Global Set of Climate Change Statistics and Indicator - UK experience 53rd Session of the Statistical Commission

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ONS and the UK context

(1) The Office for National Statistics (ONS)

- UK's independent national statistical institute
- Growing range of diverse outputs low carbon & renewable energy economy statistics, environmental accounts, bridging understanding of the economy and environment, net zero, natural capital and the value of nature to the UK
- Convening role, bringing together stakeholders from across government departments, agencies,
 Devolved Administrations, and other public bodies

(2) The Challenge

- A highly complex system. High quality, trustworthy data, statistics and analysis needed to design, monitor and evaluate policies addressing climate change
- Delivering a **cross-government** climate change statistics portal in time for COP26, bringing data and statistics together to improve coherence, accessibility and comparability
- Agreeing a framework to underpin

The UK Climate Change Project

- A cross-government collaborative project to increase the coherence, accessibility and comparability of UK climate change-related data, statistics and analysis
- It will improve access and understanding, identify gaps and offer new insights, including through potential linkage of datasets
- It's vision is to become the UK's accessible, trusted, relevant and highquality climate change statistical and analytical evidence base that is widely used to inform decision-making, monitor progress, and support a coherent UK climate change narrative, in one central place

3 components

- Statistics UK Indicator Framework for Climate Change
- Portal Prototype Data Portal and Dashboard visualisations
- Analysis Identify data gaps, provide cross-cutting policy evidence and track progress towards combating and minimising impacts of climate change

The UK Framework

6 pillars

Climate & Weather

Emissions

Drivers

Impacts

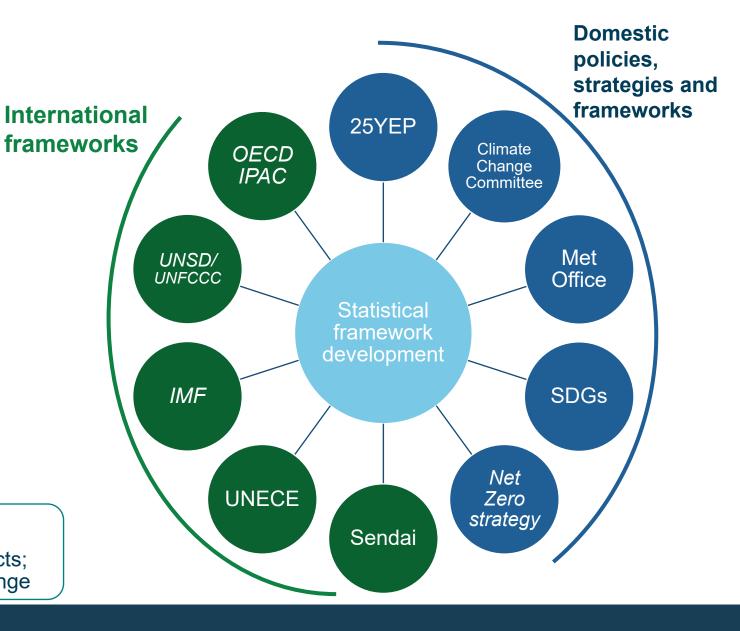
Mitigation

Adaptation

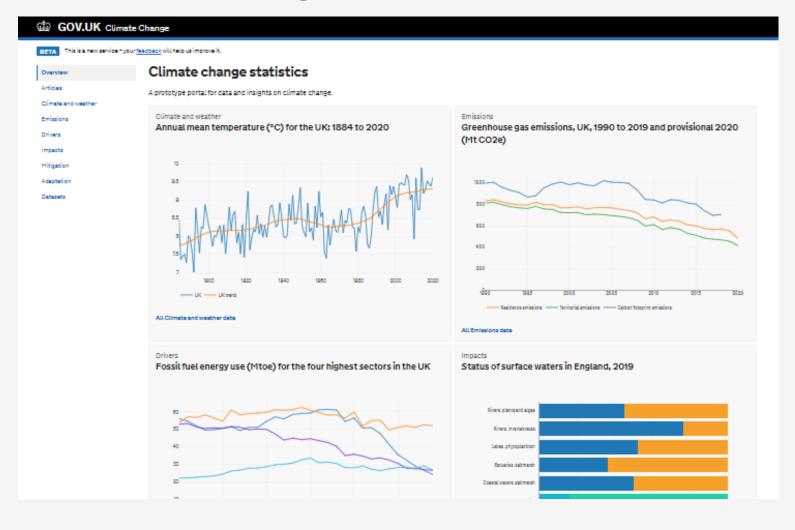
c. 250+ indicators

4 cross-cutting themes

Geographical variation; Distributional effects; Exposure & vulnerability; Behavioural change

