



Office for
National Statistics
Swyddfa
Ystadegau Gwladol

Is 2.5% Growth Compatible with Modern Values?

Measuring Success for Business, Society and the Environment

Session 4. Where to for the National Accounts?

From people to plants - what should we value?

Better Statistics CIC
Royal Statistical Society, London (hybrid event)
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All views expressed herein reflect those of the author / presenter only and not those of the ONS

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From people to plants - what should we value?

An overview

- How quickly is the world changing?
- What are we experiencing in 2022?
 - UK and the world
 - Some statistics.
 - Affluency and lifestyle changes
- International “national accounting” scene
 - SEEA Conceptual framework
 - Economic accounting statistical standards
 - 2025 SNA and BPM 7
 - Priority areas of research underway
 - Well-being and sustainability - focus on the environment
- Way ahead
- Any questions?



From people to plants - what should we value?

How quickly is the world changing?

Environment

Scarcity of resources will determine the future economic model

Lots of change – economic and industrial revolutions

1700s	Coal and steam
1800s	Heating, lighting and electricity
1900s	Oil, gas, nuclear, wind and solar power
2000s	Digitalisation, renewable energy & fracking / shale gas?

More of the world population will be living in cities – over 55% in 2020

Peak in production of various resources such as oil, gold and copper

Over 65 trillion spam emails are sent each year generating the same greenhouse gas emissions as using 2 billion gallons of petrol

forwarding

Please consider the environment before ~~printing~~ email



the carbon footprint



From people to plants - what should we value?

What are we experiencing in 2022?

Temperatures



RECORD-SEARING HEAT		
HOTTEST DAY IN U.K. HISTORY - JULY 19		
LOCATION	TEMP (°F)	TEMP (°C)
▶ Coningsby	104.5°	40.3°
▶ St. James Park	104.4°	40.2°
▶ Heathrow	104.4°	40.2°
▶ Gringley On The Hill	104.1°	40.1°
▶ Kew Gardens	104.1°	40.1°
▶ Northolt	104.0°	40.0°

*AT LEAST 34 LOCATIONS EXCEEDED THE U.K.'S PREVIOUS NATIONAL RECORD HIGH 102°F (38.7°C)

40.3°	19 th July 2022
38.7°	25 th July 2019
38.5°	10 th August 2003
38.2°	18 th July 2022
37.8°	31 st July 2020
37.1°	3 rd August 1990
36.7°	1 st July 2015
36.7°	9 th August 1911
36.6°	2 nd August 1990
36.5°	19 th July 2006

Driest drought, 35.9° on 3rd July 1976

Since UK records began in 1880, nine of the ten hottest days have been since 1990.

From people to plants - what should we value?

What are we experiencing in 2022?

Floods, hurricanes, tornados, wild fires, droughts, dust storms ...,



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What are we experiencing in 2022?

Our ecosystems are breaking down as biodiversity declines...

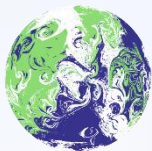


From people to plants - what should we value?

What are we experiencing in 2022?

