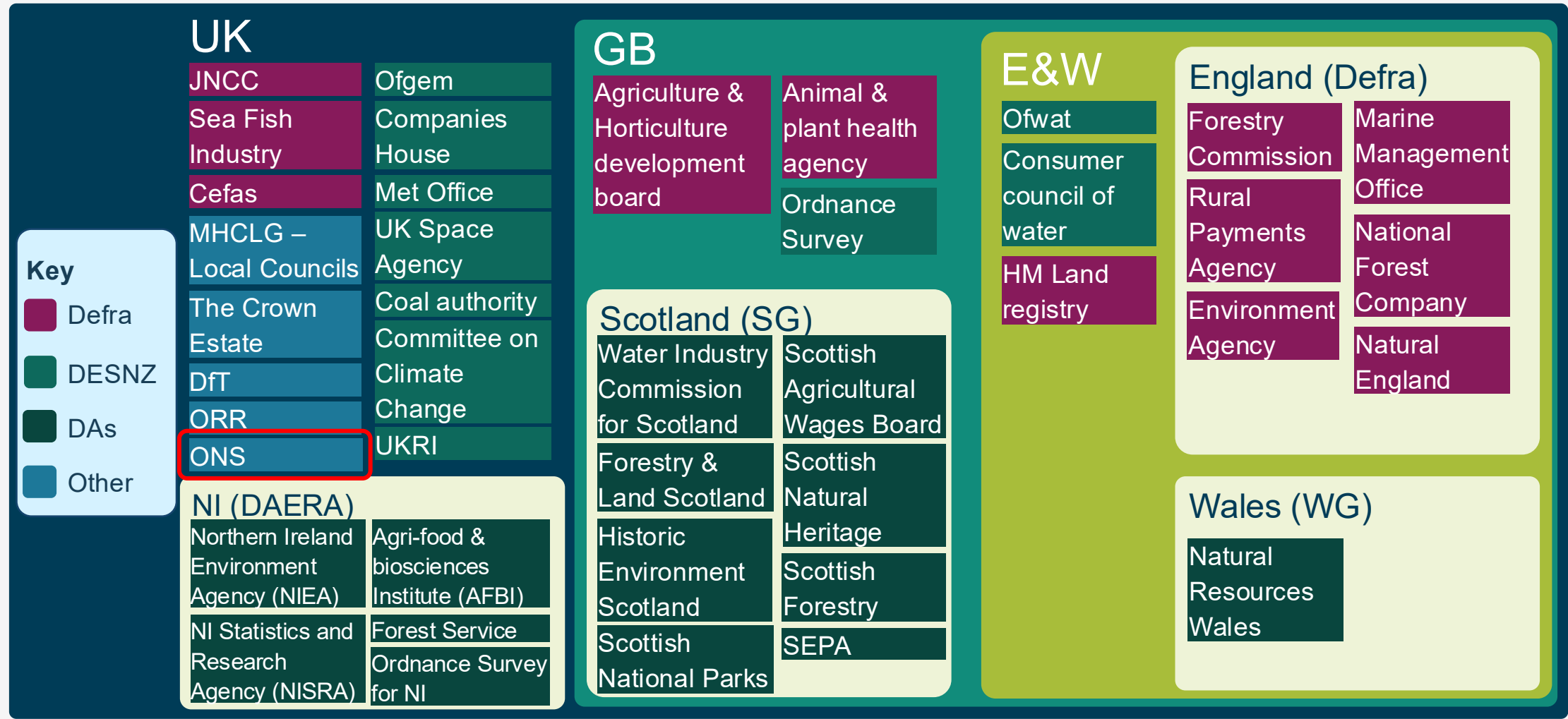
The global and national context

- Over half of adults are worried about climate change
- The UK Government target: Net Zero by 2050
- The IPCC's 6th Assessment Report called for accelerating these targets
- CBD COP15 led to 23 global biodiversity targets for 2030
- Dasgupta Review of the Economics of Biodiversity (2021)

What is ONS' role?

Environment across government: who does what?

