EO 4 Ecosystem Accounting 2022



National
Implementation
of Ecosystem
Accounting –
UK Perspective

Parsa Mohammadpour Department for Environment, Food & Rural Affairs (DEFRA)

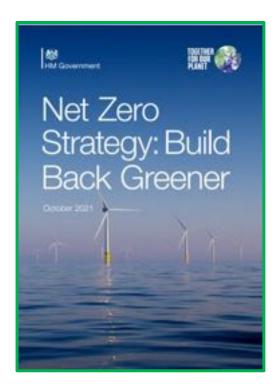
28/11/2022



### **UK Political Drivers and Ambition**







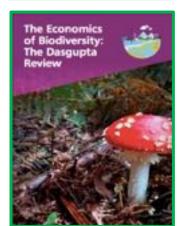
Jan 2018

Oct 2021



Nov 2020





Feb 2021

Nov 2020





Feb 2021

## **National Natural Capital Accounts**



#### **UK Natural Capital Asset Value**

Ecosystem Services Asset Value	2015 (£bn)	2020 (£bn)
Fish capture	2.5	5.4
Timber	8.4	12.6
Minerals	9.6	20.8
Renewables	7	30
Fossil fuels	47.4	87
Water abstraction	85.9	134
Agriculture	131.4	153.5
Carbon sequestration	-74.7	-81
Noise mitigation	0.9	0.9
Urban cooling	11.7	26.6
Air pollutant removal	126	124.5
Tourism and recreation	600.9	623.5
Health benefits from recreation	506.6	598.6
Recreation, house prices	72.8	73.7
Aesthetic, house prices	10.4	10.1
Provisioning Services Total	292	443
Regulating Services Total	64	71
Cultural Services Total	1,191	1,306
UK Natural Capital Asset Value	1,547	1,820

#### Progress made over the last 10 years

In 2012, the Office for National Statistics (ONS) and Defra began collaborating on the development of natural capital accounts for the nation. Some of the key achievements since then have been producing:

- Regular production of monetary accounts for 13 ecosystem services;
- Accounts for each UK home nation;
- Development of the marine accounts;
- Inclusion in the national accounts "Blue Book";
- Habitat accounts for the eight broad habitats;
- A separate peatland account and restoration; cost account; and
- UK-wide condition and extent of nature accounts.

### The Role of EO



• The foundation of the UK's natural capital accounts is based on earth observation information. UKCEH leads in developing the UK's land cover maps, helping us understand the extent of the UK's ecosystem assets.

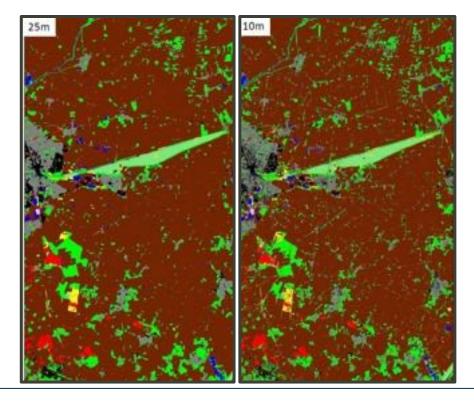
How much? (Quantity)

Current state? (Quality)

Where? (Location)

- UKCEH have recently moved to using Sentinel-2 satellite data to mapping broad habitats at a 10-meter resolution, giving the UK significantly better insights into the extent and location of our ecosystem assets. This was previously mapped at 25-meters.
- The publication of the land cover change data set (1990-2015)
  came out in recent years. This has the potential to show trends
  and changes within our accounts over a longer time series. This
  data is vital to effectively evaluate land use policy decisions.





## Transforming Ocean and Marine Accounts though EO

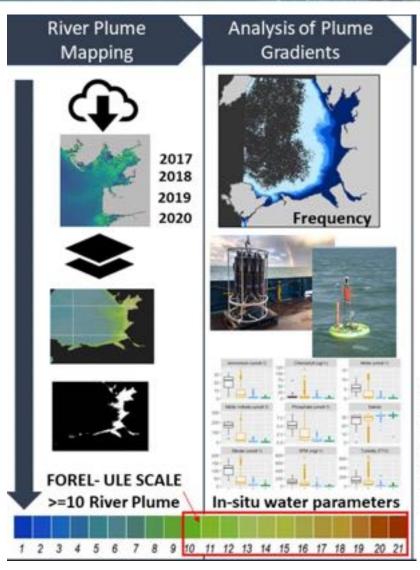


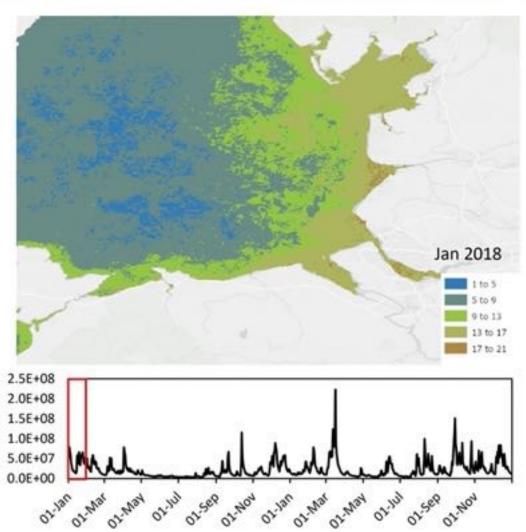
# Nearshore water quality and pelagic asset status

Production of a logic chain for coastal water quality, coupled with innovative monitoring how water quality is impacted by human-pressures on land to demonstrate the links between land and sea.









# Embedding Nature into Decision Making – NCEA Programme



- Land and sea environments in England (terrestrial and marine)
- Three year Defra-funded programme
- Launched April 2022 following test years
- A partnership programme

Feel free to get in touch!

Parsa.Mohammadpour@defra.gov.uk

