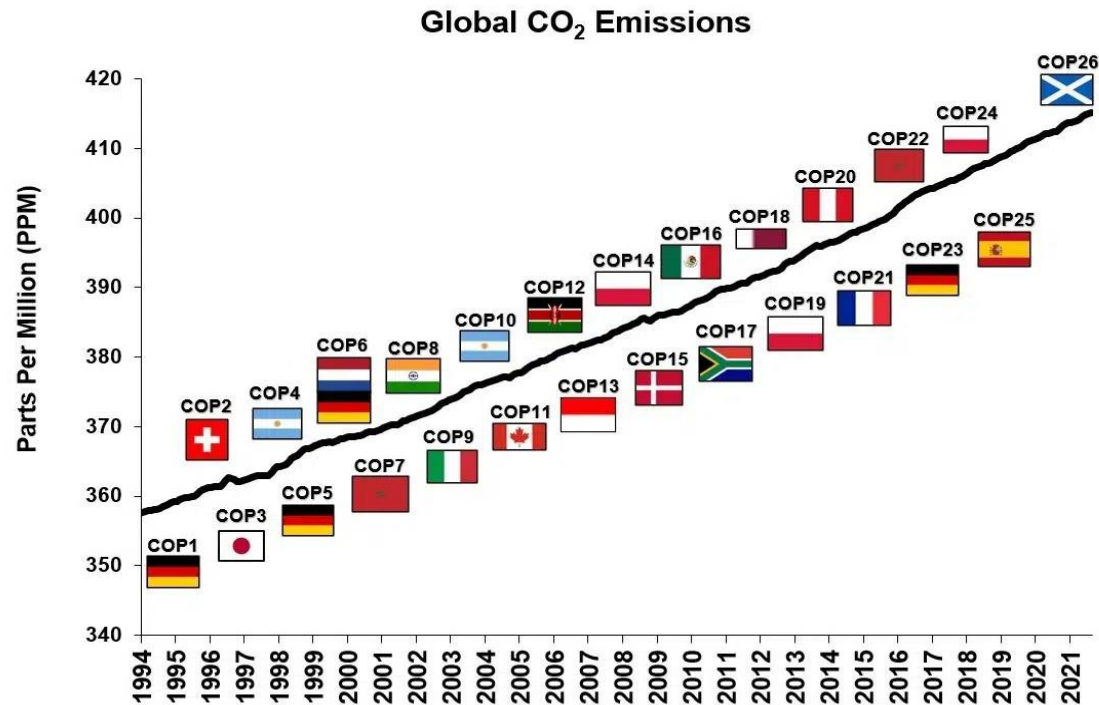
Globally, discussions going on and on and on ...,

- **Insufficient action** as CO₂ emissions continue to increase.



UN CLIMATE
CHANGE
CONFERENCE
UK 2021

IN PARTNERSHIP WITH ITALY



RIO
EARTH
SUMMIT
1992

KYOTO
PROTOCOL
1997

PARIS
AGREEMENT
2015

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In the meantime

Some statistics!!

- Atmospheric CO₂ concentrations higher than at any time in recorded history.
- Average rate of sea level rise:
 - **1.3** mm/year before 1970.
 - **1.9** mm/year between 1971-2006.
 - **3.7** mm/year between 2006-2018.
- In order to stay below 1.5°C, global emissions must **halve by 2030**.
 - Delivery performance of current “pledges” imply this target will be missed.
- Global “West” is the top emitter of CO₂ emissions per capita:
 - Not because of high energy intensity but because of its affluence.
 - World’s production is becoming more efficient around 2% per year.
 - Affluence is growing at 3% per year. (GDP per capita)
 - Population is growing at only 0.5-1% per year.
- Affluent people generate more than 3.6 t CO₂-e - more than half the world.

Affluence and population growth combined are outstripping any technological gains.

From people to plants - what should we value?