See also [GSS Environment, Climate & Nature theme workplan](#)



Environmental statistics at the ONS



Environmental Economy Division

Natural Capital Accounts

- [Annual accounts](#)
- [Habitat accounts](#)
- Extended accounts
→ Contributes to [Inclusive Income & Wealth](#) and [UK Blue Book](#)

Environmental Accounts & Surveys

- [UK Environmental Accounts](#)
- [Low Carbon and Renewable Energy Economy survey](#)
 - [Green Jobs](#)
- Material [flows/footprint](#)
 - [Environmental Protection Expenditure Survey](#)

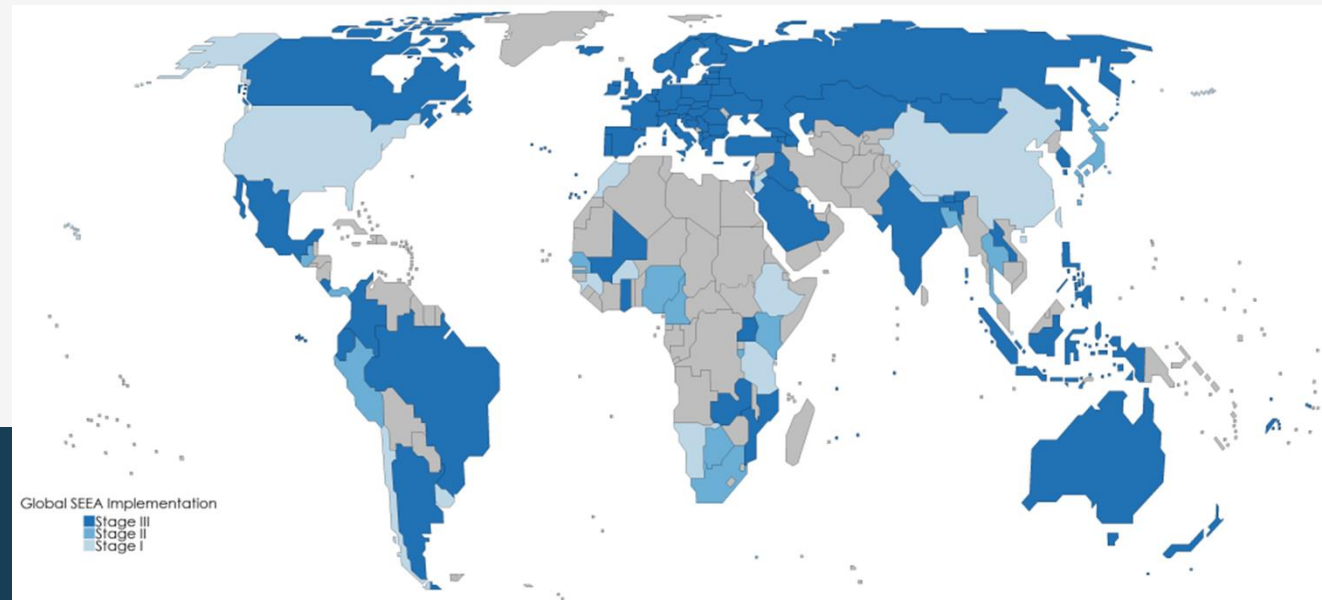
Also...

- Rapid surveys of perceptions/actions by people & businesses ([OPN/POST](#) & [BICS](#))
- [Climate & Health](#)
- [Well-being / Beyond GDP](#)

UN SEEA

- The United Nations [System of Environmental Economic Accounting](#)
- The [Central Framework](#) and [Ecosystem Accounting](#)
- We use SEEA to compile our accounts, which aligns with national accounting definitions
- The ONS produces 15 of the SEEA accounts – one of the highest numbers for any country

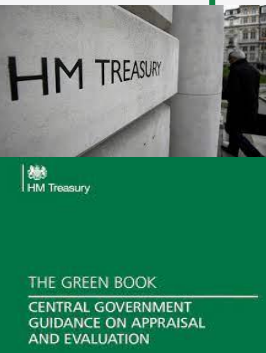
2025 Global Assessment:
SEEA implementation around the world



Impact on policy making

Natural Capital Accounts

- [The Green Book](#)
- Defra's '[Enabling a Natural Capital Approach](#)'
- Land management decisions
- [Environmental Improvement Plan 2025](#)
- Parliament e.g. [Environmental Audit Committee](#), [House of Lords](#)



Environmental Accounts and Surveys

- [The UK's Modern Industrial Strategy](#)
- [Clean energy jobs plan](#)
- CCC progress reports to Parliament e.g. [emissions](#)
- CCC [7th Carbon Budget](#) recommendations
- Parliament e.g. [the green economy](#)

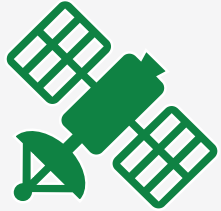


Natural Capital Accounts

ONS Natural Capital Accounts



Annual accounts: Making the nature's contributions to the economy and society more visible by estimating the value of the services nature provides – “ecosystem services”