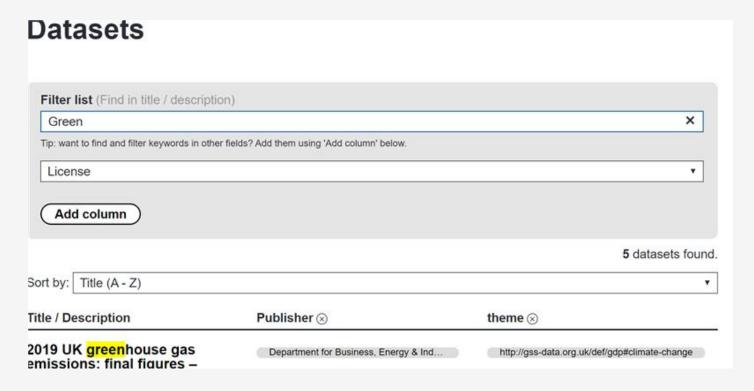


Climate Change Portal



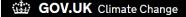
- Cross government project
- Audience/user persona:
 government analysts, external specialists and academics, possibly also interested/informed citizens
- Prototype launched ahead of, and demonstrated at, COP26
- Moving to phase 2, reviewing framework and building the range of data, metrics and analysis presented
- https://climatechange.data.gov.uk/

Data portal/catalogue/explorer



- Dataset search, filter, slice and dice, and download
- 5* open data format consistent formatting of data
- Advanced search and navigation functionality
- Audience/user persona: government analysts, external specialists and academics

Statistical narrative dashboards



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Overview

Articles

Climate and weather

Emissions

Drivers Impacts

Mitigation

Adaptation

Datasets

Measuring UK greenhouse gas emissions

The UK is required to report its estimated greenhouse gas (GHG) emissions on a range of different bases (territorial, residence and footprint) to fulfil a wide range of international agreements as well as for domestic policy making purposes. The three key official measures of UK GHG emissions, territorial, residence and footprint, are explored and defined below.

One of these, territorial, is used to inform progress on UK-wide emissions targets. These include a target of net zero for UK greenhouse gas (GHG) emissions by 2050 compared with 1990 levels, adopted by the UK Government in 2019 following a Committee on Climate Change recommendation. More recently, UK government announced the sixth Carbon Budget target to reduce emissions by approximately 78% by 2035 compared with 1990 levels.

'Net zero' means that any GHG emissions would be the same as, or less, than those removed from the atmosphere, which can be achieved through a combination of reduction and removal of emissions.

Measuring UK progress towards net zero

The UK emissions estimates published by the Department for Business, Energy and Industrial Strategy (BEIS), are used to monitor net zero and other UK-wide targets.

GOV.UK Climate Change

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14015

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The UK's climate is changing. What is driving this? How is the UK responding?

The <u>latest report</u> from the Intergovernmental Panel on Climate Change (IPCC), a United Nations body providing science-led comprehensive assessments of climate change science, found that climate change is already happening, with global surface temperatures between 2001 and 2020 around 1°C higher than during 1850 to 1900, and that this is having effects across the world and in the UK including making extreme weather events more likely.

The report found unequivocal evidence that observed warming of the climate is a consequence of emissions from human activity that has increased the concentration of greenhouse gases in the global atmosphere. Human induced climate change has already affected the severity and frequency of many types of extreme weather and climate events.

Recent decades in the <u>UK have been warmer</u>, <u>wetter and sunnier</u> than in the 20th century, with 2020 being the third warmest, fifth wettest and eighth sunniest year since records began in 1884.

The global and UK response to climate change has two main elements:

'Mitigation' or reducing emissions of greenhouse gases which lead to global warming. This
includes reducing energy consumption and changing to low emission energy sources.

Undertaking the consultation of the Global Set – The UK experience

- Global Set of Climate Change Statistics and Indicators provided an excellent opportunity for us to consider our developing framework against the UNSD objective of developing a global set of climate change statistics and indicators
- We consulted and coordinated contributions from more than 20 government departments, bodies and agencies and devolved administrations.
- Strong alignment of the UK framework's pillars to the Global Set. UK framework has similar 'Areas' or 'Pillars' to the Global Set.
- Approximately 40% of 'statistics' align with the UK framework completely; approx. 30% are similarly defined and/or the UK have partial data; and for the remainder the UK don't currently include.



Going forward

- Creating a UK framework on climate change has helped overcome the issue of a diffuse policy environment and UK environmental policy as a devolved government matter.
- **Evolving policy**
- Delivery through a centralised portal, platform and dashboard.
- Continual need to review and evolve framework
- Increasing demand for granular detail and broader coverage, e.g. exploring green jobs and finance.
- Portal phase 2 work to focus on impact, mitigation and adaptation pillars.



Thank you

Questions