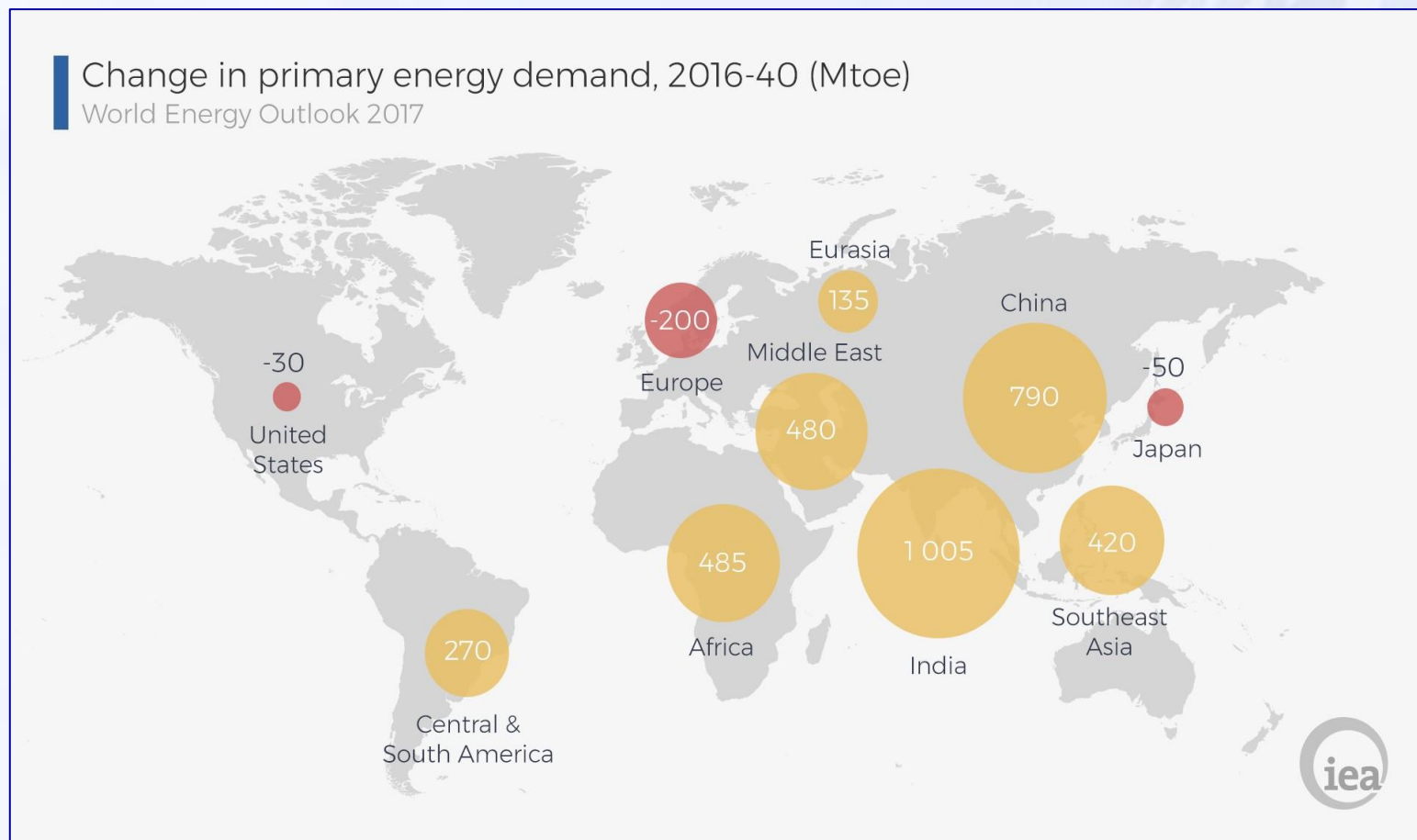
Ultimately, this means we need to address lifestyle changes....,



Affluent people need to change,
it is not that we cannot change but we do not want to change!

From people to plants - what should we value?