Extended accounts: Feeding into ONS Inclusive Income and Wealth measures, which provide a broader measure of economic welfare than the core national accounts e.g. GDP



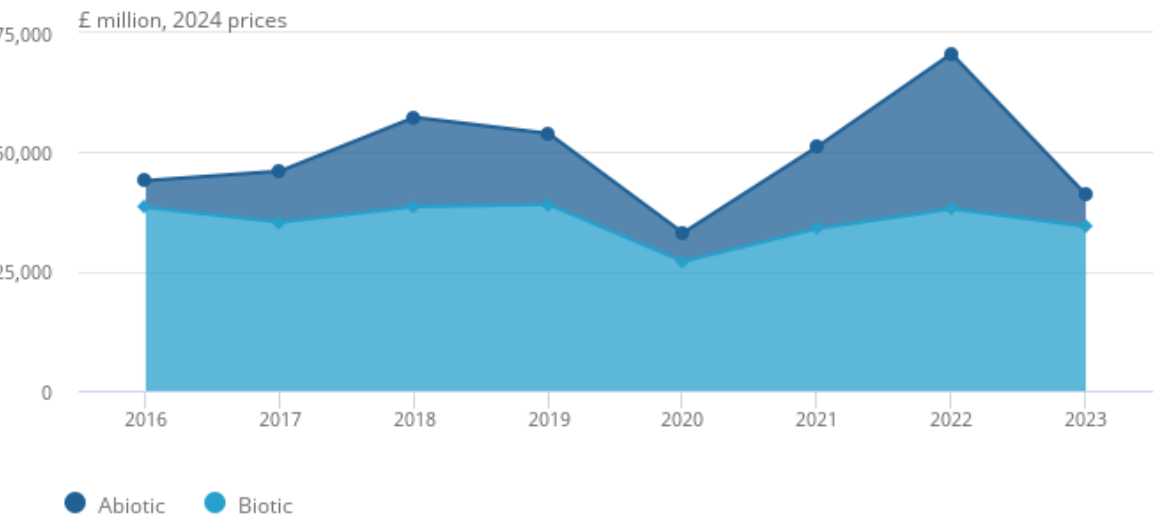
Habitat accounts and services: Providing ‘deep dives’ into different ecosystems over time:

- Woodland
- Urban
- Fresh water
- Enclosed farmland
- Mountain, moorland and heath
- Semi-natural grassland
- Marine
- Coastal margins

Recent UK Natural Capital Accounts findings

Figure 1: The total annual value of biotic services was higher than abiotic services in every year from 2016 to 2023

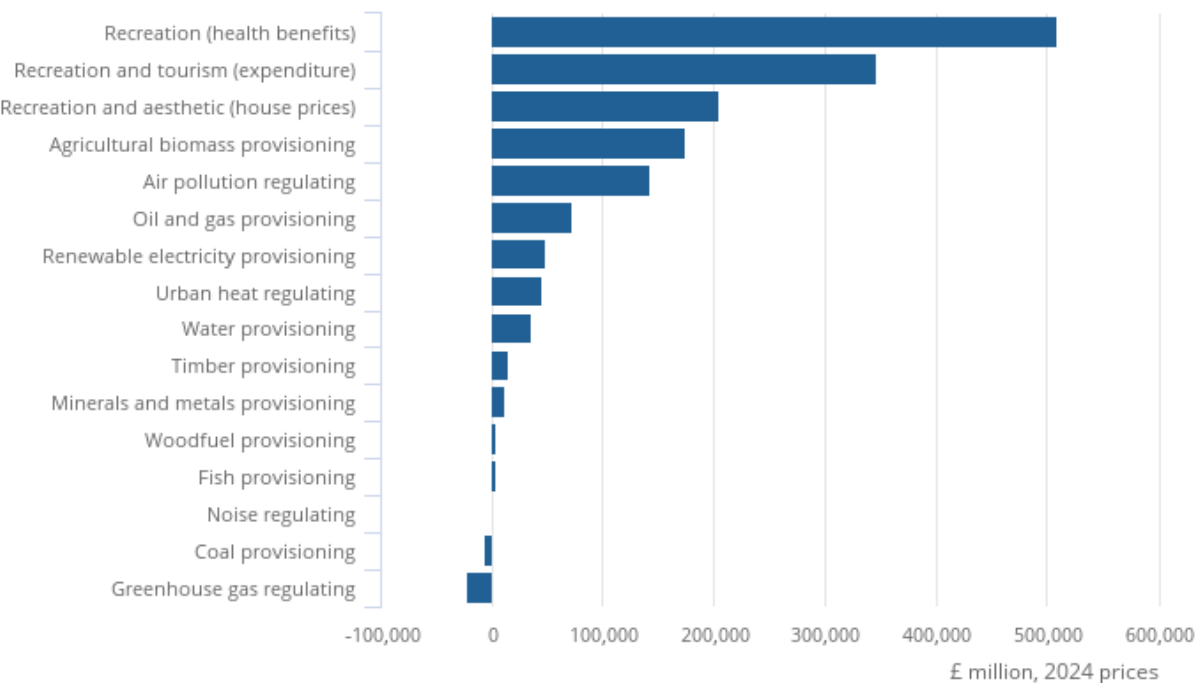
Annual value for biotic and abiotic services, UK, 2016 to 2023