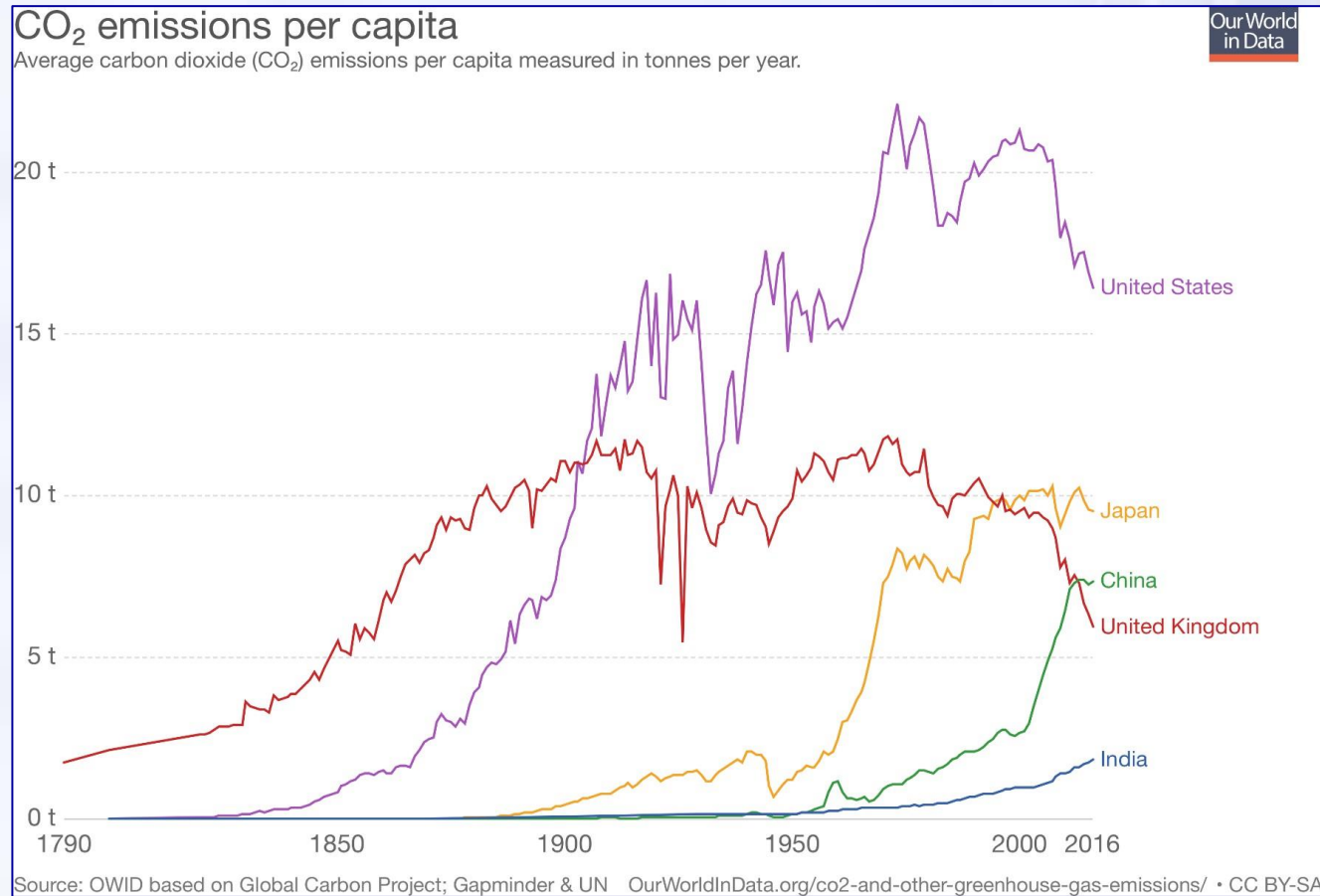
In the meantime,



As we transition to cleaner technology, world's demands for energy is growing faster.

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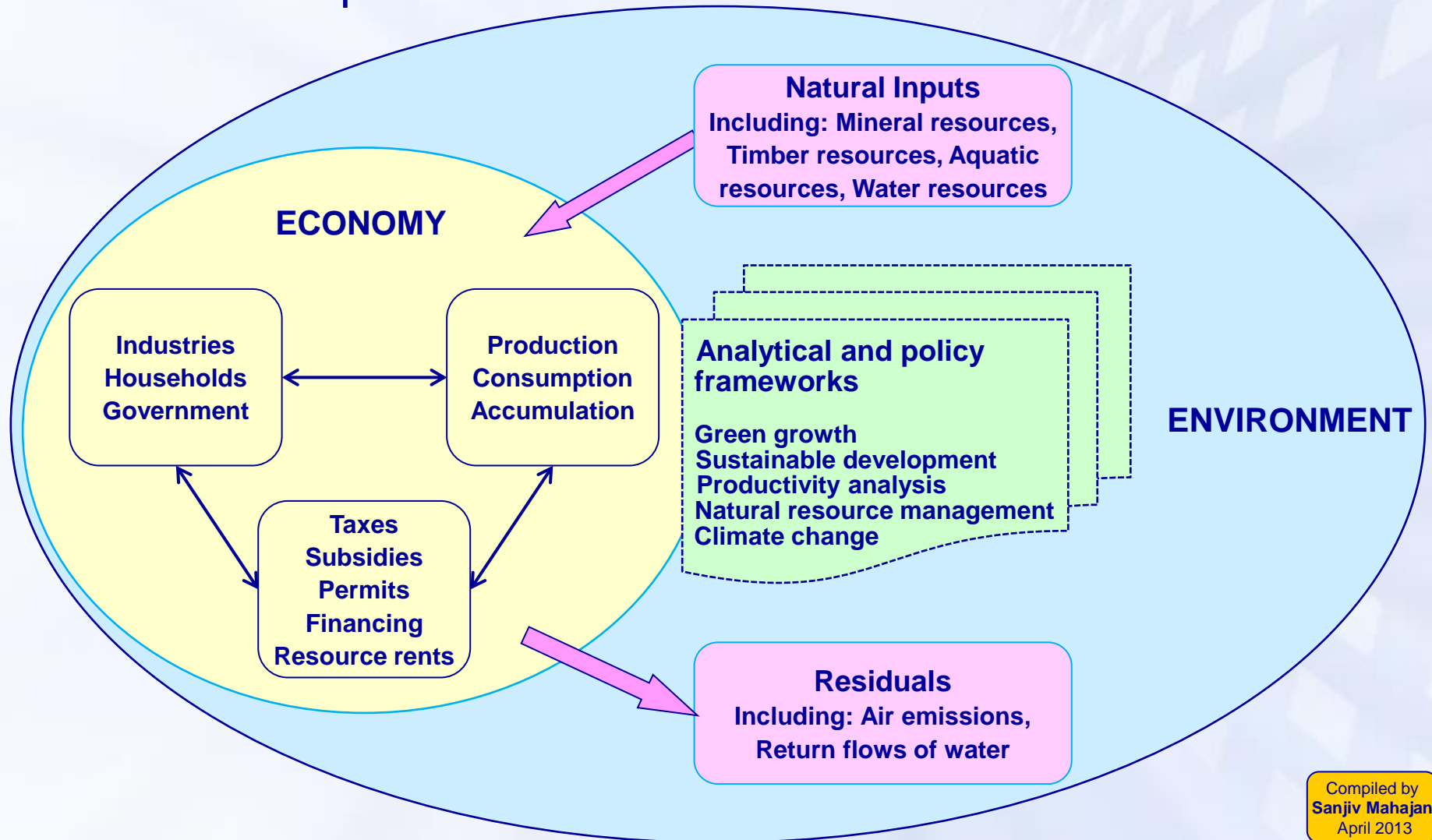
Affluent economies “seem” to be decarbonising ...,



... but much of the reductions are due to outsourcing production around the world.

From people to plants - what should we value?

SEEA Conceptual framework



From people to plants - what should we value?