Source: UK natural capital accounts from the Office for National Statistics

Figure 13: Recreation (health benefits) had the highest asset value among UK ecosystem services in 2023

Asset value by ecosystem service, UK, 2023



Source: UK natural capital accounts from the Office for National Statistics

NCA successes & next steps

Successes:

- Continued to expand coverage, with > 45 condition indicators included
- [Initial methods](#) for measuring natural resource depletion (for NDP)
- Continued method development, e.g. urban heat expanded geographical coverage

What's next?

- We are developing measures of depletion for NDP, implementing SNA25
- We are developing and reviewing methods (e.g. Noise regulation) to move towards official statistics status
- We are working with ESCoE on developing freshwater provisioning, purification and flood protection services, and fish depletion estimates

NCA key challenges and solutions

Key challenges:

- Increasing spatial granularity
- Reliance on a range of external data sources and coverage
- Ecosystem services valuation methods under development internationally
- Developing depletion of natural resources

How could we address these?

- We can continue to build relationships with stakeholders to increase coverage and granularity of data, and internationally to advance methods
- We can provide greater clarity and visibility of our work, to increase the transparency of the data use and impact

Environmental Accounts & Surveys

Environmental Accounts

- How the environment contributes to the economy
- The impact that the economy has on the environment
- How society responds to environmental issues

Physical Accounts



Air and
Energy
Accounts



Material
Flows
and
Footprint



Physical
Energy
Flow
Account

Monetary Accounts



Environmental
Taxes



Environmental
Goods and
Services
Sector
(EGSS)



Environmental
Protection
Expenditure
(EPE)



Green
Jobs



Environmental
surveys

Our surveys

Low Carbon and Renewable Energy Economy (LCREE) survey

- Business survey developed in response to policy demand
- Run annually since 2015
- Survey ~25,000 businesses a year
- 17 sectors including solar, wind and low emission vehicles
- Turnover, employment, imports, exports and investment
- Informs EGSS and Green Jobs

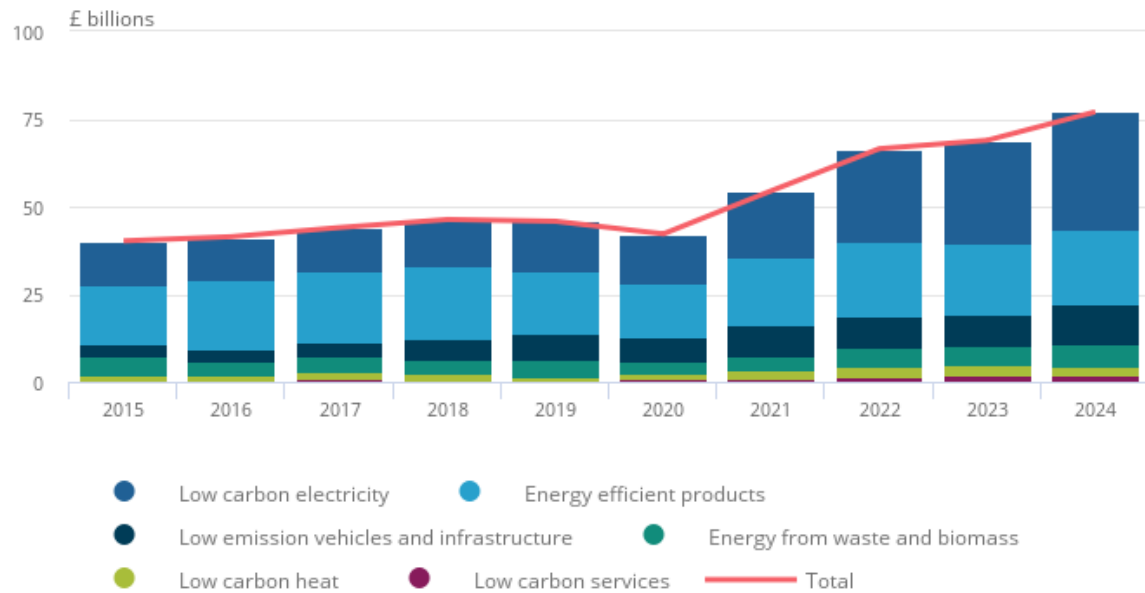
Environmental Protection Expenditure (EPE) survey