Economic accounting
statistical standards

Economic accounting statistical standards

Compiled by
Sanjiv Mahajan
September 2018

Pre-1930s 1930s 1940s 1950s 1960s 1970s 1980s 1990s 2000s

UN SNA

1953

1968

1993

2008

Eurostat ESA

1970

1979

1995

2010

IMF BPM

1948 1950

1961

1977

1993

2008



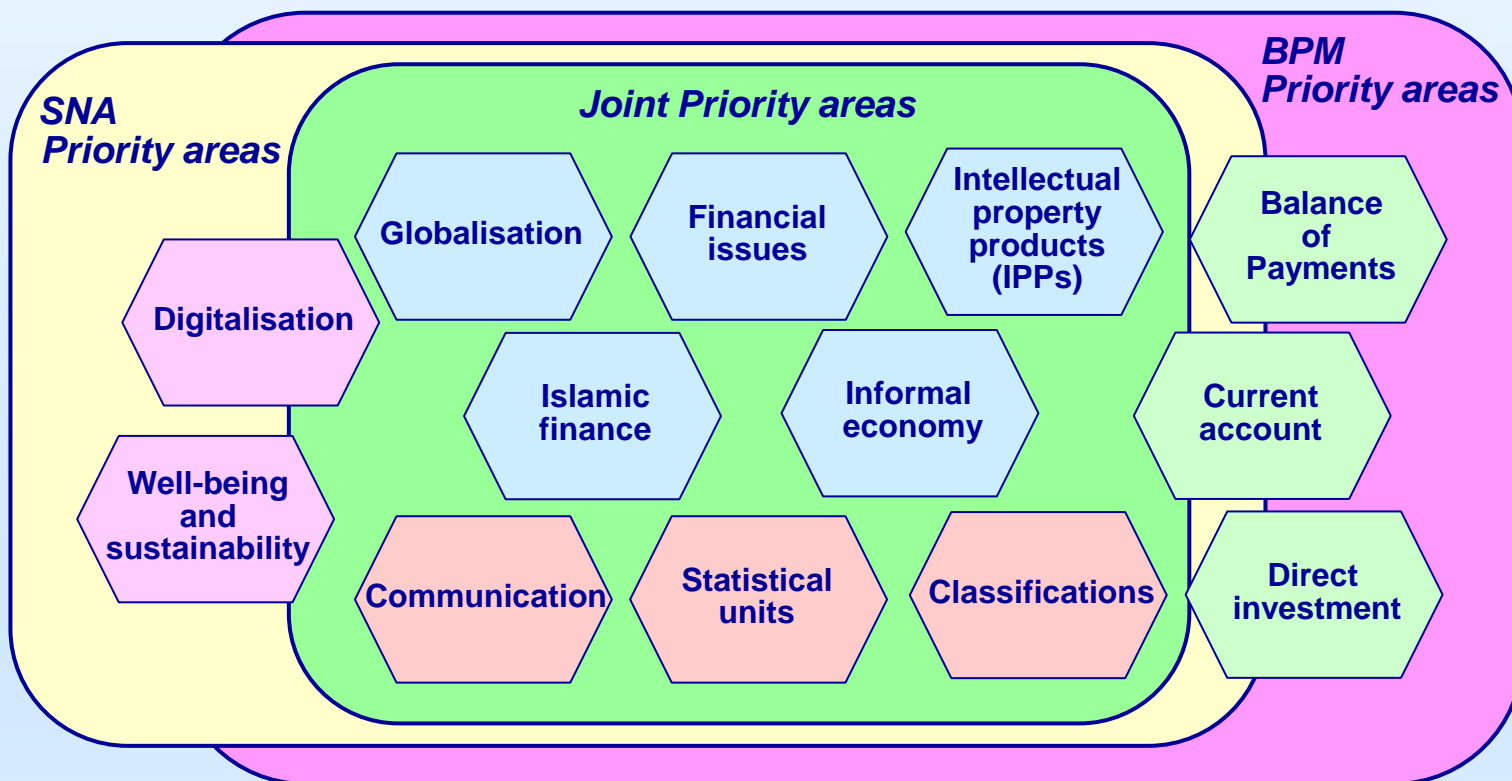
Examples of international guidance ... and many more available.

From people to plants - what should we value?

2025 SNA and BPM 7

Priority areas of research underway

- Task Teams covering specific areas



From people to plants - what should we value?

2025 SNA and BPM 7

Well-being and sustainability



- Economic well-being and sustainability covers:
 - Unpaid household activities;
 - **Environmental-economic accounting**;
 - Distribution of household income, consumption, saving and wealth;
 - Education and human capital;
 - Health care and social conditions;
 - Labour; and
 - the broader framework.
- Environmental-economic accounting
 - Accounting for **depletion of natural resources** as a cost of production.
 - **Increased focus on net measures** (e.g., NDP and NNI) to acknowledge the impact of depreciation and depletion.
 - **More detailed information** on environmental-economic expenditures, taxes and subsidies, natural assets, including renewable energy resources such as wind, solar and hydro energy.
 - Various **other improvements** covering economic ownership, environmental costs and impact of the energy transition.

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Way ahead

Challenge for all of us?

Climate change is by far
the greatest challenge
facing the human race



Everyone has to change in some way, shape or form

Technological advances alone will never achieve net-zero

Affluent society in the developed countries have to change? **(de-growth)**

How do we get the right policies in place to prevent catastrophe?

What do we need to do to have the right data to support those policies?

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Any questions?

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Extra slides for information