- Business survey taken over from DEFRA in 2016
- Survey ~3,000 businesses a year
- Estimates of expenditure in categories:
 - Operating expenditure: internal and external
 - Capital expenditure: 'end-of-pipe' and integrated
- Informs the EPE accounts

Recent Environmental Accounts & Surveys findings

Figure 3: UK LCREE turnover increased 91.3% between 2015 and 2024

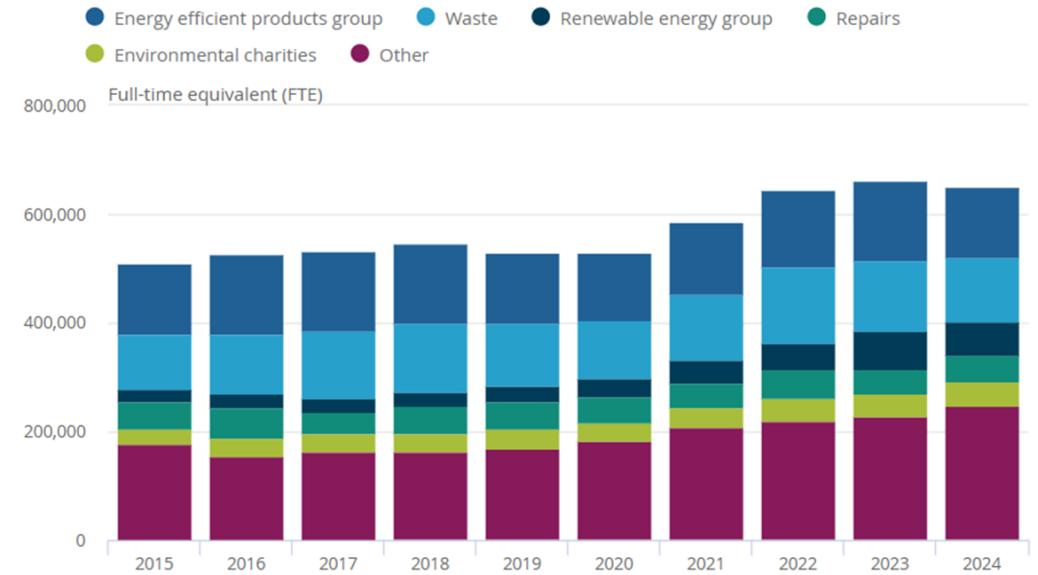
LCREE group and total turnover, UK, 2015 to 2024, £ billions



Source: Low Carbon and Renewable Energy Economy (LCREE) Survey from the Office for National Statistics

Figure 1: UK FTE employment in green jobs increased between 2020 and 2023, before a small decrease in 2024

Full-time equivalent (FTE) employment in green industries, top five activities and the "other" activities category, UK: 2015 to 2024



Source: Environmental Accounts, Low Carbon and Renewable Energy Economy Survey, and Business Register and Employment Survey from the Office for National Statistics

EAS successes & next steps

Successes:

- Recommenced our EPE survey after a pause
- We have Green Jobs measures across all 3 approaches
- We have started the development of our survey systems to move away from legacy software and produce a more flexible, efficient system with higher quality outputs

What's next?

- We continue to engage in the update of the SEEA Central Framework
- We will complete the transformation of our survey and environmental accounts systems and developing the content with our stakeholders

EAS key challenges and solutions

Key challenges:

- Aligning with evolving user and framework needs
- Gathering data from a broader range of industries and sectors as green and net zero activity increasingly becomes a part of the whole economy
- Timeliness – balancing user demand with data processing timeframes

How could we address these?

- Surveys transformation – we will be better placed to achieve improved coverage of the relevant sectors in the economy
- We need to look for opportunities for our existing data collections to meet the needs of the updated Central Framework

Our latest releases

Our latest releases



[Material footprint 2023 \(data release\)](#)



[Environmental Protection Expenditure 2024 \(data release\)](#)



[Green Jobs 2024](#)



[Natural Capital: Woodland accounts 2026 \(data release\)](#)



[Low Carbon and Renewable Energy Economy](#) and [indirect estimates](#) for 2024

Thank you, any questions?

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